



GLOBAL ENVIRONMENT FACILITY
INVESTING IN OUR PLANET

Naoko Ishii
CEO and Chairperson

August 04, 2014

Dear LDCF/SCCF Council Member:

UNDP as the Implementing Agency for the project entitled: *Djibouti: Supporting Rural Community Adaptation to Climate Change in Mountain Regions of Djibouti*, has submitted the attached proposed project document for CEO endorsement prior to final approval of the project document in accordance with UNDP procedures.

The Secretariat has reviewed the project document. It is consistent with the proposal approved by LDCF/SCCF Council in May 2013 and the proposed project remains consistent with the Instrument and LDCF/SCCF policies and procedures. The attached explanation prepared by UNDP satisfactorily details how Council's comments have been addressed. I am, therefore, endorsing the project document.

We have today posted the proposed project document on the GEF website at www.TheGEF.org. If you do not have access to the Web, you may request the local field office of UNDP or the World Bank to download the document for you. Alternatively, you may request a copy of the document from the Secretariat. If you make such a request, please confirm for us your current mailing address.

Sincerely,



Naoko Ishii
Chief Executive Officer and Chairperson

Attachment: GEFSEC Project Review Document
Copy to: Country Operational Focal Point, GEF Agencies, STAP, Trustee



REQUEST FOR CEO ENDORSEMENT

PROJECT TYPE: FULL-SIZED PROJECT

TYPE OF TRUST FUND: LDCF

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PART I: PROJECT INFORMATION

Project Title: Supporting rural community adaptation to climate change in mountain regions of Djibouti			
Country(ies):	Djibouti	GEF Project ID: ¹	5332
GEF Agency(ies):	UNDP	GEF Agency Project ID:	5189
Other Executing Partner(s):	Ministry of Habitat, Urbanism and the Environment (MHUE)	Submission Date:	June 26, 2014
		Resubmission Date:	July 25, 2014
GEF Focal Area (s):	Climate Change	Project Duration(Months)	48
Name of Parent Program (if applicable):	n/a	Agency Fee (\$):	511,048
	➤ For SFM/REDD+ <input type="checkbox"/>		
	➤ For SGP <input type="checkbox"/>		

A. FOCAL AREA STRATEGY FRAMEWORK²

Focal Area Objectives	Expected FA Outcomes	Expected FA Outputs	Trust Fund	Grant Amount (\$)	Co-financing (\$)
CCA-1	Outcome 1.1 Mainstreamed adaptation in broader development frameworks at country level and in targeted vulnerable areas	Output 1.1.1: Adaptation measures and necessary budget allocations included in relevant frameworks	LDCF	4,574,544	8,330,000
CCA-2	Outcome 2.2 Strengthened adaptive capacity to reduce risks to climate-induced economic losses	Output 2.2.1 Adaptive capacity of national and regional centers and networks strengthened to rapidly respond to extreme weather events Output 2.2.2 Targeted population groups covered by adequate risk reduction measures, disaggregated by gender.	LDCF	548,744	19,000,000
Project Management Cost			LDCF	256,164	1,300,000
Total project costs				5,379,452	28,630,000

B. PROJECT FRAMEWORK

Project Objective: Reduction of climate-related vulnerabilities facing the inhabitants of mountainous regions of Djibouti through institutional strengthening, climate-smart water management and targeted investment						
Project Component	Grant type	Expected Outcomes	Expected Outputs	Trust Fund	Indicative Grant Amount (\$)	Indicative co-financing (\$)

¹Project ID number will be assigned by GEFSEC.

² Refer to the [Focal Area/LDCF/SCCF Results Framework](#) when completing Table A.

<p>1. Increased incorporation of climate change adaptation and adaptation finance in climate-resilient development planning at the national level</p>	<p>TA</p>	<p>1. Institutional capacities for coordinated, climate-resilient planning strengthened.</p> <p>Mechanisms and a de-risked investment environment established to catalyse finance for climate change adaptation.</p>	<p>1.1 Reactivation of the National Climate Change Committee (NCCC) and provision of secretariat services to coordinate adaptation responses to climate change (TA: USD 96,000)</p> <p>1.2 Development of a National Climate Change Strategy, informed by dynamic modelling for quantified scenario analysis of adaptation options which promote a Climate Change-Resilient Economy (TA: USD 130,000)</p> <p>1.3 Support for the Government to find innovative financing options to catalyse finance for adaptation, including the establishment of an Environment and Climate Change Fund (TA: 274,000)</p>	<p>LDCF</p>	<p>500,000</p>	<p>5,983,300</p>
<p>2. Reduced vulnerability to climate change for vulnerable communities in two targeted mountain regions: Adaillou and Assamo</p>	<p>INV/ TA</p>	<p>2. Improved water management in the targeted regions to conserve scarce water resources and manage temporal flows to reduce flooding and erosion.</p>	<p>2.1 Construction of new water mobilisation infrastructure (a borehole, micro-dams, cisterns, sills retention ponds and infiltration galleries) implemented as climate change adaptation measures (INV/TA: USD 2,755,180)</p> <p>2.2 Support to expand and strengthen agro-pastoralism and pastoralism in the Weima and Assamo watersheds (INV/TA: USD 710,020)</p> <p>2.3 Reforestation and re-vegetation to support soil and water conservation and effectively reduce runoff and promote sustainable watershed management (INV/TA: USD 263,900)</p> <p>2.4 Development of Catchment Management Committees and Water Point Management Committees, to develop best practices for sustainable groundwater and surface water use and protect existing water points (INV/TA: USD 149,700)</p> <p>2.5 Support for women's livelihood diversification with the introduction of nurseries and training on fruit cultivation (INV/TA: USD 171,200)</p>	<p>LDCF</p>	<p>4,050,000</p>	<p>5,248,300</p>

3. Enhanced human and institutional capacity for increased sustainable rural livelihoods among vulnerable communities in two targeted regions: Adailou and Assamo	TA	<p>3. Improved resilience to hydrological climate change risks.</p> <p>Enhanced resilience to climate-mediated economic shocks through income generation and diversification.</p>	<p>3.1 Regional Local Risk and Catastrophe Management Committees (LRCMCs), local civil protection and water officials, Catchment Management Committees (CMCs), local NGOs/CSOs and community members supported to implement drought and flood preparedness and adaptation measures(INV/TA: USD 115,000)</p> <p>3.2 Local commodity and handicraft production (gabion, poultry-breeding, beekeeping) supported as climate-resilient income generating and diversifying activities, accompanied by enhanced access to local and national markets (INV/TA: USD 323,200)</p> <p>3.3 Capacity building for local NGOs/CSOs (the Village Ecology Association in Adailou and the Assamo Agriculture Cooperative) to support project implementation and shared ownership of projects with the communities (INV/TA: USD 135,088)</p>	LDCF	573,288	16,098,400
Sub-total					5,123,288	27,330,000
Project management cost (PMC)					256,164	1,300,000
Total project costs					5,379,452	28,630,000

C. SOURCES OF CONFIRMED COFINANCING FOR THE PROJECT BY SOURCE AND BY NAME (\$)

Please include letters confirming co financing for the project with this form

Sources of Co-financing	Name of Co-financier (source)	Type of Co-financing	Co-financing Amount (\$)
National Government	Ministry of Agriculture (PRODERMO project)	Grant	1,700,000
Other Multilateral Agency	IGAD	Grant	230,000
Bilateral Aid Agency	European Union	Grant	12,240,000
NGO	EVA	In-kind	500,000
NGO	Agricultural Cooperative of Assamo	Grant	100,000
GEF Agency	UNDP	Grant	3,160,000
National Government	Ministry of Equipment and Transport	Grant	10,000,000
National Government	Ministry of Habitat, Urbanism and Environment	In-kind	700,000
Total Co-financing			28,630,000

D. TRUST FUND RESOURCES REQUESTED BY AGENCY, FOCAL AREA AND COUNTRY¹

GEF AGENCY	TYPE OF TRUST FUND	FOCAL AREA	Country name/Global	Project amount (a)	Agency Fee (b)	Total c=a+b
UNDP	LDCF	Climate change adaptation	Djibouti	5,379,452	511,048	5,890,500
Total GEF Resources				5,379,452	511,048	5,890,500

¹ In case of a single focal area, single country, single GEF Agency project, and single trust fund project, no need to provide information for this table. PMC amount from Table B should be included proportionately to the focal area amount in this table.

² Indicate fees related to this project.

E. CONSULTANTS WORKING FOR TECHNICAL ASSISTANCE COMPONENTS:

Component	Grant Amount (\$)	Cofinancing (\$)	Project Total (\$)
International Consultants	103,920	0	103,920
National/Local Consultants	131,360	0	131,360

F. DOES THE PROJECT INCLUDE A “NON-GRANT” INSTRUMENT? NO

(If non-grant instruments are used, provide in Annex D an indicative calendar of expected reflows to your Agency and to the GEF/LDCF/SCCF/NPIF Trust Fund).

PART II: PROJECT JUSTIFICATION

A. DESCRIBE ANY CHANGES IN ALIGNMENT WITH THE PROJECT DESIGN OF THE ORIGINAL PIF³

1. No significant changes have been made to the original PIF. All outputs have been detailed and contextualized, and some outputs have been restructured/re-worded to emphasise the needs highlighted during the project preparation phase as noted during workshops and bilateral/multilateral consultations.
2. Specific updates to the outputs include the following:
3. In Component 1, an Environment and Climate Change Fund will be established under Output 1.3. According to stakeholder discussions, a Fund is the desired option to facilitate the mobilisation of additional climate finance to scale-up adaptation responses. A number of donors are supporting adaptation measures in Djibouti (e.g., JICA, EU, AfDB); however, there is no long-term national financing strategy or source to continue each initiative. The Fund will be used to address the lack of continuity associated with ad hoc donor initiatives and short-term Government allocation of funds, as well as the use of financing for unsustainable activities which, in the past, has contributed to mal-adaptation (e.g. the National Water Fund). The Fund will be designed and established so that the political, social and financial investments by both the public sector and the private sector made in climate change adaptation can be properly and equitably managed. Appropriate governance mechanisms will be established to ensure transparent decision-making and to ensure that responses to climate change are given appropriate financial resources.
4. In Component 2, required water mobilisation infrastructure with detailed budgeting has been added (e.g. micro-barrage, infiltration galleries, cisterns, etc). Also, an output addressing the need to establish best agro-pastoral and pastoral practices has been included in Component 2. Under Output 2.2, on-the-farm training and pastoral centres will be used to teach practices such as soil and water conservation, water-efficient irrigation and crop diversification. Reforestation and revegetation approaches described in the PIF have been maintained while Output 2.5 has been adapted to provide support specifically to women so that they can diversify their livelihoods with nursery development and fruit cultivation. Furthermore, a new output (Output 2.3) has been added to create Water Point Management Committees (WPMCs) and Catchment Management Committees (CMCs). The role of the CMCs will be to understand and manage catchment/sub-catchment scale watershed resources to ensure effective flood control, drought management, and to ensure sufficient potable and irrigation supplies for all communities. The CMCs will also be responsible for transferring water management best practices and water quality control methods to the community-based Water Point Management Committees (WPMCs), which will be concerned with managing their specific water points.
5. It should be noted that a separate output focusing on strengthening women's livelihoods was deemed required by Stakeholders under Component 2. By having a separate Output (2.5) to emphasize gender, funds will be secured to support women in the activities that they are generally solely responsible for. Women will be supported to develop nurseries and to cultivate a variety of fruit trees. These are all lucrative activities which can increase a woman's asset base, thereby building her resilience to climate change.
6. Component 3 has fused flood and drought preparedness and training in one (Output 3.1). LDCF funds will be used to build the technical and operational capacities of local Regional Risk and Catastrophe Management Committees and civil protection / water officials to transfer knowledge and empower communities to take floods and drought preparedness measures (e.g., by placing gabion along wadi banks and de-silting micro-dams to improve water retention and infiltration). The Local Risk and Catastrophe Management Committees (LRCMCs) will also gain the expertise in delineating flood and drought vulnerability maps by creating an inventory of historical risks facing agricultural and pastoral livelihoods. Weather stations will be procured and installed in both the Adailou and Assamo regions to be able to validate flood and drought warnings (no weather stations currently exist in either project region). Component 3 will also improve livelihood diversification for the communities with the introduction of aviculture and apiculture, and

³ For questions A.1 –A.7 in Part II, if there are no changes since PIF and if not specifically requested in the review sheet at PIF stage, then no need to respond, please enter “NA” after the respective question

provide access to markets by building or rehabilitating markets stalls in the project regions. Furthermore, in order to ensure the long-term sustainability of the project, LDCF funds will be targeted to support the locally-based NGOs (the Village Ecology Association in Adailou (EVA) and the Agricultural Cooperative in Assamo), which have proven experiences in mobilising and assisting their respective communities. With LDCF funds, these NGOs will receive capacity reinforcement on disaster preparedness, livelihood diversification, nursery development, solar-powered well maintenance, soil and water conservation methods, gabion fabrication and agro-pastoralism. The NGOs will be responsible for transferring skills to the local populations during and after project completion.

7. Finally, it should be noted that the water mobilisation practices in Component 2 require significant technical expertise and initial comprehensive hydro-geotechnical studies. As indicated in the Adaptation Fund project, Developing agro-pastoral shade gardens as an adaptation strategy for poor rural communities, initial technical studies have proven to be time-consuming and costly. Consequently, USD 50,000 has been transferred from Component 1 to Component 2 to account for the technical study costs and the Work Plan has been adjusted accordingly (See Annex 2 of the project document).

A.1 National strategies and plans or reports and assessments under relevant conventions, if applicable, i.e. NBSAPs, national communications, TNAs, NCSA, NIPs, PRSPs, NPFE, Biennial Update Reports, etc.

No additional strategies or assessments have been conducted since the PIF stage. Not Applicable (NA).

A.2. GEF focal area and/or fund(s) strategies, eligibility criteria and priorities.

8. The proposed project has been prepared fully in line with guidance provided by GEF and the LDCF Trust Fund. The project follows the guidance from the 'Programming Paper for Funding the Implementation of NAPAs under the LDC Trust Fund' (GEF/LDCF, 2006). The project focus is also aligned with the scope of expected interventions as articulated in the LDCF programming paper and decision 5/CP.9. As climate impacts fall disproportionately on the poor, the project recognizes the links between adaptation and poverty reduction (GEF/C.28/18, 1(b), 29). The project has also been developed in line with GEF Council comments as indicated in Annex B, including the need to demonstrate coordination with other ongoing activities.

9. The project also takes steps to advance Djibouti's National Adaptation Plan process. To date, Djibouti has mobilized many government, private and civil society organizations to provide awareness on adaptation, its cross-cutting nature and the challenges it entails. LDCF financing will be used to create a National Climate Change Committee and Secretariat as well as a National Climate Change Strategy and National Environment and Climate Change Fund to address the recommendations proposed by Djibouti to continue advancing NAP⁴ including provision of i) better coherence among the adaptation actions being implemented by tran-sectoral institutions, ii) improvement in adaptation coordination, iii) a Platform for communication, exchange and sharing of experiences and best practices, iv) Mobilization of finance to sustain adaptation actions and v) better cooperation among financial partners (including donors, government ministries, institutions and NGOs/CSOs).

10. Components 1 and 2 of this project support LDCF/SCCF Area Objective 3 by promoting the transfer and adoption of adaptation technologies. The technologies to be adopted in this project include adaptation technologies/packages to increase the productivity of farmers and pastoralists (Component 2). Component 1 of this project will facilitate the mobilization of financing required for the adoption of adaptation technologies.

11. Component 3 of this project supports LDCF/SCCF Area Objective 2 by increasing the adaptive capacity to respond to the impacts of climate change, including variability, at local and regional levels. Specifically, Component 3 will reinforce the capacity the Tadjourah and Ali-Sabieh regional governments and local communities to implement drought and flood preparedness measures.

A.3 The GEF Agency's comparative advantage:

⁴ Djibouti's recent presentation at the NAP-GSP / PAG-PNA Africa Regional Training Workshop in April 2014 in Addis Abbaba
GEF5 CEO Endorsement Template-December 2012.doc

12. UNDP has long-standing experience in supporting climate change adaptation, climate finance, water management and rural development projects. Over the past decade, UNDP has actively supported work on National Adaptation Programmes of Action (NAPAs) and National Communications to the United Nations Framework Convention on Climate Change in some 140 countries. Recent UNDP efforts have focused on assisting national and sub-national agencies in their efforts to formulate and implement green, low-emission and climate-resilient development strategies (Green LECRDS).

13. At the global level, UNDP has demonstrable expertise in climate finance, investment de-risking, the design and operation of national climate change funds, national climate planning and policy formulation (and, importantly, the mainstreaming of climate change into broader national development agendas), water management, forestry and reducing pressures on forest resources, rural development, market access, and micro-finance. In Djibouti, UNDP has had a permanent Country Office presence since 1978, today staffed by 20 professional-level staff including a full-time Climate Change Policy Advisor.

14. Furthermore, UNDP is one of the key national partners in the micro-finance area. The support that UNDP has provided to the Djibouti Social Development Agency (ADDS) will allow a greater number of Djiboutians to obtain micro-loans for the creation and expansion of micro-enterprises and other income-generating activities through the UNDP-AF project. The operating arm of ADDS, the Popular Bank for Credit and Saving (CPEC), has a credit and savings office in both Ali-Sabieh and Tadjourah with a total of approximately 12,000 members. Women account for approximately 87% of its members. According to recent surveys, revenues obtained from the investments of female creditors are often targeted to support their families, thus raising the overall level of family well-being, education and health. At the national level, UNDP has supported the improvement of the legislative framework through the elaboration of a set of policies and regulations for the micro-finance sector, including: a draft law regulating the creation and functioning of financial cooperatives; a draft consolidation of statutes and internal regulations of micro-finance institutions (MFIs); a framework for the accounting system of MFIs; a procedural manual for the monitoring of the micro-finance sector; and the development of a National Micro-Finance Policy document.

15. The UNDP Country Office is also supported by Regional Technical Advisors at UNDP offices in Bratislava and Addis Ababa, as well as by policy, adaptation, economics and climate modelling experts in New York, Cape Town and Bangkok. A network of global Senior Technical Advisors will provide additional technical oversight and leadership, ensuring that programmes on the ground achieve maximum policy impact. There are other LDCF-, SCCF- and AF-financed projects within the region with similar objectives currently supported by UNDP, which means that there is substantial in-house technical expertise within UNDP that can support the Government.

16. Based on UNDP's experience in other 140 countries, UNDP also provides advisory services to countries for the establishment of national environment, climate and biodiversity funds. Leveraging UNDP's experience as a trust fund manager and implementation service provider for global, regional, national and thematic trust funds, UNDP provides advisory services to governments to establish and operate national environment and climate change funds.

17. UNDP's portfolio of projects and programmes in Djibouti with direct relevance to the proposed project is extensive and includes activities relating to disaster risk management, water infrastructure works, livestock re-stocking, re-vegetation and reforestation, pasture-land rehabilitation, decentralised political authorities and poverty reduction (see Section A.1 for details), as well as national-level policy work. Recently, UNDP implemented a decentralisation project funded by EU to elaborate regional development and regional investment plans in the Ali-Sabieh and Dikhil regions. Furthermore, over the past nine months UNDP has run a series of discussion and capacity development workshops for Government institutions specifically dedicated to climate change adaptation.

18. For the purposes of the LDCF financed project, UNDP will contribute USD 90,000 of its own resources in support of planning as well as USD 3.07 m in funds associated with projects related to poverty reduction, disaster risk reduction and recovery and climate change adaptation. The total co-financing to be provided is **USD 3.16 m** for all three components.

A.4. The baseline project and the problem that it seeks to address:

19. The livelihoods of rural populations are currently at risk in Djibouti due to repeated water shortages during periods of severe drought and an inability to capture and infiltrate runoff during heavy rains. According to a Post-

Disaster Needs Assessment conducted by the Global Facility for Disaster Reduction and Recovery (GFDRR⁵), 2011 was the fourth consecutive year of failed rainfall (in terms of quantity and regularity). One hundred percent of the traditional wells and 80 percent of the community wells in Djibouti are temporarily or permanently out of order because of water shortage or poor water quality.⁶ The greatest damage and losses were found in the agriculture livestock, water, and sanitation sectors where, in total, costs amounted to US\$96 million.¹³

20. A reduction in water resources has led to over-pumping of groundwater resources and a resulting increase in the salt content of groundwater. Compounding this problem is the lack of permanent river systems (wadis) which, when subject to infrequent rainy periods, are characterised by disastrous floods with significant erosion. Furthermore, Djibouti has an evapo-transpiration rate ten times the annual rainfall rate, so there are prolonged periods when river beds are dry. Due to the lack of water, farmers and pastoralists are experiencing a severe drop in agricultural and livestock production and a deterioration of their incomes. Lack of water has already forced nomadic pastoralists to reside longer at sites near groundwater boreholes. Consequently, there has been intense pressure on existing water points and significant land and forest degradation as well as loss of vegetation due to overgrazing.⁷

21. A steep and long-term trend of aridification in Djibouti's uplands, accompanied by increasingly erratic and severe rainfall events, has caused significant erosion and damage to livelihoods. These changes were shown by the Post Disaster Needs Assessment (GFDRR 2011) to seriously compromise pastoral and farming lifestyles and increase the vulnerability of already at-risk rural communities.⁸ Furthermore, there are limited livelihood opportunities in mountain regions due to their remoteness and lack of access to markets.

22. Exacerbating the problem of access to markets in mountain regions is the fact that there are limited linkages between agro-pastoralists and sustainable farming and grazing practices which can help them adapt to climate change. The persistent drought has increased the vulnerability of communities due to loss of their means of subsistence. However, agro-pastoralists are not familiar with how technologies can help increase productivity and build resilience to climate change (e.g. using rainwater harvesting to mitigate the impacts of drought).

23. Few drought and flood warnings are communicated to rural populations, and information on best practices for water management is not effectively relayed to rural communities. The situation is serious for rural mountain populations because no hydro-meteorological stations exist to assist in generating weather warnings. Furthermore, the rural populations have no means to generate a sufficient earnings and capital base to make their livelihood systems more resilient to highly variable climate risks. The rural mountain regions targeted by this initiative have no other major alternative livelihood options (such as industry or mining). When conditions for living become too harsh in rural regions, the usual adaptation option is migration to the capital of Djibouti, Djibouti Ville. However, the unemployment rate in Djibouti Ville is already extremely high (approximately 60%).

24. Exacerbating the poverty and climate-related problems in the mountain regions is the limited availability of funds at the national level to support adaptation actions. Djibouti requires significant financial resources to address climate change impacts. As identified by the GFDRR Post-Disaster Needs Assessment, during the period 2013-2018 interventions for drought and other hazards are expected to cost US\$196 million (about 4 percent of GDP).⁹ However, due to the severity of impacts from extreme weather (droughts, floods) and associated food insecurity, most Djibouti Government budget lines are used to support short-term priorities such as drilling boreholes when shallow wells become dry. Consequently, farmer and pastoralist communities in the regions of highest rainfall variability largely depend on humanitarian aid to buffer risks during prolonged drought periods (such as the present drought). However, humanitarian aid is often not timely or effective.

25. The institutional, financial, technological and informational barriers in Djibouti include the following

- Poor coordination between Government agencies on adaptation-related initiatives
- Need for transparent, cross-sectoral finance mechanisms to build climate resilience

⁵ GFDRR, *Evaluation des Dommages, Pertes et Besoins Suite à la Sécheresse Post Disaster Needs Assessment: Drought*, Oct. 2011.

⁶ Verner, Dorte, *Adaptation to a Changing Climate in the Arab Countries*, MENA Development Report, World Bank 2012.

⁷ Ministry of Habitat, Urbanism and the Environment, *4th National Report on Biological Diversity of the Republic of Djibouti*, 4^{ème} Rapport National Sur la Diversité Biologique de la République de Djibouti 2009.

⁸ GFDRR, *Evaluation des Dommages, Pertes et Besoins Suite à la Sécheresse Post Disaster Needs Assessment: Drought*, Oct. 2011.

⁹ Verner, Dorte, *Adaptation to a Changing Climate in the Arab Countries*, MENA Development Report, World Bank 2012.

- Limited national financing and ad hoc, uncoordinated donor responses for long-term climate change adaptation measures
- Unsustainable water management, agricultural and pastoral production practices
- Limited socio-economic development and diversification of livelihoods within Djibouti's mountainous regions
- Limited understanding of drought / flood preparedness and mitigation measures at regional and community levels

26. Other baseline projects have tried to address these barriers and problems. LDCF3¹⁰ funds will build on ongoing resilience-building and water mobilisation-based projects that are planned or have demonstrated success on the ground. The following baseline projects, detailed below, will be used to support and co-finance the proposed project.

27. ***Rural Community Development and Water Mobilisation Project (PRODERMO)*** (USD 3m, 2012-2017): funded by the World Bank and IDA and executed by the Ministry of Agriculture (MAPE-RH). PRODERMO has the objective of increasing access by rural communities to water and enhancement of their capacity to manage water and agro-pastoral resources. Annual Hydraulic and Pastoral Planning Schemes are developed (along the same lines as those of PROMES-GDT) by local communities through a participatory approach; subsequent community investments, including runoff water harvesting and soil conservation activities, are then guided by the priorities identified by the Schemes. PRODERMO has been designed to align objectives and approaches with PROMES-GDT while extending the geographical reach of activities to the Khor Angar-Obock and Cheiketi-Hanlé regions and broadening the range of interventions to include livestock production, nutrition and rural development in general. (Co-financing provided by the Ministry of Agriculture PRODERMO project funds: **USD 1.7m** for Components 1 and 3).

28. ***Programme de Pays Pour Mettre Fin aux Urgences Liées aux Sécheresses dans la Corne de l'Afrique***, Intergovernmental Authority on Development (IGAD, 2012-2017): this initiative, implemented by the Ministry of Agriculture, Fisheries and Animal Husbandry, is supporting an effort by the Government of Djibouti to move beyond discrete post-shock (drought) relief efforts to design a comprehensive programme to prevent and manage risks, thereby reducing the country's vulnerability to natural hazards and food insecurity. The Programme is focusing its interventions in the areas most affected by drought, where pastoral households have lost up to 50% of their livestock, and is prioritising rural development projects that support income-generating activities (poultry, beekeeping, small crafts, etc.), market access and trade, and labour-intensive activities that support job creation.

29. Another relevant project financed by IGAD is the ***Hydrological Cycle Observing System (HYCOS)*** programme – funded by the EU, EUR 6.6m for 10 countries, implemented by WMO. This regional project has four components: 1) establishing the IGAD Regional Centre for Water Management, 2) establishment of the IGAD-HYCOS monitoring network, 3) development of regional surface and groundwater databases and enhancing national databanks, 4) strengthening regional and national capabilities for water resource management.

30. The success of the IGAD programme is based on the assumption that there is a strong national coordination mechanism and/or a strong national policy framework in its Member States which supports resilience-building measures. Collaboration with IGAD will enhance the expected outputs of the proposed project. The project can leverage (and be leveraged by) the regional IGAD programme in numerous respects, as detailed in Table 1.

31. At the IGAD Secretariat meeting in April 2012, donors (USAID, Sweden, Germany, EU, ECHO, Canada, CIDA, JICA, DFID and UNICEF) recommended that programmes at national and regional levels be aligned. Part of the National Climate Change Committee's (NCCC's) mandate will thus be to coordinate with IGAD regional programmes. The LDCF3 financed project will ensure that the NCCC provides coordination and the NCC Strategy provides a

¹⁰ Note that, with the approval of this initiative, Djibouti will have three initiatives under implementation and financed by the Least Developed Country Fund (LDCF) that are based on the priority project profiles identified in the country's NAPA. To avoid confusion, the first NAPA follow-up project *Implementing NAPA Priority Interventions to Build Resilience in the Most Vulnerable Coastal Zones in Djibouti* (2010 – 2014, GEF PMIS No. 3408) will be referred to as **LDCF1**; the second LDCF supported project developed under UNEP *Implementing adaptation technologies in fragile ecosystems of Djibouti's Central Plains* (2014-2018, GEF PMIS No. 5021) will be the **LDCF2**; and the current project, on supporting rural community adaptation to climate change in mountain regions of Djibouti, will be referred to as **LDCF3** or **“the project”**.

framework to facilitate resilience-building initiatives, thereby facilitating IGAD activities at the regional level. The LDCF3 financed project will provide the mandate for the newly-reactivated National Climate Change Committee to coordinate with the IGAD Drought Resilience and Sustainability Initiative (IDDRSI) platform before implementing adaptation measures. Specifically, IDDRSI will be invited when the NCC discusses transboundary resources (water, livestock and livelihoods) and how climate change will impact such resources. Similarly, the National Climate Change (NCC) Strategy to be drafted will take into account the IDDRSI Strategy, which aims to address the effects of drought and related shocks in the IGAD region in a sustainable and holistic manner. In return, the IGAD programme can provide added value in terms of strengthening the link between regional and national policy frameworks (e.g. linking the Hyogo Framework of Action¹¹ with Djibouti's NCC Strategy) and supporting national coordination mechanisms.

32. At the ground level, IGAD will be constructing water mobilisation structures in the Juba watershed between Somaliland and Djibouti, the watershed which encompasses Assamo. The LDCF3 financed project will work together with the IGAD Drought Resilience and Sustainability Initiative (IDDRSI) platform by coordinating water mobilisation efforts and sharing hydro-geotechnical studies. IGAD, through its Inland Water Resource Management Programme and the HYCOS project, is planning to invest in the construction of water infrastructure and the deployment of hydrological stations in Guistir near Assamo. IGAD has provided **USD 230,000 co-financing** to demonstrate its support for Components 2 and 3 of the LDCF2¹⁰ project. Combined and in collaboration, IGAD and the LDCF2 project will build capacities of the water sector and support flood preparedness in the Juba watershed. (Total co-financing from IGAD: **USD 230,000** for Components 2 and 3).

Table 1: Coordination of the LDCF3 financed project with the IGAD programme

IGAD regional programme	Collaboration with LDCF3
Coordination of resilience-related initiatives at national and sub-national levels through the development of a Protocol for coordination, monitoring and sharing information and lessons-learned between the IDDRSI Platform and National Platforms.	The NCCC will facilitate coordination of resilience-related initiatives at the national level and the Secretariat will centralise lessons-learned for the Djiboutian context in a CC database which will be open-access to appropriate stakeholders. Also, IDDRSI will be invited when the NCC discusses transboundary resources (water, livestock and livelihoods) and how climate change will impact such resources.
Identifying priority intervention areas.	Outputs of LDCF3 dynamic models will help to identify prioritised areas in terms of maximum co-benefits (e.g. enhanced DRM, CCA, poverty reduction, employment creation, etc.).
Harmonising resilience-related agenda.	The NCC Strategy will focus on harmonising DRM and CCA resilience-building activities due to the overlap of their goals.
Integration of RPP and CPPs in regional and national development frameworks.	Regional frameworks will be integrated into the NCC Strategy to ensure that regional knowledge-sharing and coordination occur.
Creating a cross-cutting knowledge management system, including an initial database of good resilience-building practices and lessons-learned on building drought resilience and DRM in the IGAD region and Africa.	The NCCC Secretariat and the national dynamic modelling team will be tasked with storing climate and extreme weather-related data in one repository, which will provide easy inter-institutional and regional data-sharing.
Creation of a Resource Mobilisation Strategy (RMS) which will enable IGAD and its Secretariat to optimise the use of currently available funds and combine funding sources. Also, IGAD plans to map and analyse traditional and non-traditional donors for drought resilience	One of the mandates of the NCCC is to facilitate the mobilisation of resilience-building funds for Djibouti in the medium- to long-term. IGAD and the LDCF3 financed project will coordinate to mobilise and maximise funding and to share lessons-learned on how to unlock funds.

¹¹ <http://www.unisdr.org/we/coordinate/hfa>

and DRM.	
Creation of the IGAD Multi-Donor Trust Fund (MDTF).	A feasibility study on how to establish the National Environment and Climate Change Fund under the LDCF3 financed project will provide guidance to IGAD on how to best use public/private financing to capitalise funds.
Constructing water infrastructure and the deployment of hydrological stations in Guistir in the Juba Watershed (near Assamo)	The LDCF3 financed project will work together with the IGAD Drought Resilience and Sustainability Initiative (IDRSI) platform by coordinating water mobilisation efforts and sharing hydro-geotechnical studies.

Note that cross-border water issues between the Assamo region with neighbouring Somalia will be coordinated by the UNDP Country Offices (COs). The UNDP LDCF3 intervention in Djibouti and the UNDP LDCF1 intervention in Somalia are both scheduled between 2014 and 2018 and will be facilitated by the UNDP COs. In the case of the LDCF1 project in Somalia, the UNDP CO will be the implementing partner. The Djibouti LDCF3 and Somalia LDCF1 projects will also coordinate with IGAD on common areas such as reforestation, climate data collection and improving community-based drought and flood preparedness. The IGAD Secretariat will also serve as a high-level member and regional partner of the National Climate Change Committee (NCCC) to be formed under Component 1 of this project so as to streamline decisions relating to cross-border issues.

33. The European Union will be providing total co-financing of **USD 12.24m** for all components based on their work with the PSSP and GCCA projects described below.

34. **Supporting Horn of Africa's Resilience – Securing Pastoral Systems in Djibouti (Projet de Sécurisation des Systèmes Pastoraux, PSSP)** (EU and FAO, USD 9 m) The PSSP project has 3 expected outputs: i) improving rainwater harvesting and groundwater recharge by conducting technical studies, rehabilitating existing water points and reforestation; ii) improving pastoral extension (e.g. veterinary) services and rural water supplies by reinforcing extension services on central and decentralised levels; and iii) making the Djibouti meat and milk product sector more competitive so as to support pastoralism to become more profitable and resilient to climate and socio-political shocks. The second output includes monitoring the health and movement of livestock with GPS and mapping routes and water points. For the third output, the PSSP project will collaborate with IGAD to make pastoralism more resilient. The LDCF3 financed project will incorporate lessons-learned on how to support pastoralists with improved water point placement and management, rainwater harvesting schemes and reforestation. In return, the LDCF3 financed project will provide the PSSP project with ideas on designing and constructing sustainable groundwater recharge infrastructure, using soil and water conservation practices and improving the access of pastoralists to markets in Tadjourah and Ali Sabieh.

35. **Programme on Climate Change Adaptation and Mitigation in the COMESA-EAC-SADC Region**, Global Climate Change Alliance (GCCA, USD 4.1 m): A programme of the European Union (EU), the GCCA provides technical and financial support to targeted developing countries to integrate climate change into their development policies and budgets and to implement adaptation and mitigation interventions. The Djibouti component of the regional Programme contains a Euro 1 million mitigation element (involving calculation of the grid emission factor and largely energy-based emissions reduction activities) and a Euro 2 million adaptation element focused on urban water use and agro-forestry. Together with the LDCF3 financed project, the Djibouti GCCA programme will help the Government to re-activate and strengthen the National Climate Change Committee. Approximately 40% of the GCCA mitigation budget (i.e. 40% of EUR 1m = EUR 400,000 or ~\$538,300) will be used to co-finance the project so that the National Climate Change (NCC) Committee as well as the NCC Strategy and the National Environment and Climate Change Fund will have appropriate resources to address mitigation. Capacity development and institutional support activities to reinforce adaptation and mitigation understanding and implementation will be coordinated – and, where possible, jointly undertaken – by the proposed project and GCCA so as to maximise effectiveness.

36. **Programme Intégré de Conservation et de Développement (PICODE)** (commenced in 2008, ongoing), Ecologie du Village Association (EVA, an NGO): EVA is a well-established NGO in Adailou (with more than 15 years of operations), working on integrated approaches to land and water management and livelihood benefits. PICODE consists of four components: reforestation (3,000 trees have been planted to date), anti-desertification (a 12 km² pastoral

area has been protected by wind breaks, re-vegetation and other measures), agro-pastoral capacity building and infrastructure improvement (e.g. water works, forage storage, etc.). EVA has plans to expand PICODE to include mini-dam and cistern construction, the creation of water points along transhumance routes, soil conservation, and diversification of local incomes to include, for example, honey production.

37. EVA works in the Weima watershed, most notably Adailou, to support rural communities to build resilience to climate change. In the context of the LDCF3 financed project, EVA will provide in-kind co-financing on the basis of its expertise with reforestation, fencing and pasture regeneration. (EVA NGO co-financing for Components 2 and 3: **USD 500,000**)

38. Similarly, the Agricultural Cooperative of Assamo will support the Assamo community to implement sustainable agro-pastoral practices. It will also help in the rehabilitation of the market in Ali-Sabieh to enable the rural mountain population of Assamo to be able to sell its produce and artisanal products. (Agricultural Cooperative of Assamo NGO co-financing for Components 2 and 3: **USD 100,000**).

39. In addition, the proposed LDCF3 financed project will build on a portfolio of existing **UNDP** projects in Djibouti, including: “Developing National Capacities for Disaster Risk Management in Djibouti” (2012-2014), which aims to improve management of disasters and promote prevention and mitigation of climate hazards including droughts and floods in Djibouti. The project is strengthening the technical and institutional capacities of the Executive Secretariat for Disaster Risk Management in order to enable it to coordinate disaster preparedness and respond in an effective manner; implementing community-based drought and flood risk reduction initiatives; and providing capacity development to the nascent Inter-Ministerial Committee for Disaster Risk Management, which is expected to improve preparedness and response to natural disasters. “Community-Driven Early Recovery for Drought-Affected Poor Rural Households in Djibouti” (2012-2015) is supporting the construction of water harvesting infrastructure through modalities such as cash-for-work, livestock re-stocking and the establishment of small- and medium-size rural enterprises based on livestock commodity value chains. The “Cash for Work to Restore Livelihoods and Reduce Dependency on Relief” project (2012) worked to accelerate the early recovery of poor rural households affected by the drought through cash-for-work construction of water storage infrastructures (sub-surface dams in wadis and underground cisterns). The National Decentralisation Plan Support Project (2013-2017) is assisting the Ministry of Interior to devolve greater responsibilities to regional councils. The Djibouti UNDP Country Office is a participant in UNDP’s global “Strategic Initiative to Address Climate Change in LDCs” (“Boots On The Ground”) programme, which is supporting 26 low-income countries, including 23 LDCs, by strengthening UNDP Country Offices’ capacity to deliver high-quality and timely policy advice on climate change at the country level. Through this programme, the Djibouti Country Office has had a full-time Climate Change Policy Advisor for the past four years who has been assisting the Government with policy advisory and capacity development services. (UNDP co-financing for all Components: **USD 3.16 m**).

40. The Ministry of Equipment and Transport will be constructing the Tadjourah-Balho highway to connect the Port of Tadjourah to Ethiopia. The LDCF3 project will coordinate with the Ministry of Equipment and Transport because the road will facilitate access to markets for the Weima rural communities. It will also support income-generating activities for Adailou and surrounding mountain villages in alignment with Component 3. Total co-financing provided by the Ministry of Equipment and Transport for Component 3 is **USD 10m**.

41. Acting as the Implementation Agency for the project, the MHUE will provide in-kind support for all three components through the use of Ministry buildings, means of logistics and transport as well as staff time to support project implementation and time spent by the Ministry’s executive decision-makers on high level coordination. The Ministry will also be supporting the development of a National Climate Change Committee, its Strategy and a Fund on the Environment and Climate Change by using self-financing and GCCA funds to address mitigation challenges. These will be complementary to the LDCF funds to be used to support these interventions to address adaptation. Total co-financing provided by the Ministry of Equipment and Transport for all Components is **USD 700,000**.

Programme de Mobilisation des Eaux de Surface et de Gestion Durables des Terres (PROMES-GDT) (USD 3m, 2008-2015), implemented by UNDP, IFAD, FAO and WFP and executed by a Project Implementation Unit within the Ministry of Agriculture, Fisheries and Animal Husbandry. The project aims to address the vulnerability of thirst and hunger of pastoral populations during dry seasons by implementing a programme of water mobilisation for people and livestock and by strengthening national institutional and technical capacities. One of the proposed LDCF3 target areas for investment and support, Adailou, falls within the PROMES-GDT project boundary. Activities include the

development of community-led Annual Hydraulic and Pastoral Planning Schemes; rehabilitation of community water reservoirs and retention basins; rehabilitation and construction of micro-dams; the establishment of two tree nurseries in the Day Forest and Randa regions; and the creation and capacity development of community steering committees to oversee infrastructure work. The nearby Day Forest initiative will provide numerous lessons-learned on best reforestation practices, nursery development and rain water harvesting techniques.

(Note that the Ministry of Agriculture is providing co-financing for the LDCF3 financed project through the PRODERMO project).

42. ***The Drought Resilience and Sustainable Livelihoods Programme in the Horn of Africa (DRSLP)***, African Development Bank (2013-2017): This programme is funded by the AfDB under its Horn of Africa regional envelope for drought resilience and the regeneration of sustainable livelihoods. It is being implemented by the Ministry of Agriculture (MAEPERH) and is providing support to the rural populations of Ali-Sabieh and Tadjourah. The overall sector goal of the DRSLP is to contribute to poverty reduction, food security and accelerated sustainable economic growth through enhanced rural incomes in the Horn of Africa region. The medium- and long-term objective of the programme is to enhance drought resilience and improve sustainable livelihoods. The programme includes three components: (i) natural resource management; (ii) improvement of livestock infrastructure and management; and (iii) project management and capacity building. The programme aims to address the root causes of the region's vulnerability in order to build the medium- to long-term resilience of pastoral and agro-pastoral communities. The programme includes enhancement of the availability of water and pastures to support the mobility of pastoralists across borders. The DRSLP is planning to conduct a detailed feasibility study for water infrastructure development, including small-scale irrigation, in the Weima watershed where Adailou is located.

43. For both the LDCF3 financed project and ***AfDB's Drought Resilience and Sustainable Livelihoods Programme in the Horn of Africa (DRSLP)*** project to leverage the other, both UNDP and AfDB have agreed to use the following approach to maximise synergies:

- Follow a watershed-based approach, while planning the activities including soil and water conservation, afforestation, groundwater extraction, and other activities.
- Minimise duplication and overlapping of activities by sharing the work plans and technical studies.
- Use a consistent community-based approach in following standards: e.g. for labour charges, cost of materials used, etc., to avoid complications.
- Hold regular meeting and shared monitoring of both the projects. During the LDCF3 financed project preparation phase, UNDP and AfDB agreed that the technical studies will be shared with UNDP to support the LDCF3 financed project's water mobilisation plans and designs.

(Note that AfDB could not provide co-financing for the LDCF3 financed project because its funds are being used to co-finance another LDCF financed project).

44. ***Stone Mulching for Tree Planting*** (2012-2014), Japanese International Cooperation Agency (JICA): JICA is working with Tokyo Agricultural University, which has more than 20 years' experience of irrigation methods using stones, to apply the innovative 'stone mulch method' in the Douda and Ali-Sabieh regions. Stone mulching provides a protective soil covering of stones and gravel which aids soil infiltration (i.e. avoids surface runoff) after heavy rain but afterwards forms a capillary break which significantly reduces subsequent evaporation from the soil. This is sufficiently effective for trees to be grown even when rainfall is infrequent. It is also extremely labour-intensive and, after initial training, relatively straightforward to implement, making it an ideal activity for cash-for-work schemes and other forms of rural employment creation.

(Note that JICA could not provide co-financing for the LDCF3 financed project because it will not have any financed projects at the same time as LDCF3 interventions. The proposed project will be up-scaling the stone mulching technique based on lessons-learned and transferred from JICA to the project during LDCF3 project development.)

45. ***Light Years Ahead*** (2011-2016), United Nations High Commissioner for Refugees (UNHCR): the ***Light Years Ahead*** programme is an initiative to improve basic cooking and lighting needs for refugees in seven African countries: Chad, Djibouti, Ethiopia, Kenya, Rwanda, Djibouti and Uganda. In Djibouti, the programme has been piloting the use of a specially-developed fuel-efficient cookstove called 'Save80', which consumes 80% less fuelwood than standard

models, lasts up to 10 years and is easy to transport (on-site assembly). UNHCR reports that use of 4,500 fuel-efficient cookstoves in the camp in Ali-Sabieh has demonstrably reduced the pressure on tree resources in the surrounding area, has improved domestic air quality (due to reduced smoke production from cooking) and has improved the lives of women and girls in particular by reducing the need to forage for fuelwood.

(Note that UNHCR could not provide co-financing for the LDCF3 financed project because it will not have any financed projects in Djibouti at the same time as LDCF3 interventions. The proposed project will integrate lessons-learned on fuel-efficient cook stove implementation as an adaptation measure.)

A. 5. Incremental /Additional cost reasoning: describe the incremental (GEF Trust Fund/NPIF) or additional (LDCF/SCCF) activities requested for GEF/LDCF/SCCF/NPIF financing and the associated global environmental benefits (GEF Trust Fund) or associated adaptation benefits (LDCF/SCCF) to be delivered by the project:

Outcome 1: Institutional capacities for coordinated, climate-resilient planning strengthened; mechanisms and a de-risked investment environment established to catalyse finance for climate change adaptation

Without LDCF Intervention (Baseline) Component 1:

46. In 1999, a National CC Committee (NCCC) was established by Presidential Decree. The National Climate Change Committee convened only two times before dissolution because the importance and mandate of the Committee were unclear. Two additional factors contributed to the NCCC's demise: 1) the members' respective ministries had limited incentive to contribute human and financial resources, and 2) there was limited cross-sectoral commitment and support (ministries outside of the Ministries of Agriculture and the Environment were excluded).

47. A National Sustainable Development Committee (NSDC) also exists but has limited outreach due to poor financial resources and poor coordination mechanisms with other ministries. The NSDC does not have a recognised seat in the Government.

48. Consequently, currently in Djibouti there is no means to coordinate numerous adaptation-related Government and donor projects that aim to build the resilience of rural populations and deploy investments in water mobilisation and disaster preparedness. There is also no integrated development and risk management approach to systematically consider current hazards as well as climate trends. This is exacerbated by limited information-sharing and centralisation of lessons-learned. As a result, there is limited efficiency in the use of resources (e.g. national expertise) and in the transfer of technologies. Activities have been, and are being, duplicated as a result.

49. In Djibouti, there is also no national CC strategy that provides a framework to harmonise all climate change and disaster risk management agendas in the country. A strategy is needed to guide Government and donor interventions, policy-makers and on-the-ground programming. Indeed, an informed NCC strategy has demonstrated success in countries such as Zambia¹², which developed an NCC Strategy informed by cross-sectoral data to assist with planning and policy development.¹³ A good example from Zambia is how the health sector can be guided by the NCC Strategy to consider temperature trends to mitigate potential disease outbreaks (e.g. meningitis, malaria). Also, information on the burden of CC on the public budget can be incorporated into the Strategy to incentivise cross-sectoral support. Ministries are more likely to support adaptation actions when they gain more awareness and understanding of the costs of adaptation in their respective fields.

50. In order to develop an NCC strategy, evidence for climate change impacting various socio-economic sectors must be provided. A few cross-sectoral studies have tried to demonstrate the impacts of climate change in Djibouti.¹⁴

¹² Government of the Republic of Zambia, Ministry of Tourism, the Environment and Natural Resources, *National Climate Change Response Strategy*, December 2010.

¹³ The development of such strategies in nearby Ethiopia and Kenya have also had extremely beneficial impacts in terms of prioritising needs and harmonising different ministries'/agencies'/donors' support activities.

¹⁴ In 2001, Djibouti developed its first disaster vulnerability study, as well as a study on the vulnerability and adaptation to climate change impacts (Disaster Risk Management Programmes For Priority Countries East and North Africa). In February 2009, the World Bank, with support from the Bank Netherlands Partnership Programme (BNPP), issued a report on climate change risks and adaptation options for Djibouti. This report

However, these studies are now outdated. Climate-resilient recommendations must be continuously updated to account for the increasing severity and frequency of CC impacts.

51. Dynamic modelling can support the prioritisation of recommended adaptation measures by providing cost-benefit and adaptation scenario development. The goal of performing dynamic modelling is to inform ministerial strategies so that adaptation measures can be included in planning and decision-making policies. Simulations can detail the optimisation of co-benefits of combating climate change across sectors. However, at present, there is no capacity to use or perform dynamic modelling in Djibouti.

52. In Djibouti, there is also a problem with mobilising funds for climate change. According to the Post-Disaster Needs Assessment (PDNA) conducted by the Global Facility for Disaster Reduction and Recovery in 2012, the identified need for drought and other hazard mitigation interventions for the next five years is US\$196 million (about 4 percent of GDP).¹⁵ However, there are no long-term plans to unlock funds using national, regional, international and private sector support. Consequently, Djibouti lacks the ability to effectively and systematically address long-term climate change risks with adaptation measures because only short-term urgent issues can be supported financially.

53. The lack of financing mobilised for Climate Change Adaptation is in spite of the fact that countries have immense opportunities to utilize climate finance — more sources of funding exist than ever before to help countries achieve their climate change objectives.¹⁶ UNDP estimates that, taken together, there are already more than 50 international public funds and 6,000 private equity funds providing climate change financing. Each of these public, private, bilateral and multilateral sources offers new opportunities for countries to address their climate and development needs as identified by the NAPA and NAPs to prioritize issues and sectors where adaptation activities can be undertaken in a cost-effective way.

54. The increase in climate change funding opportunities makes it important for countries to consider how to attract and leverage different types of climate change investment, including that from private sources. The International Energy Agency (IEA) estimates that about 40% of the global additional investment needed in climate change finance in 2020 will come from private households, 40% from businesses and the remaining 20% from government. With private sector funds outnumbering government funds by an enormous margin, a key challenge for countries will be to use scarce public funds to attract private investment. In order for this increased funding to achieve real results, it is critical that the increased number of funding sources are matched with an increase in Djibouti's ability to collect, blend, coordinate and account for climate finance. Also, Djibouti requires capacity reinforcement in how to identify which funds are appropriate for them, how to coordinate the actions funded by them and how to strengthen national ownership of climate finance.

55. Exacerbating the lack of fund-raising is the risk of improper management of funds. At present, there are two major national funds in Djibouti: the Youth National Fund ('Fonds National pour la Jeunesse'), with USD 2m annual capitalisation, and the Water Fund ('Fonds de l'Eau'), which is no longer capitalised because of allegations of misuse of funds. Both of these funds have been financed by taxing import products. The Youth Fund is fed by a tax on imported khat (a drug that is having harmful dependency impacts on the youth) and the Water Fund was financed by a tax of 3 Djibouti Francs on each imported litre of bottled water. Both the funds, managed by Ministerial departments (the Ministry of Youth for the Youth Fund and Ministry of Agriculture for the Water Fund) have suffered from opaque usage due to unclear governance mechanisms and access modalities.

56. The sustainability of national funds is dependent on having governance mechanisms in place to ensure appropriate financial management, transparency and accountability. The issue in Djibouti is that funds which support climate resilience-building have not been tested. Moreover, as in other developing countries, there is a risk of funds being inappropriately channelled to serve short-term needs.¹⁷ Transparency International's Global Corruption Report (2011) concludes that a strengthening of governance mechanisms can reduce corruption risk and make climate change policy more effective and successful.

identified the most vulnerable sectors to climate change and outlined potential priority adaptation measures that could help develop national capacity to understand and adapt to climate change impacts.

¹⁵ Verner, Dorte, *Adaptation to a Changing Climate in the Arab Countries*, MENA Development Report, World Bank 2012.

¹⁶ UNDP Sep 2011. *Blending Climate Finance Through National Climate Funds A Guidebook for the Design and Establishment of National Funds to Achieve Climate Change Priorities*

¹⁷ Transparency International, *Global Corruption Report*. 2011 <http://www.transparency.org/whatwedo/publications/doc/gcr/>

With LDCF Intervention (Adaptation Alternative) Component 1

57. Component 1 seeks to reduce the impacts of climate change on development in Djibouti by strengthening national coordination of all CC/DRM efforts, integrating climate change responses and disaster risk mitigation measures into national strategic planning and facilitating transparent financing mechanisms to support adaptation activities. Such aims will be achieved through the reactivation of a National Climate Change Committee and its Secretariat in addition to the development of a formalised National Climate Change Strategy informed by dynamic modelling.

58. By building on work being undertaken by the *Harmonizing support: a national programme integrating water harvesting schemes and sustainable land management* (2011-2014, PIMS No. 3216, PMIS No. 3529) UNDP-GEF Land Degradation project to establish the National Desertification Committee, the LDCF financed project will reactivate the National Climate Change Committee and will facilitate Secretariat support to the Committee. The role of the Committee will be to bring together the array of Government line ministries and agencies involved in adaptation-relevant activities (even, importantly, where these activities are not explicitly labelled as being ‘climate adaptation’) – notably the Ministry of Habitat, Urbanism and Environment, the Ministry of Agriculture, Fisheries and Animal Husbandry, the Ministry of Energy, Water and Natural Resources, the Ministry of the Interior, the Ministry of Finance and the Agence Djiboutienne de Developpement Sociale (ADDS) – so as to improve coordination and collaborative approaches (See Figure 1). The creation of an ‘Office of Coordination’, accompanied by capacity development and the provision of tools and resources necessary for Government agencies’ coordinated functioning, was an explicit recommendation of the National Capacity Self-Assessment (2008).

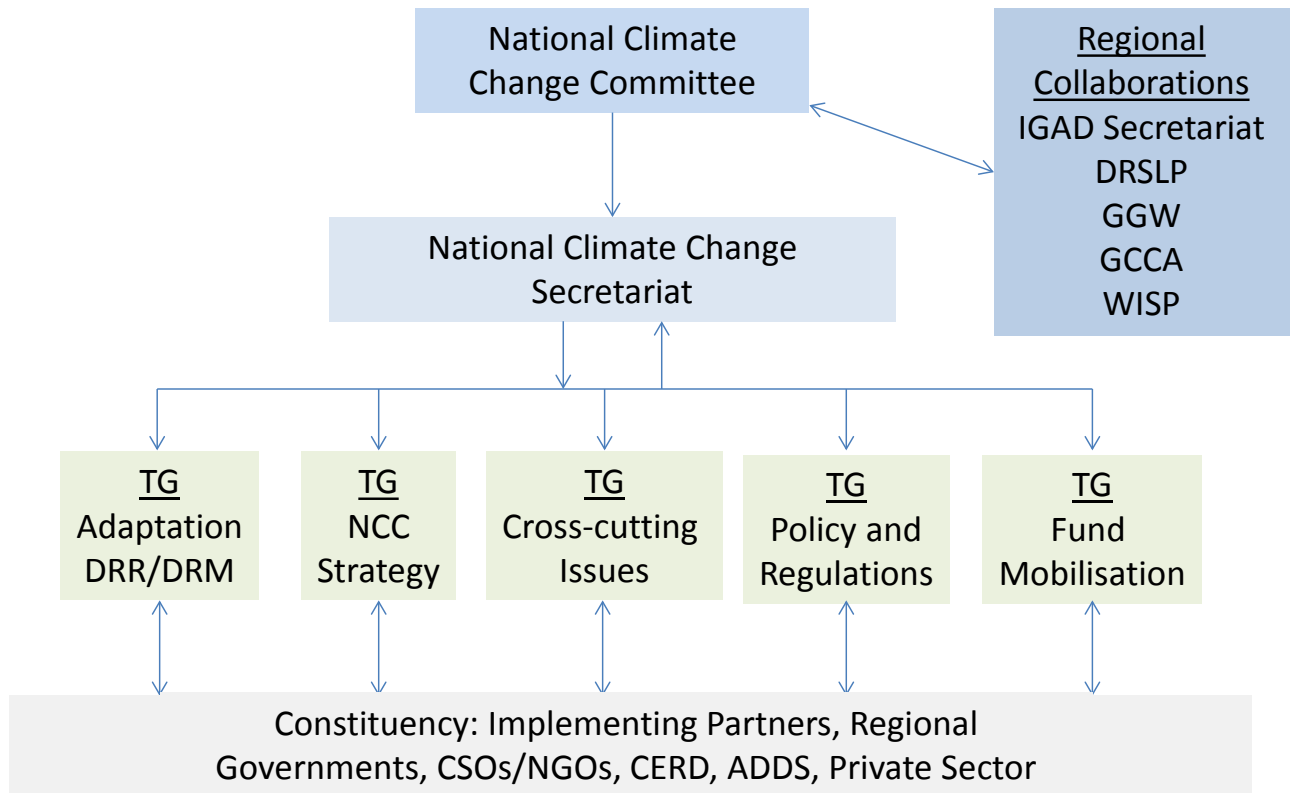


Figure 1: Proposed arrangement for the National Climate Change Committee of Djibouti. Note: ‘TG’ refers to a Technical Group.

59. The NCCC will also have linkages with development partners, the private sector and other relevant NGOs/CSOs in order to have the ability to enhance the integration and mainstreaming of climate change adaptation in various socio-economic sectors. It will be authorised to have the power of a Government Permanent Secretariat, reflecting the urgency and importance of climate change to Djibouti and addressing the need for decision-making that

only Ministries that have executive powers can make. Moreover, at the international level, climate change issues involve significant political and technical issues that can best be handled by a techno-political entity. With such capacity, the NCCC will be responsible for providing representation for Djibouti at international and regional climate negotiations, conferences and events.

60. Considering all of the aforementioned criteria, the roles of the NCCC will be as follows:

- Ensuring that climate change adaptation activities are complementary and coordinated by meeting and communicating regularly with national and regional (e.g. IGAD) project operational focal points;
- Ensuring existing policies and/or programmes adhere to the National Climate Change Strategy by making them accountable to annual evaluations conducted by the NCCC and its Secretariat;
- Ensuring mainstreaming of, and integration of, climate change adaptation activities in all the sectors of the economy, including the private sector, by recruiting cross-sectoral and private sector focal points in the NCCC and by publicising the results of cost-benefit analyses;
- Ensuring the capacity of institutions to carry out climate change adaptation support is enhanced and strengthened;
- Monitoring and reviewing implementation of climate change adaptation activities, ensuring best practices are implemented and that there is transparency of funds and appropriate financial management;
- Assisting in unlocking funds and mobilising finance for climate change adaptation activities;

61. Under Component 1, the provision of Secretariat services will assist the NCCC and various ministries / organisations to ensure that climate change adaptation activities are indeed complementary and that they maximise co-benefits. The Secretariat, to be housed within the Ministry of Environment, will consist of existing Ministry staff from approximately 11 Ministries in addition to two representatives from the regional (sub-national) level (the prefects and the Regional Advisory Committees) and representatives from technical institutions including the Executive Secretariat for Disaster Risk Management, the Research and Study Centre of Djibouti, and Djibouti University. The Secretariat will be trained and supported by the national experts to develop the Technical Expertise shown in Figure 2. A group of 2-3 people will serve on each Technical Group (TG), which will inform NCCC decision-making on specific subjects, including mobilising funds for adaptation/DRR/DRM and mainstreaming CC into existing policies and regulatory frameworks. The project will stage training for the Ministry to develop the areas of expertise it is lacking over the course of the project. Financing from the Government and from the European Union will support the Secretariat to have expertise in mitigation.

62. The Secretariat will comprise specialists in planning, CC, DRM, knowledge management, and fiscal and strategic planning. They will provide administrative and logistical support to the NCCC and conduct operations on a day-to-day basis. They will also serve to improve access to, and dissemination of, climatic data by being responsible for developing a central climate change information databank. As such, they will act as the climate change information and coordination point for all sectors and with regional and international agencies. They will also be obliged to systematically supply information to stakeholders on the progress of implementation of activities and to generate evidence and arguments that influence mainstreaming of climate change into development programmes.

63. To mitigate the risk that the NCCC, as an inter-ministerial body, is overlooked or marginalised, Djibouti's first National Climate Change Strategy will be developed with LDCF support by national experts, including experts housed within the Ministry of Environment. The Strategy will be formally endorsed by the Office of the Prime Minister and will provide the Secretariat and the NCCC with a framework for assessing and achieving programming coherency for adaptation. The focus of the Strategy will be to address adaptation needs and hold Ministries accountable for their respective resilience-building measures. To ensure accountability, the NCCC will be mandated to develop an annual evaluation report that will highlight existing policies and/or programmes which adhere to the Strategy and those that are recommended to be amended.

64. Due to the fact that the Strategy will build on existing Government sectoral strategies (water, agriculture, land degradation, energy, rural development, etc.) and will be informed by detailed modelling work, appropriate actions and priorities will be articulated, including both new actions and actions that mainstream climate change within existing strategies and programmes. Development of the Strategy will be fully participatory in nature, involving a range of Government, civil society, academic and private sector actors. The Strategy will also place great importance on the

alignment of Climate Change Adaptation (CCA) and Disaster Risk Management (DRM) initiatives, and will build upon the Green Low-Emission, Climate-Resilient Strategies (GLECRDS) framework developed by UNDP.¹⁸ There is increasing recognition that CCA and DRM must be aligned, particularly at the community level.¹⁹ Both CCA and DRM have recognised similarities in impacts and effects, and there is an overlap in measures required to address both. As a result, the NCC Strategy will emphasise current disaster risks as a starting point for adapting to CC; such an approach removes duplication of effort and increases efficiency. In order to further ensure that resources are maximised, Government and donor funding will support the Strategy to address mitigation simultaneously.

65. In order to inform the NCCC and the NCC Strategy on how to coordinate projects/programmes to support adaptation and disaster risk management, dynamic models will be developed. Modelling results will be used to inform cross-sectoral planning of the optimal scenarios promoting adaptation, economic growth and poverty reduction. The end goal of the modelling will be to provide projections of impacts of actions, and a review of innovative solutions and practices against several criteria, including cost-benefit considerations, available in the Djibouti context. (The NCCC Secretariat will be responsible for providing awareness on dynamic modelling results to the NCCC and other Government and non-governmental bodies. With the modelling results, they will advise the NCCC on how to build climate finance readiness and how to integrate CC information into existing strategies and policies.)

66. Dynamic modelling will begin by collecting data across a range of socio-economic sectors on national, regional and community levels and by consolidating this data in the NCCC Secretariat's database. Stakeholders from various socio-economic sectors will be consulted at different stages for model conceptualisation, development, validation and policy analysis. With cross-sectoral input, dynamic modelling has the potential to indicate impacts related to climate change, such as agricultural GDP loss or GDP loss due to ecological damage.

67. Subsequently, a balance sheet for the country, called a Social Accounting Matrix, will be developed to show the transfer of funds between Government, private firms, households and overseas (e.g. remittances).²⁰ With LDCF funds, climate change adaptation actions will be optimised by looking at their cross-sectoral impacts, the sources of funds (e.g. private, public, donor, etc.) and the maximisation of co-benefits (e.g. employment creation). A cost-benefit analysis of alternative adaptation measures will be conducted with scenario analyses in order to develop sectoral adaptation measures that are the most beneficial across sectors. Through scenario analyses, the costs of doing nothing (the business-as-usual case) will be compared with the costs of investing in specific adaptation measures. A range of indicators will be created to test the impacts of adaptation measures, including job creation, poverty reduction, reduction in vulnerability or increase in resilience. In effect, by building indicators into the model, it can be used as a monitoring and evaluation tool. For instance, indicators of economic and environmental vulnerability and resilience can be developed and embedded into the model to look at the effectiveness of national policies.

68. To give Djibouti the capacity to update dynamic models as new data becomes available and new projects are introduced, LDCF funds will be used to build national capacity to perform dynamic modelling. One focal point from each Technical Group will be trained as a sector specialist who will have the capacity to run dynamic simulations, including data treatment and analysis. The role of these sector specialists will be to inform the NCCC Secretariat and other institutions on the costs and benefits of climate-related initiatives and to provide regular updates on the performance of projects in accordance with monitoring and evaluation criteria. It is planned that staggered learning-by-doing training will take place for the sector specialist focal points over the course of the project, with the bulk of intensive training courses scheduled for the first 2 years of the project. After the first year, periodic results will be presented and effectively communicated to the various ministries/organizations to obtain their feedback and to ensure their needs are integrated into dynamic modelling processes.

69. Dynamic modelling will provide the NCCC, its Secretariat and the NCC Strategy with a systems perspective understanding of CC impacts including inter-sectoral/indirect effects of CC policies/actions which will enable the NCCC to recommend how to coordinate, prioritise and harmonise programmes and projects, across sectors. Benefits from dynamic modelling have been seen in other African countries. In the ISLANDS study funded by the European Union, for example, 5 countries (Comoros, Madagascar, Mauritius, Seychelles and Zanzibar) noted that scenario analysis using System Dynamics Modelling (SDM) coupled with multi-stakeholder processes and the learning-by-doing approach is an effective way to develop capacity and generate credibility for the use of SDM in integrated policy

¹⁸ http://www.undp.org/content/undp/en/home/librarypage/environment-energy/low_emission_climate-resilientdevelopment/#

¹⁹ Joint National Action Plan (JNAP) in the Pacific, 2013

²⁰ Deenanaray, S. *Energy Policy Modeling in the 21st Century*, Springer Press, 2012.

GEF5 CEO Endorsement Template-December 2012.doc

planning at the national level.²¹ Furthermore, an SDM study for Mauritius indicated that the implementation of green economy investments would, among other benefits, sustain GDP growth marginally, increase employment, postpone critical water stress by almost 8 years and enhance food security by reducing import dependency.²²

70. The combination of the NCCC, its Secretariat, the NCC Strategy, and dynamic modelling will enable existing and future financial resources to be spent more effectively. To facilitate the mobilisation of additional climate finance to scale-up the country's adaptation response, LDCF funds will be used to design and establish a National Environment and Climate Change Fund. An initial feasibility study will be conducted to assess different options for mobilising, deploying and coordinating adequate and sustainable resource flows for climate change adaptation. The design based on study recommendations will include identifying diversified funding sources that could capitalise the Fund, ranging from general taxation (VAT, income taxes) and hypothecated fiscal instruments (e.g. bonds) to climate finance and donor funds. Based on the feasibility study, the Fund will be designed and established so that the political, social and financial investments by both the public sector and the private sector made in climate change adaptation can be properly and equitably managed. The design of the Fund will also include developing appropriate governance mechanisms to ensure transparency and that responses to climate change adaptation are allocated appropriate financial resources.

71. Advantages of the National Environment and Climate Change Fund according to UNDP's Guidebook for the Design and Establishment of National Funds to Achieve Climate Change Priorities²³ are likely to include:

- If designed properly, the Fund has the capacity to bypass governance systems which have insufficient transparency and accountability, thereby ensuring CCA funds reach beneficiaries in the most effective manner to support climate actions initiated by civil society, the private sector and local communities
- The Fund can provide such a platform for dialogue and coordination amongst stakeholders (ministries, civil society, development partners and private sector) on climate policy, financing and priority setting.

72. Other advantages as indicated by similar funds created in the Asia-Pacific include²⁴:

- The Fund can be a way to ensure climate change adaptation actions are prioritised and government funds are earmarked specifically for adaptation actions without compromising other development priorities of the government. Channelling government budget through national climate funds can serve as a clear signal of government commitment to the issue of climate change which can attract more outside investment.
- Being founded on international climate finance sources (public and private), it is more likely the Fund is capitalized in a timely and predictable manner.
- The Fund can bring together loans and grants to increase the volume and impact of its work.
- The Fund can potentially reducing duplication and fragmentation in climate relevant public expenditure.

73. Overall, the LDCF3 financed project will accomplish these tasks by benefiting from, and building on, the above-mentioned baseline projects in the following manner:

- Support ongoing **UNDP** technical assistance being given to the nascent Inter-Ministerial Committee for Disaster Risk Management;
- Coordinate closely with the planned **EU-GCCA project** by incorporating lessons-learned on the integration of climate change into development policies and budgets. Together with the LDCF3 financed project, the Djibouti GCCA programme will help the Government to re-activate and strengthen the National Climate Change Committee. Capacity development and institutional support activities will be coordinated – and, where possible, jointly undertaken – by the two initiatives so as to maximise effectiveness.
- Building upon the experiences of PROMES-GDT project, by using realistic time-frames for critical activities such as the selection and hiring of project staff, the mobilisation and sensitisation of beneficiary communities in project

²¹ Deenapanray, P.N.K. and A. Bassi *The Experience of ISLANDS in Deploying System Dynamics Modeling as an Integrated Policy Tool*. Natural Resources Forum. 2014. DOI: 10.1111/1477-8947.12037

²² Bassi, A.M. and P.N.K. Deenapanray, Chapter 4 -A *Green Investment Analysis using System Dynamics Modeling – the Case of Mauritius*. Economic Review and Basic Statistics, 16(12): 256–265, 2012.

²³ UNDP Sep 2011. *Blending Climate Finance Through National Climate Funds A Guidebook for the Design and Establishment of National Funds to Achieve Climate Change Priorities*

²⁴ Irawan S, Heikens A, Petrini K (2012) *National Climate Funds: Learning from the experience of Asia-Pacific countries*. UNDP Discussion Paper.

areas, and the challenges associated with institutional coordination at the national level. Also, the LDCF3 financed project will tackle one of the key challenges – insufficient coordination – confronted by the PROMES-GDT project to date by securing inter-ministerial and inter-agency coordination across the range of sectors and institutions.

- Support strong collaboration with the IGAD Secretariat: the NCCC will facilitate coordination of adaptation-related initiatives at the national level which will serve to promote regional coordination. Centralisation of climatic data by the NCC Secretariat will facilitate data-sharing with IGAD. Also, the IGAD regional framework will be integrated into the NCC Strategy. Finally, the fund-mobilising role of the NCCC will be complemented with the Resource Mobilisation Strategy (RMS) to be created by IGAD. Both IGAD and the LDCF3 financed project will coordinate to unlock funds to support resilience-building activities.

Outcome 2: Improved water management in the targeted regions to conserve scarce water resources and manage temporal flows to reduce flooding and erosion

Without LDCF Intervention (Baseline) Component 2:

74. In Djibouti's arid, mountainous regions, there is limited water mobilisation due to infrequent and unpredictable rainfall, difficulties in trapping and storing runoff as well as insufficient borehole and well capacities. For both the Adailou and Assamo regions, there have been limited technical hydro-geological studies to quantify water and groundwater resource capacity. A previous study financed by the World Bank made a general water recharge calculation based on average rainfall in Adailou.²⁵ The report detailed proposed hydraulic works to capture surface water. Although the report was comprehensive in terms of surface water mobilisation designs, in-situ measurements are required to validate groundwater yields, surface runoff rates and other detailed data so that the water balance can be understood under present and future climate change and population growth scenarios.

75. At the national level, there is a shortage of technical capacity to apply advanced groundwater extraction and recharge techniques. At the local level, although water point (or well) management committees have existed in Djibouti since 2000 and have been a success in some cases²⁶, in the project region there have been only a few isolated attempts to create Water Point Management Committees. These attempts have failed due to the absence of proper training, inability to purchase spare parts or maintenance tools, and lack of continued technical knowledge-sharing.

76. Consequently, local inhabitants – mostly women – are currently extracting water by primitive pulley systems. The women in the project communities must also travel long distances to reach water points and must transport water containers on their backs. At the time of stakeholder consultations during the project development phase, the principal water well in Adailou was almost dry. As a result, each family (approximately 10 people) had a rationed provision of 3 gallons (14 litres) of water each day to do all washing, cooking and irrigation. The situation is grave for pastoralists as well; many of the – poorly designed – shallow wells in the region are dry. Consequently, nomadic pastoralists are exerting pressure on the limited water resources by over-crowding water points. The influx of refugees from Ethiopia into Assamo in the 1990s exacerbated pressure on the existing water points.

77. Furthermore, shallow wells are not covered. Contamination and debris from runoff frequently damage the existing wells. In fact, due to the steep terrain, erosion and high runoff rates are a challenge in the Djiboutian mountain context. Exacerbating the erosion is the removal of trees for fuelwood. At present, deforestation is occurring at a rate of 3% per year in Djibouti²⁷. Similarly, pastoral over-grazing is causing the degradation of soil. Without trees and stable soils, significant runoff cannot be captured and does not easily infiltrate to replenish groundwater resources. However, no study in Djibouti has been conducted demonstrating the intensity and extent of soil erosion nationally²⁸.

²⁵ Perrin, J. Study on rural hydraulic works in Adailou : *Appui Technique à la finalisation du catalogue HIMO en milieu rural, Djibouti. Rapport d'Etude sur l'Amenagement Rural et Petits Hydrauliques. Mission Adailou*, 21 March - April 2012.

²⁶ In 2000, the Government, through the assistance of the Ministry of Agriculture, promoted the establishment of water point (or well) committees to support the programme of decentralization. In 2005, reforms were carried out at the Department of Agriculture, which took into account the strategic objectives of the programme of decentralization (i.e. the transfer of technical services to the regional level). In this context, the Department of Participatory Management was created within the Department of Water. Since then, many water point management committees have been established, either directly by the Department or through projects involving the water sector.

²⁷ MHUE, *Fourth National Report on Biological Diversity in the Republic of Djibouti*, March 2009.

²⁸ Barkat, Abdallah, *Pastoral Development Programme for the Regions of Assamo and Adailou*, National Expert report, July 2013.

78. To rehabilitate the existing vegetation, a few local initiatives in the Adailou region have had success. Good reforestation practices have been demonstrated in the Day Forest experiment under the PROMES project. Through this project, rural mountain populations learned about reforestation and re-vegetation (on 30,000 ha) as well as the diversification of livelihoods (e.g. wood-working and honey production). In addition, in Alaimadag, adjacent to Adailou, a 1,200 ha reforestation site has been successful in restoring native forage grasses and trees since 2010.

79. In spite of these initiatives, reforestation, re-vegetation and re-seeding know-how is limited in the specific project regions. There is only one nursery in Assamo (and none in Adailou) to supply tree saplings for reforestation. Nursery development is currently included in the Department of Forestry of the Ministry of Agriculture, Fisheries and Animal Husbandry's strategic plan; however, the Department has lacked sufficient funds to establish these nurseries.

80. There is also limited knowledge of sustainable agro-pastoral and pastoralist practices, such as cultivation of drought-resistant forage crops, storage and diversification of produce, necessary for spreading the risks across seasons or to absorb shocks during severe drought periods. In Assamo, there are presently 30 agro-pastoral plots; however, most crops and trees have died on these properties due to successive drought spells and the salinisation of water. For instance, previously, the local population in Assamo was able to produce guava jam – but the prevalence of this fruit has now declined due to environmental deterioration.

81. Although the potential revenues from diversified fruit/vegetable cultivation are relatively well-known due to other interventions (FAO, UNDP-AF project), the rural populations have had no access to training on diversified cultivation due to their remote location. For instance, field consultations during the project preparation phase indicated that the local populations have no experience with crop rotation practices to enable nutrients to be replenished in soils. Similarly, sustainable techniques for dryland, rain-fed farming and pastoral practices are also unknown to the local communities. The local populations thereby require capacity building on soil and water conservation measures, crop rotation and plant diversification techniques amongst other sustainable practices.

With LDCF Intervention (Adaptation Alternative) Component 2:

82. To address the aforementioned needs in both project zones, Component 2 will first mobilise water using sustainable means to capture erratic runoff during rainy periods while improving the recharge of aquifers to act as natural storage for use during dry periods. Activities will include the construction of a borehole, shallow wells and micro-dams. Such techniques are well-established and proven in the field²⁹. Investments will also be made in constructing cisterns and retention ponds to facilitate livestock water storage outside the rainy season. Semi-underground sills and infiltration galleries will be constructed to improve groundwater recharge. Infiltration galleries have been proven to be a successful technology for replenishing groundwater.³⁰ Nonetheless, the success of past donor-supported water harvesting projects in Djibouti has been mixed, largely because of the selection of inappropriate, technologically-sophisticated and expensive approaches. The LDCF3 financed project will avoid these mistakes by focusing on simple, low-cost and culturally-acceptable investments that are chosen by the communities themselves and which are constructed (and monitored after construction) using unskilled local labour (with appropriate training and supervision) in cash-for-labour schemes established by the project in conjunction with extant schemes run by WFP and FAO. To prevent destruction of water mobilisation infrastructure as well as to protect farming and pastoral plots (such as during flood events), wadi walls will be reinforced with rock-filled wire gabion. Finally, to ensure that large construction works are constructed properly, a Chief Technical Advisor (CTA) and Civil Engineering Supervisor will be recruited to provide expertise and perform Monitoring and Evaluation.

83. In order to ensure that there is sufficient groundwater capacity for well development and that surface runoff can be captured, hydrogeological and pedological studies will take place in the first 3 months of the project. Experience with an ongoing UNDP-Adaptation Fund project, ***Developing agro-pastoral shade gardens as an adaptation strategy for poor rural communities***, has shown that such studies require considerable investment (at least USD 200,000). LDCF funds will be used to support these studies, which will detail suitable sites for water mobilisation based on the agronomic potential of soils, the sites' vulnerability to floods, and available surface and groundwater capacity.

²⁹ See, for example, FAO (2008), *Overview of Main Water Harvesting Systems*: <http://www.fao.org/docrep/U3160E/u3160e03.htm>.

³⁰ Infiltration galleries were successfully piloted in the Adaptation to Climate Change Project for Rural Communities in Ali Sabieh project (Project d'adaptation au changement climatiques des communautés rurales d'Ali-Sabieh, PACCRAS).

Scientific environmental assessments for both regions are limited³¹. In spite of limited knowledge of these remote mountainous regions, the Research and Study Centre of Djibouti (CERD) has significant capacity to conduct technical studies, as evidenced by numerous other adaptation-related projects in other regions (e.g. UNDP-Adaptation Fund, JICA projects).

84. Effective participation of local people will be a key measure to preventing further water shortages in mountainous regions. In the context of increasing water shortages, the potential direct and indirect beneficiaries are fully aware of the need to control water withdrawals and uses, and are strongly inclined to engage with a mix of customary and modern community water management systems and arrangements that will ensure that water extraction will be sustainable both environmentally and financially, and that water allocation amongst the various community uses will be well balanced and efficient. Local Water Point Management Committees will be created with the assistance of LDCF funds. Each Committee will consist of four people (2 men, 2 women) who will be responsible for the upkeep of each shallow well. Each Committee will sign a convention with, and will be accountable to, the Ministry of Water and will receive a water quality kit, maintenance tools and simple medicines to combat a potential increase in water-borne diseases.³²

85. Furthermore, so as to prevent the water infrastructure itself from becoming a source of mal-adaptation (i.e. acting as magnets for unsustainable numbers of livestock that over-graze and cause land degradation through trampling³³), accompanying the investment activity will be a review and implementation of local water management rules (governing the volume and frequency of usage and the eligible beneficiaries) by Catchment Management Committees (CMCs) to be established through this project by the Ministry of Agriculture, Water, Fisheries, Animal Husbandry and Marine Resources (MAEPERH). Due to the fact that such committees have been lacking in Djibouti, there are currently no watershed-based (i.e., catchment-based) plans for water storage, capture and usage anywhere in Djibouti. The primary role of the CMCs will be to develop and apply regulations for water access and use in the sub-catchments. They will be trained by the Ministry of Agriculture and will be responsible for working with various sectors, including animal husbandry, forestry, horticulture and rural development, in order to ensure sustainable water management. At the same time, they will train the Water Point Management Committees along with the Ministry of Agriculture and be responsible for the disbursement of tools and continual training. They will also be responsible for developing best water management and practice guidelines (a form of Standard Operating Procedure) on the catchment scale by considering upstream and downstream impacts. To do so, the CMCs will use an integrated approach by working with all Water Point Management Committees and working with a water management / water quality specialist who will be recruited to train the CMCs and Water Point Management Committees on well maintenance and water hygiene.³⁴

86. Water resource development will be combined with agro-pastoral planning in order to have sufficient resources to support diversified and productive agro-pastoral systems. Multi-purpose agro-pastoral systems will offer the most viable and cost-effective solution for many rural residents to survive the food insecurity threats posed by climate change. Various Soil Water Conservation (SWC) measures will be applied, depending on the slope, soil depth and bedrock. The proposed SWC techniques will be simple to implement by unskilled labour through the existing, successful cash-for-work scheme (promoted by WFP and FAO).

87. Agro-pastoralism will be supported by using LDCF funds to provide high-quality inputs, drought- and saline-resistant fodder, species of good pastoral value and to provide multi-purpose plants such as moringa which can serve as fencing. Productive fruit trees will be brought into the region, including date trees. The soil will be re-fertilized through composting and using locally-produced manure. Agro-pastoral plots and reforestation sites will be protected using robust fencing materials as well as natural and fixed barriers such as wadis and mountain banks. The best approaches to using endemic species to improve soil stability and soil and water conservation methods from the Day Forest initiative will be applied.

³¹ Perrin, J. Study on rural hydraulic works in Adailou : *Appui Technique à la finalisation du catalogue HIMO en milieu rural, Djibouti. Rapport d'Etude sur l'Amenagement Rural et Petits Hydrauliques. Mission Adailou*, 21 March - April 2012.

³² As bringing water to local populations may also bring the risk of water-borne diseases such as malaria, costs for potable water and first aid kits for each community have been considered.

³³ See, for example, Thrash and Derry, *The nature and modelling of biospheres: a review*, African Protected Area Conservation and Science, Vol 42, p.73-94, 1999.

³⁴ The specialist will provide training in the form of in-the-field workshops during 4.5 months over the first 2 years.

88. On-the-farm training and training Trainer of Trainers (lead farmers) will be two methods used to build the capacity of agro-pastoralists. Training will be provided on the diversification of production, including fruit trees and drought-resistant forage crops, and to allow for seed exchange and possible collaborations among agro-pastoralists. In order to diversify the choice of species to be used for replanting and fodder plantations, but also to preserve and multiply indigenous endangered species, the programme will finance the establishment of 2 pastoral centres or pastoretums, each covering 2 ha. Each pastoretum will be used to teach sustainable pastoral practices, such as the application of dryland adaptation technologies and promotion of animal hygiene.

89. In line with a specific recommendation of the 2010 Rapid Assessment of Drought Impacts³⁵, the LDCF3 financed project will implement a programme of tree planting around water collection points (including those constructed/rehabilitated by the project) so as to reduce runoff erosion, provide fodder and shade for livestock, and expand livelihood options for the local communities. The proximity of the water points and the trees will reduce the burden on women and children while collecting water and fuelwood, thereby providing them with alternative livelihood opportunities. The LDCF3 financed project will build on the baseline work of JICA and Tokyo Agricultural University elsewhere in the Ali-Sabieh region to apply the innovative 'stone mulching' method in Adailou and Assamo to assist tree establishment and growth. This labour-intensive method will be implemented using local labour in conjunction with a community payment scheme.

90. Furthermore, the existing tree nursery in Assamo will be enlarged and rehabilitated to sell multi-purpose plants, trees and saplings. Similarly, a new nursery will be developed in Adailou. The construction/rehabilitation of nurseries will be in coordination with the Department of Forestry of the Ministry of Agriculture, Water, Fisheries, Animal Husbandry and Marine Resources (MAEPERH) so as to provide a supply of tree and plant saplings for planting. Based on previous nursery developments by the Ministry of Agriculture and in the Day Forest outside the project region, the revenues generated from the nurseries typically exceed the operating costs. Through LDCF funds, women will learn how to develop nurseries, including marketing of seedlings and fruit tree grafts. The nurseries will be run by women on a cost-recovery/profit making basis. Knowledge will be shared with the project beneficiaries by promoting a study tour of successful nurseries in Djibouti.

91. To achieve the activities described above, the LDCF3 financed project will benefit from, and build on, the above-mentioned baseline projects in the following manner:

- Build on the experiences of, and in some cases the project infrastructure of, a number of baseline projects (notably the community-led Annual Hydraulic and Pastoral Planning Schemes developed under PROMES-GDT and EVA's detailed hydrological work in Adailou) that have constructed complementary water harvesting infrastructure.
- Benefit from the baseline work and practical lessons-learned of *PROMES-GDT*, which shares similar objectives to the LDCF3 financed project: the lessons learned by the PROMES-GDT technical team in the design, construction and maintenance of rainwater harvesting infrastructures will be utilized by the LDCF3 financed project. Sharing of knowledge between the two project teams will be fostered, particularly in regard to national norms and standards relating to the design, construction and maintenance of rainwater harvesting infrastructure in the climatic and geomorphic context of Djibouti's mountainous regions. Amongst other things, this will assist the technical and management teams of the LDCF3 project to fast-track project implementation. The community-based approach used by PROMES-GDT in order to mobilise the communities in Day Forest for reforestation activities will also be adopted in the LDCF3 financed project, and the project will offer the communities of Idalou and Assamo the opportunity to undertake field visits to Day Forest in order to foster knowledge-sharing between communities, especially in tree nursery management and forest preservation. By simultaneously re-vegetating and reforesting the upstream Tadjourah area, both projects will increase the resilience of downstream infrastructure to floods while improving groundwater recharge. The idea of developing community steering committees to oversee infrastructure work in the PROMES project will be further developed in the LDCF3 financed project by creating and reinforcing Catchment Management Committees as well as Water Point Management Committees. At present, the PROMES project has not had success in engaging the local communities in sustainable agro-pastoral practices. The LDCF3 financed project will provide open workshops on adaptation technologies (e.g. using salt- and drought-tolerant seed inputs, cultivating resilient fodder varieties and water-saving irrigation approaches) to support rural mountain populations in the vicinity to develop agro-pastoralism effectively.

³⁵ FEWSNET *Food Security Alert* 2010 https://docs.unocha.org/sites/dms/CAP/3.3_Djibouti_Overall.pdf
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- Build on the **PRODERMO** baseline project, which has been designed with the same objectives and goals of PROMES-GDT but with different sites targeted: the types of synergies identified in relation to PROMES-GDT are also valid with PRODERMO. The LDCF3 will collaborate with the PRODERMO project to enhance sustainable pastoral practices throughout Djibouti. The PRODERMO project has provided training on livestock production, nutrition and rural development, rainwater harvesting and soil conservation practices. The LDCF3 financed project will build on lessons-learned from these training sessions to ensure that the pastoralists in the mountain regions of Adailou and Assamo are well supported with all the required training tools and best practices.
- Support **IGAD** in strengthening its institutional capacity at the level of the IGAD Secretariat and its Regional Platform Coordination Unit, which will coordinate IGAD's resiliency interventions in IGAD countries: the LDCF3 financed project will support the IGAD Secretariat and regional strategy as indicated in Table 3 of Section 2.3. The IGAD "Programme de Pays Pour Mettre Fin aux Urgences Liées aux Sécheresses dans la Corne de l'Afrique" and the LDCF3 financed project are taking place in approximately the same time-frame, thereby permitting both to mesh their activities together to the fullest extent possible. IGAD-LDCF3 synergies are likely to be strongest in regard to the creation of water points and grazing areas accessible along transhumance routes (IGAD also intends to establish a regulatory framework for transhumance routes, which the LDCF3 financed project will respect) and market support (e.g. the creation of pastoral milk associations).
- Coordinate with the **European Union and the PSSP project** to improve rainwater harvesting and groundwater recharge, reinforce extension services at central and decentralised levels and make the pastoral sector more profitable and resilient to climate and socio-political shocks. The LDCF3 financed project will incorporate lessons-learned on how to support pastoralists with improved water point placement and management, rainwater harvesting schemes and reforestation. In return, the LDCF3 financed project will provide the PSSP project with ideas on designing and constructing sustainable groundwater recharge infrastructure and using soil and water conservation practices.
- Support the **IGAD-HYCOS** initiative: The technical hydrological, hydrogeological and pedological studies under Component 2 will support IGAD's Regional Centre for Water Management to develop regional surface and groundwater databases. Component 2 will also adopt lessons-learned from the IGAD project on how to best strengthen regional water resource management to support agro-pastoralism.
- Coordinate with the **AfDB Drought Resiliency Programme**: this programme covers two regions – Ali-Sabieh (which includes Assamo) and Tadjourah (which includes Adailou) – that overlap with the LDCF3 financed project. With the AfDB project at a very early stage of development, there is considerable potential for working with the project to ensure that synergies with the LDCF3 financed project are built in from the start. During project preparation, UNDP and AfDB agreed to share technical studies (hydrological, hydrogeological and pedological) for the Weima watershed. This will support water mobilisation and storage strategies for pastoralists in the Weima watershed, which includes Adailou. The AfDB project also has a strong livestock development focus that will be useful to the LDCF3 financed project. While the LDCF3 financed project will be supporting agro-pastoralism in Adailou and Assamo, the AfDB project will undertake similar activities in other areas. The AfDB project also has a strong component on knowledge management and aims to mainstream climate-sensitive pastoral development of arid and semi-arid areas (ASALs) into sectoral policies and local development planning at the level of local government. The LDCF3 financed project will build on this local government aspect in order to ensure the sustainability of infrastructure. The LDCF3 and AfDB projects will need to liaise with the same local authorities of Ali-Sabieh and Tadjourah and will, therefore, need to develop a common, coherent approach. Other opportunities for mutually beneficial interactions between the two projects stem from defining norms and standards for the design, construction and maintenance of water infrastructure and standards for cash-for-work tariffs for local communities.
- Work closely with JICA: early contacts have already been established. Lessons-learned from the JICA project, **The Master Plan Study for Sustainable Irrigation and Farming in Southern Djibouti**, in terms of optimal irrigation systems will save water and increase levels of productivity. The LDCF3 financed project will employ JICA's proven stone mulching technique to facilitate water savings as well as to protect young trees from livestock grazing. The technique will be used to stabilise soil and reduce evapotranspiration around the LDCF3 financed project's 29 water points. Both projects will coordinate to share lessons-learned on irrigation, agro-pastoralism and cash-for-work schemes to support rural employment. Through the innovative aspects of the LDCF3 financed project, lessons-learned on the best role and practices on Catchment Management Committee development will be passed on to

support JICA's Master Plan. Additionally, JICA experiences gained in terms of community mobilisation as well as the costs of developing water harvesting infrastructures will be shared with the LDCF3 financed project (and vice versa).

- Build on EVA's on-the-ground social networks, the community trust it has built up over the years and the baseline technical studies it has undertaken: the LDCF3 financed project will enhance EVA's baseline activities with the technical, financial and institutional training to be delivered by the LDCF3 financed project. For instance, the LDCF3 financed project will build EVA's capacities to improve water retention and flood mitigation mechanisms as well as to diversify agro-pastoral and pastoral production in Adailou. By training EVA in sustainable water management, agro-pastoralist practices, livelihood diversification and basic accounting, they will be able to provide better support to the PICODE and LDCF3 financed projects after project funds end.

Outcome 3: Improved resilience to hydrological and climate risks; Enhanced resilience to climate-mediated economic shocks through income generation and diversification

Without LDCF Intervention (Baseline) Component 3:

92. Disaster prevention, mitigation and preparedness are relatively weak in Djibouti. In 2006, the Government established the Executive Secretariat for Risk and Disaster Management (SEGRC, Secrétariat Exécutif de la Gestion des Risques et de Catastrophes). SEGRC advises the National Committee on Natural Disasters on technical matters and coordinates prevention, mitigation and response activities.

93. A centralised approach to drought and flood early warning in Djibouti at the national level has been, and is being, supported by various initiatives. For example, the Comprehensive Approach to Risk Assessment in Djibouti (funded by GFDRR, 2010-2013) was able to: i) provide a risk assessment for Djibouti Ville, ii) provide a flood early warning information sharing protocol for Djibouti, called SYNALAD, and iii) update the ORSEC disaster response plan.

94. In line with Djibouti's decentralisation approach, SEGRC has established Local Risk and Catastrophe Management Committees (LRCMCs) to transfer risk-related responsibilities to the regional level. Additionally, SEGRC drafted general flood action plans for each region in Djibouti with the support of FAO.

95. In spite of these efforts, the LRCMC lacks the technical and operational capacities to prepare community populations for droughts and floods. Similarly, the action plans are general and focused predominantly on the regional capitals, which are located in the lowlands (e.g. Ali Sabieh, regional capital for Assamo) or by the sea (Tadjourah, regional capital for Adailou). As such, they do not consider the highland, steep, varied terrain and, most notably, the remote mountainous communities of Assamo and Adailou.

96. Yet it is critical to have targeted forecasts for DRR/DRM purposes because these regions have different climate characteristics than the rest of Djibouti; these regions (such as Day Forest) can experience up to two times more rainfall than the national average, as well as greater temperature extremes. The steep terrain of these regions also produces higher peak runoff flows which can cause significant damage and be more difficult to capture for water storage purposes.

97. Furthermore, there are no in-situ hydro-meteorological measurements taken in either the Adailou or Assamo watersheds to support disaster preparedness. The lack of data collection prevents the identification of risks, the delineation of vulnerable zones and the quantification of expected return periods for extreme weather events. These limitations make planning for climate change at the regional level difficult. They also make the development of drought or flood early warnings practically impossible. Consequently, the arid, mountain regions of Djibouti currently have limited drought early warnings to help agro-pastoralists and pastoralists prepare for appropriate seeding and cultivation times as well as crop rotation practices when the rainy season shifts in time.

98. Additionally, although the construction, use and maintenance of simple earth micro-dams is a common practice for rural communities in neighbouring Ethiopia, rural communities in Djibouti, particularly those in remote mountain villages, lack knowledge on the uses of earth dams for water harvesting and the importance of maintaining dams for flood mitigation as well as the means to properly maintain them. Compounding this problem is the fact that the Local Risk and Catastrophe Management Committees (LRCMCs) are themselves also unaware of such community-level preparedness measures, which can build the self-reliance of mountain populations to handle risks. As a result, the

LRCMCs are unable to raise awareness and build understanding in the majority of the rural, mountainous communities. This includes awareness on how the collection of fuel wood is exacerbating forest degradation. Tree depletion is currently occurring at the rate of 3% per year in Djibouti.³⁶ Awareness is required on how the collection of fuel wood is exacerbating forest degradation. Tree depletion is currently occurring at the rate of 3% per year in Djibouti.³⁷ As a result, soils are deteriorating, agricultural land is being destroyed and the livelihoods of pastoralists and agro-pastoralists are being severely threatened. The end result has been more destructive floods in the mountain regions and regions downstream.

99. Furthermore, rural mountain populations are often marginalised because of their remote locations and difficulty of access to regional markets. There are currently limited means to diversify livelihoods in the remote, rural regions in Djibouti. Due to insufficient funds, no permanent structures exist to serve as places to sell village produce at fixed, market prices and to store produce from day to day in the regional markets in Ali Sabieh (closest to Assamo) and in Tadjourah (closest to Adailou). In Ali Sabieh, the market exists from 7 am to 1 pm, but it is not fixed and farmers must find relatives in the city who are willing to store their produce. In Tadjourah, the situation is more critical because there is currently no place for agro-pastoralists to sell their produce. Consequently, in spite of the fact that good road connections exist between the regional capitals and the national capital (the latter of which is where approximately 75% of the country's population resides), both project zones are excluded almost entirely from the domestic market.

With LDCF Intervention (Adaptation Alternative) Component 3:

100. Through Component 3, LDCF funds will be used to build awareness within the regional Local Risk and Catastrophe Management Committees (LRCMCs), the Catchment Management Committees (CMCs, see Component 2) and the communities on how they can best prepare for droughts and floods. Based on the construction of the dams in Component 2, at least 300 community members and representatives from the LRCMCs and CMCs, as well as civil protection and water officials, will be trained on how earth micro-dams can be exploited to harvest runoff and reduce susceptibility to flood flows. The communities and regional authorities will learn how the maintenance of small earth dams, such as by de-silting and repair works after major floods or at the end of the rainy season, can make the earth dams more durable so as to have longer life spans. This activity can also be used to foster a spirit of climate change adaptation in rural communities outside of the two targeted villages.

101. In addition to the awareness-building provided by LDCF funds, at the outset of the project, risk and catastrophe expertise will be transferred from the existing LRCMCs to the CMCs to be developed in the project. Similarly, the regionally-based civil protection and water officials will share knowledge on water resource management with the CMCs. As a result, the role of the CMCs will be to understand and manage catchment/sub-catchment scale watershed resources to ensure effective flood control, drought management and to ensure sufficient potable and irrigation supplies for all communities. This can include working with the Ministry of Water and regional water officials to plan future borehole or water infrastructure placement. The CMCs will also be responsible for transferring water management best practices and water quality control methods to the community-based Water Point Management Committees (WPMCs), which will be concerned with managing their specific water points. This approach ensures decentralisation of water management down to the community level and empowers the communities to become more self-sufficient. Furthermore, the CMCs will take an integrated approach to downscaling water-related risk and catastrophe management under the guidance of the regionally-based LRCMCs as well as targeting water quality/resource management to local levels under the guidance of regional water officials.

102. Furthermore, to reinforce the community-based aspect of flood and drought preparedness, LDCF funds will be used to select 2 motivated mountain community representatives from both Adailou and Assamo, 2 active local NGO representatives, and 2 LRCMC and CMC representatives to conduct a study tour of one other mountain community, such as in Somaliland, which has successfully used gabion to reinforce wadi banks to mitigate flood impacts.³⁸ The study tour is planned to facilitate knowledge-sharing on flood and drought mitigation practices for mountain regions, and to provide first-hand evidence on how agro-pastoral farms, assets and villages can be protected using pragmatic measures which can be implemented by the communities themselves.

³⁶ MHUE, *Fourth National Report on Biological Diversity in the Republic of Djibouti*, March 2009.

³⁷ MHUE, *Fourth National Report on Biological Diversity in the Republic of Djibouti*, March 2009.

³⁸ Ministry of Natural Resources, *National Adaptation Programme of Action on Climate Change*, Somalia 2013.

103. Through Component 3, the LRCMCs will also gain the expertise to delineate flood and drought vulnerability maps by creating an inventory of historical risks facing agricultural and pastoral livelihoods. With vulnerability maps, NGOs/CSOs will be able to transfer the knowledge of which locations are most vulnerable to floods and droughts to local farmers and pastoralists (e.g. high risk areas located too close to wadi banks). As a result, local communities will be incentivised to practice farming and pastoralism in low-risk areas.

104. Flood and drought risks will be validated by installing Automatic Weather Stations (AWSs) in each project zone. Currently, there are only limited rainfall measurements (1 rain gauge in Assamo and 1 in Adailou) and no in-situ hydro-meteorological measurements taken in either the Adailou or Assamo watersheds. Limited data collection prevents the identification of risks, delineation of vulnerable zones and projections for extreme weather events. As is standard practice in Djibouti, the AWSs will be managed by the National Meteorological Service and the Executive Secretariat for Risk and Disaster Management (SEGRC). The Catchment Management Committees (CMCs) will be responsible for day-to-day upkeep of the stations after receiving training from the Meteorological Service.

105. Local community capacities to prepare for floods will be further strengthened by training communities how to fabricate and place gabion to reinforce land or structures which are vulnerable to flooding. Gabion wirework is commonly used to reinforce wadi and earth dam walls. However, gabion is quite costly and, in the rare occasions it is used, generally imported from France. To promote employment and livelihood diversification, LDCF funds will be used to support the development of local gabion-building cooperatives, one in each of Adailou and Assamo. Select beneficiaries will build the metal wire lattice by hand, after they are trained in the technique by a national expert. The communities will then work together to reinforce the agricultural plots and re-vegetation areas to be created under Component 2.

106. In neighbouring Somaliland, the communities are advanced in using traditional water capturing measures such as building shallow wells and creating small retention basins. They are also familiar with fabricating gabion using stone and wire mesh as a means to prevent flooding. Lessons-learned from cross-border experiences of gabion construction will be shared between Somali and Djiboutian LDCF financed project stakeholders, building on the synergies between the two LDCF financed projects. In return, the Djibouti LDCF3 financed project will share with the Somalia LDCF1 knowledge of how to use an integrated approach to manage watershed resources considering the entire catchment. Lessons-learned from the novel application of Catchment Management Committees (CMCs) in Djibouti's LDCF3 financed project will be shared with Somalia.

107. LDCF funds will also support other methods to diversify livelihoods and facilitate access to capital by promoting beekeeping (apiculture) and poultry breeding (aviculture). Promoting alternative livelihood opportunities, particularly through development of employment schemes that increase the productive base, is necessary to improving the standard of living among the large rural populations living in mountain ecosystems.³⁹ Apiculture and aviculture are also supported by the PROMES project and will be supported by the UNEP LDCF2 project. As such, training costs for these activities will be minimised by working with the LDCF2 project during implementation to share resources. Both the LDCF2 and LDCF3 financed projects will solicit private sector support for training on apiculture and aviculture.

108. Coordination of studies will also be conducted to identify mechanisms for improving artisanal production and marketing. Training for Adailou women on how to produce and market artisanal products (handicrafts) will be provided by the Women's Association in Tadjourah. A few select women will then be sent to Assamo to provide knowledge exchange on artisanal practices. Assamo women had a culture of producing guava fruit products in the past (prior to the drought which now prohibits cultivation). It is expected that the women in Assamo will be able to exchange fruit-producing knowledge with the women from the Tadjourah region. Subsequently, to enhance artisanal marketing, LDCF funds will be used to support the development of collaborations, both private and public, with potential buyers and distributors of artisanal products. For instance, the new Port of Tadjourah could serve as a buyer of artisanal products from Adailou. Also, the guava fruits, famous in Assamo, could be stored and processed as jam in order to provide year-round sales.

109. Artisanal and agro-pastoral sales will be promoted by rehabilitating a market stall in Ali-Sabieh and by creating one in Tadjourah to serve as selling points for fresh local produce and artisanal handicrafts. Currently, Djibouti imports 85% of its fruit and vegetable needs (mainly from Ethiopia), and dates are mainly imported from Arab countries. The

³⁹ UNEP *Managing Fragile Ecosystems: Sustainable Mountain, 2012.*

<http://www.unep.org/Documents/Multilingual/Default.asp?DocumentID=52&ArticleID=61>

fact that large quantities of fruit are being imported demonstrates that considerable market demand exists and can be addressed, at least partially, by domestic supply. The market stalls will also serve as selling points for nursery products (seedlings, fruit tree grafts), can provide a centre for knowledge-sharing and training on climate-resilient agricultural practices, and will provide storage so that goods can be kept in the stalls for several days rather than transported back to the mountain villages each night.

110. In order to ensure the long-term sustainability of the project, the LDCF3 financed project plans to empower the locally-based NGOs, the Village Ecology Association in Adailou (EVA), and the Agricultural Cooperative in Assamo. With LDCF funds, these NGOs will receive capacity reinforcement on disaster preparedness, livelihood diversification, nursery development, solar-powered well maintenance, soil and water conservation methods, gabion fabrication and agro-pastoralism. The role of the NGOs will be to assist and accompany the local communities with adaptation activities during implementation. Both NGOs are currently active in assisting their respective communities. EVA has been active in the reforestation of genevrier trees, having planted 3,000 jujube trees over 17 ha recently and has worked in the community for over 13 years. Similarly, the Agricultural Cooperative of Assamo has been guiding the community in how to produce guava and maintain the existing tree nursery.

111. Finally, the LDCF3 financed project will also introduce cookstoves as a gender-sensitive community-based adaptation measure in Assamo and Adailou. In the framework of the LDCF3 financed project, cookstoves will reduce the need for fuelwood collection, liberating time for women to engage in resilience-building activities. They will also provide environmental benefits such as reduced pressure on biomass resources by providing a targeted effort to reduce deforestation in mountainous areas which are highly exposed to climate change -induced land degradation. Forest depletion is currently occurring at the rate of 3% per year in Djibouti.⁴⁰ As a consequence, soils are deteriorating and agricultural land is being destroyed. Cookstoves will also address the fact that searching for and using wood for cooking puts women and children's safety at risk due to poor air quality with toxic smoke emissions and depletes forests⁴¹.

112. Based on field consultations with the women in Assamo and Adailou, women are walking long distances, such as spending up to 6 hours per day (or walking approximately 4 km), to secure fuel wood for cooking. Reducing the time spent collecting fuelwood and preparing and cooking food can allow women to complete other responsibilities and pursue income-generating opportunities, such as those along the agro-pastoral production value chain. A UKAid study⁴² also indicated that, while women face the brunt of climate change, they are very much at the heart of facilitating the cookstove solution and can be change agents in their communities. In order to support women as primary users of cookstoves, they must be involved in the design and distribution of products in order for cookstoves to be sustainably and exclusively adopted.

113. The LDCF3 financed project will build on the cookstove distribution experiences of the UNHCR 'Light Years Ahead' programme and these cookstove studies to ensure sustainability. Specifically, it will use UNHCR's data in conjunction with data collected during the project preparation phase and new data to be collected on usage patterns, end-user preferences and affordability constraints so that a suitable micro-finance lending scheme can be linked with cookstove distribution.

114. Previously, UNHCR distributed clay cookstoves in the Assamo region at a refugee camp (see Section 2.3.1). However, a recent survey by the Ministry of Environment indicated that cookstove use has not proliferated and ceased in some cases since initial distribution by UNHCR. In fact, approximately 20% of the cookstoves have broken within the first 2 years of use. In response, the LDCF3 financed project will link the distribution of more robust, metal cookstoves with micro-finance. The linkage with micro-finance is critical because experience with fuel-efficient cookstoves in other developing countries has demonstrated that direct subsidies or free distribution serve to reduce the intrinsic value of clean cookstoves because, once the cookstoves are free, services (such as training) and additional distribution of cookstoves are expected to be free.⁴³ Moreover, householders are less incentivised to properly use and maintain the cookstove if their own capital is not invested in it.

⁴⁰ MHUE, *Fourth National Report on Biological Diversity in the Republic of Djibouti*, March 2009.

⁴¹ Global Alliance for Cookstoves, *Clean Cookstoves and Climate Change*, 2013: www.cleancookstoves.org

⁴² Global Alliance for Clean Cookstoves, *Scaling Adoption of Clean Cooking Solutions through Women's Empowerment*. 2013 www.cleancookstoves.org

⁴³ DifferGroup, *Light Our Fire: Commercializing Clean Cookstoves*, 7 November 2012.

115. The innovativeness of the LDCF3 financed project will be to link cookstove distribution with micro-finance for the first time in Djibouti. The LDCF3 financed project will link with the micro-finance schemes in development for farming and pastoral populations supported by the UNDP-Adaptation Fund project, *Developing agro-pastoral shade gardens as an adaptation strategy for poor rural communities*, being implemented by the Djibouti Agency for Social Development, ADDS. Overall, through the feasibility study on linking cookstove distribution with micro-finance in the LDCF3 financed project, both the LDCF3 and UNHCR projects can garner lessons-learned on how clean cookstove distribution can become more sustainable, streamlined and targeted to rural Djibouti women's needs.

116. For all of these livelihood diversification activities, a socio-economic survey will be conducted to quantify the benefits, disaggregated by gender. Furthermore to achieve the activities described above, the LDCF3 financed project will benefit from, and build on, the above-mentioned baseline projects in the following manner:

- Build on the lessons-learned from the **IGAD programme** on how to best strengthen regional water resource management for drought/flood preparedness.
- Work with the **EU PSSP project** to support pastoralism to become more profitable and resilient to climate and socio-political shocks by facilitating livelihood diversification opportunities. The LDCF3 financed project will improve the access of pastoralists to markets in Tadjourah and Ali Sabieh.
- Work with the **LDCF2** project on livelihood diversification, namely aviculture and apiculture.
- Collaborate with the Ministry for the Promotion of Women and its project **Supporting Agro-Pastoralism for African Women** to provide expertise on fruit and vegetable cultivation as well as milk product diversification.
- The LDCF3 financed project will benefit from the **UNHCR Light Years Ahead initiative**, which has promoted the distribution of 4,500 fuel-efficient cookstoves (which use 80% less fuel than standard cookstoves) in the Ali-Adde refugee camp to reduce the pressures on tree resources. This initiative, particularly in relation to the cookstove technical standards established and the baseline data collected by UNHCR on how cookstoves are actually used (frequency, indoor/outdoor, type of cooking) and the fuelwood savings one can expect, will prove extremely useful to the LDCF3 financed project. UNHCR data and LDCF3 baseline data will be used to inform the design of metal cookstove distribution when linked with a micro-finance scheme. To date, linking cookstove distribution with micro-finance has not been tested in Djibouti. Through the feasibility study in the LDCF3 financed project, both the LDCF3 and UNHCR projects can garner lessons-learned on how clean cookstove distribution can become more efficient, streamlined and targeted to rural Djibouti women's needs.
- Build on the UNDP-Adaptation Fund project by exploiting the micro-finance products being designed for inexperienced agro-pastoralists and the most vulnerable. The MF scheme will be appropriate for the beneficiaries of this project, who will be enabled to develop diversified Income Generating Activities.

A.6 Risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and measures that address these risks:

117. Risks and recommended countermeasures were identified during bilateral consultations during the project preparation phase. Key risks and mitigation measures underlying project development are indicated in Table 2.

Table 2: Key risks and assumptions

Risk	Level	Mitigation Strategy
The project could encounter delays due to the lack of nationally-available expertise and human resources	High	The project will establish a database of national and international experts able and willing to provide technical support to the project – for instance, to assist with infiltration gallery design and construction. When expertise is not available nationally, regional and international experts will be recruited. Close linkages with co-financing partners and baseline projects will also ensure the availability of technical expertise. The project will also benefit from structures and mechanisms established for the Great Green Wall Action Plan and the newly-commenced UNDP-AF project (both of which are also executed by the Ministry of Habitat,

Risk	Level	Mitigation Strategy
		Urbanism and Environment, MHUE). The project design has been informed by prior hands-on analysis of Djiboutian pastoral systems by WISP and others and has – building on the lessons-learned from the PROMES-GDT project – deliberately adopted a conservative and focused approach to project activities.
Low level of cooperation between executing institutions	Medium	The implementation arrangements have been discussed in detail at the Validation Workshop in January 2013, and have been accepted by all involved parties. MHUE is very willing to coordinate activities with the different executing agencies (as evidenced in the LDCF1 and Adaptation Fund projects), and the UNDP Country Office will closely monitor the project's execution so as to limit any deviations. All involved parties are strongly interested in the project activities and outcomes, and will benefit from capacity building from the project. Moreover, the project's support to the National Climate Change Committee is specifically intended to facilitate inter-ministerial and other inter-institutional coordination.
Works associated with water mobilisation and retention infrastructures lead to unanticipated environmental impacts	Medium	UNDP's Environmental & Social Screening Procedure has been applied during project development, providing a thorough analysis of possible environmental impacts of interventions, and their associated best management practices and mitigation strategies. Djibouti's EIA regulation will be applied during project implementation.
The participatory approach could be ineffective due to lack of community ownership or lack of understanding on the part of implementers and beneficiaries	Medium	The participatory approach and community training components are central to the project's activities and will include awareness-raising at all stages of implementation, targeted training and the availability of technical expertise. Most community investments targeted by the projects (micro-dams, tree-planting, etc.) are relatively simple in their technical design and implementable in a reasonable timeframe (up to 1 year, as opposed to several years). For example, it is expected that the Catchment Management Committees and Water Point Management Committees will be trained and will start to provide maintenance and water quality materials during the first year. This will facilitate the participation and involvement of communities and will ensure that demonstrable results are achieved quickly, thereby avoiding frustration and credibility loss. Gender benefits for women and girls are also expected to be high (notably in the context of livelihood diversification through poultry-breeding and artisanal handicraft training); the engagement of women, as traditional managers of households, is expected to improve household participation rates.
Water management strategies are made ineffective by an unanticipated increase in the frequency of flood events and	Medium	Project investments will be climate-proofed in terms of their locations, designs and capture capacities so as to be able to withstand forecast future climate stresses. Diversified and secured access to water resources, combining both surface and ground water, as well as the implementation of adapted cultivation techniques of forage and other crop varieties, will be used. Water points will be constructed with sufficient barriers, such as protective trees and rocks and covers, to prevent damage

Risk	Level	Mitigation Strategy
continued drought which jeopardises agricultural and pastoral production		and contamination. Investments will be selected and designed using a community participatory process, thereby allowing local knowledge of climate risks to be incorporated into the prioritisation and selection of investments. Water infrastructure installed/rehabilitated by the LDCF financed project will be accompanied by management plans, developed in conjunction with the local communities and the regional governments, regulating usage (volume, frequency, beneficiaries) of the water and preventing over-use and accompanying degradation / over-grazing / trampling of the land surrounding the water points. The creation of Water Point and Catchment Management Committees will also ensure that best practices are used at each water point and within the catchment considering potential downstream and upstream impacts. Drought-resilient tree species will be planted and community members will be trained in soil and water conservation methods.
Targeted farmers and pastoralists are sceptical and unwilling to use adaptation technologies / practices and engage in poultry breeding, beekeeping, etc. so as to diversify their livelihoods and/or income diversification strategies do not significantly increase household incomes.	Low	<p>The LDCF3 financed project will build on community farming practices. In both regions, best practices will be adopted. LDCF funds will provide strong support to local NGOs such as EVA (Adailou) and the Agricultural Cooperative of Assamo, which are both assisting the communities in agriculture and yet lack sustainable practice knowledge such as soil and water conservation methods and year-round crop choices.</p> <p>During stakeholder consultations, the community members voiced their desire and willingness to adopt aviculture and apiculture. Other rural communities have had success with both new livelihood methods in other initiatives facilitated by the Ministry of Agriculture. Significant training and expertise on how to introduce and upscale aviculture and apiculture will be provided by LDCF funds. Both IGAs can be easily scaled-up by breeding chickens and by increasing bee pollination.</p> <p>The agro-pastoral development component will start gradually, with the objective of identifying a limited number of 'lead' farmers and pastoralists who will serve as examples and possible success stories to others. Those lead farmers and pastoralists will learn how to use best adaptation technologies / practices, will serve as a basis for the organization of technical group meetings with other farmers, and will be able to test new livelihood practices. By designating motivated leaders, it is more likely that they will influence the community to use the same resilient-building practices.</p> <p>Also, by supporting capacity building of active, local NGOs, it will be more likely that knowledge transfer will be sustained in the future and that household incomes will increase and become diversified with time.</p>
Theft of solar panels from solar-powered wells and Automatic	Medium	Borehole costs include the construction of protective casings around the solar panels and pump infrastructure to deter theft and prevent point contamination from grazing animals. Fencing costs are quite high because robust materials will be installed to

Risk	Level	Mitigation Strategy
Weather Stations, pump parts or fencing materials		adequately protect the tree reforestation areas and agro-pastoral plots which will prevent easy theft of materials. Guards will be placed at the Automatic Weather Stations. Furthermore, the full participation of local communities will serve to reduce theft risks.
Unwelcome livestock (livestock from surrounding pastoralists) invading the agro-pastoral plots	Medium	Secure metal and stone fencing will be constructed around each agro-pastoral site to deter all unwelcome animals. This will prevent the risk of invading livestock and potential disputes between the pastoralists and agro-pastoralists. Awareness-raising by local NGOs/CSOs and by the local Water Point Management Committees will facilitate communication of the environmental and socio-economic importance of supporting best practices for agro-pastoralists and to protect the reforestation areas.
Limited capacity of local populations to perform maintenance on boreholes and solar-powered well pumps	Medium	Water Point Management Committees will be created to maintain the wells. The project includes activities to form and train these committees as well as to provide them with maintenance tools and water quality kits so that they will be empowered to perform minor repairs and detect when water quality is poor. The sub watershed-based Catchment Management Committees will serve as a liaison between the Water Point Management Committees and the Ministry of Water when maintenance or water quality issues are flagged.
The National Climate Change Committee fails to meet regularly due to lack of incentives	Low	The NCCC's mandate and decree will be reactivated so that it will become an official convening body with the role of coordinating all climate and disaster risk management-related activities/projects/programmes through its legal mandate. It will be supported by a Secretariat and a National Climate Change Strategy to be developed through the LDCF3 financed project. The Strategy will be formally endorsed by the Office of the Prime Minister and will provide the Secretariat and the NCCC with a framework for assessing and achieving programming coherence. The Committee will be empowered by holding projects/programmes accountable to a formalised, recognised NCC Strategy. The NCC Strategy will provide influence for other ministries to participate. Furthermore, the potential establishment of a National Environment and CC Fund under the NCCC will reinforce its authority and influence. Cross-sectoral ministries and organisations on national, regional and local levels are expected to be beneficiaries of actions by the NCCC which will increase the Committee's influence and clout.
Limited long-run support for rural mountain regions in terms of sustainable livelihood development	Low	LDCF funds will be used to diversify the livelihoods of the rural mountain populations in Adailou and Assamo. Support will be provided for the populations to cultivate revenue-bearing crops and trees, and to have a market place within reach to sell the fresh local produce. Also, funds will be used to support artisanal production (e.g. jams, handicrafts) and commercial sales of artisanal products in development for agro-pastoralists under an ongoing Adaptation Fund project.
There is insufficient technical and operational capacity within the	Medium	Component 3 of the project includes substantial training for the existing regional Local Risk and Catastrophe Management Committees (LRCMCs). They will be trained in how to understand and implement drought and flood preparedness with national and regional knowledge-sharing opportunities. Newly-

Risk	Level	Mitigation Strategy
regional governments to coordinate drought and flood preparedness		procured weather stations and a risk inventory will support their ability to plan, forecast and alert populations. LDCF funds will also be used to provide a study tour of neighbouring Somaliland on how communities are constructing gabion and reinforcing wadi banks with gabion using a cash-for-work scheme. The study tour will be provided to the LRCMCs as well as to NGO representations and community heads. Study tour beneficiaries will also be supported to provide public awareness and to train community members on possible community-led flood and drought preparedness schemes.

A.7. Coordination with other relevant GEF financed initiatives

118. The proposed third LDCF financed project (LDCF3) will build strategically on the LDCF1 (first NAPA) project that is currently under implementation as well as the LDCF2 project which will be implemented some months ahead of the LDCF3 financed project. In order to maximise the use of resources and avoid redundant activities, the LDCF3 financed project has been designed taking into account the proposed activities of the LDCF1 and LDCF2 projects.

119. **LDCF2 project, UNEP: *Implementing Adaptation Technologies in Fragile Ecosystems of Djibouti's Central Plains*** (2014-2018). The project's objective is to reduce community-level vulnerability by implementing priority actions identified in Djibouti's NAPA in fragile ecosystems, with a geographical focus on the coastal area of Tadjourah and the fragile semi-desert region of Hanlé. The LDCF2 project, as with the LDCF3 financed project, will be executed by the Ministry of Habitat, Urbanism and Environment, which will serve to facilitate coordination between the projects. Component 1 of the UNEP-LDCF financed project concerns protection against water-related climate change hazards. Although the focus is largely on coastal protection and there are no geographical overlaps between the investment components of the two projects, the two projects will build on one another in an integrated manner.

120. During project development, the LDCF3 financed project reviewed all LDCF2 design elements to explore the best methods for maximising synergies. (Adailou is in the upstream portion of the Weima watershed, while Tadjourah marks the outlet of the watershed.) Both projects contain aspects of water mobilisation, reforestation, climate-resilient agro-pastoral and nursery development, and livelihood diversification (e.g. apiculture, aviculture). The projects can maximise financial resources by consolidating training costs; both projects can exploit the same training materials and recruitment of national experts required for training agro-pastoralists. The LDCF3 financed project will also build on the financial and business training to be provided by the LDCF2 project to develop entrepreneurship in the Tadjourah region. Similarly, the training sessions led by the Women's Association of Tadjourah on handicraft production (dour palm products), which will be organised by the LDCF2 project, will be exploited by beneficiaries in the Adailou region. Furthermore, the LDCF3 financed project will collaborate with the logistics expert to be recruited through the LDCF2 project, who will investigate different options for agro-pastoralists to deliver their agricultural produce to markets in a timely manner (particularly for Adailou, whose market stall will be developed in Tadjourah City by the LDCF3 financed project).

121. In return, the LDCF3 financed project will support the LDCF2 project with the development of the National Climate Change Committee (NCCC), whose role will be to coordinate adaptation-related projects and unlock and channel funds to ensure their continuity in the long-term. The LDCF2 project will also be able to exploit the detailed cost-benefit analyses generated by the dynamic modelling team under the LDCF3 financed project. Similarly, the NCCC Secretariat will train policy-makers from various socio-economic sectors on how to integrate climate change and resilience-building measures into development planning. The LDCF2 project will also be able to exploit the NCCC Secretariat's adaptation- and DRM-related database, which will centralise lessons-learned, design and management ideas of current and future projects on CC adaptation in Djibouti. Furthermore, the LDCF2 project will also be supported by additional innovative aspects of the LDCF3 financed project, such as the creation of Catchment Management Committees (Tadjourah and Adailou are both located in the Weima watershed) and the distribution of fuel-efficient cookstoves to be facilitated by micro-finance.

122. Furthermore, LDCF2 activities devoted to water mobilisation will be able to exploit the detailed upstream hydrological and hydrogeological technical studies to be conducted to assist with water mobilisation designs in the LDCF3 financed project. As rainfall-runoff infiltration processes highly influence downstream conditions, these studies will inform the LDCF2 project's hydrological risk assessments for the coastal and near-coastal regions. Together, the two projects will also draw upon common baseline initiatives, such as the work of the Research and Study Centre of Djibouti (CERD) on watershed dynamics and the "Support to Surface Water Mobilisation" project executed by the Ministry of Agriculture, Livestock, Fisheries and Water, all of which will benefit from better coordination through the reactivated National Climate Change Committee and associated capacity development assistance provided by the NCC Secretariat under the LDCF3 financed project.

123. **LDCF1 project, implemented by UNEP: *Implementing NAPA Priority Interventions to Build Resilience in the Most Vulnerable Coastal Zones in Djibouti*** (2009-2015, PMIS No. 5021). The project objective is to address the impacts of climate change on coastal ecosystems and communities in Khor Angar and Atar-Damerjog by implementing a set of measures that strengthen the capacity to predict future changes, while helping local populations to adapt through the adoption of soft measures for more sustainable production methods, particularly in the areas of water management, agriculture, fisheries and tourism. An ecosystems management approach has been applied as the framework for addressing the root causes of vulnerability. Although the LDCF1 project and the LDCF3 financed project address different NAPA priorities and geographical areas, there are nonetheless some areas of overlap – notably the LDCF1 project's work on hydrological monitoring, decentralised training for hydro-meteorological monitoring and activities related to water mobilisation and sustainable agriculture. Linkages between the two projects will be facilitated by the common Executing Partner (MHUE). As with the LDCF2 project, the LDCF1 project will be able to reap the benefits of the reactivated NCCC, which will facilitate better coordination with other adaptation-related projects as well as locating financing mechanisms to continue activities in the long-term.

124. The project will also build on the other on-going and planned adaptation-related projects listed below.

125. A land degradation GEF project, implemented by UNDP: ***Harmonising support: a national programme integrating water harvesting schemes and sustainable land management*** (2011-2014, PIMS No. 3216, PMIS No. 3529). This project has the objective of improving the living conditions of pastoral communities through targeted investments and participatory integrated natural resources management. Three regions are targeted - Day Forest and surroundings, Grand Bara and Petit Bara, and the Gobaad area - to enhance inter-sectoral coordination, awareness raising, training of Government officers (GIS, soil and water conservation), and provision of equipment and infrastructure for the Forestry and Anti-Desertification Service. While the GEF project does not overlap geographically with the proposed LDCF3 financed project, the LDCF3 financed project will nonetheless build on the preparatory feasibility study prepared by the GEF project on surface water harvesting through retention works; will benefit from practical lessons-learned associated with the GEF project's rehabilitation and creation of livestock watering holes designed to collect runoff from small watersheds; will benefit from the GEF project's experiences with fodder expansion through re-vegetation and reforestation; and will link the National Climate Change Committee (to be established by the LDCF3 financed project) with the National Desertification Committee supported by the GEF project.

126. The Adaptation Fund project, implemented by UNDP: ***Developing agro-pastoral shade gardens as an adaptation strategy for poor rural communities (UNDP-AF, 2012-2017, PIMS No. 4683)***: This project targets an area in the semi-arid plains of Ali-Sabieh to mobilise and secure sustainable water resources for shade gardens, increase forage production capacities and develop micro-finance products to promote rural incomes. Although the AF project focuses on the lowlands, the AF and LDCF3 financed projects address a suite of shared objectives in two geographically-adjacent target areas with a common executing partner (the Ministry of Habitat, Urbanism and Environment): the design of the LDCF3 financed project has therefore been deliberately shaped to build off some of the preparatory work undertaken by the AF project, notably its engagement of the Agence Djiboutienne de Développement Sociale (ADDS) to formulate a micro-finance scheme for pastoral communities. There have hitherto been no specific credit schemes geared towards farmers and pastoralists for adaptation purposes, the main barriers being mobility (pastoralists, as nomads, have few possibilities to build-up assets to absorb shocks) and the low-income status of the rural population (raising credit risks). The LDCF3 financed project will coordinate with and contribute to the micro-finance strategy developed under the UNDP-AF project to support agro-pastoralists. Cookstove adoption has not hitherto been linked with micro-finance in Djibouti.

127. The *Rural Livelihoods Adaptation to Climate Change (RLACC) or Projet d'appui à l'adaptation des populations au changement climatique (PAPCC)*, (USD 5m, end-2014 - end-2017) is an African Development Bank (AfDB) project that will focus on: (i) improving the resilience to climate change of pastoral and agro-pastoral communities in targeted areas while increasing the adaptive capacity of their livelihoods and (ii) investing in sustainable measures aimed at improving the resilience of pastoral communities to climate change and variability. The project will help pastoral communities and households undertake gender-sensitive income-generating activities (accompanied by awareness-raising, information and capacity building) and favour identification of a range of micro-interventions specifically targeting women as the principal beneficiaries. The RLACC will put in place participatory mechanisms aimed at providing local communities with matching grants (to finance specific micro-adaptation projects) and a range of adaptive social protection measures (to protect the livelihoods of the poorest and most vulnerable households against climate risks). The LDCF3 project will coordinate with the RLACC project as indicated in Table 3.

Table 3: Means of collaborating between the RLACC and LDCF3 financed projects

AfDB RLACC regional project (PAPCC)	Collaboration with LDCF3
Workshop planned by AfDB to draw lessons-learned from activities and achievements of existing and past projects.	The NCCC will facilitate the workshop as part of its mandate and all lessons-learned will be documented in the open-access climate change database to be housed at the NCC Secretariat.
Small grants will be provided to targeted communities to finance 'micro-adaptation projects' (e.g. in the areas of water, rangeland resources, livestock and Income-Generating Activities)	The NCCC will facilitate the distribution of grants based on prioritised needs as defined by dynamic modelling outputs and based on successful interventions demonstrated in existing projects and by the LDCF3 financed project.

128. *World Initiative for Sustainable Pastoralism (WISP)*: WISP is a global initiative that supports the empowerment of pastoralists to sustainably manage dryland resources. UNDP is a member of the WISP Steering Committee, with UNDP's specialist Drylands Development Centre (DDC) taking a lead role. During PIF preparation, the LDCF3 financed project benefited from WISP's experience notes on the Afar and Issa pastoral systems and from its proposed approaches regarding advocacy for maintaining, and enhancing, mobile livelihoods. Furthermore, Djibouti is a participant country in the second phase of UNDP-DDC's **Integrated Drylands Development Plan (IDDP)**, whose objectives include the reduction of vulnerability of dryland communities to climate risks and improving local governance and utilization of natural resources.

129. *Great Green Wall (GGW) Djibouti Action Plan*⁴⁴, (100m USD, with donors including WB, UNEP, WFP, UNCCD and GEF, signed 2010, begun in 2013) is an ongoing initiative aiming to 'green' Africa across the 4,400 mile east-west axis of the continent as a defence against rapid, expanding desertification of the Sahara. Being executed by MHUE, the GGW initiative is linked to agricultural and water programmes that are intended to be curative (addressing urgent environmental stress) or preventive (long-term environmental risks) in nature. The GGW programme shares many overlaps with the aims of the LDCF3 financed project, as well as a shared executing partner. In particular, common areas of work include: the installation and management of rain gauges; the creation of a database of integrated water resources (this work will be coordinated under the aegis of the National Climate Change Committee so as to incorporate prospective climate change impacts and ensure multi-agency engagement); surface water feasibility studies (the LDCF3 financed project will both benefit from and contribute to this body of knowledge); the creation of frameworks for cooperation and water management involving local stakeholders (the LDCF3 financed project's capacity development activities will support this objective); the rehabilitation of degraded land through tree-planting (the LDCF3 financed project and GGW initiative will share common foundational activities, such as the development of nurseries and using food-for-work schemes, as well as cost-sharing where respective tree-planting schemes overlap); and the construction of 200km of planted corridors to facilitate the movement of cattle from the uplands to the lowlands (and vice versa) during transhumance (the LDCF3 financed project's investments in water retention infrastructure will be coordinated with the appropriate corridors delineated by the GGW initiative so as to provide livestock watering points).

⁴⁴ MHUE Stratégie et Plan d'Action pour la mise en œuvre de la Grande Muraille Verte à Djibouti (SGMVD) March 2011. http://www.fao.org/fileadmin/templates/great_green_wall/docs/Djibouri_Document_de_startegie_et_plan_d_action_final.pdf

130. **CleanStart:** CleanStart is a \$26 million global joint initiative of UNDP and the UN Capital Development Fund (UNCDF) to increase low-income households' access to sustainable, low-cost energy through micro-finance services that are supported by an enabling policy environment and energy value chain. The LDCF3 financed project, in conjunction with the operational arm of the Agence Djiboutienne de Développement Sociale (ADDS) which manages micro-finance schemes for the Government, will benefit from the global support services provided by CleanStart as well as its expertise and growing body of assessment reports and literature.

B. ADDITIONAL INFORMATION NOT ADDRESSED AT PIF STAGE:

B.1 Describe how the stakeholders will be engaged in project implementation.

131. The stakeholders identified during project preparation will continue to be involved during project implementation. A Stakeholder Involvement Plan has been created to provide a framework to guide interactions between implementing partners and the key stakeholders, particularly end-users, to validate project progress. All stakeholders involved in the baseline self-capacity assessment will be addressed again in order to track the efficacy of stakeholder capacity building, both operationally and technically. Also, the National Women's Union will continue to be involved and consulted in order to ensure women are properly trained and engaged. Gender-focused NGOs/CSOs will have the role of conducting gender-disaggregated surveys to ensure women develop skills to diversify their livelihoods and are involved in decision-making.

132. During project development, key public participation stakeholders, including NGOs, were identified as indicated in Table 4 below. They will continue to be involved during project implementation.

Table 4: Stakeholder Involvement Matrix

Stakeholder	Inception Consultations	Technical Validation Consultations	Validation Workshop	Involvement in Baseline Assessment	Management Arrangements	Risk/Barrier Analysis	Policy/ Strategic Alignment with Priorities	Co-financing Identification	Gender Representation	Upscale / Sustainability Planning	Potential Partnerships
Federal/Sector											
Ministry of Habitat, Urbanism and Environment (MHUE), Directorate of Land Use and the Environment (DATE)	X	X	X	X	X	X	X	X		X	
Directorate of Rural Hydraulics (DRH) within the Ministry of Agriculture, Livestock and Hydraulic Resources (MALHR)	X	X	X	X	X	X	X	X		X	
Ministry for the Promotion of Women											
Ministry of Energy, Water and Natural Resources	X	X	X	X	X						
Ministry of Equipment and Transport		X	X	X	X			X			
Ministry of Interior		X	X	X	X						

Stakeholder	Inception Consultations	Technical Validation Consultations	Validation Workshop	Involvement in Baseline Assessment	Management Arrangements	Risk/Barrier Analysis	Policy/ Strategic Alignment with Priorities	Co-financing Identification	Gender Representation	Upscale / Sustainability Planning	Potential Partnerships
Directorate of Economy, Ministry of Budget	X		X	X		X					
Djiboutian Agency for Social Development (ADDS)	X		X	X	X	X	X				
Ministry of Finance											
Djibouti Meteorological Agency											
Technical / Research Institutions											
CERD	X	X	X	X	X	X				X	
Private Sector											
Port of Tadjourah						X				X	X
Apiculture Specialists						X				X	
Regional/ Sector											
Regional Government	X	X	X	X	X	X				X	

Stakeholder	Inception Consultations	Technical Validation Consultations	Validation Workshop	Involvement in Baseline Assessment	Management Arrangements	Risk/Barrier Analysis	Policy/ Strategic Alignment with Priorities	Co-financing Identification	Gender Representation	Upscale / Sustainability Planning	Potential Partnerships
of Tadjourah											
Regional Government of Ali-Sabieh	X	X	X	X	X	X				X	
NGOs/CSOs											
Village Ecology Association (EVA)	X	X	X	X	X	X		X	X	X	X
Agricultural Cooperative of Assamo											
National Women's Union (Union Nationale des Femmes Djiboutiennes, UNFD)	X	X	X	X		X			X	X	
Women's Association of Tadjourah (Association des femmes de Tadjourah)	X	X	X	X		X			X	X	
Association Ecologique d'Ali											

Stakeholder	Inception Consultations	Technical Validation Consultations	Validation Workshop	Involvement in Baseline Assessment	Management Arrangements	Risk/Barrier Analysis	Policy/ Strategic Alignment with Priorities	Co-financing Identification	Gender Representation	Upscale / Sustainability Planning	Potential Partnerships
Sabieh											
Donor Partners											
African Development Bank, AfDB			X			X		X			X
Intergovernmental Authority on Development (IGAD)			X			X		X			X
PRODERMO, World Bank (WB)	X		X	X		X		X			X
PROMES (WB)	X		X	X		X		X			X
United Nations High Commissioner for Refugees (UNHCR)			X			X					X
UN Food and Agriculture Organization (FAO)			X			X					X
European Union (EU)			X			X					X
JICA			X	X		X		X			X

133. All stakeholders involved in the baseline self-capacity assessment will be addressed again in order to track the efficacy of stakeholder capacity building, both operationally and technically. Also, the women's interest organisations (the Women's Association of Tadjourah and the National Women's Union) will continue to be involved and consulted in order to ensure women are properly properly trained and engaged. These gender-focused NGOs/CSOs will conduct the gender-disaggregated survey to ensure women develop skills to diversify their livelihoods and are involved in decision-making.

134. During implementation, the communication and consultation process will be divided into three main phases:

135. Phase 1 – Developing a strategy and action plan:

This is the mobilisation phase in the first year of the project. The details of the activities and implementation structures will be designed, partnerships for action will be forged and stakeholder engagement will focus around these design processes. The Environmental Impact Assessment and the Technical Studies will take place simultaneously during the first 6 months.

136. Phase 2 – Consultation through implementation:

This is the main implementation phase, in which investments will be made on the ground in the target areas and stakeholder consultation about engagement will focus on output-oriented actions.

137. Phase 3 – Project completion and scale-up promotion:

The third and final phase represents the completion of the project. The plans for scale-up and long-term sustainability of the LDCF investments will be developed. Consultation will focus on learning, bringing experience together and looking at processes for continued post-project impact.

138. Specifically, in Phase 1, Technical Studies will begin from the project's inception. The studies are planned to take place during the first 2 quarters of the project, in which technical experts will collect data from the field and gather indigenous knowledge. After the first quarter, suitable sites for retention basins, micro-dams and boreholes will be identified. Based on the sites identified, LDCF funds will be used to conduct an Environmental Impact Assessment on the project design to validate the appropriateness of the sites and to provide mitigation plans for any potential environmental and social impacts. The local populations in Adailou and Assamo, as well as surrounding populations, will be consulted to obtain data to conduct the EIA. Ultimate locations for construction works will be determined throughout the third and fourth quarters based on conclusions from the technical studies, EIA, and consensus among the local populations and the technical Ministries.

139. At the beginning of the project, overarching criteria to determine training beneficiaries will be well-defined. A specific beneficiary selection group composed of community heads and representatives from the technical ministries (Ministry on the Environment, Ministry of Agriculture and ADDS) will be created to conduct the field consultations to see how local customs should be used to determine beneficiary selection criteria.

140. As indicated in Activity 3.2.9, a socio-economic survey (disaggregated by gender) will also take place during Phase 1. The survey will be used to obtain baseline data on livelihood diversification schemes supported through the LDCF3 financed project.

141. In Phase 2, public consultations will become more of an ongoing exchange of information where there will be two main purposes:

- To gather information from beneficiaries and stakeholders about the impact and effectiveness of the planned water mobilisation (micro-dam, reservoir, cistern, well and shallow well placement) and training strategies (Training of Trainers or lead farmers on-the-farm, demonstration plots); and
- To provide interested Government and donor stakeholders and the general public with information about the progress and impact of the project as it is implemented.

142. Phase 3 will be a process of ensuring completion, hand-over and long-term sustainability of the LDCF investment. Consultation will focus on bringing experience together, sharing key lessons-learned (through the UNDP Adaptation Learning Mechanism and other forums) and looking at processes for promoting scale-up of this project in order to build the resilience of more rural mountain rain-fed farmers and pastoralists.

Overall, the types of consultation mechanisms to be used include:

- Meeting with the former members of the National Climate Change Committee to obtain lessons-learned;
- Preparation meetings with NGOs/CSOs to confirm their roles in project implementation;
- Initial consultation meetings in target regions to discuss appropriate water mobilisation strategies;
- Initial field surveys to develop selection criteria to choose the lead farmers and pastoralists who will receive training;
- Initial consultations to choose the Water Point and Catchment Management Committees;
- Meetings with regional government officials to determine how to best reinforce their capacities in drought and flood preparedness;
- Initiation of public awareness campaign on sustainable agro-pastoral and pastoral practices;
- Public awareness campaign on community-based drought and flood management;
- Periodic information briefings for government and co-financing institutions on activity development;
- Monitoring and evaluation campaigns.

B.2 Describe the socioeconomic benefits to be delivered by the Project at the national and local levels, including consideration of gender dimensions, and how these will support the achievement of global environment benefits (GEF Trust Fund/NPIF) or adaptation benefits (LDCF/SCCF):

143. The project will have significant adaptation and socio-economic benefits. With the creation of the National Climate Change Committee, climate change-related initiatives will be facilitated through cross-sectoral coordination, the optimisation of resources and diversified fund mobilisation. Dynamic modelling outputs will inform NCCC decision-making so that co-benefits are maximised.

144. Best water management practices will be developed by the Catchment Management Committees, which will provide a holistic, watershed viewpoint for water management, including how to improve water quality and maintain groundwater resources considering upstream and downstream water mobilisation activities. Indeed, the capture and storage of runoff will benefit local communities by supplying potable water as well as water to serve the needs of irrigation. The reforestation and re-vegetation activities will limit runoff erosion and help Djibouti in its fight against desertification (supporting the National Plan to Combat Desertification, PAN).

145. The LDCF3 financed project will also strengthen and diversify the available Income-Generating Activities (IGAs) of community members in the mountain regions. Currently, there are no other livelihood options available due to the remoteness of the mountain villages. LDCF funds will be used to create and rehabilitate market stalls so that trading can occur. Funds will also facilitate the communities' access to capital, such as promoting aviculture and apiculture. Such opportunities will increase the asset base of the communities so that they can more effectively handle climate shocks.

146. At the regional level, targeted drought and flood preparation plans disseminated by an informed regional government trained in disaster risk management will provide economic benefits by reducing losses of agricultural produce, infrastructure (roads and bridges) and disruption to people's livelihoods. Communities will also immediately benefit by being empowered to perform activities which build drought and flood resilience, including recording rainfall gauge measurements, reinforcing infrastructure and wadi walls with locally-produced gabion and repairing and maintaining water points (shallow wells). Although approximately 7,000 beneficiaries are targeted in both project zones, the total population which can benefit from these developments has the potential to grow to the extent of the regions covered.

147. Many of the beneficiaries will be women. It is expected that improvements in water availability/management, nursery development and poultry breeding (i.e., aviculture) will provide disproportionate benefits to women and girls. Women will also be included as members of the Water Point Management Committees and will be provided targeted training on how to market artisanal products. Furthermore, cookstoves will reduce the need for fuelwood collection,

liberating time for women to engage in resilience-building activities. Cookstove provision will also reduce the risk of inhaling toxic smoke emissions by women and children⁴⁵.

148. Finally, during the first 3 months of the project, in accordance with Djiboutian law, the LDCF3 financed project will support an Environmental Impact Assessment for all water and irrigation infrastructure activities as per Djiboutian law. During project development, the project has also been designed to adhere to the UNDP Environmental and Social Screening Safeguards. The screening has classified the project as Category C (See Annex 9). As such, the following mitigation measures are recommended and will be re-visited at the time of the detailed EIA:

149. Environmental safeguards being applied to the LDCF3 financed project in full compliance with Djibouti's EIA requirements include the following:

- Conducting in-depth hydro-geotechnical studies to ensure that wells will have sufficient yield and that water mobilisation infrastructure will support sufficient groundwater recharge.
- Providing on-the-farm and in-the-field training on environmentally-friendly adaptation technologies (e.g. equipment/practices that reduce erosion and limit degradation) to build the climate resilience of the agro-pastoralists.
- Establishing Catchment Management and Water Point Management Committees to ensure best water practices (e.g. water conservation, storage and hygiene).
- Training locally-based NGOs/CSOs on the most climate-resilient agro-pastoral, water management and drought/flood mitigation strategies in order to ensure they can transfer such knowledge to surrounding communities after termination of the project.
- Covering existing water points to prevent contamination.

150. Social safeguards being applied include the following:

- Facilitating feedback from marginalised mountain populations on the utility of adaptation technologies and financial services (micro-finance access for clean cookstove purchase).
- Promoting women's involvement in nursery development, aviculture and artisanal marketing and production.
- Ensuring that each Water Point Management Committee receives a water quality kit and maintenance tools.

B.3. Explain how cost-effectiveness is reflected in the project design:

Outcome 1: Institutional capacities for coordinated, climate-resilient planning strengthened; mechanisms and a de-risked investment environment established to catalyse finance for climate change adaptation.

151. The foremost consideration for cost-effectiveness for Component 1 is to ensure that the National Climate Change Committee will be sustainable. In order to formalise its role, the governance framework and mandate of the NCCC will be incorporated into Djiboutian law. The NCC Strategy and the National Environment and Climate Change Fund will also be developed with LDCF funds to guide the work of the NCCC to address adaptation and to provide it with an important coordinating function.

152. Another key design element for Component 1 is to consolidate the training programmes and knowledge-sharing activities that are required to develop and maintain the NCCC and NCC Strategy. Dynamic modelling will be used to support these tasks through scenario and cost-benefit analyses, which will provide scientific evidence on the best options to maximize adaptation co-benefits. Initially, due to the fact that Djibouti has no experience in such type of modelling, an outside consulting firm will be recruited. It will be mandated to train nationals, specifically members within the Ministry of Environment who will act as Technical Group specialists within the NCCC Secretariat. By training locals, the costs of updating dynamic models in the future when new data and projects are accounted for, will be significantly reduced.

153. To ensure a cost-effectiveness approach for the establishment of a National Environment and Climate Change Fund, an initial feasibility study will be conducted to assess different options for mobilising, deploying and coordinating adequate and sustainable resource flows for climate change adaptation. Support for addressing mitigation by the

⁴⁵ Global Alliance for Cookstoves, *Clean Cookstoves and Climate Change*, 2013: www.cleancookstoves.org
GEF5 CEO Endorsement Template-December 2012.doc

National Climate Change Committee, through the NCC Strategy and the Fund will be provided with co-financing from the Ministry of the Environment and the European Union.

154. For Components 2 and 3, it is essential to analyse in detail the relevant activities being conducted or planned in other baseline projects and related initiatives (Sections 2.3.1 and 2.3.2). The LDCF3 financed project builds on the existing initiatives in terms of water mobilization strategies. An assessment of other ongoing project activities has been undertaken, noting the project site and the success or failure of existing water mobilization strategies (e.g. borehole, retention pond, etc). Furthermore, the LDCF3 financed project is building off the expertise already housed within the Department of Large Construction Works with regard to small dam construction and within the Ministry of Water in terms of constructing boreholes. Also, the recent Japanese-funded PACCRAS project demonstrated that the Ministry of Water can effectively build infiltration galleries.

155. Solar-powered boreholes are becoming more common in Djibouti thanks to a number of projects (e.g. JICA, UNDP-AF, PRODERMO, PROMES). However, field consultations during project preparation noted that wells with solar panels often do not function because the communities do not know how to maintain them. LDCF funds will be used to train Water Point Management Committees (WPMCs) and to assist Catchment Management Committees (CMCs) to develop readily-understood Standard Operating Procedures so that maintenance and operation knowledge can be passed on to each community that has a water point. The cost estimate includes sufficient training on well operation and maintenance for the WPMCs and watershed-based planning for the CMCs as well as tools, spare parts and water quality kits. As providing water to local populations may also bring the risk of water-borne diseases such as malaria, costs for potable water and first aid kits for each community have also been considered.

156. Due to project budget limitations, it was necessary to select from the long-list of needs to support agro-pastoral development and livelihood diversification and identify those within the scope and cost-effectiveness of the project. As numerous other projects are developing sustainable agro-pastoral and pastoralist practices throughout Djibouti, the LDCF3 financed project will build on these projects (as indicated in the discussions in Sections 2.3 and 2.4) to tackle mountain communities' priority needs. The chosen set of activities was reviewed in a Validation Workshop in January 2014 involving all stakeholders. Based on group consensus, Outputs/Activities were revised accordingly. The Outputs outlined have been chosen based on their financial feasibility. They have been chosen over alternative ways to address project barriers, as shown in Table 6 below. A summary of the co-financing strategy, indicating sources, purposes and amounts which will be used to support activity implementation is described in Table 5 below.

Table 5: Demonstration of cost-effectiveness for each proposed output indicating the project barrier addressed by each output

OUTPUTS	Barrier Addressed	Alternatives Considered
<p>1.1 Reactivation of the National Climate Change Committee (NCCC) and provision of secretariat services to coordinate responses to climate change</p>	<p>Poor coordination between Government agencies on adaptation-related initiatives</p>	<p>Alternative 1: Do nothing (cost = 0 USD) because of the past failure of the NCCC. However, there would be no platform to formalise coordination and create synergies with other CC-related projects. As a result, as proven in Djibouti’s past, redundant activities, wasted financial resources and delays in project implementation will be more likely.</p> <p>Alternative 2: No Secretariat support for the NCCC: no Secretariat support service prevents cross-sectoral training and knowledge transfer due to the breadth of expertise housed in the Secretariat (e.g. planning, financial management, disaster risk management, etc.). The Secretariat can provide guidance on how to integrate CC scenario information into policies and strategies. It will also facilitate the centralisation of CC-related data to feed dynamic modelling and will provide M&E of CC/DRM related projects/programmes to ensure appropriate financial management and transparency of funds.</p>
<p>1.2 Development of a National Climate Change Strategy, informed by dynamic modelling for quantified scenario analysis of adaptation options which promote a Climate Change Resilient Economy</p>	<p>Limited national financing and ad hoc, uncoordinated donor responses for long-term climate change adaptation measures</p>	<p>Alternative 1: Relying on other national strategies to handle climate change: however, with this option, there would be no central mechanism to coordinate climate-related activities and to standardise disaster prevention strategies. Developing a National CC Strategy was deemed the best mechanism for streamlining the coordination of CC/DRM related programmes/projects, as shown in other African countries such as Zambia. Furthermore, existing strategies may conflict with each other (e.g. water and energy, or water and agriculture), thereby requiring a central strategy that identifies and resolves these conflicts. Additionally, the current patchwork of sectoral policies cannot be easily decentralised to support Djibouti’s National Decentralisation Policy. A prominent national strategy would be required to address all levels of governance.</p> <p>Alternative 2: Have an NCCC without a guiding Strategy: the development of Djibouti’s first National Climate Change Strategy will help to mitigate the risk that the NCCC, as an inter-ministerial body, is overlooked or marginalised. The Strategy will be formally endorsed by the Office of the Prime Minister and will provide the Secretariat and the NCCC with a framework for assessing and achieving programming coherence. The focus of the Strategy will be to address adaptation needs and hold Ministries accountable for their respective resilience-building measures. To ensure accountability, the NCCC will be mandated to develop an annual evaluation report that will highlight existing policies and/or programmes which adhere to the Strategy and those that are recommended to be amended.</p> <p>Alternative 3: Use existing general CC models (e.g. those of the IPCC) which only</p>

OUTPUTS	Barrier Addressed	Alternatives Considered
		<p>consider environmental impacts. By tailoring dynamic models to the Djibouti country context on an ongoing basis, the approach adopted by the LDCF financed project enables identification of robust adaptation measures which maximise poverty reduction and cross-sectoral co-benefits in the medium- and long-term using financial and cost-benefit analyses. Dynamic modelling incorporates existing quantifiable, cross-sectoral data so that consensus across ministries and institutions/organisations can be achieved.</p> <p>Alternative 4: Outsource dynamic modelling to a private company. However, little national capacity will be built to adapt the models as more data becomes available. Also, additional scenario analyses will not be possible without outside expertise (incurring additional costs) and confidential/sensitive Government data will not be secure.</p> <p>Alternative 5: Have separate data portals for each agency that deals with activities relating to CC/DRM: however, this would prohibit the easy use of data across agencies as well as the ability to share data regionally and internationally with relevant agencies/organisations (e.g. IGAD, WMO).</p>
<p>1.3 Support for the Government to find innovative financing options to catalyse finance for adaptation, including the establishment of an Environment and Climate Change Fund</p>	<p>Need for transparent, cross-sectoral finance mechanisms to build climate resilience</p>	<p>Alternative 1: Do nothing. However, there are no existing funds which consider the long-term and which use a transparent, diversified portfolio of financing strategies. With more than 50 international public funds and 6,000 private equity funds providing climate change financing, Djibouti has no capacity to access and channel these funds to address the climate and development needs as identified by the NAPA and NAPs. Rather, Djibouti is at high risk of ad hoc donor initiatives and short-term Government allocation of funds for unsustainable activities which has in the past contributed to mal-adaptation (e.g. the National Water Fund).</p> <p>Alternative 2: 'Smart subsidies' paid for from Government budgets (additional cost 0 USD) were considered as an alternative to developing a Fund for the Environment and Climate Change. Such subsidies for sustainable uses have been subject to political implementation challenges in the past. In contrast, LDCF funds will be used to develop M&E mechanisms to promote transparency. Furthermore, according to stakeholder discussions, a Fund is the desired option to facilitate the mobilisation of additional climate finance to scale-up adaptation responses. Various donors are active with adaptation measures in Djibouti (e.g., JICA, EU, AfDB); however, there is no long-term financing strategy or source to continue each initiative.</p> <p>Alternative 3: Rely on Djibouti's ability to manage, monitor and evaluate funds: However, at present, there are two major national funds in Djibouti: the Youth National Fund ('Fonds National pour la Jeunesse'), with USD 2m annual capitalisation, and the Water Fund ('Fonds de l'Eau'), which is no longer capitalized because of allegations of</p>

OUTPUTS	Barrier Addressed	Alternatives Considered
		<p>corruption. Both of these funds have been financed by taxing import products. The Youth Fund is fed by a tax on imported khat (a drug that is having harmful dependency impacts on the youth) and the Water Fund was financed by a tax of 3 Djibouti Francs on each imported litre of bottled water. Both the funds, managed by Ministerial departments (the Ministry of Youth for the Youth Fund and Ministry of Agriculture for the Water Fund) have suffered from opaque usage due to unclear governance mechanisms and access modalities. Djibouti requires capacity reinforcement in how to monitor and evaluate funds and how to strengthen national ownership of climate finance in a transparent manner to increase access to the numerous private and public climate financing funds available.⁴⁶</p>
<p>2.1 Construction of new water mobilisation infrastructure (a borehole, micro-dams, cisterns, sills retention ponds and infiltration galleries) implemented as climate change adaptation measures</p>	<p>Unsustainable water management, agricultural and pastoral production practices</p>	<p>Alternative 1: If no technical studies are conducted (cost = 0 USD) or not sufficiently informed by hydro-geotechnical experts, it is possible that poor water source locations will be chosen with insufficient capacity and/or poor water quality due to a lack of informed guidance by hydro-geotechnical surveys. Moreover, if water quality samples are not monitored, a baseline of water quality in the regions cannot be established to ensure water quality does not deteriorate. This will deter the local Water Point Management Committees to properly monitor and manage the water infrastructure.</p> <p>Alternative 2: Recharge basins (15,000 USD each), although relatively inexpensive, are not viable options due to their high evaporation rates.</p> <p>Alternative 3: A gravity-fed hydropower dam is estimated to cost at least 20 M USD. The high cost, local inexperience with the design and need for imported materials make this an infeasible option. Earth micro-dams are the preferred option due to their simple design and low-cost.</p>
<p>2.2 Support to expand and strengthen agro-pastoralism and pastoralism in the Weima and Assamo watersheds</p>	<p>Unsustainable water management, agricultural and pastoral production practices</p>	<p>Alternative 1: Rely on pastoralism rather than develop agro-pastoralism; however, pastoral systems alone would not allow many of the community members in both Adailou and Assamo, who are already sedentary, to diversify their livelihoods through improved farming practices (with pastoralism on the side). For instance, cultivating diversified fruits/plants provides alternative Income-Generating Activities and the means to spread revenues across seasons, providing greater resilience to climate shocks. Also, reforestation to support pastoralists becomes expensive when considering that fencing and security is required around entire reforestation areas.</p> <p>Alternative 2: One-time training to save financial resources: however, farming</p>

⁴⁶ UNDP Sep 2011. Blending Climate Finance Through National Climate Funds A Guidebook for the Design and Establishment of National Funds to Achieve Climate Change Priorities

OUTPUTS	Barrier Addressed	Alternatives Considered
		<p>inexperience and lack of continual mentorship has demonstrated a lack of success and sustainability in previous agro-pastoral initiatives (e.g. Kourtimalely in southern Djibouti). New farmers require on-the-farm training by Training of Trainers (lead farmers) during critical seasons each year so that agro-pastoral capacities can be developed over time. Also, lessons-learned from significant initiatives in agro-pastoralism (AF, JICA, EU projects), pastoralism (PROMES, PRODERMO) and reforestation (Day Forest project under PROMES) must be continually integrated.</p> <p>Alternative 3: Use existing, low-productivity fruit trees: however, native or easily imported fruit tree grafts can provide significant harvests for fruit/nuts (e.g. dates) that are in high demand and lucrative.</p> <p>Alternative 4: Use basic, natural fencing materials: however, a main cause of failure of previous agro-pastoralist initiatives and reforestation sites has arisen primarily from forbidden animal grazing. In the case of reforestation, guards and robust, metal fencing material are required to ensure protection of sensitive areas from grazing and wild animals.</p>
2.3 Reforestation and re-vegetation to support soil and water conservation and effectively reduce runoff and promote sustainable watershed management	Unsustainable water management, agricultural and pastoral production practices	Alternative 1: Have pastoralists rely on natural re-vegetation processes. However, the unsustainable use of natural resources and ecosystems in mountains limits their ability to curb the impacts of CC and natural hazards. Also, mountains are important centres of agro-biodiversity, hosting diversified livestock and wildlife which are essential to food security in times of rapid climate change. It is therefore essential to preserve and protect the existing vegetation, forests, etc. so that they can provide the natural resource base necessary for pastoral livelihoods (e.g. preserving natural forage which feeds mountain livestock).
2.4 Development of Catchment Management Committees and Water Point Management Committees, to develop best practices for sustainable groundwater and surface water use and protect existing water points	Unsustainable water management, agricultural and pastoral production practices	Alternative 1: Rely on the Government to maintain solar-powered boreholes. However, by training and empowering the Water Point Management Committees to perform O&M, wells are more likely to remain operational. Also, by looking at water management at the scale of the watershed and by using the expertise of a national water resource and water quality expert, best water management guidelines can be developed by the Catchment Management Committees with an integrated approach that considers upstream and downstream impacts.
2.5 Support for women's livelihood diversification with the introduction of nurseries and training on	Limited socio-economic development and diversification of livelihoods within	Alternative 1: Use nearest nurseries in cities: however, the logistics of transporting seedlings and fruit grafts costs more than the costs of developing and training women-run nurseries. Promoting nursery development in the mountain regions also enables women to diversify their livelihoods and thereby have more access to capital.

OUTPUTS	Barrier Addressed	Alternatives Considered
fruit cultivation	Djibouti's mountainous regions	
3.1 Regional Local Risk and Catastrophe Management Committees (LRCMCs) and community members supported to implement drought and flood preparedness and adaptation measures	Limited understanding of drought / flood preparedness and mitigation measures at regional and community levels	<p>Alternative 1: Limit training to the national level: through the LDCF3 financed project, the Local Risk and Catastrophe Management Committees as well as the community members in Assamo and Adailou will gain expertise in preparing for potential droughts and floods.</p> <p>Alternative 2: Do nothing: if the regional councils are not informed on drought/flood preparedness, they will not be able to convey to communities when to prepare for floods and droughts. Through the LDCF3 financed project, the communities will become empowered to take actions to mitigate floods and cultivate crops in a more drought-resilient manner.</p>
3.2 Local commodity and handicraft production (gabion, poultry-breeding, beekeeping) supported as climate-resilient income generating and diversifying activities, accompanied by enhanced access to local and national markets	Limited understanding of drought / flood preparedness and mitigation measures at regional and community levels	<p>Alternative 1: Constrain access to capital through limited diversification of activities: by diversifying the activities of agro-pastoralists, women can take advantage of their preferred status as borrowers of micro-finance products. Micro-finance will be used to purchase clean cookstoves, which will have personal (reduced fuelwood collection) and societal (reduced pressure on biomass resources) benefits.</p> <p>Alternative 2: Continue using fuelwood for cooking: Collection of fuelwood contributes to deforestation. Also, collection of fuelwood is a laborious task that places work on women who are generally burdened with water collection in addition to numerous other domestic chores.</p>
3.3 Capacity building for local NGOs/CSOs (the Village Ecology Association in Adailou and the Assamo Agriculture Cooperative) to support project implementation and shared ownership of projects with the communities	Limited socio-economic development and diversification of livelihoods within Djibouti's mountainous regions	<p>Alternative 1: Rely on regional councils to implement activities rather than local NGOs: however, both the Village Ecology Association in Adailou and the Agricultural Cooperative of Assamo have demonstrated their ability to train, mobilise and build awareness within its community (e.g. EVA and the PICODE project). As demonstrated during stakeholder consultations, the community has considerable confidence in both associations. With more capacity reinforcement, both NGOs will be able to assist with the implementation of LDCF3 activities as well as scaling-up the project's activities in adjacent communities after project completion.</p>

C. DESCRIBE THE BUDGETED M & E PLAN:

157. The project will be monitored through the following M&E activities. The M&E budget is provided in table 6 below. The M&E framework set out in the Project Results Framework in Part III of this project document is aligned with the AMAT and UNDP M&E frameworks.

158. **Project start:** A Project Inception Workshop will be held within the first 2 months of project start with those with assigned roles in the project organisation structure, UNDP Country Office and, where appropriate/feasible, regional technical policy and program advisors as well as other stakeholders. The Inception Workshop is crucial to building ownership for the project results and to plan the first year annual work plan.

159. The **Inception Workshop** should address a number of key issues including:

160. Assist all partners to fully understand and take ownership of the project. Detail the roles, support services and complementary responsibilities of UNDP CO and Regional Coordinating Unit (RCU) staff (i.e. UNDP-GEF Regional Technical Advisor) vis-à-vis the project team. Discuss the roles, functions, and responsibilities within the project's decision-making structures, including reporting and communication lines, and conflict resolution mechanisms. The Terms of Reference for project staff will be discussed again as needed.

161. Based on the project results framework and the LDCF-related AMAT set out in the Project Results Framework in Section III of the project document, finalise the first annual work plan. Review and agree on the indicators, targets and their means of verification, and recheck assumptions and risks.

162. Provide a detailed overview of reporting, monitoring and evaluation (M&E) requirements. The Monitoring and Evaluation work plan and budget should be agreed and scheduled.

163. Discuss financial reporting procedures and obligations, and arrangements for annual audit.

164. Plan and schedule Steering Committee meetings. Roles and responsibilities of all project organisation structures should be clarified and meetings planned. The first Steering Committee meeting should be held within the first 12 months following the inception workshop.

165. An **Inception Workshop report** is a key reference document and must be prepared and shared with participants to formalise various agreements and plans decided during the meeting.

Quarterly:

166. Progress made shall be monitored in the UNDP Enhanced Results-Based Management Platform. Based on the initial risk analysis submitted, the risk log will be regularly updated in ATLAS. Risks become critical when the impact and probability are high. Note that for UNDP-GEF projects, all financial risks associated with financial instruments such as revolving funds, micro-finance schemes, or capitalisation of ESCOs are automatically classified as critical on the basis of their innovative nature (high impact and uncertainty due to no previous experience justifies classification as critical).

- Based on the information recorded in Atlas, a Project Progress Reports (PPR) can be generated in the Executive Snapshot.
- Other ATLAS logs will be used to monitor issues, lessons learned. The use of these functions is a key indicator in the UNDP Executive Balanced Scorecard.

Annually: Annual Project Review/Project Implementation Reports (APR/PIR): This key report is prepared to monitor progress made since project start and in particular for the previous reporting period (30 June to 1 July). The APR/PIR combines both UNDP and GEF reporting requirements.

167. The APR/PIR includes, but is not limited to, reporting on the following:

- Progress made toward project objective and project outcomes - each with indicators, baseline data and end-of-project targets (cumulative)
- Project outputs delivered per project outcome (annual).
- Lesson learned/good practice
- AWP and other expenditure reports
- Risk and adaptive management
- ATLAS QPR

Periodic Monitoring through site visits: UNDP CO and the UNDP-GEF region-based staff will conduct visits to project sites based on the agreed schedule in the project's Inception Report/Annual Work Plan to assess first hand project progress. Other members of the Project Board may also join these visits. A Field Visit Report/BTOR will be prepared by the CO and UNDP RCU and will be circulated no less than one month after the visit to the project team and Project Board members.

Mid-term of project cycle: The project will undergo an independent Mid-Term Review at the mid-point of project implementation (expected to be in September 2016). The Mid-Term Review will determine progress being made toward the achievement of outcomes and will identify course correction if needed. It will focus on the effectiveness, efficiency and timeliness of project implementation; will highlight issues requiring decisions and actions; and will present initial lessons learned about project design, implementation and management. Findings of this review will be incorporated as recommendations for enhanced implementation during the final half of the project's term. The organisation, terms of reference and timing of the mid-term review will be decided after consultation between the parties to the project document. The Terms of Reference for this Mid-Term Review will be prepared by the UNDP CO based on guidance from the Regional Coordinating Unit (RCU) and UNDP-GEF. The LD/FC/SCCF AMAT will also be completed during the mid-term evaluation cycle.

End of Project: An independent Terminal Evaluation will take place three months prior to the final PB meeting and will be undertaken in accordance with UNDP-GEF guidance. The terminal evaluation will focus on the delivery of the project's results as initially planned (and as corrected after the mid-term review, if any such correction took place). The terminal evaluation will look at impact and sustainability of results, including the contribution to capacity development and the achievement of global environmental benefits/goals. The Terms of Reference for this evaluation will be prepared by the UNDP CO based on guidance from the Regional Coordinating Unit and UNDP-GEF. The LD/FC/SCCF AMAT will also be completed during the terminal evaluation cycle. The Terminal Evaluation should also provide recommendations for follow-up activities and requires a management response, which should be uploaded to PIMS and to the UNDP Evaluation Office Evaluation Resource Centre (ERC).

Learning and knowledge-sharing: Results from the project will be disseminated within and beyond the project intervention zone through existing information sharing networks and forums.

The project will identify and participate, as relevant and appropriate, in scientific, policy-based and/or any other networks, which may be of benefit to project implementation though lessons learned. The project will identify, analyse, and share lessons learned that might be beneficial in the design and implementation of similar future projects. There will be a two-way flow of information between this project and other projects of a similar focus.

Audit: Project will be audited in accordance with UNDP Financial Regulations and Rules and applicable audit policies.

Table 6: Project Monitoring and Evaluation work plan and budget

Type of M&E activity	Responsible Parties	Budget US\$ <i>Excluding project team staff time</i>	Time frame
Inception Workshop and Report	<ul style="list-style-type: none"> ▪ Project Manager ▪ PIU (Project Implementation Unit) ▪ UNDP CO, UNDP GEF 	Indicative cost: 10,000	Within first two months of project start up
Measurement of Means of Verification of project results.	<ul style="list-style-type: none"> ▪ UNDP GEF RTA/Project Manager will oversee the hiring of specific studies and institutions, and delegate responsibilities to relevant team members. ▪ PIU, esp. M&E expert 	To be finalized in Inception Phase and Workshop.	Start, mid and end of project (during evaluation cycle) and annually when required.
Measurement of Means of Verification for Project Progress on output and implementation	<ul style="list-style-type: none"> ▪ Oversight by Project Manager ▪ PIU, esp. M&E expert ▪ Implementation teams 	To be determined as part of the Annual Work Plan's preparation. Indicative cost is 20,000	Annually prior to APR/PIR and to the definition of annual work plans
ARR/PIR	<ul style="list-style-type: none"> ▪ Project manager ▪ PIU ▪ UNDP CO ▪ UNDP RTA ▪ UNDP EEG 	None	Annually
Periodic status/ progress reports	<ul style="list-style-type: none"> ▪ Project manager and team 	None	Quarterly
Mid-term Review	<ul style="list-style-type: none"> ▪ Project manager ▪ PIU ▪ UNDP CO ▪ UNDP RCU ▪ External Consultants (i.e. evaluation team) 	Indicative cost: 40,000	At the mid-point of project implementation.
Terminal Evaluation	<ul style="list-style-type: none"> ▪ Project manager ▪ PIU ▪ UNDP CO ▪ UNDP RCU ▪ External Consultants (i.e. evaluation team) 	Indicative cost : 40,000	At least three months before the end of project implementation
Audit	<ul style="list-style-type: none"> ▪ UNDP CO ▪ Project manager ▪ PIU 	Indicative cost per year: 3,000 (12,000 total)	Yearly
Visits to field sites	<ul style="list-style-type: none"> ▪ UNDP CO ▪ UNDP RCU (as appropriate) ▪ Government representatives 	For GEF supported projects, paid from IA fees and operational budget	Yearly for UNDP CO
TOTAL indicative COST Excluding project team staff time and UNDP staff and travel expenses		US\$ 122,000 (+/- 5% of total GEF budget)	


PART III: APPROVAL/ENDORSEMENT BY GEF OPERATIONAL FOCAL POINT(S) AND GEF AGENCY(IES)

A. RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT(S) ON BEHALF OF THE GOVERNMENT(S): (Please attach the [Operational Focal Point endorsement letter\(s\)](#) with this form. For SGP, use this [OFP endorsement letter](#)).

NAME	POSITION	MINISTRY	DATE(MM/dd/yyyy)
Dini Abdallah Omar	GEF Operational Focal Point	MINISTRY OF HABITAT, URBANISM AND ENVIRONMENT	March 10, 2013

B. GEF AGENCY(IES) CERTIFICATION

This request has been prepared in accordance with GEF/LDCF/SCCF/NPIF policies and procedures and meets the GEF/LDCF/SCCF/NPIF criteria for CEO endorsement/approval of project.

Agency Coordinator, Agency Name	Signature	Date (Month, day, year)	Project Contact Person	Telephone	Email Address
Adriana Dinu, Deputy Executive Coordinator and Director a.i., UNDP/GEF		July 25, 2014	Robert Kelly, Regional Technical Advisor	+263 772 125 448	Robert.kelly@undp.org

ANNEX A: PROJECT RESULTS FRAMEWORK(either copy and paste here the framework from the Agency document, or provide reference to the page in the project document where the framework could be found).

This project will contribute to achieving the following Country Programme Outcome as defined in CPAP or CPD:					
CPAP FOCUS AREA 2 (SUSTAINABLE ENVIRONMENT AND CLIMATE CHANGE) OUTPUT 2: Vulnerable communities better equipped when faced with climate change					
CPAP FOCUS AREA 2 OUTPUT 3: More effective preservation interventions for the environment and ecosystems					
Country Programme Outcome Indicators:					
CPD Indicator: By 2017, the capacity of environmental management process is enhanced, the results of socio-economic surveys are available, the unemployment situation has improved, jobs are created, the resilience of communities to climate change is strengthened					
Primary Applicable Key Environment and Sustainable Development Key Result Area (same as that on the cover page, circle one):					
Promote climate change adaptation					
Applicable GEF Strategic Objective and Programme:					
Objective 2: Increase adaptive capacity to respond to the impacts of climate change, including variability, at local, national, regional and global level					
Applicable GEF Expected Outcomes:					
Outcome 2.1: Increased knowledge and understanding of climate variability and change-induced risks at country level and in targeted vulnerable areas Outcome 2.2: Strengthened adaptive capacity to reduce risks to climate-induced economic losses					
Applicable GEF Outcome Indicators:					
<ul style="list-style-type: none"> • % of population covered by climate change risk measures 					
	Indicator	Baseline	Targets End of Project	Source of verification	Risks and Assumptions
Project Objective ⁴⁷ Reduction of climate-related vulnerabilities facing the inhabitants of mountainous	1. Number of HHs with enhanced livelihoods through access to water, improved ecosystem	1. The 2010 Rapid Drought Impact Assessment found that the total economic loss attributed to the recent drought amounted to 3.9% of GDP. Due to the impacts of drought,	1. <u>TARGET: USD</u> 2000 HHs ⁵¹ have enhanced livelihoods due to	1. Initial socio-economic survey and final survey.	ASSUMPTION: There is sufficient political support and capacity within the agencies dealing

⁴⁷ Objective (Atlas output) monitored quarterly ERBM and annually in APR/PIR.

⁵¹ The population of Adaillou ranges between 8,000 and 12,000 (Perrin, J. Study on rural hydraulic works in Adailou). The population size is similar in Assamo. In accordance with national statistics, it is assumed that there are 6 people per household.

<p>regions of Djibouti through institutional strengthening, climate-smart water management and targeted investment.</p>	<p>services and reforestation</p>	<p>transhumance is being constrained by a reduction in grazing routes with sufficient water and pasture. More than 70% of the population and herds do not have access to water within a reasonable distance. In the mountainous areas, communities are disproportionately poor due to the lack of infrastructure, limited market access and harsher agricultural conditions relative to lowland areas. Habitat loss is a major threat in the Horn of Africa's dryland highlands as well.⁴⁸ In Djibouti, mountain vegetation is a vital natural resource and a source of livelihood for the mostly nomadic pastoralists. Without any alternatives, pastoralists are currently forced to over-exploit mountain resources, contributing to further weakening of the natural environment.⁴⁹ Deforestation, occurring at a rate of 3% per year,⁵⁰ has worsened the impacts of flash floods and erosion by reducing rates of water retention.</p> <p><u>BASELINE 1:</u> All target farmers and pastoralists require strengthened livelihoods to become less vulnerable to climate shocks. Livelihoods need to be strengthened by mobilizing water with physical infrastructure for use during the dry season (e.g., earth dams and retention basins, boreholes, etc). Also, livelihoods need to be strengthened with reforestation/afforestation and sustainable land use practices.</p>	<p>water mobilization and reforestation</p>		<p>with adaptation for successful execution and implementation of the project.</p> <p>RISK: The National Climate Change Committee fails to meet regularly due to lack of incentives.</p> <p>RISK: Investments in water mobilisation, agriculture and pastoral systems are jeopardised by an unanticipated increase in the frequency of flood events and continued drought.</p>
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⁴⁸ FAO *Highlands and Drylands, Mountains a source of resilience in arid regions* 2011.

⁴⁹ MHUE, *Fourth National Report on Biological Diversity in the Republic of Djibouti*, March 2009.

⁵⁰ MHUE, *Fourth National Report on Biological Diversity in the Republic of Djibouti*, March 2009, data for Day Forest, near Adailou.

	<p>2. Reactivation of the National Climate Change Committee (NCCC) to coordinate climate change and resilience-building projects / activities.</p>	<p>Farmers and pastoralists need to be provided technical and applied knowledge on soil and water conservation methods and other sustainable practices to ensure that they can continually make use of productive ecosystem services.</p> <p>2. In 1999, a National CC Committee (NCCC) was formally established by Presidential Decree. The Committee was able to convene only 2 meetings before it was dissolved due to an unclear mandate and a lack of institutional and financial backing. Most Government institutions have limited understanding of the transversal impacts of climate change on diverse socio-economic sectors (e.g. health, poverty, employment).</p> <p><u>2. BASELINE:</u> The former National Climate Change Committee has effectively ceased to exist.</p>	<p>2. <u>TARGET:</u> Reactivation of the National Climate Change Committee (NCCC) with a clear mandate and a technically-capable Secretariat to support Climate Change adaptation interventions. The NCCC will be authorised to have the power of a Government Permanent Secretariat and the Ministry on the Environment (MHUE) will be officially designated as the house for the Secretariat.</p>	<p>2. Legal mandate of the NCCC.</p> <p>Minutes from NCCC meetings.</p>	
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	Indicator	Baseline	Targets End of Project	Source of verification	Risks and Assumptions
<p>Outcome 1</p> <p>Institutional capacities for coordinated, climate-resilient planning strengthened.</p> <p>Mechanisms and a de-risked investment environment established to catalyse finance for climate change adaptation.</p>	<p>1. Development of a National Climate Change Strategy to guide the NCCC on appropriate coordination mechanisms and diversified, financing strategies to support adaptation-related activities in the long-term.</p> <p>2. Development of a roadmap outlining how to establish and capitalise a Fund for the Environment and Climate Change.</p>	<p>1. There is no national strategy on how to approach the challenge of climate change, how to coordinate climate change-related projects, or how to prioritise adaptation activities based on their cross-sectoral benefits and impacts. The country has no expertise in cost-benefit or adaptation economics which can support dynamic modelling.</p> <p><u>1. BASELINE:</u> A National Climate Change Strategy does not exist in Djibouti.</p> <p>2. Current Government funds are used to address extreme short-term challenges such as poverty and malnutrition. The Government often finds it difficult to justify the allocation of scarce fiscal revenues to longer-term needs. As a result, existing budget plans (excluding donor support) do not have long-term financing mechanisms which target activities, projects or programmes that build resilience to climate change. In addition, in spite of the fact that there are</p>	<p>1. <u>TARGET:</u> Creation of a National Climate Change Strategy informed by dynamic modelling results which guides the NCCC's work and provides strategic coherence to climate change adaptation initiatives in Djibouti.</p> <p>2. <u>TARGET:</u> Roadmap defining how to establish and capitalise a National Environment and Climate Change Fund which supports climate-smart adaptation activities for rural and urban populations in the long-term and which supports ongoing and future</p>	<p>1. Review of the NCC Strategy.</p> <p>Review of adaptation projects/programmes and their uptake into the NCC Strategy.</p> <p>2. Review of the roadmap on how to establish and capitalize an Environment and Climate Change Fund.</p>	<p>ASSUMPTION: Institutions have the will and ability to engage in coordinated long-term planning to mitigate potential climate change risks.</p> <p>ASSUMPTION: Relevant Ministries have an interest in fully integrating adaptation strategies into their long-term planning.</p> <p>ASSUMPTION: The Government of Djibouti has sufficient incentive to design a Fund for the Environment and Climate Change which can be effectively targeted towards adaptation-related</p>

	Indicator	Baseline	Targets End of Project	Source of verification	Risks and Assumptions
		<p>more than 50 international public funds and 6,000 private equity funds providing climate change financing, Djibouti has no capacity to access and channel these funds to address the climate and development needs as identified by the NAPA and NAPs. Djibouti requires capacity reinforcement in how to identify which funds are appropriate for them, how to coordinate the actions funded by them and how to strengthen national ownership of climate finance.</p> <p><u>2. BASELINE:</u> No mechanism to attract and channel funding for medium- to long-term climate resilience-strengthening activities.</p>	climate resilience projects.		<p>activities in a transparent manner with appropriate financial management.</p> <p>RISK:</p> <p>Institutions working in adaptation have little financial literacy and capacity to establish funds and financial instruments and to assess the costs and measures of different adaptation options</p>
<p>Outcome 2</p> <p>Improved water management in the targeted regions (Adailou and Assamo) to conserve scarce water resources and manage temporal flows to reduce flooding</p>	<p>1. Number of micro-dams, cisterns, retention basins and bank fortifications built with the dual goals of reducing downstream impacts during flood events and retaining water to replenish groundwater resources.</p> <p>2. Percentage of total</p>	<p><u>BASELINE 1-3:</u> The rural mountainous populations are at extreme risk because they do not have sufficient water for drinking and irrigation. They are also subject to loss of crops and livestock due to the fact that the most fertile areas are within or adjacent to wadis which are susceptible to flash flooding. Due to the geomorphic context, the region is subject to significant</p>	<p><u>TARGETS 1-3:</u></p> <p>1. Design and construction of 3 micro-dams; fifteen (15) 100 m³ cisterns, where each will provide potable water to 15 families; 16 semi-underground sills (8 in Adailou and 8 in</p>	<p>1–3:Construction log of the Department of Large Works (micro-dams, cisterns, sills, gabion reinforcement)</p> <p>Borehole drilling log (Ministry of Water).</p>	<p>ASSUMPTION:</p> <p>Initial hydrogeological studies and technical assessments are accurate in their predictions of water capture and storage capacities.</p>

	Indicator	Baseline	Targets End of Project	Source of verification	Risks and Assumptions
and erosion.	<p>hectarage of agro-pastoralists' land which is irrigated by boreholes.</p> <p>3. Number of hectares of land replanted and reforested in Assamo, Adailou and Ayladou to: i) regenerate dwindling species and valued pastoral species and ii) reduce erosion.</p> <p>4. Number of pastoral centres (pastoretums) in each region</p>	<p>erosion and surface water cannot be effectively captured to recharge groundwater resources. There is a need to reforest and re-vegetate the mountain regions.</p> <p>The agro-pastoral communities also require the technical and operational capacities to produce diversified crops and develop more sustainable agro-pastoral and pastoral practices (e.g. producing drought- and salt-tolerant forage and a diverse variety of crops to generate revenues throughout all seasons).</p> <p><u>BASELINE 1-3:</u> 1 borehole in each zone, 10 shallow wells in Adailou, 14 in Assamo, 2 ha of agro-pastoral plots in Adailou (not irrigated) and 10 ha of agro-pastoral plots (not irrigated) in Assamo, 10 ha of reforestation/re-vegetation/re-seeding activities.</p> <p><u>BASELINE 4:</u> The pastoralists in each region have had no capacity reinforcement on soil</p>	<p>Assamo); 2,000 m³ and 4,000 m³ of bank fortifications with rock-filled wirework (i.e. gabion) in Adailou and Assamo respectively to protect wadi banks and agricultural plots from erosion.</p> <p>2. 30 hectares irrigated in Assamo and 30 hectares in Adailou.</p> <p>3. 70 ha in Assamo and 380 hectares in Adailou replanted and reforested.</p> <p><u>TARGET 4:</u> 1 pastoretum in each</p>	<p>4. Ministry of Livestock records on</p>	<p>ASSUMPTION: Local populations, including nomadic pastoralists, will not trespass into protected reforestation and re-vegetation areas due to being informed of the purpose of these areas to restore the natural environment and reduce erosion, and due to introducing security guards and robust fencing as protection measures.</p> <p>RISK: Works associated with water mobilisation and retention</p>

	Indicator	Baseline	Targets End of Project	Source of verification	Risks and Assumptions
	<p>5. Number of women's tree seedling nurseries created in both Adailou and Assamo to i) produce seeds, ii) multiply species (e.g. wind-blocking plants, fruit-bearing trees, etc), and iii) support reforestation;</p> <p>6. Creation of Catchment and Water Point Management Committees.</p>	<p>conservation measures, re-seeding, veterinary medicine and animal hygiene to ensure more sustainable pastoralist practices. Pastoretums provide an enclosed and guarded plot to practice sustainable pastoralism with expert knowledge transfer. However, neither region has had the opportunity to learn in such a manner.</p> <p><u>BASELINE 5:</u> 1 tree nursery in Assamo (0 nurseries in Adailou).</p> <p><u>BASELINE 6:</u> No Catchment Management or Water Point Management Committees exist in either Assamo or Adailou to enable the sustainable management of water use. Most diesel-powered wells have become non-functional due to the</p>	<p>region created.</p> <p><u>TARGET 5:</u> At least 1 women's tree seedling nursery created in both Adailou and Assamo.</p> <p><u>TARGET 6:</u> 5 Catchment Management Committees formed (4 in Adailou in the Weima watershed and 1 in Assamo, the Juba watershed) and 27 Water Point</p>	<p>the pastoretums</p> <p>5.Irrigation and nursery records kept by the Ministry of Agriculture.</p> <p>6.Conventions signed, confirming creation of Catchment and Water Point Management Committees</p>	<p>infrastructures lead to unanticipated environmental impacts.</p> <p>RISK:</p> <p>Limited capacity of local populations to perform maintenance on boreholes and solar-powered well pumps.</p>

	Indicator	Baseline	Targets End of Project	Source of verification	Risks and Assumptions
		high price of diesel and the fact that there is no one with the ability to maintain the pumps locally.	Committees formed in total (one around each water point). All Committees will have 4 people including 1 female representative.	Operation and Maintenance training provided by the Ministry of Water to the communities Meeting minutes / records of the Catchment and Water Point Management Committees	
Outcome 3 Improved resilience to hydrological climate change risks. Enhanced resilience to climate-mediated economic shocks through income generation and diversification.	1. Number of Automatic Weather Stations (AWSs) procured and installed.	1. The Executive Secretariat for Risk and Disaster Management advises the National Committee on Natural Disasters on technical matters and coordinates prevention, mitigation and response activities. In line with Djibouti's decentralization approach, SEGRC established Local Risk and Catastrophe Management Committees (LRCMCs) to transfer risk-related responsibilities to the regional level. Additionally, SEGRC drafted general flood action plans for each region in Djibouti with the support of	<u>TARGETS</u> 1. One automatic weather station procured and installed in each region. See Annex 8c).	1. National Meteorological Service Procurement records.	ASSUMPTION: One weather station in each project zone is sufficient to extend the weather and climate monitoring network to help with forecasts and previsions. RISK: There is

	Indicator	Baseline	Targets End of Project	Source of verification	Risks and Assumptions
		<p>FAO. In spite of these efforts, the LRCMC lacks the technical and operational capacities to prepare community populations for droughts and floods. Similarly, the action plans are general and focused predominantly on the regional capitals, which are located in the lowlands. As such, they do not consider the highland, steep, varied terrain and, most notably, the remote mountainous communities of Assamo and Adailou. Exacerbating the need for information in the highlands is that there are only limited rainfall measurements and no in-situ hydro-meteorological measurements taken to support disaster preparedness decisions (early warnings) in either the Adailou or Assamo watersheds. Limited data collection prevents the identification of risks, delineation of vulnerable zones and projections for extreme weather events.</p> <p><u>BASELINE 1</u>: 1 rain gauge in Adailou and 5 rain gauges in Assamo. No weather stations located in either zone.</p>			<p>insufficient technical and operational capacity within the regional governments to coordinate drought and flood preparedness.</p> <p>RISK:</p> <p>Targeted farmers and pastoralists are sceptical and unwilling to engage in poultry breeding, bee-keeping and gabion fabrication. so as to diversify their livelihoods and/or income diversification strategies do not significantly increase household incomes.</p> <p>RISK:</p>

	Indicator	Baseline	Targets End of Project	Source of verification	Risks and Assumptions
	<p>2. Number of community adaptation measures implemented to build drought or flood-resilience.</p>	<p>2. Rural communities in Djibouti, particularly those in remote mountain villages, lack knowledge on the uses of earth dams for water harvesting and the importance of maintaining dams for flood mitigation, as well as the means to properly maintain them. This is in spite of the fact that action plans have been drafted for the Ali Sabieh and Tadjourah regions by the Executive Secretariat on Risk and Catastrophe Management. No targeted action plans are concerned with the mountain regions (e.g. consideration of higher erosion rates).</p> <p><u>BASELINE 2:</u> No community DRM/DRR adaptation preparedness plans.</p>	<p><u>TARGET 2.</u> One (1) community DRM/DRM adaptation measure implemented in each region (e.g. water point reinforcement with gabion, micro-dam de-silting).</p>	<p>2. Training log for regions and communities maintained by the Executive Secretariat on Risk and Catastrophe Management.</p>	<p>Limited long-run support for rural mountain regions in terms of sustainable livelihood development.</p>
	<p>3. Number of rural inhabitants (disaggregated by gender and type of activity) who actively participate in bee-keeping, poultry raising</p>	<p>3. Due to the fact that the mountainous regions of Assamo and Adailou are remote and isolated from selling points, they have limited means to diversify their livelihoods. In Adailou, the</p>	<p><u>TARGET 3.</u> 70 households (HHs) active in poultry breeding in Assamo and 50 HHs in Adailou. 14 people</p>	<p>3. Ministry of Agriculture and Ministry of Environment annual surveys (disaggregated by gender and type of</p>	

	Indicator	Baseline	Targets End of Project	Source of verification	Risks and Assumptions
	4. Number of local market stalls rehabilitated / created to facilitate access of Adailou and Assamo farmers/cultivators/pastoralists to larger regional markets.	<p>rural population has no other option than to farm with traditional, ineffective methods (due to lack of knowledge on appropriate farming practices) or to continue grazing livestock in spite of recurring drought. In Assamo, the region has one fruit that is grown locally (goyave) and this is increasingly susceptible to climate shocks. Stakeholder consultations indicate community members want to diversify their livelihoods with poultry breeding and beekeeping.</p> <p><u>BASELINE 3:</u> No community members are active in poultry breeding and bee-keeping.</p> <p>4. In Assamo and Adailou, there is a need to rehabilitate/create market stalls to help incentivize crop and milk product diversification. As indicated during stakeholder consultations, selling points are desired to fix prices, to sell “fresh local produce” and to act as training</p>	<p>in Adailou and 6 in Assamo active in beekeeping and which have been provided appropriate materials.</p> <p><u>TARGET 4.</u> Rehabilitation of the Ali-Sabieh market stall and creation of the Tadjourah market stall.</p>	<p>activity).</p> <p>4. Sales records of the market stalls in Ali Sabieh and Tadjourah.</p>	

	Indicator	Baseline	Targets End of Project	Source of verification	Risks and Assumptions
	5. % change in revenue to artisanal activities, poultry-breeding, bee-keeping and nursery sales (disaggregated by gender).	<p>and tourist tasting centres.</p> <p><u>BASELINE 4:</u> A market stall in Ali-Sabieh exists but it needs to be rehabilitated and extended to have a permanent structure. The market stall in Tadjourah needs to be created.</p> <p>5. In Assamo, prior to the repeated drought, there was a culture of producing guava jams. Currently, there is no diversification of activities as the entire population is dependent on farming/husbandry which has limited production due to inefficient practices and susceptibility to climate shocks (most notably the present 4-year drought).</p> <p><u>BASELINE 5:</u> Only limited and irregular sales of guava in Assamo. No sales of products in Adailou. No participation of community members in livelihood diversification measures in either region.</p>	<p><u>TARGET 5.</u> % change in revenue for community members (including % increase in supply of eggs, chicken, honey, nursery seedlings and gabion) - disaggregated by gender.</p>	5. Mid-term and final survey of community members demonstrating revenues accrued from selling eggs, chicken, honey and gabion (disaggregated by gender and type of activity).	

ANNEX B: RESPONSES TO PROJECT REVIEWS (from GEF Secretariat and GEF Agencies, and Responses to Comments from Council at work program inclusion and the Convention Secretariat and STAP at PIF).

RESPONSE TO

GEF Secretariat Review Sheet for Full/Medium-sized Projects

Country/Region: Djibouti

Project Title: Supporting rural community adaptation to climate change in mountainous regions of Djibouti

GEF ID: 5332

GEF Agency: UNDP

GEF Agency ID: 5189

Type of Trust fund: LDCF

GEF Focal Area (s): Climate Change

GEF-5 LDCF Objective (s): CCA-1; CCA-2

Project Grant: USD 5,379,452

Co-financing: USD 28.6 m

Questions by GEF Secretariat	Comment by GEF Secretariat	Response by Proponents
<p>6. Is (are) the baseline project(s), including problem(s) that the baseline project(s) seek/s to address, sufficiently described and based on sound data and assumptions?</p>	<p>By CEO Endorsement, please revisit the baseline scenario and associated projects in light of further information about the AfDB and IGAD interventions currently under preparation, and based on a clearer understanding of the ways in which the baseline projects and their beneficiaries are vulnerable given the expected effects of climate change.</p>	<p>IGAD was consulted three times during two rounds of project preparation. IGAD will be constructing water mobilisation structures in the Juba watershed between Somaliland and Djibouti, the watershed which encompasses Assamo. The LDCF3 financed project will work together with the IGAD Drought Resilience and Sustainability Initiative (IDDRSI) platform by coordinating water mobilisation efforts and sharing hydro-geotechnical studies. The LDCF3 financed project will also provide the mandate for the newly-reactivated National Climate Change Committee to coordinate with the IDDRSI platform before implementing adaptation measures. Specifically, IDDRSI will be invited when the NCC discusses trans-boundary resources (water, livestock and livelihoods) and how climate change will impact such resources. Similarly, the NCC Strategy to be drafted will take into account the IDDRSI Strategy, which aims to address the effects of drought and related shocks in the IGAD region in a sustainable and holistic manner. IGAD, through its Inland Water Resource Management Programme and the Hydrological Cycle Observing System (HYCOS) project, is planning to invest in the construction of water infrastructure and the deployment of hydrological stations in Guistir, near Assamo. IGAD has provided USD 230,000 co-financing to demonstrate its support for Components 2 and 3 of the LDCF2 project. Combined and in collaboration, IGAD and the LDCF2 project will build capacities of the water</p>

sector and support flood preparedness in the Juba watershed.

The LDCF3 financed project will also coordinate with AfDB’s *Rural Livelihoods Adaptation to Climate Change (RLACC) project or Projet d’appui à l’adaptation des populations au changement climatique (PAPCC)*, (USD 5m, 2014-2017), as indicated in Table 1.

Table 1: Means of collaborating between the RLACC and LDCF3 financed projects

AfDB RLACC regional project (PAPCC)	Collaboration with LDCF3
Workshop planned by AfDB to draw lessons-learned from activities and achievements of existing and past projects.	The NCCC will facilitate the workshop as part of its mandate and all lessons-learned will be documented in the open-access climate change database to be housed at the NCC Secretariat.
Small grants will be provided to targeted communities to finance ‘micro-adaptation projects’ (e.g. in the areas of water, rangeland resources, livestock and Income Generating Activities)	The NCCC will facilitate the distribution of grants based on prioritised needs as defined by dynamic modelling outputs and based on successful interventions demonstrated in existing projects and by the LDCF3 financed project.

Similarly, the LDCF3 financed project will coordinate with *AfDB’s Drought Resilience and Sustainable Livelihoods Programme in the Horn of Africa (DRSLP)*. In fact, the DRSLP is planning to conduct a detailed feasibility study for water infrastructure development, including small-scale irrigation, in the Weima watershed where Adailou is located. For both projects to leverage the other, both UNDP and AfDB have agreed to use the following approach to maximise synergies:

- 1) Follow a watershed-based approach while planning activities including soil and water conservation, afforestation, ground water extraction and other activities.
- 2) Minimise duplication and overlapping of activities by sharing the work plans and technical studies.
- 3) Use a consistent community-based approach in following standards e.g. cost of labor, materials used etc., to avoid complications.

<p>8. (a) Are global environmental/adaptation benefits identified? (b) Is the description of the incremental/additional reasoning sound and appropriate?</p>	<p>NOT CLEAR. Please refer to Section 6 above. Given the outstanding issues regarding the baseline projects, the additional reasoning cannot be fully assessed at this stage. Still, the PIF could further clarify the linkages and synergies between Component 1 on the one hand, and components 2 and 3 on the other.</p> <p>Specifically with regard to Component 1, the PIF could consider alternatives to the development of a national climate change strategy and the potential establishment of a national climate change fund as means to enhance coordination and coherence at the national level. In addition, should a potential climate change strategy address adaptation as well as mitigation, the PIF could specify what co-financing would be provided towards this exercise to the extent that it would not be eligible under the LDCF.</p> <p>With respect to Component 3, the additional reasoning for this component could be strengthened with further references to the baseline initiatives on which it would build.</p> <p>RECOMMENDED ACTION: Upon addressing the recommendations under Section 6, please revise the additional reasoning accordingly. Specifically, (i) clarify the linkages and synergies between Component 1 on the one hand, and components 2 and 3 on the other; (ii) consider alternatives to the development of a national climate change strategy and the potential establishment of a national climate change fund; (iii) specify the scope of a potential climate change strategy and any co-financing, as appropriate; and (iv) clarify how</p>	<p>4) Hold regular meeting and shared monitoring of both the projects.</p> <p>Component 1 seeks to address the national-level needs and gaps identified as being vital by the NAPA, the Initial National Communication to the UNFCCC, the National Capacity Self-Assessment and a range of other studies for future climate change interventions to maximise their adaptation effectiveness. With an active National Climate Change Committee in place and a National Climate Change Strategy to guide Government and donor interventions, joined-up policy-making and coherent on-the-ground programming will be enabled, benefiting Components 2 and 3 (and, of course, future projects) through better inter-agency coordination, better information-sharing, better identification of ongoing co-financing/leveraged financing opportunities, and better dissemination of lessons-learned and project impacts.</p> <p>Component 2 will work at the ground level, facilitating water mobilisation, reforestation and capacity reinforcement for agro-pastoralists and pastoralists on sustainable adaptive practices such as soil and water conservation methods and water efficient irrigation practices. Any proven practices will be able to be scaled-up with the support of the NCCC and its Secretariat developed under Component 1.</p> <p>Component 3 will exploit the water provisions and improved agro-pastoral practices of Component 2 and further build the resilience at the ground level of the communities by enabling the rural mountain populations to have diversified income-generating activities. Diversified activities to be introduced include aviculture, apiculture, nursery development and gabion artisanal fabrication. Sales such as eggs, honey and milk products will be supported by construction or rehabilitation of market stalls in the nearest cities to Adailou and Assamo (in Tadjourah and Ali Sabieh respectively). Furthermore, Component 3 will support the regional and community levels in disaster risk preparedness. With capacity reinforcement on regional and community levels, the DRM/DRR preparedness will become more targeted and sustainable for the mountainous populations who had previously been marginalised. The LDCF3 financed project will set a precedent by supporting community led and will facilitate other rural regions to enhance their DRR/DRM capacities. Furthermore, capacity building for the regional Local Risk and Catastrophe Management Committees will support Djibouti's National Decentralisation Policy currently in the process of becoming a legal framework.</p> <p>Component 3 will build on and strengthen the resilience to relevant baseline</p>
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	<p>the proposed Component 3 builds on and strengthens the resilience of relevant baseline initiatives.</p> <p>By CEO Endorsement, please revisit the additional reasoning for components 2 and 3 in light of further information about the AfDB and IGAD interventions currently under preparation. Also, please clarify the targeting principles applied in the introduction of fuel-efficient cookstoves with a view to further demonstrating the effectiveness and relevance of this sub-component from a perspective of climate change adaptation.</p>	<p>initiatives by:</p> <ul style="list-style-type: none"> • Building on the lessons-learned from the <i>IGAD programme</i> on how to best strengthen regional water resource management for drought/flood preparedness. • Working with the <i>LDCF2</i> project on livelihood diversification, namely aviculture and apiculture. • Collaborating with the Ministry for the Promotion of Women and its project <i>Supporting Agro-Pastoralism for African Women</i> to provide expertise on fruit and vegetable cultivation as well as milk product diversification. • The LDCF3 financed project will benefit from the <i>UNHCR Light Years Ahead initiative</i>, which has promoted the distribution of 4,500 fuel-efficient cookstoves (which use 80% less fuel than standard cookstoves) in the Ali-Adde refugee camp to reduce the pressures on tree resources. • Building on the UNDP-Adaptation Fund project by exploiting the micro-finance products being designed for inexperienced agro-pastoralists and the most vulnerable. <p>Two other alternatives were considered when weighing the need for a NCC Strategy. These include:</p> <ol style="list-style-type: none"> i) Relying on other national strategies to handle climate change: however, with this option, there would be no central mechanism to coordinate climate-related activities and to standardise disaster prevention strategies. Developing a National CC Strategy was deemed the best mechanism for streamlining the coordination of CC/DRM related programmes/projects, as shown in other African countries such as Zambia. Furthermore, existing strategies may conflict with each other (e.g. water and energy, or water and agriculture), thereby requiring a central strategy that identifies and resolves these conflicts. Additionally, the current patchwork of sectoral policies cannot be easily decentralised to support Djibouti's National Decentralisation Policy. A prominent national strategy would be required to address all levels of governance. ii) Have an NCCC without a guiding Strategy: the development of Djibouti's first National Climate Change Strategy will help to mitigate the risk that the NCCC, as an inter-ministerial body, is overlooked or marginalised. The Strategy will be formally endorsed by the Office of the Prime Minister and will provide the Secretariat and the NCCC with a framework for assessing and achieving programming coherence. The focus of the Strategy will be to address adaptation needs and hold
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		<p>Ministries accountable for their respective resilience-building measures. To ensure accountability, the NCCC will be mandated to develop an annual evaluation report that will highlight existing policies and/or programmes which adhere to the Strategy and those that are recommended to be amended.</p> <p>Alternatives to a NCC Fund were also reviewed. However, currently, there is limited national capacity to finance long-term adaptation needs. Most funds are used to address urgent, short-term issues and do not use a transparent, diversified portfolio of financing strategies. Djibouti is at high risk of ad hoc donor initiatives and short-term Government allocation of funds for unsustainable activities which has in the past contributed to mal-adaptation (e.g. the National Water Fund). An option which was considered was to use 'smart subsidies', but these have in the past been subject to political implementation challenges. Furthermore, according to stakeholder discussions, a Fund is the desired option to facilitate the mobilisation of additional climate finance to scale-up adaptation responses. Various donors are active with adaptation measures in Djibouti (e.g., JICA, EU, AfDB); however, there is no long-term financing strategy or source to continue each initiative.</p> <p>LDCF funds will be used to design and establish a National Environment and Climate Change Fund. The design will include identifying diversified funding sources that could capitalise the Fund, ranging from general taxation (VAT, income taxes) and hypothecated fiscal instruments (e.g. bonds) to climate finance and donor funds. The Fund will be designed and established so that the political, social and financial investments by both the public sector and the private sector made in climate change actions can be properly and equitably managed. The design of the Fund will also include developing appropriate governance mechanisms to promote transparency and ensure that responses to climate change are given appropriate financial resources.</p> <p>Please also see the response to the GEF Council comment 6 above which discusses how the LDCF3 financed project will coordinate with IGAD and AfDB initiatives.</p> <p>The LDCF3 financed project will also introduce cookstoves as a gender-sensitive community-based adaptation measure in Assamo and Adailou. In the framework of the LDCF3 financed project, cookstoves will reduce the need for fuelwood collection, liberating time for women to engage in resilience-building</p>
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		<p>activities. They will also provide environmental benefits such as reduced pressure on biomass resources.</p> <p>Studies have shown that searching for and using wood for cooking puts women and children’s safety at risk due to poor air quality with toxic smoke emissions and depletes forests⁵². Forest depletion is currently occurring at the rate of 3% per year in Djibouti. As a consequence, soils are deteriorating and agricultural land is being destroyed. Based on field consultations with the women in Assamo and Adailou, women are walking long distances, such as spending up to 6 hours per day (or walking approximately 4 km), to secure fuel wood for cooking. Reducing the time spent collecting fuelwood and preparing and cooking food can allow women to complete other responsibilities and pursue income-generating opportunities, such as those along the agro-pastoral production value chain. A UKAid study⁵³, also indicated that, while women face the brunt of climate change, they are very much at the heart of facilitating the cookstove solution and can be change agents in their communities. In order to support women as primary users of cookstoves, they must be involved in the design and distribution of products in order for cookstoves to be sustainably and exclusively adopted.</p> <p>The LDCF3 financed project will build on the cookstove distribution experiences of the UNHCR ‘Light Years Ahead’ programme and these cookstove studies to ensure sustainability. Specifically, it will use UNHCR’s data in conjunction with data collected during the project preparation phase and new data to be collected on usage patterns, end-user preferences and affordability constraints so that a suitable microfinance lending scheme can be linked with cookstove distribution. Previously, UNHCR distributed clay cookstoves in the Assamo region at a refugee camp. However, a recent survey by the Ministry on the Environment indicated that cookstove use has not proliferated and ceased in some cases since initial distribution by UNHCR. In fact, approximately 20% of the cookstoves have broken within the first 2 years of use. In response, the LDCF3 financed project will link the distribution of more robust, metal cookstoves with micro-finance. The linkage with micro-finance is critical because experience with fuel-efficient cookstoves in other developing countries has proven that direct subsidies or free distribution serve to reduce the intrinsic value of clean cookstoves because, once the cookstoves</p>
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⁵² Global Alliance for Cookstoves, *Clean Cookstoves and Climate Change*, 2013: www.cleancookstoves.org

⁵³ Global Alliance for Clean Cookstoves, *Scaling Adoption of Clean Cooking Solutions through Women’s Empowerment*. 2013 www.cleancookstoves.org

		<p>are free, services (such as training) and additional distribution of cookstoves are expected to be free.⁵⁴ Moreover, householders are less incentivised to properly use and maintain the cookstove if their own capital is not invested in it.</p> <p>The innovativeness of the LDCF3 financed project will be to link cookstove distribution with micro-finance for the first time in Djibouti. The LDCF3 financed project will link with the microfinance schemes in development for farming and pastoral populations supported by the UNDP-Adaptation Fund project, <i>Developing agro-pastoral shade gardens as an adaptation strategy for poor rural communities</i>, being implemented by the Djibouti Agency for Social Development, ADDS. Overall, through the feasibility study on linking cookstove distribution with micro-finance in the LDCF3 financed project, both the LDCF3 and UNHCR projects can garner lessons-learned on how clean cookstove distribution can become more sustainable, streamlined and targeted to rural Djibouti women's needs.</p>
Government of Germany Comments		
1	<p>The project is well designed and responds to an urgent need for strengthening the resilience of pastoral communities in Djibouti. Its outcomes can contribute towards identifying new climate adaptation experiences beneficial to other ASAL communities based in the region</p>	<p>This project contributes towards building the resilience of ASAL communities by mobilising water resources, developing best-practice watershed (i.e. catchment) management committees and by conducting on-the-farm and on-the-pasture training to allow the mountainous populations to use Soil and Water Conservation methods. Agro-pastoralists will also gain the capacity to use sustainable practices such as composting, planting drought-resilient forage species and using water recycling and drip irrigation technologies. Such skills can be transferred to other ASAL communities by the NGOs/CSOs/community leaders who will be training beneficiaries.</p>
2	<p>The project comes at a key moment as additional resources will be made available for the implementation of the IGAD Drought Disaster Resilience Initiative (IDDRSI) both at country and regional level. The project through its pilot sites also covers Assamo being close to Somalia (Somaliland) with potential cross-border water considerations. Cross-border issues might have a positive incidence on the application of the IGAD</p>	<p>As discussed in response to GEF Council comment #6, IGAD will be constructing water mobilisation structures in the Juba watershed between Somaliland and Djibouti. The LDCF3 financed project will work together with the IGAD Drought Resilience and Sustainability Initiative (IDDRSI) platform by coordinating water mobilisation efforts and sharing hydro-geotechnical studies.</p>

⁵⁴ DifferGroup, *Light Our Fire: Commercializing Clean Cookstoves*, 7 November 2012.
 GEF5 CEO Endorsement Template-December 2012.doc

	<p>Secretariat Regional Programming Paper for IDDRSI. Please consider this during the preparation of final documentation.</p>	<p>Cross-border water issues in the UNDP LDCF3 intervention in Djibouti and the UNDP LDCF1 intervention in Somalia (both scheduled between 2014 and 2018) can be facilitated by the UNDP Country Offices (COs). In the case of the LDCF1 project in Somalia, the UNDP CO will be the implementing partner. The Djibouti LDCF3 and Somalia LDCF1 projects will coordinate with IGAD on common areas such as reforestation, climate data collection and improving community-based drought and flood preparedness. The LDCF3 financed project and IGAD will coordinate initiatives as described in response to the GEF Council Comment 6.</p>
3	<p>With regards to component 1, Germany suggests considering particularly water and land use rights as well as ecosystem based climate change adaptation measures, linked to biodiversity and related ecosystem services, for mainstreaming.</p>	<p>During LDCF3 financed project preparation, land use rights based on both the Afar and Issa land use systems have been fully considered. Adailou uses Afar community land appropriation, in which land is traditionally owned by tribes and sub-tribes. As demonstrated by ongoing implementation of the UNDP-Adaptation Fund project <i>Developing agro-pastoral shade gardens as an adaptation strategy for poor rural communities</i>, it is important that the local land tenure situation is agreed upon with the Government in this region before project implementation. No issues are foreseen based on stakeholder consultations, prior experience of implementing projects in the Afar region and the fact that the project brings significant socio-economic benefits to Adailou. The southern region of Djibouti is mainly occupied by Issa communities, whose customary law grants equal access to the land. Due to the fact that the Government has equal access to land, particularly if livelihoods will be improved, there are no foreseeable issues with land development (e.g., water mobilization infrastructure construction, reforestation, cultivation).</p> <p>In contrast to land use, water use is not regulated in Djibouti except in cases of severe drought. Due to the severity of the ongoing water shortage in Djibouti, and the fact that communities in both project zones have demonstrated an ability to allocate limited water resources effectively during a prolonged drought, water rights will most likely not be an issue for the LDCF3 financed project. To mitigate any potential water rights issues, the Water Point Management Committees and Watershed Management Committees will work together to find optimal solutions so that all communities in the watershed have</p>

		<p>sufficient access to water.</p> <p>The LDCF3 financed project will also consider several Ecosystem-Based Adaptation (EBA) measures and employ them in Component 2 of the project. Soil and water conservation methods, reforestation, re-vegetation and reseeding with endemic species are all proposed as activities with significant budgets in Component 2 (See Activities, 2.2.6-2.2.12, 2.3.1, 2.3.2 in the Project Document.).</p>
4	<p>With regards to component 2, Germany kindly asks to start coordinating with AfDB and KfW already in the phase of the preparation of the final project documents. Both institutions will soon also be present in the Assamo area. We further suggest assessing the potential links to Somalia in terms of cross-border water management and the role of other Somali actors who can benefit from or contribute to this project in the Assamo region. We also suggest capturing traditional and local knowledge in water management practices and not only focusing on external innovations. This will increase understanding, sustainability and anchor innovations on existing practices</p>	<p>During the project preparation phase, UNDP and AfDB agreed to coordinate water infrastructure development, technical studies, cash-for-work schemes and monitoring within the Weima watershed (Adailou site) to build a synergy between the LDCF3 and AfDB's <i>Drought Resilience and Sustainable Livelihoods Programme in the Horn of Africa</i> project. (See response 6 to the GEF Council for more details).</p> <p>KfW is supporting IGAD's and the LDCF3 financed project's plans to maintain close collaboration with IGAD's IDDRISI platform, as described in response to Comment 2 by the Government of Germany. The collaboration with IGAD in terms of cross-border water management will be supported by the LDCF3 financed project in Djibouti and the LDCF1 project in Somalia, which are both being developed by UNDP. In Somaliland, the communities are advanced in using traditional water capturing measures, such as building shallow wells and creating small retention basins. They are also familiar with fabricating gabion using stone and wire mesh as a means to prevent flooding is already in practice in Somaliland (supported by the International Labour Organisation in Somalia: see Somalia's NAPA 2013). Lessons-learned from cross-border experiences of gabion construction will be shared between Somali and Djiboutian LDCF financed project stakeholders, building on the synergies between the two LDCF financed projects.</p> <p>In return, the Djibouti LDCF3 financed project will share with the Somalia LDCF1 knowledge of how to use an integrated approach to manage watershed resources considering the entire catchment. Lessons-learned from the novel application of Catchment Management Committees (CMCs) in Djibouti's LDCF3 financed project will be shared with Somalia.</p>
5	<p>With regard to component 3, Germany asks to coordinate capacity development activities with IGAD Secretariat as its new Platform Coordination Unit will provide Capacity Development</p>	<p>The LDCF3 financed project has been designed so that the National CC Committee will collaborate with the IDDRSI platform as per its new mandate. The NCCC will work with resilience-related initiatives at national and regional</p>

<p>Services to Member States. Collaboration in Capacity Development can be especially made when it comes to cross-border cooperation between Djibouti, Somalia or even Ethiopia. We kindly ask to explain in the final project document how this coordination could look like.</p>	<p>levels as per the NCC Strategy to be developed. Furthermore, the NCC Secretariat will facilitate knowledge-sharing and the transfer of lessons-learned between the IDDRSI Platform and the NCCC. The LDCF3 financed project will share its hydro-geotechnical studies with IGAD as well as providing lessons-learned on how to implement infiltration galleries, a relatively new groundwater recharge technique in Djibouti.</p> <p>In relation to cross-border cooperation, the NCCC will support the IDDRSI platform to facilitate activity implementation. In the working schematic (Figure 2 in the Project Document), the IGAD Secretariat will serve as a high-level member and regional partner for the NCCC. As such, decisions will be streamlined to support cross-border issues. The Djibouti LDCF3 and Somalia LDCF1 projects will coordinate with IGAD on common areas such as reforestation, climate data collection and improving community-based drought and flood preparedness.</p>
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ANNEX C: STATUS OF IMPLEMENTATION OF PROJECT PREPARATION ACTIVITIES AND THE USE OF FUNDS⁵⁵

A. DESCRIBE FINDINGS THAT MIGHT AFFECT THE PROJECT DESIGN OR ANY CONCERNS ON PROJECT IMPLEMENTATION, IF ANY:

Project design will be updated based on the hydro-geotechnical studies and the Environmental Impact Assessment to be conducted in the first 6 months of the project. As outlined in the risks section, the project could encounter delays due to the lack of nationally-available expertise and human resources. To mitigate this implementation risk, the project will establish a database of national and international experts able and willing to provide technical support to the project – for instance, to assist with infiltration gallery design and construction. When expertise is not available nationally, regional and international experts will be recruited. Close linkages with co-financing partners and baseline projects will also ensure the availability of technical expertise.

Another design and implementation risk is that water management strategies could be made ineffective by an unanticipated increase in the frequency of flood events and continued drought. To mitigate this risk, diversified and secured access to water resources, combining both surface and ground water, as well as the implementation of adapted cultivation techniques of forage and other crop varieties, will be used. Furthermore, investments will be selected and designed using a community participatory process, thereby allowing local knowledge of climate risks to be incorporated into project design.

B. PROVIDE DETAILED FUNDING AMOUNT OF THE PPG ACTIVITIES FINANCING STATUS IN THE TABLE BELOW:

PPG Grant Approved at PIF: 100,000			
<i>Project Preparation Activities Implemented</i>	<i>GEF/LDCF/SCCF/NPIF Amount (\$)</i>		
	<i>Budgeted Amount</i>	<i>Amount Spent To date</i>	<i>Amount Committed</i>
1. Local consultants	29215	14215	15000
2. International consultants	42983	27983	15000
3. Travel	8978	4978	4000
4. Technical workshops			
5. Management	4023	3023	1000
6. Consultancy Firm	11554	0	11554
7. Service Contracts-Individuals			
8. Bank Charges			
9. Sundry	1000	0	1000
10. Learning - training of counterparts	2247	2247	0
11. Services – Companies (committed but not paid)			
12. NEX Advance (not liquidated)			
Total	100,000	52,446	47,554

⁵⁵If at CEO Endorsement, the PPG activities have not been completed and there is a balance of unspent fund, Agencies can continue undertake the activities up to one year of project start. No later than one year from start of project implementation, Agencies should report this table to the GEF Secretariat on the completion of PPG activities and the amount spent for the activities.

ANNEX D: CALENDAR OF EXPECTED REFLOWS (if non-grant instrument is used)

Provide a calendar of expected reflows to the GEF/LDCF/SCCF/NPIF Trust Fund or to your Agency (and/or revolving fund that will be set up)

Not applicable.



United Nations Development Programme

Country: Djibouti

PROJECT DOCUMENT¹

Project Title: Supporting rural community adaptation to climate change in mountainous regions of Djibouti

UNDAF Outcome(s):

UNDAF Pillar 3 Outcome 1: The rural communities and ecosystems are more resilient to climate change

UNDAF Pillar 3 Outcome 2: The institutions responsible for risk and catastrophe management are strengthened and can contribute to the country's resilience to risks and disasters

UNDAF Pillar 3 Outcome 3: The most vulnerable populations benefit from improved food security

UNDP Strategic Plan (2014-2017) Environment and Sustainable Development Primary Outcome:

Countries are able to reduce the likelihood of conflict, and lower the risk of natural disasters, including from climate change;

UNDP Strategic Plan (2014-2017) Secondary Outcome:

Growth and development are inclusive and sustainable, incorporating productive capacities that create employment and livelihoods for the poor and excluded;

Expected CP Outcome(s): National and sectoral planning, monitoring and evaluation and macroeconomic management are supported, strengthened and focused on reducing extreme poverty, vulnerability, and the MDGs. Prospects for economic development and job creation at national and local level are expanded; rural communities and ecosystems are more resilient to climate change

Expected CPAP Output(s):

CPAP Focus Area 2 (Sustainable Environment and Climate Change) Output 2: Vulnerable communities better equipped when faced with climate change

CPAP Focus Area 2 Output 3: More effective preservation interventions for the environment and ecosystems

Executing Entity/Implementing Partner:

Ministry of Habitat, Urbanism and Environment

Implementing Entity/Responsible Partners:

Ministry on Habitat, Urbanism and the Environment (MHUE)

Ministry of Agriculture, Water, Fisheries, Animal Husbandry and Marine Resources (MAEPERH)

State Secretariat for Solidarity

Ministry of Interior through the Executive Secretariat for Risk and Disaster Management

Ministry of Budget

Ministry for the Promotion of Women

EVA (Village Ecology of Adailou)

Agricultural Cooperative of Assamo

¹For UNDP-supported, GEF-funded projects as this includes GEF-specific requirements.

Brief Description

As climate change evolves, and floods and droughts become more severe and frequent in Djibouti, there is a need to find approaches that can reduce the sensitivity of farmers and pastoralists to increasing rainfall variability. Impacts from erratic rainfall are intensified in upland regions, where severe flood events cause significant erosion and damage to livelihoods. At the national level, the absence of a national climate change strategy and institutional mechanisms to promote cross-sectoral/cross-ministerial coordination and to mobilise funds hampers efforts to address long-term climate-related risks in rural regions. At regional and local levels, particularly in remote mountain regions, communities lack the financial, technical and informational resources needed to build their resilience to climate change as well as the knowledge of how to prepare for extreme weather impacts. This project will support the reactivation of the National Climate Change Committee to coordinate cross-sectoral actions and to ensure effective use of resources and generation of co-benefits for activities supporting adaptation to climate change. At the regional (sub-national) level, the project will be used to develop targeted drought and flood preparedness plans and to build capacity to support disaster risk management and reduction. At the local level, the project will reduce the vulnerability of rural mountain populations to climate change by mobilizing and storing surface and groundwater resources, diversifying livelihoods, enabling access to markets, and reducing erosion through reforestation and re-vegetation. Local-level activities will be facilitated by strong coordination with locally-based NGOs/CSOs. In conjunction with other ongoing initiatives of relevance outlined in this project document, LDCF resources are expected to enhance the adaptive capacity of vulnerable populations in Djibouti to respond to extreme weather events as well as to facilitate long-term climate-resilient development and preparedness planning at the national and regional levels.

<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Programme Period:</td> <td>2014-2018</td> </tr> <tr> <td>Atlas Award ID:</td> <td>00079962</td> </tr> <tr> <td>Project ID:</td> <td>00089831</td> </tr> <tr> <td>PIMS ID:</td> <td>5189</td> </tr> <tr> <td>Start date:</td> <td>May 2014</td> </tr> <tr> <td>End Date:</td> <td>May 2018</td> </tr> <tr> <td>Management Arrangements</td> <td>NIM</td> </tr> <tr> <td>PAC Meeting Date</td> <td>26 Mar 2014</td> </tr> </table>	Programme Period:	2014-2018	Atlas Award ID:	00079962	Project ID:	00089831	PIMS ID:	5189	Start date:	May 2014	End Date:	May 2018	Management Arrangements	NIM	PAC Meeting Date	26 Mar 2014	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Total resources required</td> <td style="text-align: right;">\$34,009,452</td> </tr> <tr> <td>Total allocated resources:</td> <td style="text-align: right;">\$34,009,452</td> </tr> <tr> <td>• GEF/LDCF</td> <td style="text-align: right;">\$5,379,452</td> </tr> <tr> <td>• Government (Grant)</td> <td style="text-align: right;">\$11,700,000</td> </tr> <tr> <td>• Government (In-kind)</td> <td style="text-align: right;">\$700,000</td> </tr> <tr> <td>• UNDP (Grant)</td> <td style="text-align: right;">\$3,160,000</td> </tr> <tr> <td>• NGO (Grant)</td> <td style="text-align: right;">\$100,000</td> </tr> <tr> <td>• NGO (In-kind)</td> <td style="text-align: right;">\$500,000</td> </tr> <tr> <td>• European Union (Grant)</td> <td style="text-align: right;">\$12,240,000</td> </tr> <tr> <td>• IGAD (Grant)</td> <td style="text-align: right;">\$230,000</td> </tr> </table>	Total resources required	\$34,009,452	Total allocated resources:	\$34,009,452	• GEF/LDCF	\$5,379,452	• Government (Grant)	\$11,700,000	• Government (In-kind)	\$700,000	• UNDP (Grant)	\$3,160,000	• NGO (Grant)	\$100,000	• NGO (In-kind)	\$500,000	• European Union (Grant)	\$12,240,000	• IGAD (Grant)	\$230,000
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Agreed by (Government): _____

Date/Month/Year

Agreed by (Executing Entity/Implementing Partner): _____

Date/Month/Year

Agreed by (UNDP): _____

Date/Month/Year

TABLE OF CONTENTS

1	SITUATION ANALYSIS	5
1.1	Problem Declaration	6
1.2	Preferred Solution	7
1.3	Barriers facing the project	9
1.3.1	<i>Poor coordination between Government agencies on adaptation-related initiatives</i>	9
1.3.2	<i>Need for transparent, cross-sectoral finance mechanisms to build climate resilience</i>	9
1.3.3	<i>Limited national financing and ad hoc, uncoordinated donor responses for long-term climate change adaptation measures</i>	9
1.3.4	<i>Unsustainable water management, agricultural and pastoral production practices</i>	9
1.3.5	<i>Limited socio-economic development and diversification of livelihoods within Djibouti’s mountainous regions</i>	10
1.3.6	<i>Limited understanding of drought / flood preparedness and mitigation measures at regional and community levels</i>	10
2	STRATEGY	11
2.1	Project rationale and policy conformity	12
2.2	Country ownership: country drivenness and country eligibility	15
2.3	Design principles and strategic considerations	18
2.3.1	<i>Baseline projects and financing</i>	18
2.3.2	<i>Ongoing relevant national and regional related initiatives</i>	25
2.3.3	<i>National and local benefits</i>	29
2.3.3	<i>UNDP comparative advantage</i>	30
2.4	Project Objective, Outcomes and Outputs/activities	32
2.4.1	<i>Baseline Component 1 - Without LDCF Intervention</i>	33
2.4.2	<i>Adaptation Alternative Component 1 –With LDCF Intervention</i>	35
2.4.3	<i>Baseline Component 2 - Without LDCF Intervention</i>	41
2.4.4	<i>Adaptation Alternative Component 2–With LDCF Intervention</i>	43
2.4.5	<i>Baseline Component 3 - Without LDCF Intervention</i>	49
2.4.6	<i>Adaptation Alternative Component 3–With LDCF Intervention</i>	50
2.5	Key indicators, risks and assumptions	57
2.6	Cost-effectiveness	61
2.7	Sustainability of the project	67
2.8	Project replicability	69
2.9	Stakeholder involvement	71
2.9.1	<i>Stakeholder baseline analysis</i>	71
2.9.2	<i>Stakeholder involvement plan</i>	77
2.9.3	<i>Expected Socio-Economic and Environmental Benefits</i>	77
3	PROJECT RESULTS FRAMEWORK	79
4	TOTAL BUDGET AND WORKPLAN	88
5	MANAGEMENT ARRANGEMENTS	95
6	MONITORING FRAMEWORK AND EVALUATION	99
7	LEGAL CONTEXT	102
8	ANNEXES	103

Annex 1: Risk Analysis	103
Annex 2: Work Plan	115
Annex 3a: Letters of Agreement (Direct Project Cost)	125
Annex 3b: Letters of Agreement (Cofinancing)	129
Annex 3c: Synergy between the LDCF2 and the LDCF3 financed projects	142
Annex 4: Terms of Reference	144
Annex 5: References	158
Annex 6: Stakeholder Involvement Plan	160
Annex 7: Decree of the National Climate Change Committee	162
Annex 8a: Maps of Assamo (top) and Adailou (bottom) including wadi locations	163
Annex 8b: Proposed Rain Gauge Networks for Assamo and Adailou	164
Annex 8c: Site Visit Photos	165
Annex 8d: Stakeholder Consultation Meeting Minutes	167
Annex 8e: Location Map showing AfDB (BAD), PROMES and PRODERMO projects	175
Annex 9: Environmental and Social Screening Procedure	176

1 SITUATION ANALYSIS

1. Since 2007, Djibouti has been facing a prolonged drought event that has heavily impacted pastoral-agricultural production and rural livelihoods. Rainfall has been 75% below average in some regions. A total of 206,000 vulnerable people have been identified in Djibouti as now being affected by drought and its associated socio-economic impacts. The 2010 Rapid Drought Impact Assessment showed that the 2010 drought – the fourth consecutive year of failed rainfall in terms of its quantity and regularity – had a devastating impact on the water security and livelihoods of the 240,000 people living in rural areas, particularly small-scale farmers and herders. At present, 120,000 rural farmers and pastoralists (15% of the country's population) are considered food-insecure and require food distribution. The 2010 Assessment found that the total economic loss attributed to the drought amounted to 3.9% of GDP (with losses in the agricultural sector estimated at 41%) with on-going damage serving to reduce the economic growth rate by 0.7% per year.² The results of the latest survey on the assessment of food security, conducted by the World Food Programme in May 2013, show that 49% of rural households are moderately food-insecure and 18% of households are severely food-insecure.³

2. Such severe climate change impacts are detrimental for the rural regions, which rely on subsistence farming and pastoralism and have very limited access to infrastructure, services and markets. Pastoral activities consist of extensive nomadic herding (primarily sheep, goats and camels), which often represents the sole source of subsistence. Some 210,000 individuals practice pastoralism and graze on 90% of the country's territory. However, due to the impacts of drought, transhumance is being constrained by a reduction in grazing routes with sufficient water and pasture. More than 70% of the population and herds do not have access to water within a reasonable distance. Similarly, livestock sales have reduced due to poor animal health and the difficulty of trekking weak animals the long distances to reach markets. Consequently, income generated from animal husbandry fell by approximately 4.8% for households between 2012 and 2013.²

3. Despite some expansion during the past decades, development of small-scale farming remains modest in Djibouti, mostly due to the scarce water resources in most rural areas. Cultivation of small agricultural plots is generally located on wadi banks, where availability of irrigation water and fertile land is greatest. Most farmers are involved in fruit and vegetable production, sometimes combined with semi-sedentary livestock production (i.e. agro-pastoralism). In recent years, the Government of Djibouti has started to diversify local agricultural production by introducing agro-forestry practices through the plantation of drought and salt-tolerant varieties of date palm trees (imported from Saudi Arabia). However, in total, sedentary agriculture contributes only 3% to GDP.

4. In spite of the fact that the rural areas have a demographic weight of 27% in Djibouti, the rural areas contain 45% of the population considered to be living in extreme poverty. In the mountain areas of Djibouti – the massifs of Arrey, Ounda Hemed, Tadjourah, Bour, Ougoul, Moussa Ali, Goda and Mabla – communities are disproportionately poor due to the lack of infrastructure, limited market access and harsher agricultural conditions relative to lowland areas (as with other mountainous regions around the world)⁴. Markets are located predominantly on the coast or on the plains.⁵ As a result, the rural mountain populations have limited means to sell products and, in effect, limited incentives to develop Income-Generating Activities (IGAs).

5. Exacerbating the lack of access for remote mountain populations is the fact that habitat loss is a major threat in the Horn of Africa's dryland highlands.⁶ In Djibouti, mountain vegetation is a vital

² Verner, Dorte, *Adaptation to a Changing Climate in the Arab Countries*, MENA Development Report, World Bank, 2012.

³ World Food Programme, *Evaluation de la Sécurité Alimentaire en Situation d'Urgence en Zone Rurale, République de Djibouti*, July 2013.

⁴ Mountain Partnership, *Why Mountains Matter for Forests and Biodiversity: A Call for Action on the Sustainable Development Goals (SDGs)*, January 2014.

⁵ Verner, Dorte, *Adaptation to a Changing Climate in the Arab Countries*, MENA Development Report, World Bank, 2012.

⁶ FAO *Highlands and Drylands, Mountains a source of resilience in arid regions* 2011.

natural resource and a source of livelihood for the mostly nomadic pastoralists. Without any alternatives, pastoralists are currently forced to over-exploit mountain resources, contributing to further weakening of the natural environment.⁷ Loss of tree cover, in particular, has worsened the impacts of flash floods and erosion by reducing rates of water retention. An inability to store water in mountain regions has been shown to have devastating effects on the vast numbers of rural people who depend on rain-fed agriculture in mountain and hillside areas⁸. Furthermore, temperatures are predicted to increase by 3 degrees Celsius in the Ethiopian highland region (worst case scenario). The temperature increase alone is expected to have adverse impacts on agriculture, pastoralism, water resources, ecosystem production and human health.⁹

6. Without any intervention, management and planning to address the aforementioned problems and risks, particularly for the long-term, are predicted to become more challenging. Data analyses conducted under the Initial National Communication to the UNFCCC (INC¹⁰) have projected reductions in precipitation of between 4% and 11% up to 2050. Already, early manifestations of climate change and associated shifts in rainfall and water regimes have been felt across the country. The INC and the National Adaptation Programme of Action (NAPA¹¹) have demonstrated a marked temperature increase of 1.5°C since 1990 throughout Djibouti and rainfall reductions since 1960 (between 6-15%, depending on the region). Indeed, the past decades have witnessed an increase in the frequency of drought events from one in 10 years to the present case of one in 2-3 years. Consequently, in agreement with the INC, the World Bank Natural Disaster Hot Spots study has characterized Djibouti's economy as being at relatively high risk to multiple natural disasters; approximately 32 percent of its population lives in areas of high risk, and 35 percent of the economy is vulnerable to natural disasters.^{12,13}

1.1 Problem Declaration

7. The livelihoods of rural populations are currently at risk in Djibouti due to repeated water shortages during periods of severe drought and an inability to capture and infiltrate runoff during heavy rains. According to a Post-Disaster Needs Assessment conducted by the Global Facility for Disaster Reduction and Recovery (GFDRR¹⁴), 2011 was the fourth consecutive year of failed rainfall (in terms of quantity and regularity). One hundred percent of the traditional wells and 80 percent of the community wells in Djibouti are temporarily or permanently out of order because of water shortage or poor water quality.¹⁵ The greatest damage and losses were found in the agriculture livestock, water, and sanitation sectors where in total, costs amounted to US\$96 million.¹³

8. A reduction in water resources has led to over-pumping of groundwater resources and a resulting increase in the salt content of groundwater. Compounding this problem is the lack of permanent river systems (wadis) which, when subject to infrequent rainy periods, are characterized by disastrous floods with significant erosion. Furthermore, Djibouti has an evapo-transpiration rate ten times the annual rainfall rate, so there are prolonged periods when river beds are dry. Due to the lack of water, farmers and pastoralists are experiencing a severe drop in agricultural and livestock production and a deterioration of their income. Lack of water has already forced nomadic pastoralists

⁷ MHUE, *Fourth National Report on Biological Diversity in the Republic of Djibouti*, March 2009.

⁸ UNEP *Managing Fragile Ecosystems: Sustainable Mountain Development*, 2012.

<http://www.unep.org/Documents.Multilingual/Default.asp?DocumentID=52&ArticleID=61>

⁹ FAO, *Highlands and Drylands, Mountains a source of resilience in arid regions*, 2011.

¹⁰ Djibouti's Initial Communication to the UNFCCC 2001:

http://unfccc.int/essential_background/library/items/3599.php?such=j&symbol=DJI/COM/1%20B#beg

¹¹ Djibouti's NAPA: <http://www.adaptationlearning.net/node/494> 2006

¹² World Bank, *Natural Disaster Hotspots: A Global Risk Analysis*. 2005.

¹³ The drought of 1999 affected more than 150,000 nomadic herdsmen, and the scarcity of rainfalls resulted in the loss of 30 percent of the cattle.

¹⁴ GFDRR, *Evaluation des Dommages, Pertes et Besoins Suite à la Sécheresse Post Disaster Needs Assessment: Drought*, Oct. 2011

¹⁵ Verner, Dorte, *Adaptation to a Changing Climate in the Arab Countries*, MENA Development Report, World Bank 2012.

to reside longer at sites near groundwater boreholes. Consequently, there has been intense pressure on existing water points and significant land and forest degradation as well as loss of vegetation due to overgrazing.¹⁶

9. A steep and long-term trend of aridification in Djibouti's uplands, accompanied by increasingly erratic and severe rainfall events, has caused significant erosion and damage to livelihoods. These changes were shown by the Post Disaster Needs Assessment (GFDRR 2011) to seriously compromise pastoral and farming lifestyles and increase the vulnerability of already at-risk rural communities.¹⁷ Furthermore, there are limited livelihood opportunities in mountain regions due to their remoteness and lack of access to markets.

10. Exacerbating the problem of access to markets in mountain regions is the fact that there are limited linkages between agro-pastoralists and sustainable farming and grazing practices which can help them adapt to climate change. The persistent drought has increased the vulnerability of communities due to loss of their means of subsistence. However, agro-pastoralists are not familiar with how technologies can help increase productivity and build resilience to climate change (e.g. using rainwater harvesting to mitigate the impacts of drought).

11. Few drought and flood warnings are communicated to rural populations, and information on best practices for water management is not effectively relayed to rural communities. The situation is dire for rural mountain populations because no hydro-meteorological stations exist to assist in generating weather warnings. Furthermore, the rural populations have no means to generate a sufficient earnings and capital base to make their livelihood systems more resilient to highly variable climate risks. The rural mountain regions targeted by this initiative have no other major alternative livelihood options (such as industry or mining). When conditions for living become too harsh in rural regions, the usual adaptation option is migration to the capital of Djibouti, Djibouti Ville. However, the unemployment rate in Djibouti Ville is already extremely high (approximately 60%).

12. Exacerbating the poverty and climate-related problems in the mountain regions is the limited availability of funds at the national level to support adaptation actions. Djibouti requires significant financial resources to address climate change impacts. As identified by the GFDRR Post-Disaster Needs Assessment, during the period 2013-2018 interventions for drought and other hazards are expected to cost US\$196 million (about 4 percent of GDP).¹⁸ However, due to the severity of impacts from extreme weather (droughts, floods) and associated food insecurity, most Djibouti Government budget lines are used to support short-term priorities such as drilling boreholes when shallow wells become dry. Consequently, farmer and pastoralist communities in the regions of highest rainfall variability largely depend on humanitarian aid to buffer risks during prolonged drought periods (such as the present drought). However, humanitarian aid is often not timely or effective.

1.2 Preferred Solution

13. The preferred (normative) solution in Djibouti is to facilitate adaptation to climate change at regional (sub-national) and local levels while enhancing a coordinated national response. At the national level, the National Climate Change Committee will be reactivated to coordinate cross-sectoral climate change adaptation actions to ensure maximum use of resources and co-benefits, informed medium and long-term planning, and efficient and transparent use of funds. At a regional level, LDCF funds will be used to reinforce targeted drought and flood preparedness. At a local level, along with the support of locally-based NGOs/CSOs, the project will reduce the vulnerability of rural mountain populations to climate change by mobilizing and storing surface and groundwater resources,

¹⁶ Ministry of Habitat, Urbanism and the Environment, *4th National Report on Biological Diversity of the Republic of Djibouti, 4^{ème} Rapport National Sur la Diversité Biologique de la République de Djibouti* 2009.

¹⁷ GFDRR, *Evaluation des Dommages, Pertes et Besoins Suite à la Sécheresse Post Disaster Needs Assessment: Drought*, Oct. 2011

¹⁸ Verner, Dorte, *Adaptation to a Changing Climate in the Arab Countries*, MENA Development Report, World Bank 2012.

reducing erosion through reforestation / re-vegetation, enabling communities to prepare for drought and flood risks, and diversifying livelihoods along with better market access.

14. The project will use LDCF funds to apply this three-tiered solution in the mountain villages of Adailou and Assamo (See Figure 1) using various innovative approaches as described below:

- Reactivating the National Climate Change Committee and giving it a clear mandate to develop and implement a National Climate Change Strategy.
- Development of national dynamic modelling expertise to ensure adaptation is relevant, cost-effective and well-integrated into strategies across a range of sectors (e.g. Health, Finance, Economy, and Environment).
- Creation of a National Environment and Climate Change Fund to exploit more than 50 international public funds and 6,000 private equity funds providing climate change financing in order to ensure climate change actions are prioritised and Government funds are earmarked specifically for climate actions without compromising other development priorities.
- Creation of Catchment Management Committees (to date, not developed in Djibouti).
- Creation of gabion construction cooperatives (to date, not developed in Djibouti) to provide livelihood diversification.
- Promotion of inter-community knowledge exchange on nursery development, reforestation and artisanal product marketing.
- Building community self-resilience to climate change by empowering regions and communities to participate in flood and drought preparedness measures.
- Linkage of cookstove distribution with micro-finance to support a targeted effort to reduce deforestation in mountainous areas which are highly exposed to climate change-induced land degradation

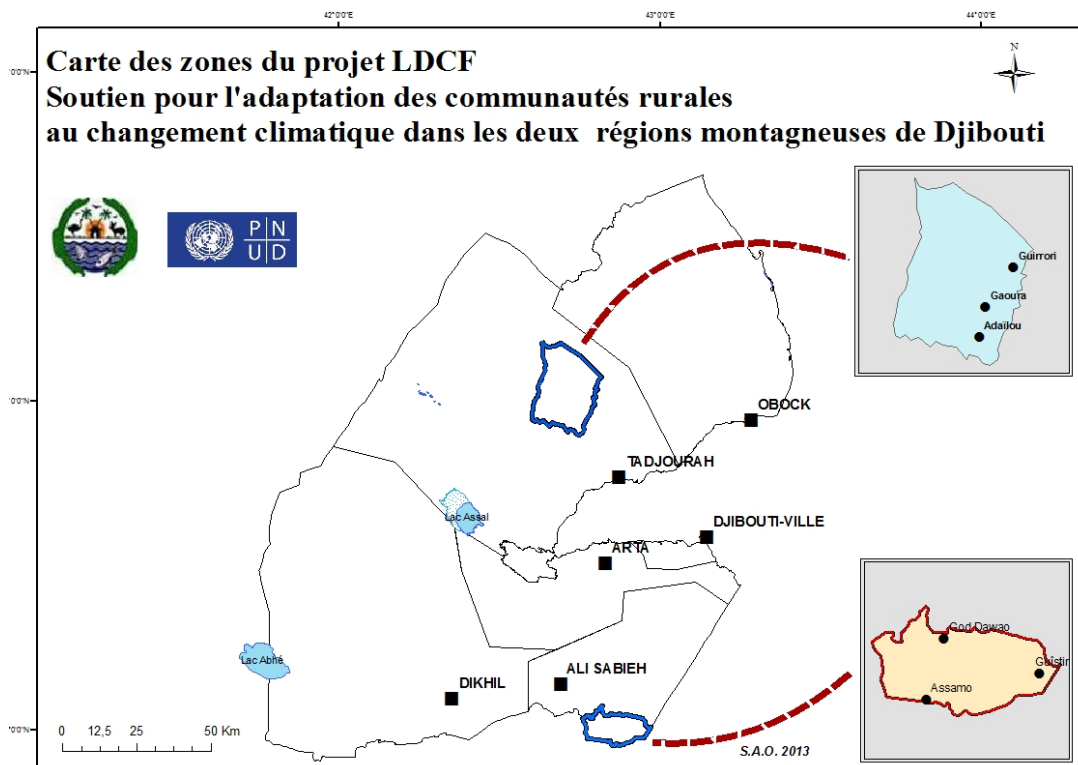


Figure 1: The northern (top) project zone is Adailou in the Tadjourah region. The southern (bottom) project zone is Assamo in the Ali-Sabieh region.

1.3 Barriers facing the project

However, this normative solution is hindered by a number of institutional, financial, technological and informational barriers including:

1.3.1 Poor coordination between Government agencies on adaptation-related initiatives

15. While Djibouti has an array of policies and strategies targeting aspects of vulnerability (for example, the Poverty Strategy, the National Initiative for Social Development, the National Programme of Action for the Environment, the National Plan to Combat Desertification, etc.), they suffer from lack of coordination between Government departments (a problem also identified by the National Capacity Self-Assessment¹⁹), an absence of climate change mainstreaming, and limited consideration of the impacts of future climate change on various socio-economic sectors. This has prevented an integrated, cross-sectoral approach to decision-making and planning. Moreover, Djibouti has no national climate change strategy to bring together and synthesise an integrated response to the climate impacts identified in the NAPA and the National Communication to the UNFCCC.

1.3.2 Need for transparent, cross-sectoral finance mechanisms to build climate resilience

16. There are no existing Government financing mechanisms to support climate change resilience. Indeed, in a country characterised by extreme short-term challenges including poverty and malnutrition, the Government often finds it difficult to justify the allocation of scarce fiscal revenues to longer-term structural needs. Furthermore, experience with existing funds (i.e. the National Youth Fund and National Water Fund) has shown that strong governance mechanisms are required. In the case of the National Water Fund, capitalization of the fund was discontinued due to alleged corrupt usage of funds.

1.3.3 Limited national financing and ad hoc, uncoordinated donor responses for long-term climate change adaptation measures

17. Djibouti is a low-income country, with an average GDP per capita of \$2,700 in purchasing power parity terms. Faced with a range of pressing development challenges, notably extreme poverty and malnutrition, the Government's financial resources are insufficient to fully address long-term systemic problems such as infrastructure investment for water management, diversification of agro-pastoralist systems, or modelling and analysing potential future climate change impacts.

18. As a result, Djibouti relies heavily upon international aid, which accounts for approximately 30% of the Government's total budget. Significant donors include Japan, France, Germany, the United States and the European Union. While humanitarian aid is coordinated by UN-OCHA and the Ministry of Interior, climate change-related support – because of its cross-sectoral, cross-ministerial and dispersed nature (and the fact that climate change is often a secondary aspect to obtaining sustainable agriculture, forestry and water and energy resources) – lacks central coordination and, as a consequence, suffers from fragmented delivery and reduced effectiveness.

1.3.4 Unsustainable water management, agricultural and pastoral production practices

19. There is a shortage of technical knowledge and capacity to apply groundwater capture and surface water mobilisation techniques in Djibouti. The Water Department of the Ministry of Agriculture, Fisheries and Animal Husbandry has conducted technical studies on the possibilities of using micro-dams inside wadis in order to create artificial water reservoirs to capture wadis' periodic

¹⁹ National Capacity Self Assessment 2008, *Plan d'Action National pour le Développement des Capacités en matière de Gestion Durable de l'Environnement en République de Djibouti* Dr. Nabil Mohamed Ahmed Novembre 2008

<http://www.thegef.org/gef/sites/thegef.org/files/documents/document/Djibouti%20final%20report.pdf>

flows. Similarly, the Ministry of Agriculture has developed plans to create infiltration galleries which act as horizontal drains or filters to capture groundwater. However, the practical knowledge and capacity to implement such approaches in Djibouti's bio-physical context are lacking. There are a number of ongoing donor-funded water projects (e.g. the Great Green Wall, Adaptation Fund); however, none of these are concerned with Djibouti's mountainous regions. These projects also concentrate on the more common practice of groundwater extraction – as the Ministry of Water has significant experience in borehole development – rather than surface water capture to replenish depleting groundwater resources.

20. As a result of poor surface and groundwater mobilisation, agro-pastoral practices are underdeveloped in the context of emerging climate pressures, characterised by poor productivity, limited options for forage growth to absorb shocks during severe drought periods, and lack of diversification of produce to spread risks across seasons. For example, pastoralists are unable to diversify dryland products and exploit the evident market demand for different dairy products, including cheeses and yogurts. There is also no knowledge transfer mechanism to improve rural populations' awareness of adaptation technologies (e.g. rainwater harvesting) and water conservation practices, particularly the remote rural, mountainous populations in Djibouti. The practice of tree removal for grazing and fuel wood is further compounding productivity problems; deforestation is occurring at a rate of 3% per year in Djibouti²⁰. Consequently, the impacts of flash floods, such as soil erosion, are becoming more severe.

1.3.5 Limited socio-economic development and diversification of livelihoods within Djibouti's mountainous regions

21. Djiboutian mountain regions face market access barriers, both physical (e.g. distance to market, treacherous roads, steep terrain) and informational (e.g. lack of awareness of prevailing market prices, lack of established retail networks, etc.). Few rural farmers and pastoralists have the means to travel, while even fewer have vehicles that can withstand the treacherous road conditions to access the nearest local town, which can be several hundred kilometres away. Furthermore, there are limited market stalls in the nearest towns. No permanent structures exist to serve as places to sell village produce at fixed, market prices and to store produce on a daily basis. In Ali Sabieh, approximately 20 km from Assamo, the market exists from 7 am to 1 pm, but it is not fixed and farmers must find relatives in the city who are willing to store their produce. In Tadjourah, approximately 25 km from Adailou, the situation is more critical because there is currently no place for agro-pastoralists to sell their produce. By being excluded from the domestic market, the mountain populations have been unable to sell "fresh local produce", which is in high demand in the country's capital, Djibouti Ville, where approximately 75% of the country's population resides. Furthermore, by not having market stalls, it has been impossible to diversify mountain livelihoods in an integrated way with other revenue-bearing activities – such as artisanal sales – which can be promoted at the stalls. Market stalls can also serve as a selling point for nursery products (seedlings, fruit tree grafts) and can provide a centre for knowledge sharing and training on climate-resilient agricultural practices. During stakeholder discussions during the project preparation period, agro-pastoralists in both regions indicated that their top priorities are to have permanent, designated agro-pastoral market stalls which have sufficient storage capacity.

1.3.6 Limited understanding of drought / flood preparedness and mitigation measures at regional and community levels

22. In spite of a number of Disaster Risk Management initiatives at the national level²¹, of the five regions in Djibouti, few regional council members have an understanding of climate change and

²⁰ MHUE, *Fourth National Report on Biological Diversity in the Republic of Djibouti*, March 2009, data for Day Forest, near Adailou.

²¹ The Executive Secretariat for Risk and Disaster Management (SEGRC, Secrétariat Exécutif de la Gestion

how rural populations can build resilience to floods/droughts using adaptation measures. Planning for climate change at the regional level is also difficult because, at present, there are no in-situ hydro-meteorological measurements taken in the mountainous regions of Djibouti. Zero data collection prevents the identification of risks, delineation of vulnerable zones and quantification of expected return periods for extreme weather events.

23. National drought and flood alerts generated by the Executive Secretariat for Risk and Disaster Management (Secrétariat Exécutif de Gestion des Risques et des Catastrophes, SEGRC), the Djibouti Meteorological Authority and the Research and Study Centre of Djibouti (CERD) are presently focused on Djibouti Ville or the country in general. The SEGRC has established local focal points and Local Risk and Catastrophe Management Committees to transfer risk-related responsibilities to the regional level. In line with this decentralization process, SEGRC, along with the support of FAO, drafted brief flood action plans for the regions. However, the action plans are general and are focused predominantly on the regional capitals and their imminent surroundings. As such, they do not consider the highland, varied terrain throughout each respective region's expansive watersheds. Targeted flood and drought preparedness plans are required for the mountain regions because they have different climate characteristics relative to the rest of Djibouti; the mountain regions (such as Day Forest) can experience up to two times more rainfall than the average, as well as greater temperature extremes. Furthermore, the steep terrain of these regions also produces higher peak flows.

24. Furthermore, the regional DRM/DRR action plans do not consider community-based adaptation measures, where communities can build preparedness to droughts and floods. A prime example is the construction and use of gabion dams as a means of flood control, which is a common practice for rural mountain communities in neighbouring Somalia.²² These dams can be used for water harvesting and to dissipate fast flood flows. Rural mountain communities in Djibouti lack such practical knowledge which can help them prepare for droughts and mitigate the impacts of flooding, independently, without relying on Government support.

2 STRATEGY

25. No single initiative can completely remove all of the aforementioned barriers. Nonetheless, this project (hereafter referred to as the LDCF3 financed project or the proposed project²³) will work in conjunction with other adaptation and mitigation-related initiatives to build on their advances in removing these barriers.

26. The LDCF3 financed project aims to address the above barriers by achieving the following three outcomes:

27. Outcome 1: Institutional capacities for coordinated, climate-resilient planning strengthened; Mechanisms and a de-risked investment environment established to catalyse finance for climate change adaptation

28. Outcome 2: Improved water management in the targeted regions to conserve scarce water resources and manage temporal flows to reduce flooding and erosion

des Risques et de Catastrophes) has a flood hazard prevention plan for Djibouti City (Synalad) and a national drought prevention plan (SOAAR).

²² Ministry of Natural Resources, *National Adaptation Programme of Action on Climate Change*, Somalia 2013.

²³ Note that, with the approval of this initiative, Djibouti will have three initiatives under implementation and financed by the Least Developed Country Fund (LDCF) that are based on the priority project profiles identified in the country's NAPA. To avoid confusion, the first NAPA follow-up project *Implementing NAPA Priority Interventions to Build Resilience in the Most Vulnerable Coastal Zones in Djibouti* (2010 – 2014, GEF PMIS No. 3408) will be referred to as **LDCF1**; the second LDCF supported project developed under UNEP *Implementing adaptation technologies in fragile ecosystems of Djibouti's Central Plains* (2014-2018, GEF PMIS No. 5021) will be the **LDCF2**; and the current project, on supporting rural community adaptation to climate change in mountain regions of Djibouti, will be referred to as "**LDCF3 financed project**" or the "**proposed project**".

29. Outcome 3: Improved resilience to hydrological climate change risks; Enhanced resilience to climate-mediated economic shocks through income generation and diversification

2.1 Project rationale and policy conformity

30. The project idea and expected outcomes are firmly embedded in the recommendations made in Djibouti's National Adaptation Programme of Action (NAPA), its Initial National Communication to the UNFCCC, the National Capacity Self-Assessment (NCSA), recent studies implemented within the framework of new initiatives (such as the Great Green Wall, GGW, initiative) as well as a range of national and sectoral policies and strategies.

31. The **National Adaptation Programme of Action** (NAPA, 2006)²⁴ was based on a broad consultative process at all levels, from Government authorities to vulnerable communities, including priority stakeholders and the most vulnerable segments of the population. Consensus on adaptation priorities identified three sectors – water, agriculture and forestry, and livestock. Of the 12 key vulnerabilities identified in the NAPA, 5 (flooding, lack of water, loss of property and infrastructure, threats to livelihoods, and livestock stresses) are addressed by the LDCF3 financed project.

32. According to the NAPA, at the national level adaptation responses are hampered by policy gaps, institutional weaknesses and limited climate change awareness by policy-makers and communities. The specific mountain regions addressed by this project, namely Adailou in the Tadjourah region and Assamo in the Ali-Sabieh region, are identified as suffering from a suite of heightened pressures, including increasing irregularity of rainy seasons, soil erosion, deforestation and reduced availability of water. Effectively, the LDCF3 financed project addresses NAPA Priorities 2 (promoting the fencing of forest areas coupled with the introduction of improved stoves), 3 (implementation of restoration and management actions adapted to surface water), 4 (promotion of integrated agro-pastoral industry) and 6 (promoting the regeneration of pastures). In conjunction with the Ministry of Habitat, Urbanism and Environment, and by building off and coordinating with other baseline and relevant projects, the LDCF3 financed project plans to target these two particularly vulnerable areas to directly address these NAPA priorities.

33. The LDCF3 financed project is also in agreement with the **Initial National Communication to the UNFCCC** (2001)²⁵ which identifies Djibouti's principal environmental problem to be water scarcity and the ephemerality of surface water. The project plans to implement some of the INC's proposed adaptation measures by mainstreaming climate change considerations into water resource planning, hydraulic installations and sustainable management of tree resources (including, specifically, reforestation of upland areas). Capacity development, awareness-raising and fiscal revenue constraints are highlighted as cross-cutting barriers to climate adaptation actions, all of which will be addressed by the LDCF3 financed project.

34. Similarly, the LDCF3 financed project addresses the needs identified in the **National Capacity Self-Assessment** (2008)²⁶. Lack of coordination and overlapping mandates between Government entities are identified as key challenges to environmental governance in the NCSA. Additionally, the NCSA recommends the creation of an Office of Coordination accompanied by capacity development and the provision of tools and resources necessary for Government agencies' functioning. This specific recommendation will be addressed in Component 1 of the project. Similarly, Components 2 and 3 will address the NCSA's recommendations to support community-

²⁴ The NAPA document for Djibouti can be downloaded from the UNFCCC website 2006, http://unfccc.int/adaptation/workstreams/national_adaptation_programmes_of_action/items/4585.php

²⁵ Djibouti's Initial National Communication to the UNFCCC 2001, http://unfccc.int/essential_background/library/items/3599.php?such=j&symbol=DJI/COM/1%20B#beg

²⁶ National Capacity Self Assessment 2008, Plan d'Action National pour le Développement des Capacités en matière de Gestion Durable de l'Environnement en République de Djibouti Dr. Nabil Mohamed Ahmed Novembre 2008 <http://www.thegef.org/gef/sites/thegef.org/files/documents/document/Djibouti%20final%20report.pdf>

based capacity building for natural resource management and the promotion of reduced logging and land degradation.

35. Component 3 of this project is aligned with the **National Initiative for Social Development**, (Initiative Nationale pour le Développement Social, **INDS**)²⁷. This initiative was launched in January 2007 to address Djibouti's social and economic challenges, replacing the Poverty Reduction Strategy Paper (PRSP). The INDS aims to promote access to basic social services and improve the quality and effectiveness of delivery in terms of Disaster Risk Reduction (DRR). In alignment with the aim of Component 3, the INDS aims to streamline DRR in priority sectors by strengthening Disaster Risk Management (DRM) institutional capacity, risk mitigation and preparedness.

36. The project also takes steps to advance Djibouti's National Adaptation Plan process. To date, Djibouti has mobilised many Government, private and civil society organisations to provide awareness on adaptation, its cross-cutting nature and the challenges it entails. LDCF financing will be used to create a National Climate Change Committee and Secretariat as well as a National Climate Change Strategy and National Environment and Climate Change Fund to address the recommendations proposed by Djibouti to continue advancing its NAP²⁸, including provision of: i) better coherence among the adaptation actions being implemented by trans-sectoral institutions, ii) improvement in adaptation coordination, iii) a platform for communication, exchange and sharing of experiences and best practices, iv) mobilisation of finance to sustain adaptation actions, and v) better cooperation among financial partners (including donors, Government ministries, institutions and NGOs/CSOs).

37. Furthermore, the project supports 4 of the 9 **Millennium Development Goals (MDGs)**, namely:

- MDG1: Eradicate Extreme Poverty and Hunger
- MDG3: Promote Gender Equality and Empower Women
- MDG7: Ensure Environmental Sustainability
- MDG8: Develop a Global Partnership for Development

38. Overall, in implementing priority interventions identified in the NAPAs, the project is consistent with the Conference of Parties (COP-9) and also satisfies criteria outlined in the UNFCCC Decision 7/CP.7 and GEF/C.28/18. The project has been endorsed by the national UNFCCC and GEF focal points.

39. The project focus is aligned with the scope of expected interventions as articulated in the LDCF programming paper and decision 5/CP.9. As climate impacts fall disproportionately on the poor, the project recognizes the links between adaptation and poverty reduction (GEF/C.28/18, 1(b), 29).

LDCF conformity

This project is fully consistent with LDCF objectives and priorities:

40. Components 1 and 2 of this project support LDCF/SCCF Area Objective 3 by promoting the transfer and adoption of adaptation technologies. The technologies to be adopted in this project include adaptation technologies/packages to increase the productivity of farmers and pastoralists (Component 2). Component 1 of this project will facilitate the mobilisation of financing required for the adoption of adaptation technologies.

41. Component 3 of this project supports LDCF/SCCF Area Objective 2 by increasing the adaptive capacity to respond to the impacts of climate change, including variability, at local and

²⁷ INDS document 2006: <http://www.solidaritenationale.dj/Document.php>

²⁸ Djibouti's recent presentation at the NAP-GSP / PAG-PNA Africa Regional Training Workshop in April 2014 in Addis Ababa, Ethiopia.

regional levels. Specifically, Component 3 will reinforce the capacity the Tadjourah and Ali-Sabieh regional governments and local communities to implement drought and flood preparedness measures.

42. Moreover, Outcomes 1, 2 and 3 of this project are aligned with the GEF/LDCF Portfolio Level Outcome/Output, “Capacity development at the local level to implement climate-related disaster prevention measures.”

GEF conformity

43. The project has been designed to meet overall GEF requirements in terms of design and implementation:

Sustainability: The project has been designed to be sustainable at village and at national levels by building capacity at all levels. The National Climate Change Committee will have the capacity to channel future diversified funding for climate change. Its Secretariat will facilitate better coordination and information sharing. Also, by mobilising water resources, the project regions will be able to have sustainable supply beyond the lifetime of the LDCF financed project. Other actions, such as facilitating the extensive involvement of CSOs and providing women with access to markets and diversified Income Generating Activities (IGAs), will support the sustainability of the project.

Monitoring and Evaluation: The project is accompanied by an effective M&E framework which will enable ongoing adaptive management of the project, ensuring that lessons are learnt, management decisions are taken based on relevant and up-to-date information, and regular progress reports are available for concerned parties. The implementation of the project’s activities will reflect UNDP-GEF monitoring and evaluation standards and procedures, in line with the requirements of the LDCF.

Replicability: Great attention has been paid in the project design to ensuring that lessons are replicable, sufficient training builds the capacity to transfer expertise to other initiatives, and that necessary replication mechanisms are in place.

Stakeholder involvement: Following on from the NAPA process, the design of this project has been undertaken in a participatory manner. Moreover, the design of the project has ensured the appropriate involvement of stakeholders (actors and users) in project development and implementation (See Section 2.9).

Multi-disciplinary approach: the project will undertake a number of activities to ensure various Ministries and NGOs/CSOs are fully engaged, have capacities built and can contribute to the sustainability of activities in the mountain regions. The NCCC and its Secretariat will be composed of experts from various disciplines to ensure that resilience-building activities optimise co-benefits. In each project zone, the local NGOs (EVA in Adailou and the Agricultural Cooperation in Assamo) will be involved to support on-the-ground activities.

Gender equality: the project outcomes will contribute to knowledge on resilience-building activities and adaptation responses. Public awareness campaigns and the integration of women’s groups (e.g. the National Women’s Union) will strengthen gender equality in terms of women’s ability to market artisanal products, diversify their livelihoods (e.g. nursery development) and effectively build resilience to climate change.

Complementary approach: In order to build upon existing plans and avoid duplication of efforts, the project will work in conjunction with relevant ongoing projects in Djibouti and will build on similar initiatives for each project component (e.g. the UNEP LDCF2 financed project, the AfDB and IGAD projects, etc.: see Section 2.3).

44. The proposed project has been prepared fully in line with guidance provided by GEF and the LDCF Trust Fund. The project follows the guidance from the ‘Programming Paper for Funding the Implementation of NAPAs under the LDC Trust Fund’ (GEF/LDCF, 2006). The project focus is also aligned with the scope of expected interventions as articulated in the LDCF programming paper and decision 5/CP.9. As climate impacts fall disproportionately on the poor, the project recognizes the

links between adaptation and poverty reduction (GEF/C.28/18, 1(b), 29). The project has also been developed in line with GEF Council comments as indicated in Annex 10, including the need to demonstrate coordination with other ongoing activities.

2.2 Country ownership: country drivenness and country eligibility

45. The Government of Djibouti ratified the United Nations Framework Convention on Climate Change (UNFCCC) in 1992 and is classified as an LDC Non-Annex 1 Party. Djibouti also developed and submitted its National Adaptation Plan of Action (NAPA) in 2006 and is entitled to benefit from the LDC Fund for the implementation of priority measures identified in its NAPA. The NAPA was developed according to the guidelines set out by the UNFCCC in Decision 28/CP.7. In implementing priority interventions identified in the NAPA, the project satisfies criteria outlined in UNFCCC Decision 7/CP.7 and GEF/C.28/18. In addition to supporting NAPA priorities, the project is in line with a number of Government policies and strategies, as outlined in Table 1.

46. In support of Component 2 of the LDCF3 financed project, a number of recent studies have demonstrated that surface water mobilization is of utmost importance for Djibouti and will build the country's resilience to climate change for both rural and urban areas. These assessments²⁹ include:

- The sectoral reports for the **Great Green Wall Initiative**, which observe that surface water mobilized by earth dams can be used for several months (after rainfall) by pastoralists for livestock. Small-scale forage production plots can be developed near the water ponds.
- The evaluation report of the **African Development Bank** for the project "Mobilization des eaux à usage domestique et agricole" reports the successful development of agricultural activities after water mobilization in Djibouti.
- Scientific studies on Djibouti aquifers stress the imbalance between the current natural recharge and the pumping demand and the need for more water capture and storage for uses such as agriculture.

47. Given the limited water availability in Djibouti, the development of more efficient agro-pastoral systems is a key national priority for the Government, as illustrated by many national development programmes and plans that have underlined the necessity of integrated rural development initiatives based on improved water management and agro-pastoral development. As such, the 2003 **Poverty Strategy** aims to stop rural decline in the country through the rationalization of the exploitation of natural resources and assistance to drought-prone pastoral communities while improving agricultural yields and food production. Djibouti's 2009 **Poverty Reduction Strategy Paper (PRSP)** is oriented along three inter-related pillars: financial stabilization and economic restructuring; social development and environment; and regional integration. The Social Development and Environment pillar of the PRSP foresees the implementation of a disaster prevention strategy focusing on drought and flood prevention, as well as the promotion of food security through alternative livelihoods. In parallel with the PRSP, the Djiboutian Presidency launched the **Social Development Initiative (INDS, 2006)**, to which all ministries are required to contribute through the development of sectoral plans and programmes. The priorities of the INDS are to promote access to basic social services, to foster economic growth, poverty reduction and employment generation, and to provide assistance to those in precarious situations.

48. Component 2 is in alignment with the **National Programme of Action for the Environment (PANE)** and the **National Plan to Combat Desertification (PAN)**, which underline the urgent need to protect the environment and better manage soil, water and pastoral resources. Similarly, Component 3 promotes the use of micro-finance, in line with the **National Micro-Finance Policy (2012-2016)**, which stipulates a plan of action and strategic goals for the micro-finance sector in Djibouti. The mission of the Policy is to assure the access of poor populations to financial lending

²⁹ The assessments can be accessed by contacting the Ministry of the Environment (MHUE) for the GGW study and the Ministry of Agriculture, Water, Fisheries, Animal Husbandry and Marine Resources (MAEPERH) for the AfDB study

services, to coordinate the development of micro-finance institutions, and to improve management tools and operational capacities of these institutions so as to create a range of innovative and diverse services. The project is also fully consistent with the **Comprehensive Africa Agriculture Development Programme (CAADP)** – in which Djibouti participates – which calls for urgent action in areas related to investment in water and land management.

49. Similarly, the Components of the LDCF3 financed project are in-line with the Government's **Seven Pillar Mitigation Priorities**. Relevant pillars addressed by this project include: (a) establishing strategic foodstock and regulatory mechanisms, (b) creating a more sustainable and drought-resilient agriculture, (c) strengthening water management and retention, and (d) strengthening existing disaster risk management mechanisms.

50. In respect of UNDP, the project is guided by the **United Nations Development Assistance Framework (UNDAF, 2013-2017)**, UNDP's **Strategic Plan (SP, 2014-2017)**, Djibouti's **Country Programme Action Plan (CPAP, 2013-2016)** and the **Country Programme Document (CPD, 2013-2016)**. The UNDAF emphasises Djibouti's risk exposure to climate change and natural disasters, and seeks to strengthen national institutions responsible for poverty reduction. The UNDAF framework for management of natural resources proposes to establish: (1) an integrated environmental safeguard strategy, (2) a framework for fighting desertification, (3) a flood early warning system; and (4) the active involvement of rural communities in the prevention and management of natural hazards.

51. The project is fully aligned with the UNDAF outcomes. The UNDAF addresses efforts to progress the Republic of Djibouti from Least Developed Country status. The LDCF3 financed project is most closely linked to UNDAF Outcomes 1 and 2 under Pillar 1, Poverty Reduction, Inclusive Growth and Sustainable Livelihoods, with particular attention given to youth, women, groups in need and communities at risk from the impacts of environmental hazards, climate change and recurrent disasters. UNDAF indicators relevant to the LDCF3 financed project outcomes include:

- UNDAF Outcome 1, Indicator 2: Number of private sector companies and micro-finance institutions providing micro-finance services.
- UNDAF Outcome 2, Indicator 2: Number of vulnerable, especially female-headed, households adopting climate change adaptation measures.
- UNDAF Outcome 2, Indicator 4: Number of regions with functioning early warning systems, including flood and drought preparedness systems.

52. All components of the project adhere to UNDP's **Strategic Plan (SP, 2014-2017)** for developing countries, which emphasizes support for sustainable development pathways. The SP stresses the need to reinforce planning, policy frameworks and institutional capacities to support actions on climate change as well as reinforcing effective maintenance and protection of natural capital. Activities recommended for implementation and being supported by the LDCF3 financed project include: 1) advancing South-South co-operation, 2) improving access to natural resources for employment and livelihoods, and 3) supporting DRR with data, policies and capacities for comprehensive sub-regional and regional action on natural disasters.

53. The project is similarly aligned with Djibouti's **Country Programme Action Plan (CPAP, 2013-2016)** by supporting decentralisation with capacity reinforcement for the local risk and catastrophe management committees. Also, the LDCF3 financed project plans to reinforce the regional DRR/DRM action plans. Furthermore, the LDCF3 financed project plans to better equip vulnerable communities when faced with climate change and preserve the environment and ecosystems in two mountainous zones of Djibouti.

54. Finally, the project is in line with UNDP's **Country Programme Document (CPD, 2013-2016)**, which builds on the UNDAF. The CPD is based on the 100 priorities enunciated in the Government's National Development Strategy, the global UNDP Strategic Plan, the lessons drawn from the previous cooperation framework and the results of the programme assessment. It also derives from the Istanbul Action Plan, particularly with regard to the strengthening of renewed partnerships in order to better promote national economic development and combat extreme poverty. The third (of

three) element of the CPD consists of interventions designed to “improve the resilience of the communities most vulnerable to the effects of climate change and to preserve the environment”. Interventions by UNDP are primarily directed towards: (a) strengthening national governance of food security within the framework of the responses jointly offered by the United Nations system to the chronic food crisis; (b) establishing machinery for the management of risks and the effects of disasters and capacity building in national institutions and civil society in this area; (c) strengthening mechanisms for adjustment to drought in rural communities; (d) investigating and introducing new methods and technologies to enhance the adaptation of communities to the effects of climate change; and (e) strengthening interventions for the preservation of protected ecosystems on land and in the sea. The expected results are “a lessening of the vulnerability of peoples and ecosystems to shocks and disasters and an enhanced capacity of institutions and communities to preserve a healthy and lasting environment”.

Relevant national frameworks

55. Issues of land rights and land tenure have been considered under Component 2 when undertaking water mobilisation, agricultural, pastoral and reforestation development activities. In Djibouti, officially rural land across the entire country is owned by the Government. However, a number of ethnic communities live in different parts of the country and, in practice, these communities use different sets of customary law to deal with issues and disputes relating to the use of land and water. In the northern part of the country, which is occupied by the Afar community and where Adailou is located, land issues must be considered because land is traditionally owned by tribes and sub-tribes and communication with the tribes is necessary to obtain approval to build and operate on the land. As demonstrated by ongoing implementation of the UNDP-Adaptation Fund project, *Developing agro-pastoral shade gardens as an adaptation strategy for poor rural communities*, it is important that the local land tenure situation is agreed upon with the Government in this region before project implementation. No issues are foreseen based on stakeholder consultations, prior experience of implementing projects in the Afar region and the fact that the project brings significant socio-economic benefits to Adailou.

56. The southern region of Djibouti is mainly occupied by Issa communities, whose customary law grants equal access to the land. Due to the fact that the Government has equal access to land, particularly if livelihoods will be improved, there are no foreseeable issues with land development (e.g. water mobilisation infrastructure construction, reforestation, cultivation).

57. In contrast to land use, water use is not regulated in Djibouti except in cases of severe drought. Due to the severity of the ongoing water shortage in Djibouti and the fact that communities in both project zones have demonstrated an ability to allocate limited water resources effectively during a prolonged drought, water rights will most likely not be an issue for the LDCF3 financed project. To mitigate any potential water rights issues, the Water Point Management Committees and Watershed Management Committees to be established within the first year of the LDCF3 financed project will work together to find optimal solutions so that all communities in the watershed have sufficient access to water.

58. This project will also abide by the National Environmental Impact Assessment (EIA) Procedures and Guidelines when conducting the EIA required. The Environment Code was adopted in 1992 and is the basis for mitigation of adverse impacts on the biophysical and socio-economic environment in Djibouti. The specific Law on Environmental Assessment No. 51/AN/09/6th L was revised in July 2009 to redefine the applicability and mode of execution of Environmental Impact Assessments (EIAs). Any direct or indirect consequences from investments with environmental resources must be subject to an EIA. The goal of an EIA under Djiboutian law is to assure the integrity of the environment under the constraints of the best available technologies and acceptable economic costs. The Ministry of Habitat, Environment and Urbanism (MHEU) is responsible for approving and evaluating EIAs and Terms of Reference (TORs) for a project. A group of experts concerned with the project’s development tasks is mandated by the MHEU to verify the TORs and information contained in the EIA by validating project impacts in the field. The MHEU is also responsible for project categorization, which defines the type of EIA required - i.e. a summary or

detailed EIA. After completion and acceptance of the EIA, the full feasibility study and EIA must be made publicly available. In accordance with the Law on Environmental Assessment, the MHEU is allowed a maximum of 1 month to validate a project's TOR and 1.5 months to validate and accept a detailed EIA.

59. In the case of the LDCF3 financed project, a detailed EIA is required by Djiboutian law. The construction of earth micro-dams and boreholes as well as the use of irrigation on more than 10 ha of an agricultural project larger than 100 ha in total in Component 2 mandates a detailed EIA. As the Ministry of Environment is the Project Executing Agency, this will further ensure that limited environmental or social impacts are likely occur.

60. Other relevant legislative provisions and international and national frameworks relevant to project activities include:

Table 1: Relevant policies and regulations for the LDCF3 financed project

Policy or Regulation	Effective Date
Ratification of the Convention for Biological Diversity	1995
Ratification of the UN Convention to Combat Desertification (UNCCD)	1997
Water Master Plan	1999
Establishment of the National Climate Change Committee	1999
Adoption of the National Law on the Environment	2000
National Action Plan against Desertification	2000
National Environmental Plan	2000
Environmental Impact Assessment Procedure (Decree 2001-0011/PR/MHUE)	2001
National Action Plan (NAP)	2001
Initial National Communication to the UNFCCC	2001
National Programme for Sanitary Development (PNDS)	2002
Law no. 58/an/04/5, creation and status definition of the Civil Protection Bureau	2004
Regulation No. 2004-0579/Pr/Mid, creation of a technical committee to elaborate the National Strategy for Disaster Risk Management	2004
Decree No. 2006-0192/Pr/Mid, Institutional Framework for Disaster Risk Management	2006
National Adaptation Plan of Action (NAPA)	2006
Poverty Reduction Strategy Paper (PRSP)	2003
National Social Development Initiative (INDS)	2006
Revision on Law on Environmental Assessment No. 51/AN/09/6 th L	2011
National Micro-Finance Policy	2012-2016

2.3 Design principles and strategic considerations

2.3.1 Baseline projects and financing

61. Other baseline projects have tried to address these barriers and problems. LDCF3³⁰ funds will build on ongoing resilience-building and water mobilisation-based projects that are planned or have

³⁰ Note that, with the approval of this initiative, Djibouti will have three initiatives under implementation and financed by the Least Developed Country Fund (LDCF) that are based on the priority project profiles identified in the country's NAPA. To avoid confusion, the first NAPA follow-up project *Implementing NAPA Priority Interventions to Build Resilience in the Most Vulnerable Coastal Zones in Djibouti* (2010 – 2014, GEF PMIS No. 3408) will be referred to as **LDCF1**; the second LDCF supported project developed under UNEP

demonstrated success on the ground. The following baseline projects, detailed below, will be used to support and co-finance the proposed project.

62. ***Rural Community Development and Water Mobilisation Project (PRODERMO)*** (USD 3m, 2012-2017): funded by the World Bank and IDA and executed by the Ministry of Agriculture (MAPE-RH). PRODERMO has the objective of increasing access by rural communities to water and enhancement of their capacity to manage water and agro-pastoral resources. Annual Hydraulic and Pastoral Planning Schemes are developed (along the same lines as those of PROMES-GDT) by local communities through a participatory approach; subsequent community investments, including runoff water harvesting and soil conservation activities, are then guided by the priorities identified by the Schemes. PRODERMO has been designed to align objectives and approaches with PROMES-GDT while extending the geographical reach of activities to the Khor Angar-Obock and Cheiketi-Hanlé regions and broadening the range of interventions to include livestock production, nutrition and rural development in general. (Co-financing provided by the Ministry of Agriculture (PRODERMO project funds): **USD 1.7m** for Components 1 and 3).

63. ***Programme de Pays Pour Mettre Fin aux Urgences Liées aux Sécheresses dans la Corne de l'Afrique***, Intergovernmental Authority on Development (IGAD, 2012-2017): this initiative, implemented by the Ministry of Agriculture, Fisheries and Animal Husbandry, is supporting an effort by the Government of Djibouti to move beyond discrete post-shock (drought) relief efforts to design a comprehensive programme to prevent and manage risks, thereby reducing the country's vulnerability to natural hazards and food insecurity. The Programme is focusing its interventions in the areas most affected by drought, where pastoral households have lost up to 50% of their livestock, and is prioritising rural development projects that support income-generating activities (poultry, beekeeping, small crafts, etc.), market access and trade, and labour-intensive activities that support job creation.

64. Another relevant project financed by IGAD is the ***Hydrological Cycle Observing System (HYCOS)*** programme – funded by the EU, EUR 6.6m for 10 countries, implemented by WMO. This regional project has four components: 1) establishing the IGAD Regional Centre for Water Management, 2) establishment of the IGAD-HYCOS monitoring network, 3) development of regional surface and groundwater databases and enhancing national databanks, 4) strengthening regional and national capabilities for water resource management.

65. The success of the IGAD programme is based on the assumption that there is a strong national coordination mechanism and/or a strong national policy framework in its Member States which supports resilience-building measures. Collaboration with IGAD will enhance the expected outputs of the proposed project. The project can leverage (and be leveraged by) the regional IGAD programme in numerous respects, as detailed in Table 1.

66. At the IGAD Secretariat meeting in April 2012, donors (USAID, Sweden, Germany, EU, ECHO, Canada, CIDA, JICA, DFID and UNICEF) recommended that programmes at national and regional levels be aligned. Part of the National Climate Change Committee's (NCCC's) mandate will thus be to coordinate with IGAD regional programmes. The LDCF3 financed project will ensure that the NCCC provides coordination and the NCC Strategy provides a framework to facilitate resilience-building initiatives, thereby facilitating IGAD activities at the regional level. The LDCF3 financed project will provide the mandate for the newly-reactivated National Climate Change Committee to coordinate with the IGAD Drought Resilience and Sustainability Initiative (IDDRSI) platform before implementing adaptation measures. Specifically, IDDRSI will be invited when the NCC discusses transboundary resources (water, livestock and livelihoods) and how climate change will impact such resources. Similarly, the National Climate Change (NCC) Strategy to be drafted will take into account the IDDRSI Strategy, which aims to address the effects of drought and related shocks in the IGAD region in a sustainable and holistic manner. In return, the IGAD programme can provide added value

Implementing adaptation technologies in fragile ecosystems of Djibouti's Central Plains (2014-2018, GEF PMIS No. 5021) will be the **LDCF2**; and the current project, on supporting rural community adaptation to climate change in mountain regions of Djibouti, will be referred to as **LDCF3** or "**the project**".

in terms of strengthening the link between regional and national policy frameworks (e.g. linking the Hyogo Framework of Action³¹ with Djibouti's NCC Strategy) and supporting national coordination mechanisms.

67. At the ground level, IGAD will be constructing water mobilisation structures in the Juba watershed between Somaliland and Djibouti, the watershed which encompasses Assamo. The LDCF3 financed project will work together with the IGAD Drought Resilience and Sustainability Initiative (IDDRSI) platform by coordinating water mobilisation efforts and sharing hydro-geotechnical studies. IGAD, through its Inland Water Resource Management Programme and the HYCOS project, is planning to invest in the construction of water infrastructure and the deployment of hydrological stations in Guistir near Assamo. IGAD has provided **USD 230,000 co-financing** to demonstrate its support for Components 2 and 3 of the LDCF2¹⁰ project. Combined and in collaboration, IGAD and the LDCF2 project will build capacities of the water sector and support flood preparedness in the Juba watershed. (**Total co-financing from IGAD: USD 230,000 for Components 2 and 3**).

Table 1: Coordination of the LDCF3 financed project with the IGAD programme

IGAD regional programme	Collaboration with LDCF3
Coordination of resilience-related initiatives at national and sub-national levels through the development of a Protocol for coordination, monitoring and sharing information and lessons-learned between the IDDRSI Platform and National Platforms.	The NCCC will facilitate coordination of resilience-related initiatives at the national level and the Secretariat will centralise lessons-learned for the Djiboutian context in a CC database which will be open-access to appropriate stakeholders. Also, IDDRSI will be invited when the NCC discusses transboundary resources (water, livestock and livelihoods) and how climate change will impact such resources.
Identifying priority intervention areas.	Outputs of LDCF3 dynamic models will help to identify prioritised areas in terms of maximum co-benefits (e.g. enhanced DRM, CCA, poverty reduction, employment creation, etc.).
Harmonising resilience-related agenda.	The NCC Strategy will focus on harmonising DRM and CCA resilience-building activities due to the overlap of their goals.
Integration of RPP and CPPs in regional and national development frameworks.	Regional frameworks will be integrated into the NCC Strategy to ensure that regional knowledge-sharing and coordination occur.
Creating a cross-cutting knowledge management system, including an initial database of good resilience-building practices and lessons-learned on building drought resilience and DRM in the IGAD region and Africa.	The NCCC Secretariat and the national dynamic modelling team will be tasked with storing climate and extreme weather-related data in one repository, which will provide easy inter-institutional and regional data-sharing.
Creation of a Resource Mobilisation Strategy (RMS) which will enable IGAD and its Secretariat to optimise the use of currently available funds and combine funding sources. Also, IGAD plans to map and analyse traditional and non-traditional donors for drought resilience and DRM.	One of the mandates of the NCCC is to facilitate the mobilisation of resilience-building funds for Djibouti in the medium- to long-term. IGAD and the LDCF3 financed project will coordinate to mobilise and maximise funding and to share lessons-learned on how to unlock funds.
Creation of the IGAD Multi-Donor Trust Fund (MDTF).	A feasibility study on how to establish the National Environment and Climate Change Fund under the LDCF3 financed project will provide guidance to IGAD on how to best use public/private financing to capitalise funds.

³¹ <http://www.unisdr.org/we/coordinate/hfa>

Constructing water infrastructure and the deployment of hydrological stations in Guistir in the Juba Watershed (near Assamo)	The LDCF3 financed project will work together with the IGAD Drought Resilience and Sustainability Initiative (IDRSI) platform by coordinating water mobilisation efforts and sharing hydro-geotechnical studies.
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Note that cross-border water issues between the Assamo region with neighbouring Somalia will be coordinated by the UNDP Country Offices (COs). The UNDP LDCF3 intervention in Djibouti and the UNDP LDCF1 intervention in Somalia are both scheduled between 2014 and 2018 and will be facilitated by the UNDP COs. In the case of the LDCF1 project in Somalia, the UNDP CO will be the implementing partner. The Djibouti LDCF3 and Somalia LDCF1 projects will also coordinate with IGAD on common areas such as reforestation, climate data collection and improving community-based drought and flood preparedness. The IGAD Secretariat will also serve as a high-level member and regional partner of the National Climate Change Committee (NCCC) to be formed under Component 1 of this project so as to streamline decisions relating to cross-border issues.

68. The European Union will be providing **total co-financing of USD 12.24m** for all components based on their work with the PSSP and GCCA projects described below.

69. ***Supporting Horn of Africa's Resilience – Securing Pastoral Systems in Djibouti (Projet de Sécurisation des Systèmes Pastoraux, PSSP)*** (EU and FAO, USD 9 m) The PSSP project has 3 expected outputs: i) improving rainwater harvesting and groundwater recharge by conducting technical studies, rehabilitating existing water points and reforestation; ii) improving pastoral extension (e.g. veterinary) services and rural water supplies by reinforcing extension services on central and decentralised levels; and iii) making the Djibouti meat and milk product sector more competitive so as to support pastoralism to become more profitable and resilient to climate and socio-political shocks. The second output includes monitoring the health and movement of livestock with GPS and mapping routes and water points. For the third output, the PSSP project will collaborate with IGAD to make pastoralism more resilient. The LDCF3 financed project will incorporate lessons-learned on how to support pastoralists with improved water point placement and management, rainwater harvesting schemes and reforestation. In return, the LDCF3 financed project will provide the PSSP project with ideas on designing and constructing sustainable groundwater recharge infrastructure, using soil and water conservation practices and improving the access of pastoralists to markets in Tadjourah and Ali Sabieh.

70. ***Programme on Climate Change Adaptation and Mitigation in the COMESA-EAC-SADC Region***, Global Climate Change Alliance (GCCA, USD 4.1 m): A programme of the European Union (EU), the GCCA provides technical and financial support to targeted developing countries to integrate climate change into their development policies and budgets and to implement adaptation and mitigation interventions. The Djibouti component of the regional Programme contains a Euro 1 million mitigation element (involving calculation of the grid emission factor and largely energy-based emissions reduction activities) and a Euro 2 million adaptation element focused on urban water use and agro-forestry. Together with the LDCF3 financed project, the Djibouti GCCA programme will help the Government to re-activate and strengthen the National Climate Change Committee. Capacity development and institutional support activities will be coordinated – and, where possible, jointly undertaken – by the two initiatives so as to maximise effectiveness.

71. ***Programme Intégré de Conservation et de Développement (PICODE)*** (commenced in 2008, ongoing), Ecologie du Village Association (EVA, an NGO): EVA is a well-established NGO in Adailou (with more than 15 years of operations), working on integrated approaches to land and water management and livelihood benefits. PICODE consists of four components: reforestation (3,000 trees have been planted to date), anti-desertification (a 12 km² pastoral area has been protected by wind breaks, re-vegetation and other measures), agro-pastoral capacity building and infrastructure improvement (e.g. water works, forage storage, etc.). EVA has plans to expand PICODE to include mini-dam and cistern construction, the creation of water points along transhumance routes, soil conservation, and diversification of local incomes to include, for example, honey production.

72. EVA works in the Weima watershed, most notably Adailou, to support rural communities to build resilience to climate change. In the context of the LDCF3 financed project, EVA will provide in-kind co-financing on the basis of its expertise with reforestation, fencing and pasture regeneration. **(EVA NGO co-financing for Components 2 and 3: USD 500,000)**

73. Similarly, the Agricultural Cooperative of Assamo will support the Assamo community to implement sustainable agro-pastoral practices. It will also help in the rehabilitation of the market in Ali-Sabieh to enable the rural mountain population of Assamo to be able to sell its produce and artisanal products. **(Agricultural Cooperative of Assamo NGO co-financing for Components 2 and 3: USD 100,000).**

74. In addition, the proposed LDCF3 financed project will build on a portfolio of existing **UNDP** projects in Djibouti, including: “Developing National Capacities for Disaster Risk Management in Djibouti” (2012-2014), which aims to improve management of disasters and promote prevention and mitigation of climate hazards including droughts and floods in Djibouti. The project is strengthening the technical and institutional capacities of the Executive Secretariat for Disaster Risk Management in order to enable it to coordinate disaster preparedness and respond in an effective manner; implementing community-based drought and flood risk reduction initiatives; and providing capacity development to the nascent Inter-Ministerial Committee for Disaster Risk Management, which is expected to improve preparedness and response to natural disasters. “Community-Driven Early Recovery for Drought-Affected Poor Rural Households in Djibouti” (2012-2015) is supporting the construction of water harvesting infrastructure through modalities such as cash-for-work, livestock restocking and the establishment of small- and medium-size rural enterprises based on livestock commodity value chains. The “Cash for Work to Restore Livelihoods and Reduce Dependency on Relief” project (2012) worked to accelerate the early recovery of poor rural households affected by the drought through cash-for-work construction of water storage infrastructures (sub-surface dams in wadis and underground cisterns). The National Decentralisation Plan Support Project (2013-2017) is assisting the Ministry of Interior to devolve greater responsibilities to regional councils. The Djibouti UNDP Country Office is a participant in UNDP’s global “Strategic Initiative to Address Climate Change in LDCs” (“Boots On The Ground”) programme, which is supporting 26 low-income countries, including 23 LDCs, by strengthening UNDP Country Offices’ capacity to deliver high-quality and timely policy advice on climate change at the country level. Through this programme, the Djibouti Country Office has had a full-time Climate Change Policy Advisor for the past four years who has been assisting the Government with policy advisory and capacity development services. **(UNDP co-financing for all Components: USD 3.16m).**

75. The Ministry of Equipment and Transport will be constructing the Tadjourah-Balho highway to connect the Port of Tadjourah to Ethiopia. The LDCF3 project will coordinate with the Ministry of Equipment and Transport because the road will facilitate access to markets for the Weima rural communities. It will also support income-generating activities for Adailou and surrounding mountain villages in alignment with Component 3. **Total co-financing provided by the Ministry of Equipment and Transport for Component 3 is USD 10m.**

76. Acting as the Implementation Agency for the project, the MHUE will provide in-kind support for all three components through the use of Ministry buildings, means of logistics and transport as well as staff time to support project implementation and time spent by the Ministry’s executive decision-makers on high level coordination. **Total co-financing provided by the Ministry of Equipment and Transport for all Components is USD 700,000.**

Programme de Mobilisation des Eaux de Surface et de Gestion Durables des Terres (PROMES-GDT) (USD 3m, 2008-2015), implemented by UNDP, IFAD, FAO and WFP and executed by a Project Implementation Unit within the Ministry of Agriculture, Fisheries and Animal Husbandry. The project aims to address the vulnerability of thirst and hunger of pastoral populations during dry seasons by implementing a programme of water mobilisation for people and livestock and by strengthening national institutional and technical capacities. One of the proposed LDCF3 target areas for investment and support, Adailou, falls within the PROMES-GDT project boundary. Activities include the development of community-led Annual Hydraulic and Pastoral Planning Schemes;

rehabilitation of community water reservoirs and retention basins; rehabilitation and construction of micro-dams; the establishment of two tree nurseries in the Day Forest and Randa regions; and the creation and capacity development of community steering committees to oversee infrastructure work. The nearby Day Forest initiative will provide numerous lessons-learned on best reforestation practices, nursery development and rain water harvesting techniques.

(Note that the Ministry of Agriculture is providing co-financing for the LDCF3 financed project through the PRODERMO project).

77. ***The Drought Resilience and Sustainable Livelihoods Programme in the Horn of Africa (DRSLP)***, African Development Bank (2013-2017): This programme is funded by the AfDB under its Horn of Africa regional envelope for drought resilience and the regeneration of sustainable livelihoods. It is being implemented by the Ministry of Agriculture (MAEPERH) and is providing support to the rural populations of Ali-Sabieh and Tadjourah. The overall sector goal of the DRSLP is to contribute to poverty reduction, food security and accelerated sustainable economic growth through enhanced rural incomes in the Horn of Africa region. The medium- and long-term objective of the programme is to enhance drought resilience and improve sustainable livelihoods. The programme includes three components: (i) natural resource management; (ii) improvement of livestock infrastructure and management; and (iii) project management and capacity building. The programme aims to address the root causes of the region's vulnerability in order to build the medium- to long-term resilience of pastoral and agro-pastoral communities. The programme includes enhancement of the availability of water and pastures to support the mobility of pastoralists across borders. The DRSLP is planning to conduct a detailed feasibility study for water infrastructure development, including small-scale irrigation, in the Weima watershed where Adailou is located.

78. For both the LDCF3 financed project and *AfDB's Drought Resilience and Sustainable Livelihoods Programme in the Horn of Africa (DRSLP)* project to leverage the other, both UNDP and AfDB have agreed to use the following approach to maximise synergies:

- Follow a watershed-based approach, while planning the activities including soil and water conservation, afforestation, groundwater extraction, and other activities.
- Minimise duplication and overlapping of activities by sharing the work plans and technical studies.
- Use a consistent community-based approach in following standards: e.g. for labour charges, cost of materials used, etc., to avoid complications.
- Hold regular meeting and shared monitoring of both the projects. During the LDCF3 financed project preparation phase, UNDP and AfDB agreed that the technical studies will be shared with UNDP to support the LDCF3 financed project's water mobilisation plans and designs.

(Note that AfDB could not provide co-financing for the LDCF3 financed project because its funds are being used to co-finance another LDCF financed project).

79. ***Stone Mulching for Tree Planting*** (2012-2014), Japanese International Cooperation Agency (JICA): JICA is working with Tokyo Agricultural University, which has more than 20 years' experience of irrigation methods using stones, to apply the innovative 'stone mulch method' in the Douda and Ali-Sabieh regions. Stone mulching provides a protective soil covering of stones and gravel which aids soil infiltration (i.e. avoids surface runoff) after heavy rain but afterwards forms a capillary break which significantly reduces subsequent evaporation from the soil. This is sufficiently effective for trees to be grown even when rainfall is infrequent. It is also extremely labour-intensive and, after initial training, relatively straightforward to implement, making it an ideal activity for cash-for-work schemes and other forms of rural employment creation.

(Note that JICA could not provide co-financing for the LDCF3 financed project because it will not have any financed projects at the same time as LDCF3 interventions. The proposed project will be up-scaling the stone mulching technique based on lessons-learned and transferred from JICA to the project during LDCF3 project development.)

80. ***Light Years Ahead*** (2011-2016), United Nations High Commissioner for Refugees (UNHCR): the *Light Years Ahead* programme is an initiative to improve basic cooking and lighting

needs for refugees in seven African countries: Chad, Djibouti, Ethiopia, Kenya, Rwanda, Djibouti and Uganda. In Djibouti, the programme has been piloting the use of a specially-developed fuel-efficient cookstove called ‘Save80’, which consumes 80% less fuelwood than standard models, lasts up to 10 years and is easy to transport (on-site assembly). UNHCR reports that use of 4,500 fuel-efficient cookstoves in the camp in Ali-Sabieh has demonstrably reduced the pressure on tree resources in the surrounding area, has improved domestic air quality (due to reduced smoke production from cooking) and has improved the lives of women and girls in particular by reducing the need to forage for fuelwood.

(Note that UNHCR could not provide co-financing for the LDCF3 financed project because it will not have any financed projects in Djibouti at the same time as LDCF3 interventions. The proposed project will integrate lessons-learned on fuel-efficient cook stove implementation as an adaptation measure.)

81. The baseline projects which will co-finance the LDCF3 financed project are detailed below and summarised in Table 3. Co-financing letters of agreement have been attached in Annex 3b.

Table 3: Co-financing from Baseline Projects

Sources of Co-financing	Type	Purpose	Amount (\$)
Ministry of Habitat, Urbanism and Environment (MHUE)	In-Kind	MHUE will provide in-kind support for all 3 components with the use of Ministry buildings, means of logistics and transport as well as staff time to support project implementation and time spent by the Ministry’s executive decision-makers on high level coordination.	700,000
Ministry of Agriculture (PRODERMO project)	Grant	The LDCF3 financed project will build off PRODERMO’s experience in increasing access of rural communities to water and in enhancing national and regional technical and operational capacities to manage water and agro-pastoral resources. The LDCF3 financed project will also build on PRODERMO’s participatory approach to community-based development and any lessons learned on priority investments for communities.	1,700,000
European Union (Securing Pastoral Systems in Djibouti project (PSSP) and the Global Climate Change Alliance (GCCA) project)	Grant	The LDCF3 financed project will build off the EU’s experience in supporting pastoral communities. Through the GCCA project, the EU has implemented activities related to providing water to pastoralists, regenerating pasture land and promoting livestock development. The LDCF3 financed project will also build off the GCCA project’s institutional capacity building for MHUE. Similarly, the LDCF3 financed project will incorporate lessons learned on how to support pastoralists with improved water point placement and management, rainwater harvesting schemes and	12,240,000

		reforestation.	
UNDP	Grant	UNDP will contribute its own resources in support of LDCF3 planning as well as funds associated with projects related to poverty reduction, disaster risk reduction and recovery and climate change adaptation. The total cofinancing will support all three components.	3,160,000
Ecologie du Village Association (EVA NGO)	In-Kind	The LDCF3 financed project will build off an in-kind contribution from EVA to improve reforestation, pasture regeneration and pasture enclosures. Their contribution will support Components 2 and 3 of the project.	500,000
Agricultural Cooperative of Assamo	Grant	The Agricultural Cooperative of Assamo will be supporting the Assamo community to have sustainable agro-pastoral practices. They will also help in the rehabilitation of the market in Ali-Sabieh.	100,000
Ministry of Equipment and Transport	Grant	Coordination with the Ministry of Equipment and Transport will facilitate access to markets for the Weima rural communities through the construction of the Tadjourah-Balho AutoRoute which will connect the Port of Tadjourah to Ethiopia. The road will support Income Generating Activities for Adailou and surrounding mountain villages in alignment with Component 3.	10,000,000
Intergovernmental Authority on Development (IGAD)	Grant	The LDCF3 financed project will work together with the IGAD Drought Resilience and Sustainability Initiative (IDRSI) platform by coordinating water mobilization efforts and sharing hydro-geotechnical studies. The LDCF3 financed project will coordinate with IGAD on common areas such as reforestation, climate data collection and improving community based drought and flood preparedness, supporting Components 2 and 3 of the project.	230,000
Total			28,600,000

2.3.2 Ongoing relevant national and regional related initiatives

82. The proposed third LDCF financed project (LDCF3) will build strategically on the LDCF1 (first NAPA) project that is currently under implementation as well as the LDCF2 financed project which will be implemented some months ahead of the LDCF3 financed project. In order to maximize the use of resources and avoid redundant activities, the LDCF3 financed project has been designed taking into account the proposed activities of the LDCF1 and LDCF2 financed projects.

83. **LDCF2 financed project, UNEP: *Implementing Adaptation Technologies in Fragile Ecosystems of Djibouti's Central Plains*** (2014-2018). The project's objective is to reduce community-level vulnerability by implementing priority actions identified in Djibouti's NAPA in fragile ecosystems, with a geographical focus on the coastal area of Tadjourah and the fragile semi-desert region of Hanlé. The LDCF2 financed project, as with the LDCF3 financed project, will be executed by the Ministry of Habitat, Urbanism and Environment, which will serve to facilitate coordination between the projects. Component 1 of the UNEP-LDCF2 financed project concerns protection against water-related climate change hazards. Although the focus is largely on coastal protection and there are no geographical overlaps between the investment components of the two projects, the two projects will build on one another in an integrated manner. For details on how the projects will coordinate with common or complementary activities, see Annex 3c.

84. During project development, the LDCF3 financed project reviewed all LDCF2 design elements to find the best methods for maximizing synergies. (Adailou is in the upstream portion of the Weima watershed, while Tadjourah marks the outlet of the watershed.) Both projects contain aspects of water mobilization, reforestation, climate-resilient agro-pastoral and nursery development, and livelihood diversification (e.g. apiculture, aviculture). The projects can maximize financial resources by consolidating training costs; both projects can exploit the same training materials and recruitment of national experts required for training agro-pastoralists. The LDCF3 financed project will also build on the financial and business training to be provided by the LDCF2 financed project to develop entrepreneurship in the Tadjourah region. Similarly, the training sessions led by the Women's Association of Tadjourah on handicraft production (doum palm products), which will be organized by the LDCF2 financed project, will be exploited by beneficiaries in the Adailou region. Furthermore, the LDCF3 financed project will collaborate with the logistics expert to be recruited through the LDCF2 financed project, who will investigate different options for agro-pastoralists to deliver their agricultural produce to markets in a timely manner (particularly for Adailou, whose market stall will be developed in Tadjourah City by the LDCF3 financed project).

85. In return, the LDCF3 financed project will support the LDCF2 financed project with the development of the National Climate Change Committee (NCCC), whose role will be to coordinate adaptation-related projects and unlock and channel funds to ensure their continuity in the long-term. The LDCF2 financed project will also be able to exploit the detailed cost-benefit analyses generated by the dynamic modelling team under the LDCF3 financed project. Similarly, the NCCC Secretariat will train policy-makers from various socio-economic sectors on how to integrate climate change and resilience-building measures into development planning. The LDCF2 financed project will also be able to exploit the NCCC Secretariat's adaptation- and DRM-related database, which will centralize lessons learned, design and management ideas of current and future projects on CC adaptation in Djibouti. Furthermore, the LDCF2 financed project will also be supported by additional innovative aspects of the LDCF3 financed project, such as the creation of Catchment Management Committees (Tadjourah and Adailou are both located in the Weima watershed) and the distribution of fuel-efficient cookstoves to be facilitated by micro-finance.

86. Furthermore, LDCF2 activities devoted to water mobilization will be able to exploit the detailed upstream hydrological and hydrogeological technical studies to be conducted to assist with water mobilisation designs in the LDCF3 financed project. As rainfall-runoff infiltration processes highly influence downstream conditions, these studies will inform the LDCF2 financed project's hydrological risk assessments for the coastal and near-coastal regions. Together, the two projects will also draw upon common baseline initiatives, such as the work of the Research and Study Centre of Djibouti (CERD) on watershed dynamics and the "Support to Surface Water Mobilization" project executed by the Ministry of Agriculture, Livestock, Fisheries and Water, all of which will benefit from better coordination through the reactivated National Climate Change Committee and associated capacity development assistance provided by the NCC Secretariat under the LDCF3 financed project.

87. **LDCF1 financed project, implemented by UNEP: *Implementing NAPA Priority Interventions to Build Resilience in the Most Vulnerable Coastal Zones in Djibouti*** (2009-2015, PMIS No. 5021). The project objective is to address the impacts of climate change on coastal ecosystems and communities in Khor Angar and Atar-Damerjog by implementing a set of measures

that strengthen the capacity to predict future changes, while helping local populations to adapt through the adoption of soft measures for more sustainable production methods, particularly in the areas of water management, agriculture, fisheries and tourism. An ecosystems management approach has been applied as the framework for addressing the root causes of vulnerability. Although the LDCF1 financed project and the LDCF3 financed project address different NAPA priorities and geographical areas, there are nonetheless some areas of overlap – notably the LDCF1 financed project’s work on hydrological monitoring, decentralized training for hydro-meteorological monitoring and activities related to water mobilisation and sustainable agriculture. Linkages between the two projects will be facilitated by the common Executing Partner (MHUE). As with the LDCF2 financed project, the LDCF1 financed project will be able to reap the benefits of the reactivated NCCC, which will facilitate better coordination with other adaptation-related projects as well as locating financing mechanisms to continue activities in the long-term.

88. The project will also build on the other on-going and planned adaptation-related projects listed below.

89. A land degradation GEF project, implemented by UNDP: *Harmonizing support: a national programme integrating water harvesting schemes and sustainable land management* (2011-2014, PIMS No. 3216, PMIS No. 3529). This project has the objective of improving the living conditions of pastoral communities through targeted investments and participatory integrated natural resources management. Three regions are targeted - Day Forest and surroundings, Grand Bara and Petit Bara, and the Gobaad area - to enhance inter-sectoral coordination, awareness raising, training of Government officers (GIS, soil and water conservation), and provision of equipment and infrastructures for the Forestry and Anti-Desertification Service. While the GEF project does not overlap geographically with the proposed LDCF3 financed project, the LDCF3 financed project will nonetheless build on the preparatory feasibility study prepared by the GEF project on surface water harvesting through retention works; will benefit from practical lessons-learned associated with the GEF project’s rehabilitation and creation of livestock watering holes designed to collect runoff from small watersheds; will benefit from the GEF project’s experiences with fodder expansion through re-vegetation and reforestation; and will link the National Climate Change Committee (to be established by the LDCF3 financed project) with the National Desertification Committee supported by the GEF project.

90. The Adaptation Fund project, implemented by UNDP: *Developing agro-pastoral shade gardens as an adaptation strategy for poor rural communities* (UNDP-AF, 2012-2017, PIMS No. 4683): This project targets an area in the semi-arid plains of Ali-Sabieh to mobilise and secure sustainable water resources for shade gardens, increase forage production capacities and develop micro-finance products to promote rural incomes. Although the AF project focuses on the lowlands, the AF and LDCF3 financed projects address a suite of shared objectives in two geographically-adjacent target areas with a common executing partner (the Ministry of Habitat, Urbanism and Environment): the design of the LDCF3 financed project has therefore been deliberately shaped to build off some of the preparatory work undertaken by the AF project, notably its engagement of the Agence Djiboutienne de Développement Sociale (ADDS) to formulate a micro-finance scheme for pastoral communities. There have hitherto been no specific credit schemes geared towards farmers and pastoralists for adaptation purposes, the main barriers being mobility (pastoralists, as nomads, have few possibilities to build-up assets to absorb shocks) and the low-income status of the rural population (raising credit risks). The LDCF3 financed project will coordinate with and contribute to the micro-finance strategy developed under the UNDP-AF project to support agro-pastoralists. Cookstove adoption has not hitherto been linked with micro-finance in Djibouti.

91. The *Rural Livelihoods Adaptation to Climate Change (RLACC) or Projet d’appui à l’adaptation des populations au changement climatique (PAPCC)*, (USD 5m, expected end 2014-end 2017) is an African Development Bank (AfDB) project that will focus on: (i) improving the resilience to climate change of pastoral and agro-pastoral communities in targeted areas while increasing the adaptive capacity of their livelihoods and (ii) investing in sustainable measures aimed at improving the resilience of pastoral communities to climate change and variability. The project will

help pastoral communities and households undertake gender-sensitive income-generating activities (accompanied by awareness-raising, information and capacity building) and favour identification of a range of micro-interventions specifically targeting women as the principal beneficiaries. The RLACC will put in place participatory mechanisms aimed at providing local communities with matching grants (to finance specific micro-adaptation projects) and a range of adaptive social protection measures (to protect the livelihoods of the poorest and most vulnerable households against climate risks). The LCD3 project will coordinate with the RLACC project as indicated in Table 2.

Table 2: Means of collaborating between the RLACC and LDCF3 financed projects

AfDB RLACC regional project (PAPCC)	Collaboration with LDCF3
Workshop planned by AfDB to draw lessons-learned from activities and achievements of existing and past projects.	The NCCC will facilitate the workshop as part of its mandate and all lessons-learned will be documented in the open-access climate change database to be housed at the NCC Secretariat.
Small grants will be provided to targeted communities to finance 'micro-adaptation projects' (e.g. in the areas of water, rangeland resources, livestock and Income Generating Activities)	The NCCC can facilitate the distribution of grants based on prioritized needs as defined by dynamic modelling outputs and based on successful interventions demonstrated in existing projects and by the LDCF3 financed project.

92. **World Initiative for Sustainable Pastoralism (WISP)**: WISP is a global initiative that supports the empowerment of pastoralists to sustainably manage dryland resources. UNDP is a member of the WISP Steering Committee, with UNDP's specialist Drylands Development Centre (DDC) taking a lead role. During PIF preparation, the LDCF3 financed project benefited from WISP's experience notes on the Afar and Issa pastoral systems and from its proposed approaches regarding advocacy for maintaining, and enhancing, mobile livelihoods. Furthermore, Djibouti is a participant country in the second phase of UNDP-DDC's **Integrated Drylands Development Plan (IDDP)**, whose objectives include the reduction of vulnerability of dryland communities to climate risks and improving local governance and utilization of natural resources.

93. **Great Green Wall (GGW) Djibouti Action Plan**³², (100m USD, with donors including WB, UNEP, WFP, UNCCD and UN-GEF, signed 2010, begun in 2013) is an ongoing initiative aiming to 'green' Africa across the 4,400 mile east-west axis of the continent as a defence against rapid, expanding desertification of the Sahara. Being executed by MHUE, the GGW initiative is linked to agricultural and water programmes that are intended to be curative (addressing urgent environmental stress) or preventive (long-term environmental risks) in nature. The GGW programme shares many overlaps with the aims of the LDCF3 financed project, as well as a shared executing partner. In particular, common areas of work include: the installation and management of rain gauges; the creation of a database of integrated water resources (this work will be coordinated under the aegis of the National Climate Change Committee so as to incorporate prospective climate change impacts and ensure multi-agency engagement); surface water feasibility studies (the LDCF3 financed project will both benefit from and contribute to this body of knowledge); the creation of frameworks for cooperation and water management involving local stakeholders (the LDCF3 financed project's capacity development activities will support this objective); the rehabilitation of degraded land through tree-planting (the LDCF3 financed project and GGW initiative will share common foundational activities, such as the development of nurseries and using food-for-work schemes, as well as cost-sharing where respective tree-planting schemes overlap); and the construction of 200km of planted corridors to facilitate the movement of cattle from the uplands to the lowlands (and vice versa) during transhumance (the LDCF3 financed project's investments in water retention

³² MHUE *Stratégie et Plan d'Action pour la mise en œuvre de la Grande Muraille Verte à Djibouti (SGMVD)* March 2011.

http://www.fao.org/fileadmin/templates/great_green_wall/docs/Djibouri_Document_de_startegie_et_plan_d_acion_final.pdf

infrastructure will be coordinated with the appropriate corridors delineated by the GGW initiative so as to provide livestock watering points).

94. **CleanStart:** CleanStart is a \$26 million global joint initiative of UNDP and the UN Capital Development Fund (UNCDF) to increase low-income households' access to sustainable, low-cost energy through micro-finance services that are supported by an enabling policy environment and energy value chain. The LDCF3 financed project, in conjunction with the operational arm of the Agence Djiboutienne de Développement Sociale (ADDS) which manages micro-finance schemes for the Government, will benefit from the global support services provided by CleanStart as well as its expertise and growing body of assessment reports and literature.

2.3.3 National and local benefits

95. The LDCF3 financed project supports national development goals and plans to achieve Millennium Development Goals (MDGs) 1, 3 and 7.

- *MDG 1: Eradicate extreme poverty and hunger* – by providing access to financial services and improved agro-pastoralist practices to rural populations in poverty in order to build their resilience to climate shocks. On-the-farm and in-the-field training will be applied to enable the rural populations to take adaptive measures to ensure productivity during extreme weather.
- *MDG 3: Promote gender equality and empower women* – women will be empowered by enabling them to diversify their livelihoods within the value chain of agricultural and pastoral products, including developing nurseries and marketing artisanal products. They will also have equal representation within the Water Point and Catchment Management Committees.
- *MDG 7: Ensure environmental sustainability* – the foundation of the project is to ensure environmental sustainability by supporting rural communities to adapt to climate change with climate resilient agro-pastoral practices.
- *MDG8: Develop a Global Partnership for Development* – the NCCC will coordinate with other regional initiatives, such as IGAD, the GGW and the DRSLP programme, to facilitate climate-resilience building activities and fund mobilisation for such activities in Djibouti.

96. The LDCF3 financed project will support the mobilisation of water, the promotion of sustainable agro-pastoral practices and the diversification of livelihoods for the mountain regions of Adailou and Assamo. The choice of these areas has been guided by the priority interventions recommended by the NAPA including: (a) the poverty rate and the potential for income-generating activities; (b) the importance of surface water and future capture/storage potential; (c) agro-pastoral potential; (d) extreme vulnerability of the populations to climate change and a demonstrable need for support (the north-west of the country – in which Adailou is situated – and the south-east (Assamo) have been worst-affected by the ongoing drought); (e) accessibility for project implementation (machinery, raw materials, supervision); (f) shared commonalities (needs, risks, barriers, socio-cultural context, etc.) with baseline projects while avoiding needless duplication; and (g) addressing the needs of both the Afar and Issa communities.

97. Specifically, the project will mobilise water for approximately 1,900 people in Assamo and 5,200 people in Adailou (1,200 households in total). Catchment Management Committees will be developed to manage the maintenance (de-silting, soil conservation planting) and repair works (e.g. on solar panels) of the dams and boreholes that are constructed or rehabilitated by the project, with each such committee responsible for four dams or boreholes. The Committees will each consist of four focal points – one from each dam or borehole – and one regional government representative. Four sub-committees will report to each Committee, with each sub-committee representing one dam or borehole. Each sub-committee will be composed of 20 people (10 women, 10 men). All members of the Committee and sub-committees will receive training. Additionally, at each shallow well, Water Point Management Committees will be formed, consisting of 2 men and 2 women. With twenty-seven

water points in the project regions, approximately 110 people will benefit from training on well operation and maintenance.

98. Other benefits include sixty households being trained in agro-pastoralism and 2,600 pastoralists receiving training on sustainable climate-resilient practices. Six (6) people in each zone (12 people in total) will receive training on how to construct gabion. This new trade can then be marketed to support the high need in Djibouti for robust reinforcing materials. Seventy households in Assamo and 50 in Adailou will receive training and 8 chickens per family to conduct poultry breeding. Fourteen (14) people in Adailou and 6 in Assamo will be trained in beekeeping, including the provision of bee hives, head and glove protective gear and honey extraction material. Chicken products (meat and eggs) as well as honey sales will enable the populations to diversify their activities and have income-generating activities.

99. Three hundred (300) people will receive training on drought and flood mitigation plans, including 6 regional council representatives, 4 sous-prefects, 6 local leaders, 1 university focal point and 10 technicians from the Ministries of Agriculture, Environment and Interior.

100. Women in mountain rural regions will also be supported in a variety of ways. In rural Djibouti, women as household members or heads of households contribute appreciably to the household economy and food security in diversified ways, with differences apparent between regions. Beside their routine household duties, women participate in household farming by contributing to crop cultivation in back yard farms, which provide households with early income and food prior to the harvest of field crops; feeding and watering of the household herd when at home; collection of water and fire food; and milling of grains.

101. The project plans to reinforce women's capacity in all of these areas and some additional areas so that they can access a diversified mix of revenue streams. Women will be targeted in the development of nurseries, artisanal product development, and marketing poultry and honey products. Forty (40) women will be supported to develop nurseries and 20 will be trained to participate in the artisanal market (with the support of the Women's Association of Tadjourah).

102. NGOs/CSOs will also be targeted in terms of capacity reinforcement. Thirty (30) members from the NGO, Village Ecology Association of Adailou, and 30 from the Agricultural Cooperative of Assamo will receive training on sustainable agricultural practices, gabion construction and drought/flood risk management measures. The importance of training local NGOs has been evident in previous projects, such as EVA's PICODE project (See Section 2.3.1), as environmentally-focused NGOs/CSOs are often the best-placed organisations to continue supporting adaptation practices after a project formally ends.

103. Finally, as the benefits will be bottom-up (generated at the local level) and top-down (generated at the national level), the project will also support multi-sectoral ministry representatives to act on the National Climate Change Committee. A mix of private sector and NGO/CSO representation will be recruited to support the NCC Secretariat, which will be housed within Ministry on the Environment and will consist of approximately 15 people. Finally, LDCF funds will be used to support the development of national dynamic modelling experts (5 people) within the NCC Secretariat to inform the NCCC on the most cost-effective ways to build resilience in Djibouti, including by mobilizing funds and by maximizing co-benefits across sectors to adapt Djibouti to climate change in the medium- to long-term.

2.3.3 UNDP comparative advantage

104. UNDP has long-standing experience in supporting climate change adaptation, climate finance, water management and rural development projects. Over the past decade, UNDP has actively supported work on National Adaptation Programmes of Action (NAPAs) and National Communications to the United Nations Framework Convention on Climate Change in some 140 countries. Recent UNDP efforts have focused on assisting national and sub-national agencies in their efforts to formulate and implement green, low-emission and climate-resilient development strategies (Green LECRDS).

105. At the global level, UNDP has demonstrable expertise in climate finance, investment de-risking, the design and operation of national climate change funds, national climate planning and policy formulation (and, importantly, the mainstreaming of climate change into broader national development agendas), water management, forestry and reducing pressures on forest resources, rural development, market access, and micro-finance. In Djibouti, UNDP has had a permanent Country Office presence since 1978, today staffed by 20 professional-level staff including a full-time Climate Change Policy Advisor.

106. Furthermore, UNDP is one of the key national partners in the micro-finance area. The support that UNDP has provided to the Djibouti Social Development Agency (ADDS) will allow a greater number of Djiboutians to obtain micro-loans for the creation and expansion of micro-enterprises and other income-generating activities through the UNDP-AF project. The operating arm of ADDS, the Popular Bank for Credit and Saving (CPEC) has one credit and savings office in both Ali-Sabieh and Tadjourah with a total of approximately 12,000 members. Women account for approximately 87% of its members. According to recent surveys, revenues obtained from the investments of female creditors are often targeted to support their families, thus raising the overall level of family well-being, education and health. At the national level, UNDP has supported the improvement of the legislative framework through the elaboration of a set of policies and regulations for the micro-finance sector, including: a draft law regulating the creation and functioning of financial cooperatives; a draft consolidation of statutes and internal regulations of micro-finance institutions (MFIs); a framework for the accounting system of MFIs; a procedural manual for the monitoring of the micro-finance sector; and the development of a National Micro-Finance Policy document.

107. The UNDP Country Office is also supported by Regional Technical Advisors at UNDP offices in Bratislava and Addis Ababa, as well as by policy, adaptation, economics and climate modelling experts in New York, Cape Town and Bangkok. A network of global Senior Technical Advisors provides additional technical oversight and leadership, ensuring that programmes on the ground achieve maximum policy impact. There are other LDCF-, SCCF- and AF-financed projects within the region with similar objectives currently supported by UNDP, which means that there is substantial in-house technical expertise within UNDP that can support the Government.

108. UNDP's portfolio of projects and programmes in Djibouti with direct relevance to the LDCF3 financed project is extensive and includes activities relating to disaster risk management, water infrastructure works, livestock re-stocking, re-vegetation and reforestation, pasture-land rehabilitation, decentralised political authorities and poverty reduction (see Section A.1 for details), as well as national-level policy work. Recently, UNDP implemented a decentralization project funded by EU to elaborate regional development and regional investment plans in the Ali-Sabieh and Dikhil regions. Furthermore, over the past nine months UNDP has run a series of discussion and capacity development workshops for Government institutions specifically dedicated to climate change adaptation.

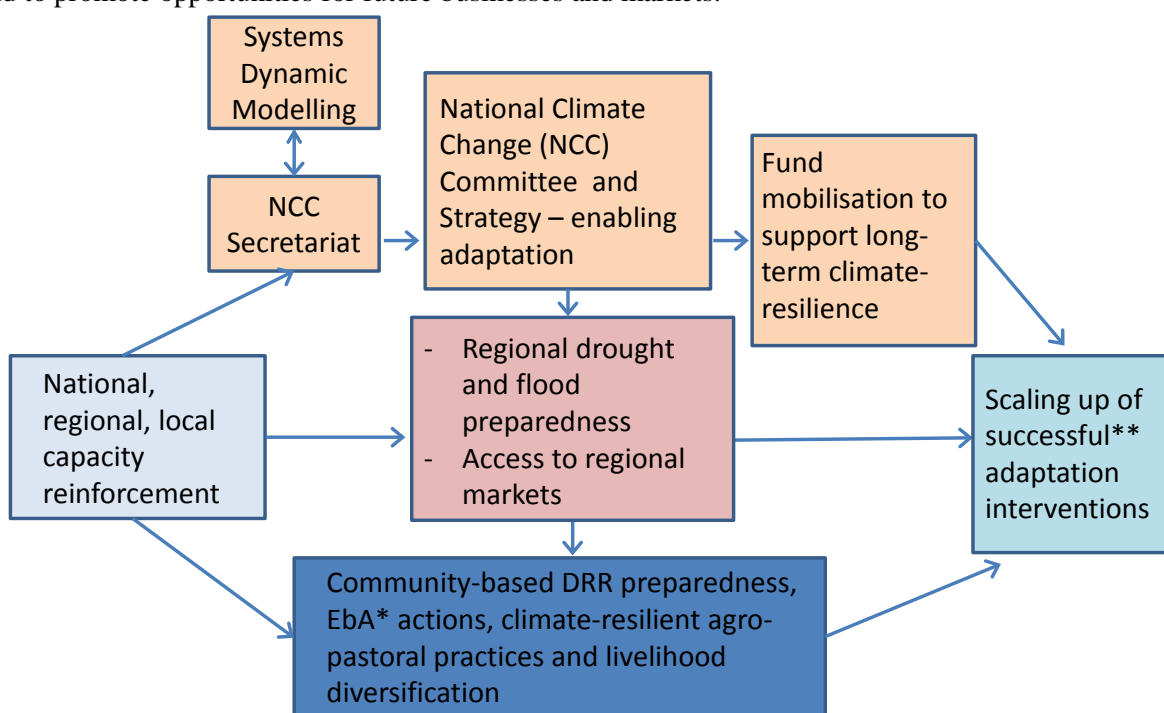
109. For the purposes of the LDCF3 financed project, UNDP will contribute USD 90,000 through its own resources in support of LDCF3 planning as well as USD 3.07 m in funds associated with projects related to poverty reduction, disaster risk reduction and recovery and climate change adaptation. The total co-financing to be provided is USD 3.16 m for all three components.

2.4 Project Objective, Outcomes and Outputs/activities

Project Objective³³

The project objective is to reduce climate-related vulnerabilities facing the inhabitants of mountainous regions of Djibouti through institutional strengthening, climate-smart water management and targeted investment

110. The project's Theory of Change³⁴ is to coordinate and facilitate efforts to build the country's resilience to climate change. By reactivating the National Climate Change Committee and developing a National Climate Change Strategy, the project will create an enabling environment across sectors and levels (national to local) that will support coherent integration of a broad spectrum of climate change-related policies and activities. The project will furthermore empower communities to take effective preparedness measures and to diversify their livelihood activities to mitigate the impacts of climate-related shocks. To incentivize investments in future climate change-related actions, LDCF funds will be used to build dynamic modelling expertise within Djibouti that will demonstrate why climate change matters to public and private sectors in terms of costs and benefits, and what adaptation measures can be taken to reduce risks to existing infrastructure, businesses and livelihoods and to promote opportunities for future businesses and markets.



* Ecosystem-based Adaptation

** based on Monitoring and Evaluation mechanisms to be developed with LDCF funds

Component 1: Increased incorporation of climate change adaptation and adaptation finance in climate-resilient development planning at the national level

³³ Objective (Atlas output) monitored quarterly ERBM and annually in APR/PIR

³⁴ UK Department for International Development (DFID) *Review of the use of 'Theory of Change' in International Development Review Report* by Isabel Vogel, April 2012

Outcome 1: Institutional capacities for coordinated, climate-resilient planning strengthened; mechanisms and a de-risked investment environment established to catalyse finance for climate change adaptation (\$500,000)

2.4.1 Baseline Component 1 - Without LDCF Intervention

111. In 1999, a National CC Committee (NCCC) was established by Presidential Decree (See Annex A). The National Climate Change Committee convened only two times before dissolution because the importance and mandate of the Committee were unclear. Two additional factors contributed to the NCCC's demise: 1) the members' respective ministries had limited incentive to contribute human and financial resources, and 2) there was limited cross-sectorial commitment and support (ministries outside of the Ministries of Agriculture and the Environment were excluded).

112. A National Sustainable Development Committee (NSDC) also exists but has limited outreach due to poor financial resources and poor coordination mechanisms with other ministries. The NSDC does not have a recognised seat in the Government.

113. Consequently, currently in Djibouti there is no means to coordinate numerous adaptation-related Government and donor projects that aim to build the resilience of rural populations and deploy investments in water mobilization and disaster preparedness (See Section 2.3). There is also no integrated development and risk management approach to systematically consider current hazards as well as climate trends. This is exacerbated by limited information-sharing and centralization of lessons-learned. As a result, there is limited efficiency in the use of resources (e.g. national expertise) and in the transfer of technologies. Activities have been, and are being, duplicated as a result.

114. In Djibouti, there is also no national CC strategy that provides a framework to harmonise all climate change and disaster risk management agendas in the country. A strategy is needed to guide Government and donor interventions, policy-makers and on-the-ground programming. Indeed, an informed NCC strategy has demonstrated success in countries such as Zambia³⁵, which developed an NCC Strategy informed by cross-sectorial data to assist with planning and policy development.³⁶ A good example from Zambia is how the health sector can be guided by the NCC Strategy to consider temperature trends to mitigate potential disease outbreaks (e.g. meningitis, malaria). Also, information on the burden of CC on the public budget can be incorporated into the Strategy to incentivize cross-sectorial support. Ministries are more likely to support mitigation and adaptation actions when they gain more awareness and understanding on the costs of adaptation in their respective fields.

115. In order to develop an NCC strategy, evidence for climate change impacting various socio-economic sectors must be provided. A few cross-sectorial studies have tried to demonstrate the impacts of climate change in Djibouti.³⁷ However, these studies are now out-dated. Climate-resilient recommendations must be continuously updated to account for the increasing severity and frequency of CC impacts.

116. Dynamic modelling can support the prioritisation of recommended adaptation measures by providing cost-benefit and adaptation scenario development. The goal of performing dynamic modelling is to inform ministerial strategies so that adaptation measures can be included in planning and decision-making policies. Simulations can detail the optimization of co-benefits of combating

³⁵ Government of the Republic of Zambia, Ministry of Tourism, the Environment and Natural Resources, *National Climate Change Response Strategy*, December 2010.

³⁶ The development of such strategies in nearby Ethiopia and Kenya have also had extremely beneficial impacts in terms of prioritizing needs and harmonizing different ministries'/agencies'/donors' support activities.

³⁷ In 2001, Djibouti developed its first disaster vulnerability study, as well as a study on the vulnerability and adaptation to climate change impacts (Disaster Risk Management Programmes For Priority Countries East and North Africa). In February 2009, the World Bank, with support from the Bank Netherlands Partnership Programme (BNPP), issued a report on climate change risks and adaptation options for Djibouti. This report identified the most vulnerable sectors to climate change and outlined potential priority adaptation measures that could help develop national capacity to understand and adapt to climate change impacts.

climate change across sectors. However, at present, there is no capacity to use or perform dynamic modelling in Djibouti.

117. In Djibouti, there is also a problem with mobilizing funds for climate change. According to the Post-Disaster Needs Assessment (PDNA) conducted by the Global Facility for Disaster Reduction and Recovery in 2012, the identified need for drought and other hazard mitigation interventions for the next five years is US\$196 million (about 4 percent of GDP).³⁸ However, there are no long-term plans to unlock funds using national, regional, international and private sector support. Consequently, Djibouti lacks the ability to effectively and systematically address long-term climate change risks with adaptation measures because only short-term urgent issues can be supported financially.

118. The lack of financing mobilised for climate change adaptation is despite the fact that countries have immense opportunities to utilise climate finance – more sources of funding exist than ever before to help countries achieve their climate change objectives.³⁹ UNDP estimates that, taken together, there are already more than 50 international public funds and 6,000 private equity funds providing climate change financing. Each of these public, private, bilateral and multilateral sources offers new opportunities for countries to address their climate and development needs as identified by the NAPA and NAPs to prioritise issues and sectors where adaptation activities can be undertaken in a cost-effective way.

119. The increase in climate change funding opportunities makes it important for countries to consider how to attract and leverage different types of climate change investment, including that from private sources. With private sector funds outnumbering government funds by an enormous margin, a key challenge for countries will be to use scarce public funds to attract private investment. In order for this increased funding to achieve real results, it is critical that the increased number of funding sources are matched with an increase in Djibouti's ability to collect, blend, coordinate and account for climate finance. Also, Djibouti requires capacity reinforcement in how to identify which funds are appropriate, how to coordinate the actions funded by such funds, and how to strengthen national ownership of climate finance.

120. Exacerbating the lack of fund-raising is the risk of improper management of funds. At present, there are two major national funds in Djibouti: the Youth National Fund ('Fonds National pour la Jeunesse'), with USD 2m annual capitalisation, and the Water Fund ('Fonds de l'Eau'), which is no longer capitalized because of allegations of corruption. Both of these funds have been financed by taxing import products. The Youth Fund is fed by a tax on imported khat (a drug that is having harmful dependency impacts on the youth) and the Water Fund was financed by a tax of 3 Djibouti Francs on each imported litre of bottled water. Both the funds, managed by Ministerial departments (the Ministry of Youth for the Youth Fund and Ministry of Agriculture for the Water Fund) have suffered from opaque usage due to unclear governance mechanisms, access modalities and a lack of monitoring and evaluation.

121. The sustainability of national funds is dependent on having governance mechanisms in place to ensure appropriate financial management, transparency and accountability. The issue in Djibouti is that funds which support climate resilience-building have not been tested. Moreover, as in other developing countries, there is a risk of corruption and funds are often inappropriately channelled to serve short-term needs.⁴⁰ Transparency International's Global Corruption Report (2011) concludes that a dramatic strengthening of governance mechanisms can reduce corruption risk and make climate change policy more effective and successful.

122. An example that is potentially relevant to this project and the numerous ongoing water mobilization projects in Djibouti is the potential corruption associated with the construction of dams.

³⁸ Verner, D, *Adaptation to a Changing Climate in the Arab Countries*, MENA Development Report, World Bank 2012.

³⁹ UNDP, *Blending Climate Finance Through National Climate Funds: A Guidebook for the Design and Establishment of National Funds to Achieve Climate Change Priorities* (2011).

⁴⁰ Transparency International, *Global Corruption Report*. 2011
<http://www.transparency.org/whatwedo/publications/doc/gcr/>

In construction costs alone, corruption is currently estimated to cost the developing world some US\$18 billion a year.⁴¹ Adaptation without oversight presents a two-fold risk of diverted funds and sub-standard work which may put populations at even more risk of climate extremes. The need for increased technical specialization and ambiguous definitions of adaptation activities (as opposed to traditional development) make the benefits of adaptation more difficult to monitor, resulting in the potential for massive diversion of funds. From needs assessments, through the preparation and bid design phases, to contractor selection and contract award, to contract implementation and the final auditing phase, corruption is a risk.⁴¹ Therefore, Djibouti would benefit from an overarching monitoring and evaluation mechanism and/or body to ensure that funds are being used appropriately.

2.4.2 *Adaptation Alternative Component 1 –With LDCF Intervention*

123. Component 1 seeks to reduce the impacts of climate change on development in Djibouti by strengthening national coordination of all CC/DRM efforts, integrating climate change responses and disaster risk mitigation measures into national strategic planning and facilitating transparent financing mechanisms to support adaptation activities. Such aims will be achieved through the reactivation of a National Climate Change Committee and its Secretariat in addition to the development of a formalized National Climate Change Strategy informed by dynamic modelling. (See the Potential Roles of the NCCC in relation to integrating DRM and CC in Annex 8b.)

124. Building on work being undertaken by a UNDP-GEF Land Degradation project (see Section 2.3) to establish the National Desertification Committee, the LDCF3 financed project will re-activate the National Climate Change Committee and will facilitate Secretariat support to the Committee. The role of the Committee will be to bring together the array of Government line ministries and agencies involved in adaptation-relevant activities (even, importantly, where these activities are not explicitly labelled as being ‘climate adaptation’) – notably the Ministry of Habitat, Urbanism and Environment, the Ministry of Agriculture, Fisheries and Animal Husbandry, the Ministry of Energy, Water and Natural Resources, the Ministry of the Interior, the Ministry of Finance and the Agence Djiboutienne de Developpement Sociale (ADDS) – so as to improve coordination and collaborative approaches (See Figure 2). The creation of an ‘Office of Coordination’, accompanied by capacity development and the provision of tools and resources necessary for Government agencies’ coordinated functioning, was an explicit recommendation of the National Capacity Self-Assessment (2008).

⁴¹ Transparency International, *Global Corruption Report*. 2011
<http://www.transparency.org/whatwedo/publications/doc/gcr/>

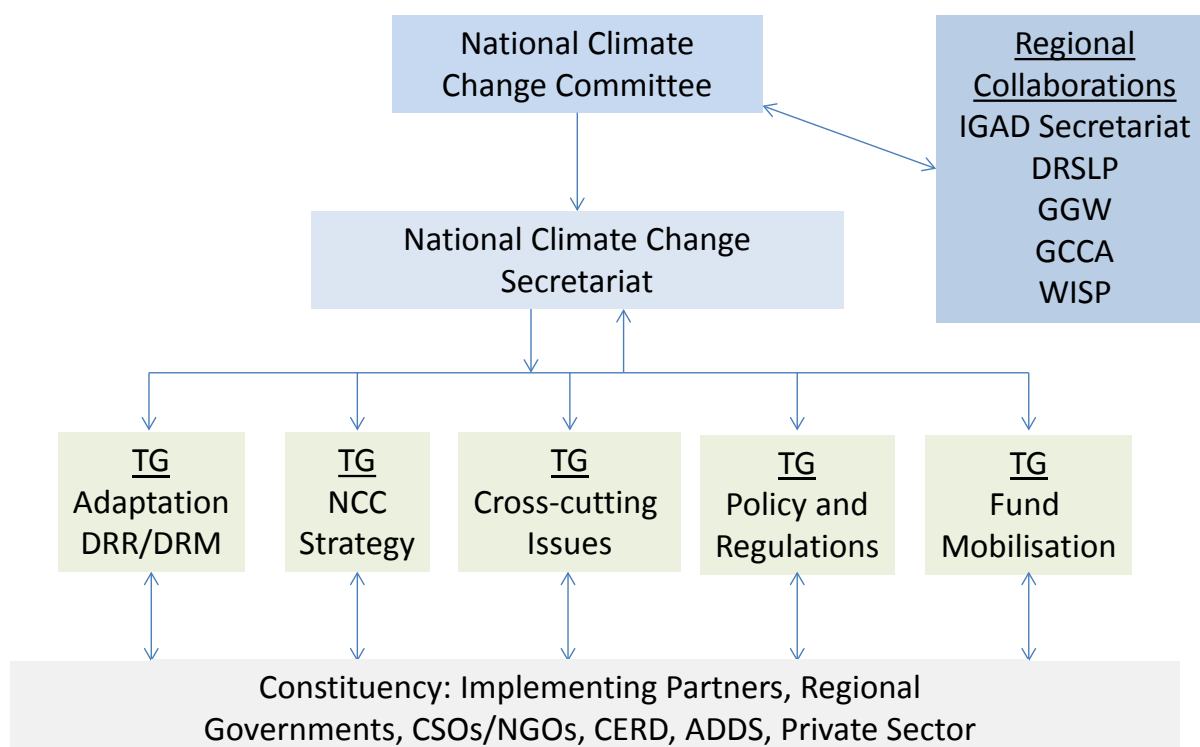


Figure 2: Proposed arrangement for the National Climate Change Committee of Djibouti (adapted from NCCRS Zambia). Note: ‘TG’ refers to a Technical Group.

125. The NCCC will also have linkages with development partners, the private sector and other relevant NGOs/CSOs in order to have the ability to enhance the integration and mainstreaming of climate change in various socio-economic sectors. It will be authorised to have the power of a Government Permanent Secretariat, reflecting the urgency and importance of climate change to Djibouti and addressing the need for decision-making that only Ministries that have executive powers can make. Moreover, at the international level, climate change issues involve significant political and technical issues that can best be handled by a techno-political entity. With such capacity, the NCCC will be responsible for providing representation for Djibouti at international and regional climate negotiations, conferences and events.

126. Considering all of the aforementioned criteria, the roles of the NCCC shall be as follows:

- Ensuring that climate change activities are complementary and coordinated by meeting and communicating regularly with national and regional project operational focal points (See IGAD discussion, Section 2.3.2);
- Ensuring existing policies and/or programmes adhere to the National Climate Change Strategy by making them accountable to annual evaluations conducted by the NCCC and its Secretariat;
- Ensuring mainstreaming of, and integration of, climate change activities in all the sectors of the economy, including the private sector, by recruiting cross-sectoral and private sector focal points in the NCCC and by publicising the results of cost-benefit analyses (See dynamic modelling discussion below);
- Ensuring the capacity of institutions to carry out climate change adaptation is enhanced and strengthened;
- Monitoring and reviewing implementation of climate change activities, ensuring best practices are implemented and that there is transparency of funds and appropriate financial management;

- Assisting in unlocking funds and mobilizing finance for climate change adaptation and related activities;

127. Under Component 1, the provision of Secretariat services will assist the NCCC and various ministries / organizations to ensure that climate change activities are indeed complementary and that they maximise co-benefits. The Secretariat, to be housed within the Ministry on the Environment, will consist of existing Ministry staff from approximately 11 Ministries in addition to two representatives from the regional level (the prefects and the Regional Advisory Committees) and representatives from technical institutions including the Executive Secretariat for Disaster Risk Management, the Research and Study Centre of Djibouti as well as Djibouti University. The Secretariat will be trained and supported by the national experts to develop the Technical Expertise shown in Figure 2. A group of 2-3 people will serve on each Technical Groups (TG), which will inform NCCC decision-making on specific subjects, including mobilising funds for adaptation/DRR/DRM and mainstreaming CC into existing policies and regulatory frameworks. The project will stage training for the Ministry to develop the areas of expertise it is lacking over the course of the project.

128. The Secretariat will comprise specialists in planning, CC, DRM, knowledge management, and fiscal and strategic planning as indicated in Figure 2. They will provide administrative and logistical support to the NCCC and conduct operations on a day-to-day basis. They will also serve to improve access to, and dissemination of, climatic data by being responsible for developing a central climate change information databank. As such, they will act as the climate change information and coordination point for all sectors and with regional and international agencies. They will also be obliged to systematically supply information to stakeholders on the progress of implementation of activities and to generate evidence and arguments that influence mainstreaming of climate change into development programmes.

129. To mitigate the risk that the NCCC, as an inter-ministerial body, is overlooked or marginalised, Djibouti's first National Climate Change Strategy will be developed with LDCF support by national experts, including experts housed within the Ministry of Environment. The Strategy will be formally endorsed by the Office of the Prime Minister and will provide the Secretariat and the NCCC with a framework for assessing and achieving programming coherency. The focus of the Strategy will be to address adaptation needs and hold Ministries accountable for their respective resilience-building measures. To ensure accountability, the NCCC will be mandated to develop an annual evaluation report that will highlight existing policies and/or programmes which adhere to the Strategy and those that are recommended to be amended.

130. Due to the fact that the Strategy will build on existing Government sectoral strategies (water, agriculture, land degradation, energy, rural development, etc.) and will be informed by detailed modelling work, appropriate actions and priorities will be articulated, including both new actions and actions that mainstream climate change within existing strategies and programmes. Development of the Strategy will be fully participatory in nature, involving a range of Government, civil society, academic and private sector actors. The Strategy will also place great importance on the alignment of Climate Change Adaptation (CCA) and Disaster Risk Management (DRM) initiatives, and will build upon the Green Low-Emission, Climate-Resilient Strategies (GLECRDS) framework developed by UNDP.⁴² There is increasing recognition that CCA and DRM must be aligned, particularly at the community level.⁴³ Both CC and DRM have recognized similarities in impacts and effects, and there is an overlap in measures required to address both. As a result, the NCC Strategy will emphasize current disaster risks as a starting point for adapting to CC; such an approach removes duplication of effort and increases efficiency.

131. In order to inform the NCCC and the NCC Strategy on how to coordinate projects/programmes to support adaptation and disaster risk management, dynamic models will be developed. Modelling results will be used to inform cross-sectoral planning of the optimal scenarios promoting adaptation, economic growth and poverty reduction. The end goal of the modelling will be

⁴² http://www.undp.org/content/undp/en/home/librarypage/environment-energy/low_emission_climateresilientdevelopment/#

⁴³ Joint National Action Plan (JNAP) in the Pacific, 2013

to provide projections of impacts of actions, and a review of innovative solutions and practices against several criteria, including cost-benefit considerations, available in the Djibouti context. (The NCCC Secretariat will be responsible for providing awareness on dynamic modelling results to the NCCC and other Government and non-governmental bodies. With the modelling results, they will advise the NCCC on how to build climate finance readiness and how to integrate CC information into existing strategies and policies.)

132. Dynamic modelling will begin by collecting data across a range of socio-economic sectors on national, regional and community levels and by consolidating this data in the NCCC Secretariat's database. Stakeholders from various socio-economic sectors will be consulted at different stages for model conceptualisation, development, validation and policy analysis. With cross-sectoral input, dynamic modelling has the potential to indicate impacts related to climate change, such as agricultural GDP loss or GDP loss due to ecological damage.

133. Subsequently, a balance sheet of the country, called a Social Accounting Matrix, will be developed to show the transfer of funds between Government, private firms, households and overseas (e.g. remittances).⁴⁴ Adaptation actions will be optimized by looking at their cross-sectoral impacts, the sources of funds (e.g. private, public, donor, etc.) and the maximization of co-benefits (e.g. employment creation). A cost-benefit analysis of alternative adaptation measures will be conducted with scenario analyses in order to develop sectoral adaptation measures that are the most beneficial across sectors. Through scenario analyses, the costs of doing nothing (the business-as-usual case) will be compared with the costs of investing in specific adaptation measures. A range of indicators will be created to test the impacts of adaptation measures, including job creation, poverty reduction, reduction in vulnerability or increase in resilience. In effect, by building indicators into the model, it can be used as a monitoring and evaluation tool. For instance, indicators of economic and environmental vulnerability and resilience can be developed and embedded into the model to look at the effectiveness of national policies.

134. To give Djibouti the capacity to adapt dynamic models as new data becomes available and new projects are introduced, LDCF funds will be used to build national capacity to perform dynamic modelling. One focal point from each Technical Group (See Figure 2) will be trained as a sector specialist who will have the capacity to run dynamic simulations, including data treatment and analysis. The role of these sector specialists will be to inform the NCCC Secretariat and other institutions on the costs and benefits of climate-related initiatives and to provide regular updates on the performance of projects in accordance with monitoring and evaluation criteria. It is planned that learning-by-doing, staggered training will take place for the sector specialist focal points over the course of the project, with the bulk of intensive training courses scheduled for the first 2 years of the project. After the first year, periodic results will be presented and effectively communicated to the various ministries/organizations to obtain their feedback and to ensure their needs are integrated into dynamic modelling processes.

135. Dynamic modelling will provide the NCCC, its Secretariat and the NCC Strategy with a systems perspective understanding of CC impacts including inter-sectoral/indirect effects of CC policies/actions which will enable the NCCC to recommend how to coordinate, prioritise and harmonise programmes and projects, across sectors. Benefits from dynamic modelling have been seen in other African countries. In the ISLANDS study funded by the European Union, for example, 5 countries (Comoros, Madagascar, Mauritius, Seychelles and Zanzibar) noted that scenario analysis using System Dynamics Modelling (SDM) coupled with multi-stakeholder processes and the learning-by-doing approach is an effective way to develop capacity and generate credibility for the use of SDM in integrated policy planning at the national level.⁴⁵ Furthermore, an SDM study for Mauritius indicated that the implementation of green economy investments would, among other benefits, sustain

⁴⁴ Deenapanray, P.N.K. Chapter from *Energy Policy Modeling in the 21st Century*, Springer Press, 2012.

⁴⁵ Deenapanray, P.N.K. and A. Bassi *The Experience of ISLANDS in Deploying System Dynamics Modeling as an Integrated Policy Tool*. Natural Resources Forum. 2014. DOI: 10.1111/1477-8947.12037

GDP growth marginally, increase employment, postpone critical water stress by almost 8 years and enhance food security by reducing import dependency.⁴⁶

136. The combination of the NCCC, its Secretariat, the NCC Strategy, and dynamic modelling will enable existing and future financial resources to be spent more effectively. To facilitate the mobilisation of additional climate finance to scale-up the country's adaptation response, LDCF funds will be used to design and establish a National Environment and Climate Change Fund. The design will include identification of diversified funding sources that could capitalise the Fund, ranging from general taxation (VAT, income taxes) and hypothecated fiscal instruments (e.g. bonds) to climate finance and donor funds. The Fund will be designed and established so that the political, social and financial investments by both the public sector and the private sector made in climate change adaptation can be properly and equitably managed. The design of the Fund will also include developing appropriate, transparent governance mechanisms to ensure transparency and ensure that responses to climate change are given appropriate financial resources.

137. Advantages of the National Environment and Climate Change Fund are likely to include:

- If designed properly, the Fund has the capacity to bypass governance systems which have insufficient transparency and accountability, thereby ensuring CCA funds reach beneficiaries in the most effective manner to support climate actions initiated by civil society, the private sector and local communities
- The Fund can provide a platform for dialogue and coordination amongst stakeholders (ministries, civil society, development partners and private sector) on climate policy, financing and priority setting.

138. Other advantages, as indicated by similar funds created in other countries, include⁴⁷:

- The Fund can be a way to ensure climate change actions are prioritised and Government funds are earmarked specifically for climate actions without compromising other development priorities of the Government. Channelling Government budget through national climate funds can serve as a clear signal of Government commitment to the issue of climate change, which can in turn attract more outside investment.
- The Fund can bring together loans and grants to increase the volume and impact of its work.
- The Fund can reduce duplication and fragmentation in climate-relevant public expenditure.

139. Overall, the LDCF3 financed project will accomplish these tasks by benefiting from, and building on, the above-mentioned baseline projects (See Section 2.3 and above) in the following manner:

- Support ongoing **UNDP** technical assistance being given to the nascent Inter-Ministerial Committee for Disaster Risk Management
- Coordinate closely with the planned **EU-GCCA project** by incorporating lessons learned on the integration of climate change into development policies and budgets. Together with the LDCF3 financed project, the Djibouti GCCA programme will help the Government to re-activate and strengthen the National Climate Change Committee. Capacity development and institutional support activities will be coordinated – and, where possible, jointly undertaken – by the two initiatives so as to maximize effectiveness.
- Building upon the experiences of PROMES-GDT project, by using realistic time-frames for critical activities such as the selection and hiring of project staff, the mobilization and sensitization of beneficiary communities in project areas, and the challenges associated with institutional coordination at the national level. Also, the LDCF3 financed project will tackle one of the key challenges – insufficient coordination – confronted by the PROMES-GDT project to date by securing inter-ministerial and inter-agency coordination across the range of sectors and institutions.

⁴⁶ Bassi, A.M. and P.N.K. Deenapanray, Chapter 4 -A Green Investment Analysis using System Dynamics Modeling – the case of Mauritius. *Economic Review and Basic Statistics*, 16(12): 256–265 2012.

⁴⁷ Irawan S, Heikens A, Petrini K (2012), *National Climate Funds: Learning from the Experience of Asia-Pacific Countries*. UNDP Discussion Paper.

- Support a strong collaboration with the IGAD Secretariat: the NCCC will facilitate coordination of adaptation-related initiatives at the national level which will serve to promote regional coordination. Centralisation of climatic data by the NCC Secretariat will facilitate data-sharing with IGAD. Also, the IGAD regional framework will be integrated into the NCC Strategy. Finally, the fund-mobilising role of the NCCC will be complemented with the Resource Mobilisation Strategy (RMS) to be created by IGAD. Both IGAD and the LDCF3 financed project will coordinate to unlock funds to support resilience-building activities.

Output 1.1: Reactivation of the National Climate Change Committee (NCCC) and provision of secretariat services to coordinate responses to climate change

- 1.1.1 Formalisation of the NCCC Decree, the governance framework and the mandate of the Committee to support and facilitate a coordinated response to climate change and disaster risk management issues in Djibouti and to support the NCC strategy (See Output 1.2) through the following tasks:
- a) Planning for and proposing investments in water mobilization, disaster preparedness and access to micro-finance for adaptation for the most vulnerable populations (as defined by the NAPA).
 - b) Building on Output 1.3, assisting in unlocking funds from various fiscal mechanisms (e.g., development agencies, private-public partnerships) to assist in developing activities which build climate change resilience and support disaster risk management.
 - c) Coordinating cross-sectoral climate change adaptation programmes to ensure there is efficiency in the use of limited resources (including harnessing expertise), no duplication of awareness and capacity building activities, and maximum benefits from technology transfer and knowledge-sharing approaches are generated.
 - d) Coordinating with specialized regional and international initiatives (e.g. the International Partnership for Sustainable Development in Mountain Regions, the African Mountain Association, AMA) to facilitate exchange of information and experiences among the specialized agencies and to ensure that international best practices are reflected at the national level (e.g. Hyogo Framework Action for Disaster Risk Management).
- 1.1.2 Awareness workshop for the members of the NCCC on previous, on-going and planned climate change-related projects/initiatives to serve as a convening forum for lessons-learned. The product of the workshop will be a roadmap for effective coordination between Government ministries and agencies, civil society, the private sector and the donor community.
- 1.1.3 Capacity reinforcement for MHUE to develop Secretariat expertise. The Secretariat will receive training in DRM, social science, strategic planning, knowledge management, adaptation economics, financial management and Systems Dynamic Modelling (SDM). The functions of the Secretariat will include awareness/communication, coordination, technical advice, and capacity development to support the NCCC.
- 1.1.4 Bi-annual inter-ministerial NCCC meetings to judge progress of CC/DRM-related project/programme outcomes and to ensure appropriate financial management, transparency and accountability in line with the National Initiative for Social Development (INDS) strategy goals.

Output 1.2: Development of a National Climate Change Strategy, informed by dynamic modelling for quantified scenario analysis of adaptation options which promote a Climate Change Resilient Economy

- 1.2.1 Development of an NCC Strategy to provide a concerted programme of action to combat the current and expected impacts of climate change and to build on existing sectoral policies and strategic plans in an integrated manner.
- 1.2.2 Training for national stakeholders on dynamic modelling, including the incorporation of cross-sectoral data (e.g. land use, water, energy, transport, health, social actions and fiscal data) and involvement of multiple stakeholders for model conceptualization, development, validation and policy analysis. Training will be conducted using the learning-by-doing approach to develop in-house expertise to run and update dynamic models as new input data becomes available.
- 1.2.3 Studies to assess the burden of climate change on the public budget by conducting a Climate Public Expenditure and Institutional Review (CPEIR⁴⁸) and assessing the barriers for financing adaptation in the country. Studies will analyse the financial needs for adaptation in Djibouti for national and local levels as well as urban and rural areas, by conducting an investment, financial flow and adaptation economic analysis of different medium- to long-term adaptation options.
- 1.2.4 Publication of robust adaptation measures which minimize risks associated with climate change while maximizing poverty reduction through employment creation and livelihood diversification, including optimization of adaptation actions by looking at scenario analyses of cross-sectoral impacts, the sources of funds (e.g. private, public, donor, etc.) and the maximization of co-benefits (e.g. employment creation and adaptation needs). Awareness-raising and information dissemination by the NCCC is expected to facilitate the integration of the recommended measures into institutions' planning and policies.

Output 1.3: Support for the Government to find innovative financing options to catalyse finance for adaptation, including the establishment of an Environment and Climate Change Fund

- 1.3.1 Study to identify a blend of financing sources to establish an Environment and Climate Change Fund, including sources of international climate finance as well as domestic financial resources from taxes and micro-finance programmes.
- 1.3.2 Design and establishment of an Environment and Climate Change Fund and an appropriate, transparent governance mechanism.

Component 2: Reduced vulnerability to climate change for vulnerable communities in two targeted mountain regions: Adailou and Assamo

Outcome 2: Improved water management in the targeted regions to conserve scarce water resources and manage temporal flows to reduce flooding and erosion (\$4,050,000)

2.4.3 Baseline Component 2 - Without LDCF Intervention

140. In Djibouti's arid, mountainous regions, there is limited water mobilization due to infrequent and unpredictable rainfall, difficulties in trapping and storing runoff as well as insufficient borehole and well capacities. For both the Adailou and Assamo regions, there have been limited technical hydro-geological studies to quantify water and groundwater resource capacity. A previous study financed by the World Bank made a general water recharge calculation based on average rainfall in Adailou.⁴⁹ The report detailed proposed hydraulic works to capture surface water. Although the report was comprehensive in terms of surface water mobilization designs, in-situ measurements are required to validate groundwater yields, surface runoff rates and other detailed data so that the water balance can be understood under present and future climate change and population growth scenarios.

⁴⁸ <http://www.aideffectiveness.org/CPEIR>

⁴⁹ Perrin, J. Study on rural hydraulic works in Adailou : *Appui Technique à la finalisation du catalogue HIMO en milieu rural, Dibouti. Rapport d'Etude sur l'Amenagement Rural et Petits Hydrauliques. Mission Adailou*, 21 March - April 2012.

141. At the national level, there is a shortage of technical capacity to apply advanced groundwater extraction and recharge techniques. At the local level, although water point (or well) management committees have existed in Djibouti since 2000 and have been a success in some cases⁵⁰, in the project region there have been only a few isolated attempts to create Water Point Management Committees. These attempts have failed due to the absence of proper training, inability to purchase spare parts or maintenance tools, and lack of continued technical knowledge-sharing.

142. Consequently, local inhabitants – mostly women – are currently extracting water by primitive pulley systems. The women in the project communities must also travel long distances to reach water points and must transport water containers on their backs. At the time of stakeholder consultations during the project development phase, the principal water well in Adailou was almost dry. As a result, each family (approximately 10 people) had a rationed provision of 3 gallons (14 litres) of water each day to do all washing, cooking and irrigation. The situation is grave for pastoralists as well; many of the – poorly designed – shallow wells in the region are dry. Consequently, nomadic pastoralists are exerting pressure on the limited water resources by over-crowding water points. The influx of refugees from Ethiopia into Assamo in the 1990s exacerbated pressure on the existing water points.

143. Furthermore, shallow wells are not covered. Contamination and debris from runoff frequently damage the existing wells. In fact, due to the steep terrain, erosion and high runoff rates are a challenge in the Djiboutian mountain context. Exacerbating the erosion is the removal of trees for fuelwood. At present, deforestation is occurring at a rate of 3% per year in Djibouti⁵¹. Similarly, pastoral over-grazing is causing the degradation of soil. Without trees and stable soils, significant runoff cannot be captured and does not easily infiltrate to replenish groundwater resources. However, no study in Djibouti has been conducted demonstrating the intensity and extent of soil erosion nationally⁵².

144. To rehabilitate the existing vegetation, a few local initiatives in the Adailou region have had success. Good reforestation practices have been demonstrated in the Day Forest experiment under the PROMES project. Through this project, rural mountain populations learned about reforestation and re-vegetation (on 30,000 ha) as well as the diversification of livelihoods (e.g. wood-working and honey production). In addition, in Alaimadag adjacent to Adailou, a 1,200 ha reforestation site has been successful in restoring native forage grasses and trees since 2010.

145. In spite of these initiatives, reforestation, re-vegetation and reseeded know-how is limited in the specific project regions. In both project regions, there is only one nursery in Assamo (none in Adailou) to supply tree saplings for reforestation. Nursery development is currently included in the Department of Forestry of the Ministry of Agriculture, Fisheries and Animal Husbandry's strategic plan; however, the Department has lacked sufficient funds to establish these nurseries.

146. There is also limited knowledge of sustainable agro-pastoral and pastoralist practices, such as cultivation of drought-resistant forage crops, storage and diversification of produce, necessary for spreading the risks across seasons or to absorb shocks during severe drought periods. In Assamo, there are presently 30 agro-pastoral plots; however, most crops and trees have died on these properties due to successive drought spells and the salinization of water. For instance, previously, the local population in Assamo was able to produce guava jam – but the prevalence of this fruit has now declined due to environmental deterioration.

⁵⁰ In 2000, the Government, through the assistance of the Ministry of Agriculture, promoted the establishment of water point (or well) committees to support the programme of decentralization. In 2005, reforms were carried out at the Department of Agriculture, which took into account the strategic objectives of the programme of decentralization (i.e. the transfer of technical services to the regional level). In this context, the Department of Participatory Management was created within the Department of Water. Since then, many water point management committees have been established, either directly by the Department or through projects involving the water sector.

⁵¹ MHUE, *Fourth National Report on Biological Diversity in the Republic of Djibouti*, March 2009.

⁵² Barkat, Abdellah, *Pastoral Development Programme for the Regions of Assamo and Adailou, National Expert report*, July 2013.

147. Although the potential revenues from diversified fruit/vegetable cultivation are relatively well-known due to other interventions (FAO, UNDP-AF project), the rural populations have had no access to training on diversified cultivation due to their remote location. For instance, field consultations during the project preparation phase indicated that the local populations have no experience with crop rotation practices to enable nutrients to be replenished in soils. Similarly, sustainable techniques for dryland, rain-fed farming and pastoral practices are also unknown to the local communities. The local populations thereby require capacity building on soil and water conservation measures, crop rotation and plant diversification techniques amongst other sustainable practices.

2.4.4 Adaptation Alternative Component 2–With LDCF Intervention

148. To address the aforementioned needs in both project zones, Component 2 will first mobilize water using sustainable means to capture erratic runoff during rainy periods while improving the recharge of aquifers to act as natural storage for use during dry periods. Activities will include the construction of a borehole, shallow wells and micro-dams. Such techniques are well-established and proven in the field⁵³. Investments will also be made in constructing cisterns and retention ponds to facilitate livestock water storage outside the rainy season. Semi-underground sills and infiltration galleries will be constructed to improve groundwater recharge. Infiltration galleries have been proven to be a successful technology for replenishing groundwater.⁵⁴ Nonetheless, the success of past donor-supported water harvesting projects in Djibouti has been mixed, largely because of the selection of inappropriate, technologically-sophisticated and expensive approaches. The LDCF3 financed project will avoid these mistakes by focusing on simple, low-cost and culturally-acceptable investments that are chosen by the communities themselves and which are constructed (and monitored after construction) using unskilled local labour (with appropriate training and supervision) in cash-for-labour schemes established by the project in conjunction with extant schemes run by WFP and FAO. To prevent destruction of water mobilization infrastructure as well as to protect farming and pastoral plots (such as during flood events), wadi walls will be reinforced with rock-filled wire gabion. (See the complementary community-adaptation activity to form cooperatives to construct gabion and support flood mitigation measures in Section 2.4.6). Finally, to ensure that large construction works are constructed properly, a Chief Technical Advisor (CTA) and Civil Engineering Supervisor will be recruited to provide expertise and perform Monitoring and Evaluation.

149. In order to ensure that there is sufficient groundwater capacity for well development and that surface runoff can be captured, hydrogeological and pedological studies will take place in the first 3 months of the project. Experience with the UNDP-Adaptation Fund project, *Developing agro-pastoral shade gardens as an adaptation strategy for poor rural communities*, has shown that such studies require considerable investment (at least USD 200,000). LDCF funds will be used to support these studies, which will detail suitable sites for water mobilization based on the agronomic potential of soils, the sites' vulnerability to floods, and available surface and groundwater capacity. Scientific environmental assessments for both regions are limited⁵⁵. In spite of limited knowledge of these remote mountainous regions, the Research and Study Centre of Djibouti (CERD) has significant capacity to conduct technical studies, as evidenced by numerous other adaptation-related projects in other regions (e.g. UNDP-Adaptation Fund, JICA projects).

⁵³ See, for example, FAO, *Overview of Main Water Harvesting Systems* 2008.: <http://www.fao.org/docrep/U3160E/u3160e03.htm>.

⁵⁴ Infiltration galleries were successfully piloted in the Adaptation to Climate Change Project for Rural Communities in Ali Sabieh project (*Project d'adaptation au changement climatiques des communautés rurales d'Ali-Sabieh, PACCRAS*).

⁵⁵ Perrin, J. *Study on rural hydraulic works in Adailou: Appui Technique à la finalisation du catalogue HIMO en milieu rural, Djbouti. Rapport d'Etude sur l'Amenagement Rural et Petits Hydrauliques. Mission Adailou*, 21 March - April 2012.

150. Effective participation of local people will be a key measure to preventing further water shortages in mountainous regions. In the context of increasing water shortages, the potential direct and indirect beneficiaries are fully aware of the need to control water withdrawals and uses, and are strongly inclined to engage with a mix of customary and modern community water management systems and arrangements that will ensure that water extraction will be sustainable both environmentally and financially, and that water allocation amongst the various community uses will be well balanced and efficient. Local Water Point Management Committees will be created with the assistance of LDCF funds. Each Committee will consist of four people (2 men, 2 women) who will be responsible for the upkeep of each shallow well. Each Committee will sign a convention with, and will be accountable to, the Ministry of Water and will receive a water quality kit, maintenance tools and simple medicines to combat a potential increase in water-borne diseases.⁵⁶

151. Furthermore, so as to prevent the water infrastructure itself from becoming a source of mal-adaptation (i.e. acting as magnets for unsustainable numbers of livestock that over-graze and cause land degradation through trampling⁵⁷), accompanying the investment activity will be a review and implementation of local water management rules (governing the volume and frequency of usage and the eligible beneficiaries) by Catchment Management Committees (CMCs) to be established through this project by the Ministry of Agriculture, Water, Fisheries, Animal Husbandry and Marine Resources (MAEPERH). Due to the fact that such committees have been lacking in Djibouti, there are currently no watershed-based (i.e., catchment-based) plans for water storage, capture and usage anywhere in Djibouti. The primary role of the CMCs will be to develop and apply regulations for water access and use in the sub-catchments. They will be trained by the Ministry of Agriculture and will be responsible for working with various sectors, including animal husbandry, forestry, horticulture and rural development, in order to ensure sustainable water management. At the same time, they will train the Water Point Management Committees along with the Ministry of Agriculture and be responsible for the disbursement of tools and continual training. They will also be responsible for developing best water management and practice guidelines (a form of Standard Operating Procedure) on the catchment scale by considering upstream and downstream impacts. To do so, the CMCs will use an integrated approach by working with all Water Point Management Committees and working with a water management / water quality specialist who will be recruited to train the CMCs and Water Point Management Committees on well maintenance and water hygiene.⁵⁸

152. Water resource development will be combined with agro-pastoral planning in order to have sufficient resources to support diversified and productive agro-pastoral systems. Multi-purpose agro-pastoral systems will offer the most viable and cost-effective solution for many rural residents to survive the food insecurity threats posed by climate change. Various Soil Water Conservation (SWC) measures will be applied, depending on the slope, soil depth and bedrock. The proposed SWC techniques will be simple to implement by unskilled labour through the existing, successful Cash for Work scheme (promoted by the World Food Programme and FAO).

153. Agro-pastoralism will be supported by using LDCF funds to provide high-quality inputs, drought- and saline- resistant fodder, species of good pastoral value and to provide multi-purpose plants such as moringa which can serve as fencing. Productive fruit trees will be brought into the region, including date trees. The soil will be re-fertilized through composting and using locally-produced manure. Agro-pastoral plots and reforestation sites will be protected using robust fencing materials as well as natural and fixed barriers such as wadis and mountain banks. The best approaches to using endemic species to improve soil stability and soil and water conservation methods from the Day Forest initiative will be applied.

⁵⁶As bringing water to local populations may also bring the risk of water-borne diseases such as malaria, costs for potable water and first aid kits for each community have been considered.

⁵⁷ See, for example, Thrash and Derry, 'The nature and modelling of piospheres: a review', *African Protected Area Conservation and Science*, Vol 42, p.73-94 1999.

⁵⁸ The specialist will provide training in the form of in-the-field workshops during 4.5 months over the first 2 years.

154. On-the-farm training and training Trainer of Trainers (lead farmers) will be two methods used to build the capacity of agro-pastoralists. Training will be provided on the diversification of production, including fruit trees and drought-resistant forage crops, and to allow for seed exchange and possible collaborations among agro-pastoralists. In order to diversify the choice of species to be used for replanting and fodder plantations, but also to preserve and multiply indigenous endangered species, the programme will finance the establishment of 2 pastoral centres or pastoretums, each covering 2 ha. Each pastoretum will be used to teach sustainable pastoral practices, such as the application of dryland adaptation technologies and promotion of animal hygiene.

155. In line with a specific recommendation of the 2010 Rapid Assessment of Drought Impacts⁵⁹, the LDCF3 financed project will implement a programme of tree planting around water collection points (including those constructed/rehabilitated by the project) so as to reduce runoff erosion, provide fodder and shade for livestock, and expand livelihood options for the local communities. The proximity of the water points and the trees will reduce the burden on women and children while collecting water and fuelwood, thereby providing them with alternative livelihood opportunities. The LDCF3 financed project will build on the baseline work of JICA and Tokyo Agricultural University elsewhere in the Ali-Sabieh region to apply the innovative ‘stone mulching’ method in Adailou and Assamo to assist tree establishment and growth. This labour-intensive method will be implemented using local labour in conjunction with a community payment scheme.

156. Furthermore, the existing tree nursery in Assamo will be enlarged and rehabilitated to sell multi-purpose plants, trees and saplings. Similarly, a new nursery will be developed in Adailou. The construction/rehabilitation of nurseries will be in coordination with the Department of Forestry of the Ministry of Agriculture, Water, Fisheries, Animal Husbandry and Marine Resources (MAEPERH) so as to provide a supply of tree and plant saplings for planting. Based on previous nursery developments by the Ministry of Agriculture and in the Day Forest outside the project region, the revenues generated from the nurseries typically exceed the operating costs. Through LDCF funds, women will learn how to develop nurseries, including marketing of seedlings and fruit tree grafts. The nurseries will be run by women on a cost recovery/profit making basis. Knowledge will be shared with the project beneficiaries by promoting a study tour of successful nurseries in Djibouti.

157. To achieve the activities described above, the LDCF3 financed project will benefit from, and build on, the above-mentioned baseline projects (See Section 2.3) in the following manner:

- Build on the experiences of, and in some cases the project infrastructure of, a number of baseline projects (notably the community-led Annual Hydraulic and Pastoral Planning Schemes developed under PROMES-GDT and EVA’s detailed hydrological work in Adailou) that have constructed complementary water harvesting infrastructure.
- Benefit from the baseline work and practical lessons-learned of *PROMES-GDT*, which shares similar objectives to the LDCF3 financed project: the lessons learned by the PROMES-GDT technical team in the design, construction and maintenance of rainwater harvesting infrastructures will be utilized by the LDCF3 financed project. Sharing of knowledge between the two project teams will be fostered, particularly in regard to national norms and standards relating to the design, construction and maintenance of rainwater harvesting infrastructure in the climatic and geomorphic context of Djibouti’s mountainous regions. Amongst other things, this will assist the technical and management teams of the LDCF3 project to fast-track project implementation. The community-based approach used by PROMES-GDT in order to mobilize the communities in Day Forest for reforestation activities will also be adopted in the LDCF3 financed project, and the project will offer the communities of Idalou and Assamo the opportunity to undertake field visits to Day Forest in order to foster knowledge-sharing between communities, especially in tree nursery management and forest preservation. By simultaneously re-vegetating and reforesting the upstream Tadjourah area, both projects will increase the resilience of downstream infrastructure to floods while improving groundwater recharge. The idea of developing community steering committees to oversee infrastructure work in the PROMES project will be further developed in the LDCF3 financed project by creating and reinforcing Catchment Management Committees as

⁵⁹ FEWSNET *Food Security Alert* 2010 https://docs.unocha.org/sites/dms/CAP/3.3_Djibouti_Overall.pdf

well as Water Point Management Committees. At present, the PROMES project has not had success in engaging the local communities in sustainable agro-pastoral practices. The LDCF3 financed project will provide open workshops on adaptation technologies (e.g. using salt- and drought-tolerant seed inputs, cultivating resilient fodder varieties and water-saving irrigation approaches) to support rural mountain populations in the vicinity to develop agro-pastoralism effectively.

- Build on the **PRODERMO** baseline project, which has been designed with the same objectives and goals of PROMES-GDT but with different sites targeted: the types of synergies identified in relation to PROMES-GDT are also valid with PRODERMO. The LDCF3 will collaborate with the PRODERMO project to enhance sustainable pastoral practices throughout Djibouti. The PRODERMO project has provided training on livestock production, nutrition and rural development, rainwater harvesting and soil conservation practices. The LDCF3 financed project will build on lessons-learned from these training sessions to ensure that the pastoralists in the mountain regions of Adailou and Assamo are well supported with all the required training tools and best practices.
- Support **IGAD** in strengthening its institutional capacity at the level of the IGAD Secretariat and its Regional Platform Coordination Unit, which will coordinate IGAD's resiliency interventions in IGAD countries: the LDCF3 financed project will support the IGAD Secretariat and regional strategy as indicated in Table 3 of Section 2.3. The IGAD "Programme de Pays Pour Mettre Fin aux Urgences Liées aux Sécheresses dans la Corne de l'Afrique" and the LDCF3 financed project are taking place in approximately the same time-frame, thereby permitting both to mesh their activities together to the fullest extent possible. IGAD-LDCF3 synergies are likely to be strongest in regard to the creation of water points and grazing areas accessible along transhumance routes (IGAD also intends to establish a regulatory framework for transhumance routes, which the LDCF3 financed project will respect) and market support (e.g. the creation of pastoral milk associations).
- Coordinate with the **European Union and the PSSP project** to improve rainwater harvesting and groundwater recharge, reinforce extension services on central and decentralised levels and make the pastoral sector more profitable and resilient to climate and socio-political shocks. The LDCF3 financed project will incorporate lessons-learned on how to support pastoralists with improved water point placement and management, rainwater harvesting schemes and reforestation. In return, the LDCF3 financed project will provide the PSSP project with ideas on designing and constructing sustainable groundwater recharge infrastructure and using soil and water conservation practices.
- Support the **IGAD-HYCOS** initiative: The technical hydrological, hydrogeological and pedological studies under Component 2 will support IGAD's Regional Centre for Water Management to develop regional surface and groundwater databases. Component 2 will also adopt lessons-learned from the IGAD project on how to best strengthen regional water resource management to support agro-pastoralism.
- Coordinate with the **AfDB Drought Resiliency Programme**: this programme covers two regions – Ali-Sabieh (which includes Assamo) and Tadjourah (which includes Adailou) – that overlap with the LDCF3 financed project. With the AfDB project at a very early stage of development, there is considerable potential for working with the project to ensure that synergies with the LDCF3 financed project are built in from the start. During project preparation, UNDP and AfDB agreed to share technical studies (hydrological, hydrogeological and pedological) for the Weima watershed. This will support water mobilisation and storage strategies for pastoralists in the Weima watershed, which includes Adailou. The AfDB project also has a strong livestock development focus that will be useful to the LDCF3 financed project. While the LDCF3 financed project will be supporting agro-pastoralism in Adailou and Assamo, the AfDB project will undertake similar activities in other areas. The AfDB project also has a strong component on knowledge management and aims to mainstream climate-sensitive pastoral development of arid and semi-arid areas (ASALs) into sectoral policies and local development planning at the level of local government. The LDCF3 financed project will build on this local government aspect in

order to ensure the sustainability of infrastructure. The LDCF3 and AfDB projects will need to liaise with the same local authorities of Ali-Sabieh and Tadjourah and will, therefore, need to develop a common, coherent approach. Other opportunities for mutually beneficial interactions between the two projects stem from defining norms and standards for the design, construction and maintenance of water infrastructure and standards for cash-for-work tariffs for local communities.

- Work closely with JICA: early contacts have already been established. Lessons-learned from the JICA project, *The Master Plan Study for Sustainable Irrigation and Farming in Southern Djibouti*, in terms of optimal irrigation systems will save water and increase levels of productivity. The LDCF3 financed project will employ JICA's proven stone mulching technique to facilitate water savings as well as to protect young trees from livestock grazing. The technique will be used to stabilize soil and reduce evapotranspiration around the LDCF3 financed project's 29 water points. Both projects will coordinate to share lessons-learned on irrigation, agro-pastoralism and cash-for-work schemes to support rural employment. Through the innovative aspects of the LDCF3 financed project, lessons-learned on the best role and practices on Catchment Management Committee development will be passed on to support JICA's Master Plan. Additionally, JICA experiences gained in terms of community mobilization as well as the costs of developing water harvesting infrastructures will be shared with the LDCF3 financed project (and vice versa).
- Build on EVA's on-the-ground social networks, the community trust it has built up over the years and the baseline technical studies it has undertaken: the LDCF3 financed project will enhance EVA's baseline activities with the technical, financial and institutional training to be delivered by the LDCF3 financed project. For instance, the LDCF3 financed project will support building EVA's capacities to improve water retention and flood mitigation mechanisms as well as to diversify agro-pastoral and pastoral production in Adailou. By training EVA in sustainable water management, agro-pastoralist practices, livelihood diversification and basic accounting, they will be able to provide better support to the PICODE and LDCF3 financed projects after project funds end.

Output 2.1 Construction and monitoring of new water mobilisation infrastructure (a borehole, micro-dams, cisterns, sills retention ponds and infiltration galleries) implemented as climate change adaptation measures

Indicative activities include:

- 2.1.1 Topographical, hydrological, hydrogeological, geotechnical and surface water balance studies to support water mobilization in the Weima and Assamo watersheds. Eight (8) sites will be studied (4 in the Adailou-Gurioli watershed, 2 in the Essalou watershed and 2 in the Assamo watershed) to ultimately choose 4 sites for water infrastructure construction which will support irrigation for agro-pastoralism as well as recharge of existing potable water reserves.
- 2.1.2 Detailed Environmental Impact Assessment on the design of dams and the irrigation networks (including water quality analyses) in accordance with Djiboutian regulations.
- 2.1.3 Design and construction of 1 borehole to feed 1 agro-pastoral pilot plot in Adailou and construction/rehabilitation of 10/2 shallow wells in Adailou/Assamo, all with solar pumping systems.
- 2.1.4 Design and construction of 3 micro-barrages to support agricultural irrigation and groundwater recharge, 2 in Adailou and 1 in Assamo.
- 2.1.5 Design and construction of fifteen (15) 100 m³ cisterns in Adailou, where each will provide potable water to 15 families (approximately 90 people) during 3 months without rainfall. Design and construction of 16 semi-underground sills (8 in Adailou and 8 in Assamo) built with cement and reinforced with rebar for the purpose of capturing runoff to recharge the water table and reduce the vulnerability of downstream populations. Design and construction of 8 infiltration galleries (5 in Adailou and 3 in Assamo). Bank fortification with gabion to protect wadi banks and agricultural plots from erosion - 2,000 m³ and 4,000 m³ of gabion will be placed in the agricultural zones of Adailou and Assamo respectively. Design and construction of three (3) 5,000 m³ retention ponds in Ayladou near Adailou. Training for

technicians in the relevant divisions of the Ministry of Agriculture (Large Hydraulic Works Division and the Division of Water within the Ministry of Agriculture) on water mobilisation engineering techniques. Recruitment of an international part-time Chief Technical Advisor and national part-time Civil Engineering Supervisor Monitoring and Evaluation for large infrastructure work construction.

Output 2.2 Support to expand and strengthen agro-pastoralism and pastoralism in the Weima and Assamo watersheds

- 2.2.1 Creation of one 10 ha agro-pastoral plot in Adailou with a 200 m³ reservoir and a facility with a capacity of 100 kg for forage storage.
- 2.2.2 Solar power equipment for the existing agro-pastoral plots in Assamo.
- 2.2.3 Support on best agro-pastoral practices including soil and water conservation techniques.
- 2.2.5 Training on different methods of irrigation used to conserve water (drip irrigation, water re-use) Area protection for revegetation for at least 3 years on 2,400 ha in Ayladou (near Adailou), 2,000 ha in Adailou and 1,200 ha in Assamo by using natural materials and geographic barriers to fence in the protected area and by placing water points outside the vicinity to avoid disturbance of pastoral migratory movements.
- 2.2.7 Training on the introduction and diversification of drought-resilient forage crops to add nutrition for livestock. In addition to the one forage crop used currently (Rhode grass), 4 grasses to be cultivated include Guinea grass, Soudan grass, Sardi and Boma grass. Creation of 2 pastoral centres (pastoretums), 1 in Adailou and 1 in Assamo, including training for 20 livestock herders and the acquisition of veterinary medicine.
- 2.2.9 Baseline study on the use of natural resources including a livestock census and survey.
- 2.2.10 On the pasture training for the pastoralists on how to enhance the local value chain (e.g., milk)
- 2.2.11 Re-fertilization of soils with compost and use of locally-produced manure and organic material to increase productivity and contribute to enhancing the local value chain.
- 2.2.12 One study tour to Day Forest to capture lessons learned on reforestation, fencing mechanisms and community involvement

Output 2.3 Reforestation and re-vegetation to support soil and water conservation and effectively reduce runoff and promote sustainable watershed management

- 2.3.1 Re-seeding and re-vegetation for pastoralists on 360 ha and 290 ha of land in Adailou and Assamo respectively to prevent erosion and improve groundwater supplies in watersheds. Tree replanting and reforestation to generate pasture and minimise erosion on 290 ha in Assamo, 240 ha in Adailou and 120 ha in Ayladou (near Adailou) in accordance with the Soil and Water Conservation Strategy of Djibouti.
- 2.3.2 Rock and gabion reinforced sills along 150 ha in both Adailou and Assamo to prevent erosion and regulate flow pathways.

Output 2.4 Development of Catchment Management Committees and Water Point Management Committees, to develop best practices for sustainable groundwater and surface water use and protect existing water points

- 2.4.1 Creation and training of 5 Catchment Management Committees (CMCs) (4 in the Weima watershed which encompasses Adailou and 1 in the Juba watershed which encompasses Assamo) by a water management and water hygiene specialist to develop Standard Operating Procedures (SOPs) and good water practice guidelines for sustainable groundwater and surface water use throughout the watershed. The specialist will provide training and training materials during 4.5 months over the course of two years.
- 2.4.2 Training for 27 community Water Point Management Committees (WPMCs) at each water point on sustainable operation and maintenance techniques for wells and solar-powered pumping systems, including provision of maintenance tools and water quality tests.
- 2.4.3 Application of proven stone mulching approach to stabilize soil around water collection points.

- 2.4.4 Tree planting around 10 shallow wells / water points, including seeding, preparation of soil and planting costs.

Output 2.5 Support for women's livelihood diversification with the introduction of nurseries and training on fruit cultivation

- 2.5.1 Preparation of 1 ha nursery plots in both Adailou and Assamo, including design and construction of shallow wells powered by solar pumps and 40 m³ reservoirs feeding conveyance pipework connected to micro-irrigation systems for nurseries.
- 2.5.2 Knowledge and awareness reinforcement for women on the multi-purpose uses and sustainability of nurseries including a study tour with other nurseries in Djibouti.
- 2.5.3 Training on, and promotion of, profitable fruit tree cultivation (dates, almonds, apricots, jujube, olive, fig, orange, grape, etc.) and potato farming, depending on the quality of the soil, irrigation water quality and the method of irrigation.

Component 3: Enhanced human and institutional capacity for increased sustainable rural livelihoods among vulnerable communities in two targeted regions, Adailou and Assamo

Outcome 3:

Improved resilience to hydrological and climate risks

Enhanced resilience to climate-mediated economic shocks through income generation and diversification

(\$573,288)

2.4.5 Baseline Component 3 - Without LDCF Intervention

158. Disaster prevention, mitigation and preparedness are relatively weak in Djibouti. In 2006, the Government established the Executive Secretariat for Risk and Disaster Management (SEGRC, Secrétariat Exécutif de la Gestion des Risques et de Catastrophes). SEGRC advises the National Committee on Natural Disasters on technical matters and coordinates prevention, mitigation and response activities.

159. A centralized approach to drought and flood early warning in Djibouti at the national level has been and is being supported by various initiatives. For example, the Comprehensive Approach to Risk Assessment in Djibouti (funded by GFDRR, 2010-2013) was able to: i) provide a risk assessment for Djibouti city, ii) provide a flood early warning information sharing protocol for Djibouti, called SYNALAD, and iii) update the ORSEC disaster response plan.

160. In line with Djibouti's decentralization approach, SEGRC has established Local Risk and Catastrophe Management Committees (LRCMCs) to transfer risk-related responsibilities to the regional level. Additionally, SEGRC drafted general flood action plans for each region in Djibouti with the support of FAO.

161. In spite of these efforts, the LRCMC lacks the technical and operational capacities to prepare community populations for droughts and floods. Similarly, the action plans are general and focused predominantly on the regional capitals, which are located in the lowlands (e.g. Ali Sabieh, regional capital for Assamo) or by the sea (Tadjourah, regional capital for Adailou). As such, they do not consider the highland, steep, varied terrain and, most notably, the remote mountainous communities of Assamo and Adailou.

162. Yet it is critical to have targeted forecasts for DRR/DRM purposes because these regions have different climate characteristics than the rest of Djibouti; these regions (such as Day Forest) can experience up to two times more rainfall than the national average, as well as greater temperature extremes. The steep terrain of these regions also produces higher peak runoff flows which can cause significant damage and be more difficult to capture for water storage purposes.

163. Furthermore, there are no in-situ hydro-meteorological measurements taken in either the Adailou or Assamo watersheds to support disaster preparedness. The lack of data collection prevents the identification of risks, the delineation of vulnerable zones and the quantification of expected return periods for extreme weather events. These limitations make planning for climate change at the regional level difficult. They also make the development of drought or flood early warnings practically impossible. Consequently, the arid, mountain regions of Djibouti currently have limited drought early warnings to help agro-pastoralists and pastoralists prepare for appropriate seeding and cultivation times as well as crop rotation practices when the rainy season shifts in time.

164. Additionally, although the construction, use and maintenance of simple earth micro-dams is a common practice for rural communities in neighbouring Ethiopia, rural communities in Djibouti, particularly those in remote mountain villages, lack knowledge on the uses of earth dams for water harvesting and the importance of maintaining dams for flood mitigation as well as the means to properly maintain them. Compounding this problem is the fact that the Local Risk and Catastrophe Management Committees (LRCMCs) are themselves also unaware of such community-level preparedness measures, which can build the self-reliance of mountain populations to handle risks. As a result, the LRCMCs are unable to raise awareness and build understanding in the majority of the rural, mountainous communities. This includes awareness on how the collection of fuelwood is exacerbating forest degradation. Tree depletion is currently occurring at the rate of 3% per year in Djibouti.⁶⁰ As a result, soils are deteriorating, agricultural land is being destroyed and the livelihoods of pastoralists and agro-pastoralists are being severely threatened. The end result has been more destructive floods in the mountain regions and regions downstream.

165. Furthermore, rural mountain populations are often marginalized because of their remote locations and difficulty of access to regional markets. There are currently limited means to diversify livelihoods in the remote, rural regions in Djibouti. Due to insufficient funds, no permanent structures exist to serve as places to sell village produce at fixed, market prices and to store produce from day to day in the regional markets in Ali Sabieh (closest to Assamo) and in Tadjourah (closest to Adailou). In Ali Sabieh, the market exists from 7 am to 1 pm, but it is not fixed and farmers must find relatives in the city who are willing to store their produce. In Tadjourah, the situation is more critical because there is currently no place for agro-pastoralists to sell their produce. Consequently, in spite of the fact that good road connections exist between the regional capitals and the national capital (the latter of which is where approximately 75% of the country's population resides), both project zones are excluded almost entirely from the domestic market.

2.4.6 *Adaptation Alternative Component 3–With LDCF Intervention*

166. Through Component 3, LDCF funds will be used to build awareness within the regional Local Risk and Catastrophe Management Committees (LRCMCs), the Catchment Management Committees (CMCs, see Component 2) and the communities on how they can best prepare for droughts and floods. Based on the construction of the dams in Component 2, at least 300 community members and representatives from the LRCMCs and CMCs as well as civil protection and water officials will be trained on how earth micro-dams can be exploited to harvest runoff and reduce susceptibility to flood flows. The communities and regional authorities will learn how the maintenance of small earth dams, such as by de-silting and repair works after major floods or at the end of the rainy season, can make the earth dams more durable so as to have longer life spans. This activity can also be used to foster a spirit of climate change adaptation in rural communities outside of the two targeted villages.

167. In addition to the awareness-building provided by LDCF funds, at the outset of the project, risk and catastrophe expertise will be transferred from the existing LRCMCs to the CMCs to be developed in the project. Similarly, the regionally-based civil protection and water officials will share knowledge on water resource management with the CMCs. As a result, the role of the CMCs will be to understand and manage catchment/sub-catchment scale watershed resources to ensure effective

⁶⁰ MHUE, *Fourth National Report on Biological Diversity in the Republic of Djibouti*, March 2009.

flood control, drought management and to ensure sufficient potable and irrigation supplies for all communities. This can include working with the Ministry of Water and regional water officials to plan future borehole or water infrastructure placement. The CMCs will also be responsible for transferring water management best practices and water quality control methods to the community-based Water Point Management Committees (WPMCs), which will be concerned with managing their specific water points. This approach ensures decentralisation of water management down to the community level and empowers the communities to become more self-sufficient. Furthermore, the CMCs will take an integrated approach to downscaling water-related risk and catastrophe management under the guidance of the regionally-based LRCMCs as well as targeting water quality/resource management to local levels under the guidance of regional water officials.

168. Furthermore, to reinforce the community-based aspect of flood and drought preparedness, LDCF funds will be used to select 2 motivated mountain community representatives from both Adailou and Assamo, 2 active local NGO representatives and 2 LRCMC and CMC representatives to conduct a study tour of one other mountain community such as in Somaliland which has successfully used gabion to reinforce wadi banks to mitigate flood impacts.⁶¹ The study tour is planned to facilitate knowledge-sharing on flood and drought mitigation practices for mountain regions, and to provide first-hand evidence on how agro-pastoral farms, assets and villages can be protected using pragmatic measures which can be implemented by the communities themselves.

169. Through Component 3, the LRCMCs will also gain the expertise to delineate flood and drought vulnerability maps by creating an inventory of historical risks facing agricultural and pastoral livelihoods. With vulnerability maps, NGOs/CSOs will be able to transfer the knowledge of which locations are most vulnerable to floods and droughts to local farmers and pastoralists (e.g. high risk areas located too close to wadi banks). As a result, local communities will be incentivized to practice farming and pastoralism in low-risk areas.

170. Flood and drought risks will be validated by installing Automatic Weather Stations (AWSs) in each project zone. Currently, there are only limited rainfall measurements (1 rain gauge in Assamo and 1 in Adailou) and no in-situ hydro-meteorological measurements taken in either the Adailou or Assamo watersheds. Limited data collection prevents the identification of risks, delineation of vulnerable zones and projections for extreme weather events. As is standard practice in Djibouti, the AWSs will be managed by the National Meteorological Service and the Executive Secretariat for Risk and Disaster Management (SEGRC). The Catchment Management Communities (CMCs) will be responsible for day to day upkeep of the stations after receiving training from the Meteorological Service.

171. Local community capacities to prepare for floods will be further strengthened by training them how to fabricate and place gabion to reinforce land or structures which are vulnerable to flooding. Gabion wirework is commonly used to reinforce wadi and earth dam walls. However, gabion is quite costly and generally imported from France. To promote employment and livelihood diversification, LDCF funds will be used to support the development of local gabion-building cooperatives, one in each of Adailou and Assamo. Select beneficiaries will build the metal wire lattice by hand, after they are trained in the technique by a national expert. The communities will then work together to reinforce the agricultural plots and re-vegetation areas to be created under Component 2.

172. In neighbouring Somaliland, the communities are advanced in using traditional water capturing measures such as building shallow wells and creating small retention basins. They are also familiar with fabricating gabion: using stone and wire mesh as a means to prevent flooding is already in practice in Somaliland (supported by the International Labour Organisation in Somalia: see Somalia's NAPA, 2013). Lessons-learned from cross-border experiences of gabion construction will be shared between Somali and Djiboutian project stakeholders, building on the synergies between the two LDCF financed projects. In return, the Djibouti LDCF3 financed project will share with the Somalia LDCF1 how to use an integrated approach to manage watershed resources considering the

⁶¹ Ministry of Natural Resources, *National Adaptation Programme of Action on Climate Change*, Somalia 2013

entire catchment. Lessons-learned from the novel application of Catchment Management Committees (CMCs) in Djibouti's LDCF3 financed project will be shared with Somalia.

173. LDCF funds will also support other methods to diversify livelihoods and facilitate access to capital by promoting beekeeping (apiculture) and poultry breeding (aviculture). Promoting alternative livelihood opportunities, particularly through development of employment schemes that increase the productive base, is necessary to improving the standard of living among the large rural populations living in mountain ecosystems.⁶² Apiculture and aviculture are also supported by the PROMES project and will be supported by the UNEP LDCF2 financed project. As such, training costs for these activities will be minimized by working with the LDCF2 financed project during implementation to share resources. Both the LDCF2 and LDCF3 financed projects will solicit private sector support for training on apiculture and aviculture.

174. Coordination of studies will also be conducted to identify mechanisms for improving artisanal production and marketing. Training for Adailou women on how to produce and market artisanal products (handicrafts) will be provided by the Women's Association in Tadjourah. A few select women will then be sent to Assamo to provide knowledge exchange on artisanal practices. Assamo women had a culture of producing guava fruit products in the past (prior to the drought which now prohibits cultivation). It is expected that the women in Assamo will be able to exchange fruit producing knowledge with the women from the Tadjourah region. Subsequently, to enhance artisanal marketing, LDCF funds will be used to support the development of collaborations, both private and public, with potential buyers and distributors of artisanal products. For instance, the new Port of Tadjourah could serve as a buyer of artisanal products from Adailou. Also, the guava fruits, famous in Assamo, could be stored and processed as jam in order to provide year-round sales.

175. Artisanal and agro-pastoral sales will be promoted by rehabilitating a market stall in Ali-Sabieh and by creating one in Tadjourah to serve as selling points for fresh local produce and artisanal handicrafts. Currently, Djibouti imports 85% of its fruit and vegetable needs (mainly from Ethiopia), and dates are mainly imported from Arab countries. The fact that large quantities of fruit are being imported demonstrates that considerable market demand exists and can be addressed, at least partially, by domestic supply. The market stalls will also serve as selling points for nursery products (seedlings, fruit tree grafts), can provide a centre for knowledge-sharing and training on climate-resilient agricultural practices, and will provide storage so that goods can be kept in the stalls for several days rather than transported back to the mountain villages each night.

176. In order to ensure the long-term sustainability of the project, the LDCF3 financed project plans to empower the locally-based NGOs, the Village Ecology Association in Adailou (EVA), and the Agricultural Cooperative in Assamo. With LDCF funds, these NGOs will receive capacity reinforcement on disaster preparedness, livelihood diversification, nursery development, solar-powered well maintenance, soil and water conservation methods, gabion fabrication and agro-pastoralism. The role of the NGOs will be to assist and accompany the local communities with adaptation activities during implementation. Both NGOs are currently active in assisting their respective communities. EVA has been active in the reforestation of genevriar trees, having planted 3,000 jujube trees over 17 ha recently and has worked in the community for over 13 years. Similarly, the Agricultural Cooperative of Assamo has been guiding the community in how to produce guava and maintain the existing tree nursery.

177. Finally, the LDCF3 financed project will also introduce cookstoves as a gender-sensitive community-based adaptation measure in Assamo and Adailou. In the framework of the LDCF3 financed project, cookstoves will reduce the need for fuelwood collection, liberating time for women to engage in resilience-building activities. They will also provide environmental benefits such as reduced pressure on biomass resources by providing a targeted effort to reduce deforestation in mountainous areas which are highly exposed to climate change -induced land degradation. Forest depletion is currently occurring at the rate of 3% per year in Djibouti.⁶³ As a consequence, soils are

⁶² UNEP *Managing Fragile Ecosystems: Sustainable Mountain*, 2012.

<http://www.unep.org/Documents.Multilingual/Default.asp?DocumentID=52&ArticleID=61>

⁶³ MHUE, *Fourth National Report on Biological Diversity in the Republic of Djibouti*, March 2009.

deteriorating and agricultural land is being destroyed. Cookstoves will also address the fact that searching for and using wood for cooking puts women and children's safety at risk due to poor air quality with toxic smoke emissions and depletes forests⁶⁴.

178. Studies have shown that searching for and using wood for cooking puts women and children's safety at risk due to poor air quality with toxic smoke emissions and depletes forests.⁶⁵ Forest depletion is currently occurring at the rate of 3% per year in Djibouti.⁶⁶ As a consequence, soils are deteriorating and agricultural land is being destroyed.

179. Based on field consultations with the women in Assamo and Adailou, women are walking long distances, such as spending up to 6 hours per day (or walking approximately 4 km), to secure fuel wood for cooking. Reducing the time spent collecting fuelwood and preparing and cooking food can allow women to complete other responsibilities and pursue income-generating opportunities, such as those along the agro-pastoral production value chain. A UKAid study⁶⁷, also indicated that, while women face the brunt of climate change, they are very much at the heart of facilitating the cookstove solution and can be change agents in their communities. In order to support women as primary users of cookstoves, they must be involved in the design and distribution of products in order for cookstoves to be sustainably and exclusively adopted.

180. The LDCF3 financed project will build on the cookstove distribution experiences of the UNHCR 'Light Years Ahead' programme and these aforementioned cookstove studies to ensure sustainability. Specifically, it will use UNHCR's data in conjunction with data collected during the project preparation phase and new data to be collected on usage patterns, end-user preferences and affordability constraints so that a suitable micro-finance lending scheme can be linked with cookstove distribution.

181. Previously, UNHCR distributed clay cookstoves in the Assamo region at a refugee camp (see Section 2.3.1). However, a recent survey by the Ministry of Environment indicated that cookstove use has not proliferated and ceased in some cases since initial distribution by UNHCR. In fact, approximately 20% of the cookstoves have broken within the first 2 years of use. In response, the LDCF3 financed project will link the distribution of more robust, metal cookstoves with micro-finance. The linkage with micro-finance is critical because experience with fuel-efficient cookstoves in other developing countries has demonstrated that direct subsidies or free distribution serve to reduce the intrinsic value of clean cookstoves because, once the cookstoves are free, services (such as training) and additional distribution of cookstoves are expected to be free.⁶⁸ Moreover, householders are less incentivised to properly use and maintain the cookstove if their own capital is not invested in it.

182. The innovativeness of the LDCF3 financed project will be to link cookstove distribution with micro-finance for the first time in Djibouti. The LDCF3 financed project will link with the micro-finance schemes in development for farming and pastoral populations supported by the UNDP-Adaptation Fund project *Developing agro-pastoral shade gardens as an adaptation strategy for poor rural communities* being implemented by the Djibouti Agency for Social Development, ADDS. Overall, through the feasibility study on linking cookstove distribution with micro-finance in the LDCF3 financed project, both the LDCF3 and UNHCR projects can garner lessons-learned on how clean cookstove distribution can become more sustainable, streamlined and targeted to rural Djibouti women's needs.

183. For all of these aforementioned livelihood diversification activities, a socio-economic survey will be conducted to quantify the benefits, disaggregated by gender. Furthermore to achieve the

⁶⁴ Global Alliance for Cookstoves, *Clean Cookstoves and Climate Change*, 2013: www.cleancookstoves.org

⁶⁵ Global Alliance for Cookstoves, *Clean Cookstoves and Climate Change*, 2013: www.cleancookstoves.org

⁶⁶ MHUE, *Fourth National Report on Biological Diversity in the Republic of Djibouti*, March 2009.

⁶⁷ Global Alliance for Clean Cookstoves, *Scaling Adoption of Clean Cooking Solutions through Women's Empowerment*. 2013 www.cleancookstoves.org

⁶⁸ DifferGroup, *Light Our Fire: Commercializing Clean Cookstoves*, 7 November 2012.

activities described above, the LDCF3 financed project will benefit from, and build on, the above-mentioned baseline projects (See Section 2.3) in the following manner:

- Build on the lessons-learned from the *IGAD programme* on how to best strengthen regional water resource management for drought/flood preparedness.
- Work with the *EU PSSP* project to support pastoralism to become more profitable and resilient to climate and socio-political shocks by facilitating livelihood diversification opportunities. The LDCF3 financed project will improve the access of pastoralists to markets in Tadjourah and Ali Sabieh.
- Work with the *LDCF2 financed project* on livelihood diversification, namely aviculture and apiculture.
- Collaborate with the Ministry for the Promotion of Women and its project *Supporting Agro-Pastoralism for African Women* to provide expertise on fruit and vegetable cultivation as well as milk product diversification.
- The LDCF3 financed project will benefit from the *UNHCR Light Years Ahead initiative*, which has promoted the distribution of 4,500 fuel-efficient cookstoves (which use 80% less fuel than standard cookstoves) in the Ali-Adde refugee camp to reduce the pressures on tree resources. This initiative, particularly in relation to the cookstove technical standards established and the baseline data collected by UNHCR on how cookstoves are actually used (frequency, indoor/outdoor, type of cooking) and the fuelwood savings one can expect, will prove extremely useful to the LDCF3 financed project. UNHCR data and LDCF3 baseline data will be used to inform the design of metal cookstove distribution when linked with a micro-finance scheme. To date, linking cookstove distribution with micro-finance has not been tested in Djibouti. Through the feasibility study in the LDCF3 financed project, both the LDCF3 and UNHCR projects can garner lessons-learned on how clean cookstove distribution can become more efficient, streamlined and targeted to rural Djibouti women's needs.
- Build on the UNDP-Adaptation Fund project by exploiting the micro-finance products being designed for inexperienced agro-pastoralists and the most vulnerable. The MF scheme will be appropriate for the beneficiaries of this project, who will be enabled to develop diversified Income Generating Activities.

184. Indicative activities for the project Outputs include the following:

Output 3.1 Regional Local Risk and Catastrophe Management Committees (LRCMCs), local civil protection and water officials, Catchment Management Committees (CMCs), local NGOs/CSOs and community members supported to implement drought and flood preparedness and adaptation measures

- 3.1.1 Training for 300 people, including regional civil protection officials, water officials, LRCMCs, CMCs, NGOs and regional extension services, in the two project regions on drought and flood mitigation measures (e.g. soil and water conservation practices, maintenance of micro-dams used for flood mitigation and energy dissipation) including knowledge transfer from the regional LRCMCS and the regionally-based civil protection / water officials to the Catchment Management Committees.
- 3.1.2 Study tour of similar mountain regions, such as in neighbouring Somaliland, on community-based drought and flood mitigation practices for 2 mountain community representatives, 2 NGO representatives and 2 regional government authority staff members.
- 3.1.3 Creation of a regional risk inventory for the Adailou and Assamo regions which will serve climate projections by forming a catalogue of historical risk events, collecting existing hydro-meteorological data in the vicinity and mapping risks relative to livelihood and degree of vulnerability
- 3.1.4 Installation of 1 automatic weather station (AWS) in each region and training for select locals on how to maintain the equipment. Costs include spare parts and communication hardware, a

guard at each station and transport and shipping costs. Purchase of communication equipment (satellite telephones).

Output 3.2 Local commodity and handicraft production (gabion, poultry-breeding, beekeeping) supported as climate-resilient income generating and diversifying activities, accompanied by enhanced access to local and national markets

- 3.2.1 Rehabilitation of 1 market stall in Ali-Sabieh and construction of 1 market stall in Tadjourah to allow Assamo and Adailou respectively to sell nursery and agro-pastoral products to the “fresh local produce” market segment throughout the country.
- 3.2.2 Formalized collaboration with private and public sector neighbours who could be potential buyers and distributors of artisanal products (e.g. the new Port of Tadjourah).
- 3.2.3 Training to improve commercial aspects of artisanal production.
- 3.2.4 Development of local artisanal gabion production teams in both Assamo and Adailou, including training on proper weaving techniques, to reduce the high cost of gabion cages and create employment.
- 3.2.5 Materials and training for 70 families in Assamo and 50 families in Adailou to conduct poultry-breeding. Each family will be given 8 chickens per household and taught how to breed the chickens to extend project benefits.
- 3.2.6 Materials and training for 20 people (14 in Adailou and 6 in Assamo) on beekeeping.
- 3.2.7 Introducing cookstoves by determining the design of a micro-finance lending scheme to be linked with cookstove distribution.
- 3.2.8 Socio-economic survey (disaggregated by gender) to quantify the benefits of the livelihood diversification schemes supported through the LDCF3 financed project.

Output 3.3 Capacity building for local NGOs/CSOs (the Village Ecology Association in Adailou and the Assamo Agriculture Cooperative) to support project implementation and shared ownership of projects with the communities

- 3.3.1 Training for NGOs/CBOs on animal hygiene, nursery development, solar-powered well maintenance, agro-pastoralism, organizing and training agro-pastoralists, soil and water conservation methods, local gabion construction, accounting and financial management, and documentation/organisation of lessons-learned so as to be able to assist other local populations in the long-term.
- 3.3.2 Acquisition of computers, printer, supplies and field validation vehicle for NGOs/CBOs to monitor, control and supervise activities throughout the region.
- 3.3.3 Construction of a meeting place for NGOs/CBOs to serve as an education/training and meeting centre and a place to stock materials. It will also serve as a local community outreach centre to enable community awareness and mobilisation.

A summary of the Outcomes, Outputs and the financial resources per Output is provided in Table 4 below.

Overall, the synergies and linkages between the three components include the following:

185. Component 1 seeks to address the national-level needs and gaps identified as being vital by the NAPA, the Initial National Communication to the UNFCCC, the National Capacity Self-Assessment and a range of other studies for future climate change interventions to maximise their adaptation effectiveness. With an active National Climate Change Committee in place and a National Climate Change Strategy to guide Government and donor interventions, joined-up policy-making and coherent on-the-ground programming will be enabled, benefiting Components 2 and 3 (and, of course, future projects) through better inter-agency coordination, better information-sharing, better identification of ongoing co-financing / leveraged financing opportunities, and better dissemination of lessons-learned and project impacts.

186. Component 2 will work at the ground level, facilitating water mobilisation, reforestation and capacity reinforcement for agro-pastoralists and pastoralists on sustainable adaptive practices such as soil and water conservation methods and water efficient irrigation practices. Any proven practices will be able to be scaled-up with the support of the NCCC and its Secretariat from Component 1.

187. Component 3 will exploit the water provisions and improved agro-pastoral practices from Component 2 and further build the resilience at the ground level of the communities by enabling the rural mountain populations to have diversified income-generating activities. Diversified activities to be introduced include aviculture, apiculture, nursery development and gabion artisanal fabrication. Sales such as eggs, honey and milk products will be supported by construction or rehabilitation of market stalls in the nearest cities to Adailou and Assamo (in Tadjourah and Ali Sabieh respectively). Furthermore, Component 3 will support the regional and community levels in disaster risk preparedness. With capacity reinforcement on regional and community levels, the DRM/DRR preparedness will become more targeted and sustainable for the mountainous populations who had previously been marginalised. The LDCF3 financed project will set a precedent by supporting community led and will facilitate other rural regions to enhance their DRR/DRM capacities. Furthermore, capacity building for the regional Local Risk and Catastrophe Management Committees will support Djibouti's National Decentralisation Policy currently in the process of becoming a legal framework.

Table 4: Summary of Outcomes and Outputs

OUTCOMES	OUTPUTS	COST (USD)
1. Institutional capacities for coordinated, climate-resilient planning strengthened. Mechanisms and a de-risked investment environment established to catalyse finance for climate change adaptation.	1.1 Reactivation of the National Climate Change Committee (NCCC) and provision of secretariat services to coordinate responses to climate change	96,000
	1.2 Development of a National Climate Change Strategy, informed by dynamic modelling for quantified scenario analysis of adaptation options which promote a Climate Change Resilient Economy	130,000
	1.3 Support for the Government to find innovative financing options to catalyse finance for adaptation, including the establishment of an Environment and Climate Change Fund	274,000
2. Improved water management in the targeted regions to conserve scarce water resources and manage temporal flows to reduce flooding and erosion.	2.1 Construction of new water mobilisation infrastructure (a borehole, micro-dams, cisterns, sills retention ponds and infiltration galleries) implemented as climate change adaptation measures	2,755,180
	2.2 Support to expand and strengthen agro-pastoralism and pastoralism in the Weima and Assamo watersheds	710,020
	2.3 Reforestation and re-vegetation to support soil and water conservation and effectively reduce runoff and promote sustainable watershed management	263,900
	2.4 Development of Catchment Management Committees and Water Point Management Committees, to develop best practices for sustainable groundwater and surface water use and protect existing water points	149,700
	2.5 Support for women's livelihood diversification with the introduction of nurseries and training on fruit cultivation	171,200

3: Improved resilience to hydrological climate change risks. Enhanced resilience to climate-mediated economic shocks through income generation and diversification.	3.1 Regional Local Risk and Catastrophe Management Committees (LRCMCs), local civil protection and water officials, Catchment Management Committees (CMCs), local NGOs/CSOs and community members supported to implement drought and flood preparedness and adaptation measures	115,000
	3.2 Local commodity and handicraft production (gabion, poultry-breeding, beekeeping) supported as climate-resilient income generating and diversifying activities, accompanied by enhanced access to local and national markets	323,200
	3.3 Capacity building for local NGOs/CSOs (the Village Ecology Association in Adailou and the Assamo Agriculture Cooperative) to support project implementation and shared ownership of projects with the communities	135,088

2.5 Key indicators, risks and assumptions

188. Key indicators, risks and assumptions are indicated in the Project Results Framework and Risk Log in Annex 1. Indicators have been developed to be Specific, Measurable, Achievable, Realistic and Timebound ('SMART') and are indicated in the Project Results Framework. Risks and recommended counter-measures were identified during bilateral consultations during the project preparation phase.

Key risks and assumptions underlying project development include the following:

Table 5: Key risks and assumptions

Risk	Level	Mitigation Strategy
The project could encounter delays due to the lack of nationally-available expertise and human resources	High	The project will establish a database of national and international experts able and willing to provide technical support to the project – for instance, to assist with infiltration gallery design and construction. When expertise is not available nationally, regional and international experts will be recruited. Close linkages with co-financing partners and baseline projects will also ensure the availability of technical expertise. The project will also benefit from structures and mechanisms established for the Great Green Wall Action Plan and the newly-commenced UNDP-AF project (both of which are also executed by the Ministry of Habitat, Urbanism and Environment, MHUE). The project design has been informed by prior hands-on analysis of Djiboutian pastoral systems by WISP and others and has – building on the lessons-learned from the PROMES-GDT project – deliberately adopted a conservative and focused approach to project activities.
Low level of cooperation between executing institutions	Medium	The implementation arrangements have been discussed in detail at the Validation Workshop in January 2013, and have been accepted by all involved parties. MHUE is very willing to coordinate activities with the different executing agencies (as evidenced in the LDCF1 and Adaptation Fund projects), and the UNDP Country Office will closely monitor the project's execution so as to limit any deviations. All involved parties are strongly interested in the project activities and outcomes, and will

Risk	Level	Mitigation Strategy
		benefit from capacity building from the project. Moreover, the project's support to the National Climate Change Committee is specifically intended to facilitate inter-ministerial and other inter-institutional coordination.
Works associated with water mobilization and retention infrastructures lead to unanticipated environmental impacts	Medium	UNDP's Environmental & Social Screening Procedure has been applied during project development, providing a thorough analysis of possible environmental impacts of interventions, and their associated best management practices and mitigation strategies. Djibouti's EIA regulation will be applied during project implementation.
The participatory approach could be ineffective due to lack of community ownership or lack of understanding on the part of implementers and beneficiaries	Medium	The participatory approach and community training components are central to the project's activities and will include awareness-raising at all stages of implementation, targeted training and the availability of technical expertise. Most community investments targeted by the projects (micro-dams, tree-planting, etc.) are relatively simple in their technical design and implementable in a reasonable timeframe (up to 1 year, as opposed to several years). For example, it is expected that the Catchment Management Committees and Water Point Management Committees will be trained and will start to provide maintenance and water quality materials during the first year. This will facilitate the participation and involvement of communities and will ensure that demonstrable results are achieved quickly, thereby avoiding frustration and credibility loss. Gender benefits for women and girls are also expected to be high (notably in the context of livelihood diversification through poultry-breeding and artisanal handicraft training); the engagement of women, as traditional managers of households, is expected to improve household participation rates.
Water management strategies are made ineffective by an unanticipated increase in the frequency of flood events and continued drought which jeopardizes agricultural and pastoral production	Medium	Project investments will be climate-proofed in terms of their locations, designs and capture capacities so as to be able to withstand forecast future climate stresses. Diversified and secured access to water resources, combining both surface and ground water, as well as the implementation of adapted cultivation techniques of forage and other crop varieties, will be used. Water points will be constructed with sufficient barriers, such as protective trees and rocks and covers, to prevent damage and contamination. Investments will be selected and designed using a community participatory process, thereby allowing local knowledge of climate risks to be incorporated into the prioritization and selection of investments. Water infrastructure installed/rehabilitated by the LDCF3 financed project will be accompanied by management plans, developed in conjunction with the local communities and the regional governments, regulating usage (volume, frequency, beneficiaries) of the water and preventing over-use and accompanying degradation / over-grazing / trampling of the land surrounding the water points. The creation of Water Point and Catchment Management Committees will also ensure that best practices are used at each water point and within the catchment considering potential downstream and

Risk	Level	Mitigation Strategy
		upstream impacts. Drought-resilient tree species will be planted and community members will be trained in Soil and Water Conservation methods.
Targeted farmers and pastoralists are sceptical and unwilling to use adaptation technologies / practices and engage in poultry breeding, beekeeping, etc. so as to diversify their livelihoods and/or income diversification strategies do not significantly increase household incomes.	Low	<p>The LDCF3 financed project will build on community farming practices. In both regions, best practices will be adopted. LDCF funds will provide strong support to local NGOs such as EVA (Adailou) and the Agricultural Cooperative of Assamo, which are both assisting the communities in agriculture, yet lack sustainable practice knowledge such as soil and water conservation methods and year-round crop choices.</p> <p>During stakeholder consultations, the community members voiced their desire and willingness to adopt aviculture and apiculture. Other rural communities have had success with both new livelihood methods in other initiatives facilitated by the Ministry of Agriculture. Significant training and expertise on how to introduce and upscale aviculture and apiculture will be provided by LDCF funds. Both IGAs can be easily scaled-up by breeding chickens and by increasing bee pollination.</p> <p>The agro-pastoral development component will start gradually, with the objective of identifying a limited number of ‘lead’ farmers and pastoralists who will serve as examples and possible success stories to others. Those lead farmers and pastoralists will learn how to use best adaptation technologies / practices, will serve as a basis for the organization of technical group meetings with other farmers, and will be able to test new livelihood practices. By designating motivated leaders, it is more likely that they will influence the community to use the same resilient-building practices.</p> <p>Also, by supporting capacity building of active, local NGOs, it will be more likely that knowledge transfer will be sustained in the future s and that household incomes will increase and become diversified with time.</p>
Theft of solar panels from solar-powered wells and Automatic Weather Stations, pump parts or fencing materials	Medium	Borehole costs include the construction of protective casings around the solar panels and pump infrastructure to deter theft and prevent point contamination from grazing animals. Fencing costs are quite high because robust materials will be installed to adequately protect the tree reforestation areas and agro-pastoral plots which will prevent easy theft of materials. Guards will be placed at the Automatic Weather Stations. Furthermore, the full implication and participation of local communities will serve to reduce theft risks.
Unwelcome livestock (livestock from surrounding pastoralists) invading the agro-pastoral plots	Medium	Secure metal and stone fencing will be constructed around each agro-pastoral site to deter all unwelcome animals. This will prevent the risk of invading livestock and potential disputes between the pastoralists and agro-pastoralists. Awareness raising by local NGOs/CSOs and by the local Water Point Management Committees will facilitate communication of the environmental and socio-economic importance of supporting best practices for agro-pastoralists and to protect the reforestation areas.
Limited capacity of local populations to	Medium	Water Point Management Committees will be created to maintain the wells. The project includes activities to form and train these committees as well as to provide them with maintenance tools

Risk	Level	Mitigation Strategy
perform maintenance on boreholes and solar-powered well pumps		and water quality kits so that they will be empowered to perform minor repairs and detect when water quality is poor. The sub watershed-based Catchment Management Committees will serve as a liaison between the Water Point Management Committees and the Ministry of Water when maintenance or water quality issues are flagged.
The National Climate Change Committee fails to meet regularly due to lack of incentives	Low	The NCCC's mandate and decree will be reactivated so that it will become an official convening body with the role of coordinating all climate and disaster risk management-related activities/projects/programmes through its legal mandate. It will be supported by a Secretariat and a National Climate Change Strategy to be developed through the LDCF3 financed project. The Strategy will be formally endorsed by the Office of the Prime Minister and will provide the Secretariat and the NCCC with a framework for assessing and achieving programming coherence. The Committee will be empowered by holding projects/programmes accountable to a formalised, recognised NCC Strategy. The NCC Strategy will provide influence for other ministries to participate. Furthermore, the potential establishment of a National Environment and CC Fund under the NCCC will reinforce its authority and influence. Cross-sectoral ministries and organisations on national, regional and local levels are expected to be beneficiaries of actions by the NCCC which will increase the Committee's influence and clout.
Limited long-run support for rural mountain regions in terms of sustainable livelihood development	Low	LDCF funds will be used to diversify the livelihoods of the rural mountain populations in Adailou and Assamo. Support will be provided for the populations to cultivate revenue-bearing crops and trees, and to have a market place within reach to sell the fresh local produce. Also, funds will be used to support artisanal production (e.g. jams, handicrafts) and commercial sales of artisanal products in development for agro-pastoralists under an ongoing Adaptation Fund project.
There is insufficient technical and operational capacity within the regional governments to coordinate drought and flood preparedness	Medium	Component 3 of the project includes substantial training for the existing regional Local Risk and Catastrophe Management Committees (LRCMCs). They will be trained in how to understand drought and flood preparedness with national and regional knowledge-sharing opportunities. Newly-procured weather stations and a risk inventory will support their ability to plan, forecast and alert populations. LDCF funds will also be used to provide a study tour of neighbouring Somaliland on how communities are constructing gabion and reinforcing wadi banks with gabion using a cash-for-work scheme. The study tour will be provided to the LRCMCs as well as to NGO representations and community heads. Study tour beneficiaries will also be supported to provide public awareness and to train community members on possible community led flood and drought preparedness schemes.

2.6 Cost-effectiveness

189. The foremost consideration for cost-effectiveness for Component 1 is to ensure that the National Climate Change Committee will be sustainable. In order to formalise its role, the governance framework and mandate of the NCCC will be incorporated into Djiboutian law. The NCC Strategy and the National Environment and Climate Change Fund will also be developed with LDCF funds to guide the work of the NCCC and to provide it with an important coordinating function.

190. Another key design element for Component 1 is to consolidate the training programmes and knowledge-sharing activities that are required to develop and maintain the NCCC and NCC Strategy. Dynamic modelling will be used to support these tasks through scenario and cost-benefit analyses, which will provide scientific evidence on the best options to maximize co-benefits. Initially, due to the fact that Djibouti has no experience in such type of modelling, an outside consulting firm will be recruited. It will be mandated to train nationals, specifically members within the Ministry of Environment who will act as Technical Group specialists within the NCCC Secretariat. By training locals, the costs of adapting dynamic models in the future when new data and projects are accounted for, will be significantly reduced.

191. For Components 2 and 3, it is essential to analyse in detail the relevant activities being conducted or planned in other baseline projects and related initiatives (Sections 2.3.1 and 2.3.2). The LDCF3 financed project builds on the existing initiatives in terms of water mobilization strategies. An assessment of other ongoing project activities has been undertaken, noting the project site and the success or failure of existing water mobilization strategies (e.g. borehole, retention pond, etc). Furthermore, the LDCF3 financed project is building off the expertise already housed within the Department of Large Construction Works with regard to small dam construction and within the Ministry of Water in terms of constructing boreholes. Also, the recent Japanese-funded PACCRAS project demonstrated that the Ministry of Water can effectively build infiltration galleries.

192. Solar-powered boreholes are becoming more common in Djibouti thanks to a number of projects (e.g. JICA, UNDP-AF, PRODERMO, PROMES). However, field consultations during project preparation noted that wells with solar panels often do not function because the communities do not know how to maintain them. LDCF funds will be used to train Water Point Management Committees (WPMCs) and to assist Catchment Management Committees (CMCs) to develop readily-understood Standard Operating Procedures so that maintenance and operation knowledge can be passed on to each community that has a water point. The cost estimate includes sufficient training on well operation and maintenance for the WPMCs and watershed-based planning for the CMCs as well as tools, spare parts and water quality kits. As providing water to local populations may also bring the risk of water-borne diseases such as malaria, costs for potable water and first aid kits for each community have also been considered.

193. Due to project budget limitations, it was necessary to select from the long-list of needs to support agro-pastoral development and livelihood diversification and identify those within the scope and cost-effectiveness of the project. As numerous other projects are developing sustainable agro-pastoral and pastoralist practices throughout Djibouti, the LDCF3 financed project will build on these projects (as indicated in the discussions in Sections 2.3 and 2.4) to tackle mountain communities' priority needs. The chosen set of activities was reviewed in a Validation Workshop in January 2014 involving all stakeholders. Based on group consensus, Outputs/Activities were revised accordingly. The Outputs outlined have been chosen based on their financial feasibility. They have been chosen over alternative ways to address project barriers, as shown in Table 6 below. A summary of the co-financing strategy, indicating sources, purposes and amounts which will be used to support activity implementation is described in Table 3.

Table 6: Demonstration of cost-effectiveness for each proposed Output indicating the project barrier addressed by each Output

OUTPUTS	Barrier Addressed	Alternatives Considered
<p>1.1 Reactivation of the National Climate Change Committee (NCCC) and provision of secretariat services to coordinate responses to climate change</p>	<p>Poor coordination between Government agencies on adaptation-related initiatives</p>	<p>Alternative 1: Do nothing (cost = 0 USD) because of the past failure of the NCCC. However, there would be no platform to formalize coordination and create synergies with other CC-related projects. As a result, as proven in Djibouti’s past, redundant activities, wasted financial resources and delays in project implementation will be more likely.</p> <p>Alternative 2: No Secretariat support for the NCCC: No Secretariat support service prevents cross-sectoral training and knowledge transfer due to the breadth of expertise housed in the Secretariat (e.g. planning, financial management, disaster risk management, etc.). The Secretariat can provide guidance on how to integrate CC scenario information into policies and strategies. It will also facilitate the centralization of CC-related data to feed dynamic modelling and will provide M&E of CC/DRM related projects/programmes to ensure appropriate financial management and transparency of funds.</p>
<p>1.2 Development of a National Climate Change Strategy, informed by dynamic modelling for quantified scenario analysis of adaptation options which promote a Climate Change Resilient Economy</p>	<p>Limited national financing and ad hoc, uncoordinated donor responses for long-term climate change adaptation measures</p>	<p>Alternative 1: Relying on other national strategies to handle climate change: however, with this option, there would be no central mechanism to coordinate climate-related activities and to standardise disaster prevention strategies. Developing a National CC Strategy was deemed the best mechanism for streamlining the coordination of CC/DRM related programmes/projects, as shown in other African countries such as Zambia.⁶⁹ Furthermore, existing strategies may conflict with each other (e.g. water and energy, or water and agriculture), thereby requiring a central strategy that identifies and resolves these conflicts. Additionally, the current patchwork of sectoral policies cannot be easily decentralised to support Djibouti’s National Decentralisation Policy. A prominent national strategy would be required to address all levels of governance.</p> <p>Alternative 2: Have an NCCC without a guiding Strategy: the development of Djibouti’s first National Climate Change Strategy will help to mitigate the risk that the NCCC, as an inter-ministerial body, is overlooked or marginalized. The Strategy will be formally endorsed by the Office of the Prime Minister and will provide the Secretariat and the NCCC with a framework for assessing and achieving programming coherence. The focus of the Strategy will be to address adaptation needs and hold Ministries accountable for their respective resilience-building measures. To ensure accountability, the NCCC will be mandated to develop an annual evaluation report that will highlight existing policies and/or programmes which adhere to the Strategy and those that are recommended to be amended.</p>

⁶⁹ Government of the Republic of Zambia, Ministry of Tourism, the Environment and Natural Resources, *National Climate Change Response Strategy*, December 2010.

OUTPUTS	Barrier Addressed	Alternatives Considered
		<p>Alternative 3: Use existing general CC models (e.g. those of the IPCC) which only consider environmental impacts. By tailoring dynamic models to the Djibouti country context on an ongoing basis, the approach adopted by the LDCF3 financed project enables identification of robust adaptation measures which maximize poverty reduction and cross-sectoral co-benefits in the medium- and long-term using financial and cost-benefit analyses. Dynamic modelling incorporates existing quantifiable, cross-sectoral data so that consensus across ministries and institutions/organisations can be achieved.</p> <p>Alternative 4: Outsource dynamic modelling to a private company. However, little national capacity will be built to adapt the models as more data becomes available. Also, additional scenario analyses will not be possible without outside expertise (incurring additional costs) and confidential/sensitive Government data will not be secured.</p> <p>Alternative 5: Have separate data portals for each agency that deals with activities relating to CC/DRM: however, this would prohibit the easy use of data across agencies as well as the ability to share data regionally and internationally with relevant agencies/organizations (e.g. IGAD, WMO).</p>
<p>1.3 Support for the Government to find innovative financing options to catalyse finance for adaptation, including the establishment of an Environment and Climate Change Fund</p>	<p>Need for transparent, cross-sectoral finance mechanisms to build climate resilience</p>	<p>Alternative 1: Do nothing. However, there are no existing funds which consider the long-term and which use a transparent, diversified portfolio of financing strategies. With more than 50 international public funds and 6,000 private equity funds providing climate change financing, Djibouti has no capacity to access and channel these funds to address the climate and development needs identified by the NAPA and NAPs. Rather, Djibouti is at high risk of ad hoc donor initiatives and short-term Government allocation of funds for unsustainable activities which has in the past contributed to mal-adaptation (e.g. the National Water Fund).</p> <p>Alternative 2: 'Smart subsidies' paid for from Government budgets (additional cost 0 USD) were considered as an alternative to developing a Fund for the Environment and Climate Change. Such subsidies for sustainable uses have been subject to political implementation challenges in the past. In contrast, LDCF funds will be used to develop M&E mechanisms to promote transparency. Furthermore, according to stakeholder discussions, a Fund is the desired option to facilitate the mobilisation of additional climate finance to scale-up adaptation responses. Various donors are active with adaptation measures in Djibouti (e.g., JICA, EU, AfDB); however, there is no long-term financing strategy or source to continue each initiative.</p> <p>Alternative 3: Rely on Djibouti's ability to manage, monitor and evaluate funds: However, at present, there are two major national funds in Djibouti: the Youth National Fund ('Fonds National pour la Jeunesse'), with USD 2m annual capitalisation, and the</p>

OUTPUTS	Barrier Addressed	Alternatives Considered
		<p>Water Fund ('Fonds de l'Eau'), which is no longer capitalised because of allegations of corruption. Both of these funds have been financed by taxing import products. The Youth Fund is fed by a tax on imported khat (a drug that is having harmful dependency impacts on the youth) and the Water Fund was financed by a tax of 3 Djibouti Francs on each imported litre of bottled water. Both the funds, managed by Ministerial departments (the Ministry of Youth for the Youth Fund and Ministry of Agriculture for the Water Fund), have suffered from opaque usage due to unclear governance mechanisms and access modalities. Djibouti requires capacity reinforcement in how to monitor and evaluate funds and how to strengthen national ownership of climate finance in a transparent manner to increase access to the numerous private and public climate financing funds available.⁷⁰</p>
<p>2.1 Construction of new water mobilisation infrastructure (a borehole, micro-dams, cisterns, sills retention ponds and infiltration galleries) implemented as climate change adaptation measures</p>	<p>Unsustainable water management, agricultural and pastoral production practices</p>	<p>Alternative 1: If no technical studies are conducted (cost = 0 USD) or not sufficiently informed by hydro-geotechnical experts, it is possible that poor water source locations will be chosen with insufficient capacity and/or poor water quality due to a lack of informed guidance by hydro-geotechnical surveys. Moreover, if water quality samples are not monitored, a baseline of water quality in the regions cannot be established to ensure water quality does not deteriorate. This will deter the local Water Point Management Committees to properly monitor and manage the water infrastructure.</p> <p>Alternative 2: Recharge basins (15,000 USD each), although relatively inexpensive, are not viable options due to their high evaporation rates.</p> <p>Alternative 3: A gravity-fed hydropower dam is estimated to cost at least 20 M USD. The high cost, local inexperience with the design and need for imported materials make this an infeasible option. Earth micro-dams are the preferred option due to their simple design and low-cost.</p>
<p>2.2 Support to expand and strengthen agro-pastoralism and pastoralism in the Weima and Assamo watersheds</p>	<p>Unsustainable water management, agricultural and pastoral production practices</p>	<p>Alternative 1: Rely on pastoralism rather than develop agro-pastoralism; however, pastoral systems alone would not allow many of the community members in both Adailou and Assamo, who are already sedentary, to diversify their livelihoods through improved farming practices (with pastoralism on the side). For instance, cultivating diversified fruits/plants provides alternative Income Generating Activities and the means to spread revenues across seasons, providing greater resilience to climate shocks. Also, reforestation to support pastoralists becomes expensive when considering that fencing and security is required around entire reforestation areas.</p> <p>Alternative 2: One-time training to save financial resources: however, farming</p>

⁷⁰ UNDP (2011), *Blending Climate Finance Through National Climate Funds: A Guidebook for the Design and Establishment of National Funds to Achieve Climate Change Priorities*.

OUTPUTS	Barrier Addressed	Alternatives Considered
		<p>inexperience and lack of continual mentorship has demonstrated a lack of success and sustainability in previous agro-pastoral initiatives (e.g. Kourtimalely in southern Djibouti). New farmers require on-the-farm training by Training of Trainers (lead farmers) during critical seasons each year so that agro-pastoral capacities can be developed over time. Also, lessons-learned from significant initiatives in agro-pastoralism (AF, JICA, EU projects), pastoralism (PROMES, PRODERMO) and reforestation (Day Forest project under PROMES) must be continually integrated.</p> <p>Alternative 3: Use existing, low-productivity fruit trees: however, native or easily imported fruit tree grafts can provide significant harvests for fruit/nuts (e.g. dates) that are in high demand and lucrative.</p> <p>Alternative 4: Use basic, natural fencing materials: however, a main cause of failure of previous agro-pastoralist initiatives and reforestation sites has arisen primarily from forbidden animal grazing. In the case of reforestation, guards and robust, metal fencing material are required to ensure protection of sensitive areas from grazing and wild animals.</p>
2.3 Reforestation and re-vegetation to support soil and water conservation and effectively reduce runoff and promote sustainable watershed management	Unsustainable water management, agricultural and pastoral production practices	<p>Alternative 1: Have pastoralists rely on natural re-vegetation processes. However, the unsustainable use of natural resources and ecosystems in mountains limits their ability to curb the impacts of CC and natural hazards⁷¹. Also, mountains are important centres of agro-biodiversity, hosting diversified livestock and wildlife which are essential to food security in times of rapid climate change⁷². It is therefore essential to preserve and protect the existing vegetation, forests, etc so that they can provide the natural resource base necessary for pastoral livelihoods (e.g., preserving natural forage which feeds mountain livestock).</p>
2.4 Development of Catchment Management Committees and Water Point Management Committees, to develop best practices for sustainable groundwater and surface water use and protect existing water points	Unsustainable water management, agricultural and pastoral production practices	<p>Alternative 1: Rely on the Government to maintain solar-powered boreholes. However, by training and empowering the Water Point Management Committees to perform O&M, wells are more likely to remain operational. Also, by looking at water management at the scale of the watershed and by using the expertise of a national water resource and water quality expert, best water management guidelines can be developed by the Catchment Management Committees with an integrated approach that considers upstream and downstream impacts.</p>

⁷¹ Mountain Partnership, *Why Mountains Matter for Climate Change Adaptation and Disaster Risk Reduction, A call for action on the Sustainable Development Goals (SDGs)* Jan 2014.

⁷² Mountain Partnership, *Why Mountains Matter for Forests and Biodiversity, A call for action on the Sustainable Development Goals (SDGs)* Jan 2014

OUTPUTS	Barrier Addressed	Alternatives Considered
2.5 Support for women's livelihood diversification with the introduction of nurseries and training on fruit cultivation	Limited socio-economic development and diversification of livelihoods within Djibouti's mountainous regions	Alternative 1: Use nearest nurseries in cities: however, the logistics of transporting seedlings and fruit grafts costs more than the costs of developing and training women-run nurseries. Promoting nursery development in the mountain regions also enables women to diversify their livelihoods and thereby have more access to capital.
3.1 Regional Local Risk and Catastrophe Management Committees (LRCMCs) and community members supported to implement drought and flood preparedness and adaptation measures	Limited understanding of drought / flood preparedness and mitigation measures at regional and community levels	<p>Alternative 1: Limit training to the national level: through the LDCF3 financed project, the Local Risk and Catastrophe Management Committees as well as the community members in Assamo and Adailou will gain expertise in preparing for potential droughts and floods.</p> <p>Alternative 2: Do nothing: if the regional councils are not informed on drought/flood preparedness, they will not be able to convey to communities when to prepare for floods and droughts. Through the LDCF3 financed project, the communities will become empowered to take actions to mitigate floods and cultivate crops in a more drought-resilient manner.</p>
3.2 Local commodity and handicraft production (gabion, poultry-breeding, beekeeping) supported as climate-resilient income generating and diversifying activities, accompanied by enhanced access to local and national markets	Limited understanding of drought / flood preparedness and mitigation measures at regional and community levels	<p>Alternative 1: Constrain access to capital through limited diversification of activities: by diversifying the activities of agro-pastoralists, women can take advantage of their preferred status as borrowers of micro-finance products. Micro-finance will be used to purchase clean cookstoves, which will have personal (reduced fuelwood collection) and societal (reduced pressure on biomass resources) benefits.</p> <p>Alternative 2: Continue using fuelwood for cooking: Collection of fuelwood contributes to deforestation. Also, collection of fuelwood is a laborious task that places work on women who are generally burdened with water collection in addition to numerous other domestic chores.</p>
3.3 Capacity building for local NGOs/CSOs (the Village Ecology Association in Adailou and the Assamo Agriculture Cooperative) to support project implementation and shared ownership of projects with the communities	Limited socio-economic development and diversification of livelihoods within Djibouti's mountainous regions	Alternative 1: Rely on regional councils to implement activities rather than local NGOs: however, both the Village Ecology Association in Adailou and the Agricultural Cooperative of Assamo have demonstrated their ability to train, mobilize and build awareness within its community (e.g. EVA and the PICODE project). As demonstrated during stakeholder consultations, the community has considerable confidence in both associations. With more capacity reinforcement, both NGOs will be able to assist with the implementation of LDCF3 activities as well as scaling-up the project's activities in adjacent communities after project completion.

2.7 Sustainability of the project

194. The project is in line with the Government's strategy to develop and expand agro-pastoralism, to support the diversification of livelihoods for the rural poor, and to decentralize capacities to the regional and local levels. Furthermore, the project supports the MDGs in terms of aiming to reduce poverty reduction by enabling the rural populations (of which more than half live in poverty) to: i) take preventive actions when weather or climate-induced risks are forecasted and ii) have access to diversified livelihoods and capital to facilitate risk reduction.

195. The first component of the project will facilitate the re-establishment of the National Climate Change Committee and the development of a National Climate Change Strategy, which will both guide diversified funding for climate change adaptation and disaster risk management in the future. With an active National Climate Change Committee in place, a National Climate Change Strategy to guide Government and donor interventions as well as dynamic modelling guidance, policies will be able to integrate climate change components and coherent on-the-ground programming will be enabled after projects (including the LDCF3 financed project) are completed. In addition, better inter-agency coordination, better information-sharing, better identification of on-going co-financing / leveraged financing opportunities, and better dissemination of lessons-learned and project impacts will facilitate the sustainability of all project activities in the future.

196. The design and establishment of a National Environment and Climate Change Fund will facilitate Djibouti to be less reliant on donor support for adaptation measures. By strengthening national ownership of climate finance with the creation of the Fund, Djibouti will be able to access the growing number of private and public funds which provide climate financing. The National Environment and Climate Change Fund will also act as an important source of knowledge and information management that consolidates and disseminates lessons from climate change projects and programmes. The exchange of such information can build capacity, help projects implement good practices and spur innovative solutions to implement country-driven priorities on climate change.

197. By mobilising water resources for mountain communities and providing them with training, Component 2 will help to support sustainable agro-pastoral and reforestation practices. At the same time, by providing an opportunity for communities to engage with local development activities (e.g. gabion building, nursery development) this will ensure local buy-in and sustainability of outcomes. Furthermore, by building social capital and supporting the diversification of productive activities (accompanied by market access support), the project is explicitly designed to produce long-term resilience outcomes.

198. Specifically by supporting women in nursery and artisanal production development in Component 2, these gender benefits are expected to promote the importance of women's roles in society. Through LDCF funds, women will obtain the capacity to undertake revenue-generating activities, such as selling seedlings and fruit tree grafts or artisanal crafts (e.g. jams in Assamo). Such products will also be able to be more effectively marketed at the newly-created market points. By enabling women to have access to capital and credit, they will be able to build an asset base that will make them more resilient to climate change. Also, the beneficiaries who receive training in this project will be able to transfer knowledge to other women in their region.

199. The learning-by-doing training approach for agro-pastoralists and pastoralists will enable them to fully understand how to diversify and rotate their cultivations in addition to making them more drought- and salt-resilient. On-the-farm (in-the-pasture) training by national agronomists and specialists in pastoralism for lead farmers and pastoralists will be an effective mechanism for transferring knowledge on sustainable practices and adaptation technologies.

200. In Component 3, women will be empowered to invest their own capital in purchasing cookstoves with an appropriate, affordable micro-finance scheme. In lieu of collecting fuelwood and further contributing to deforestation (currently proceeding at a rate of 3% per year), the cookstoves will enable

them to have more time for livelihood diversification activities and to help the environment. By linking cookstoves with micro-finance, the women will be incentivised to properly use and maintain the cookstoves for the long-term.

201. Also, in Component 3, LDCF funds will be used to involve CSOs (EVA and the Agricultural Cooperative of Assamo) in the implementation of the project to ensure that activities continue in the communities after project termination. Benefits of this approach are three-fold: first, the CSOs already have experience and have established credibility in their communities; second, capacity reinforcement will ensure that the CSOs can more effectively manage funds and have adequate technical knowledge of agro-pastoralism, pastoralism, reforestation and water point management; and third, the CSOs/NGOs will facilitate project sustainability in the long-term by organizing and preserving training materials and lessons-learned, which can easily be transferred for scaling-up to other local communities in Djibouti.

202. Most significantly, the project makes the most effective use of LDCF funds by working in close collaboration with other projects and related initiatives. Due to the fact that numerous projects are ongoing, the LDCF3 financed project has invested considerable time in investigating and reaching out to other initiatives and in describing in detail how it will strategically build on other projects. Activities within the project have been designed to ensure that the LDCF3 financed project will coordinate with other initiatives by building capacities at levels where other projects are not (e.g. focusing on building flood and drought preparedness at the regional and local levels rather than nationally. In contrast, the GFDRR project, the *Comprehensive Approach to Risk Assessment in Djibouti*, only built disaster preparedness capacity at the national level).

203. Various activities support the project's sustainability after the project ends, including:

- Creation of an NCCC to coordinate CC initiatives among various socio-economic sectors (e.g. agricultural, health, fishing, port trade) for the rural populations who are most vulnerable, including the mountain populations that are often marginalized due to their remoteness;
- Creation of a National Environment and Climate Change Strategy to guide climate change-related initiatives;
- Creation of a National Environment and Climate Change Fund to channel available public and private climate financing and address Djibouti's required adaptation needs;
- Staggered approach to training;
- Development of a nationally-based dynamic modelling team to be housed within the Technical Groups of the NCCC Secretariat;
- Integrated approach to risk management by mobilising and storing water and groundwater resources and transferring adaptation technologies;
- Creation of Catchment Management Committees to prepare and implement best water management guidelines that are catchment-specific;
- Development of Standard Operating Procedures (SOPs) for well maintenance and operation, including illustrated manuals;
- Knowledge-sharing and best practice exchange among projects (e.g. PROMES Day Forest) and between locally-based NGOs;
- South-South co-operation, including study tours for national-level representatives on the functioning of national climate change strategies and a study tour for local and regional representatives in neighbouring countries to witness how mountainous communities are experienced in community-based drought and flood preparedness;

- Development of a centralised climatic data portal (to be housed at the NCCC Secretariat) to facilitate cross-sectoral data sharing;
- Building capacity for local focal points and NGO/CBO representatives at the village level to better understand how adaptation measures can help alleviate climate risks;
- Training and capacity building strategies for regional Local Risk and Catastrophe Management Committees supporting Djibouti's Decentralization Plan;
- Creation of a market stall in Tadjourah and rehabilitation of the market stall in Ali-Sabieh;
- Empowering women to develop nurseries, artisanal products and use fuel-efficient cookstoves.

204. Overall, the main factors affecting the financial sustainability of the project beyond the duration of the LDCF grant include the potential lack of coordination among CC-related initiatives which can waste financial resources, formalizing the mandate of the NCCC and incentivizing NCCC members to meet, and a lack of maintenance and upkeep for water mobilisation infrastructure. The project design has included Outputs/Activities to address these risks, as indicated below:

- Creating the NCCC to coordinate all CC/DRM resilience-building activities;
- Developing the NCC Strategy to guide the NCCC;
- Establishing Water Point and Catchment Management Committees to maintain water points, boreholes, reservoirs, cisterns, earth dams, etc. (e.g. cleaning solar panels, de-silting dams).

2.8 Project replicability

205. The project represents an effort to upscale priorities identified in Djibouti's NAPA and to advance Djibouti's NAP process, coordinating with all existing and relevant climate change adaptation initiatives. In order to ensure project replicability, this project has focused on formalizing the mandate of the NCCC and empowering it to unlock funds for continued support for climate change-related activities, particularly in the medium- to long-term. The Committee will be supported by giving it the expertise to secure public and private investments and to create necessary enabling conditions – legal basis, technical capacity and awareness – for successful replication of climate-related activities. Due to the development of the NCCC and the NCC Strategy, adaptation-related activities will have a clearer roadmap for prioritised actions.

206. The NCC Strategy will be designed to serve cross-sectoral agendas so that support will grow for adaptation -related activities. Furthermore, the NCCC Secretariat will be mandated to perform Monitoring and Evaluation of all adaptation-related activities. The Secretariat will thus be able to document lessons-learned to detail how projects or activities can be successfully implemented and scaled-up. Similarly, the NCC Fund will be used to mobilise additional climate finance to support scaling-up of the country's adaptation response as indicated in Djibouti's NAPA and NAP. The Fund will attract and leverage different types of climate change investment, including the increasing amount of climate financing predicted to come from the private sector. With private sector funds already significantly outnumbering government funds (50 international public funds and 6,000 private equity funds currently provide climate change financing), Djibouti will gain the capacity to use scarce public funds to collect, blend and channel appropriate private investment into its National Fund.

207. The project has also focused on building on resilience-building baseline projects so that the innovative developments in the LDCF3 financed project can be piloted in regions where adaptation awareness has already been built. For instance, the following activities can easily be scaled-up:

- Implementing regional- and community-based drought and flood preparedness measures.
- Prioritising adaptation options based on guidance from the NCC Strategy and cost-benefit analyses from dynamic modelling outputs.
- Mobilising funds using the expertise of the NCCC and its Secretariat.
- Using micro-finance or micro-leasing to purchase/rent clean cookstoves.

208. The transfer of successful initiatives and close collaboration with other projects will increase the likelihood that they can be scaled-up.

209. The project also supports various mechanisms of knowledge transfer, including on-the-farm training. Support for local lead farmers will provide communities with the motivation to duplicate successful farming practices. There is also ample budget and time to obtain feedback from agro-pastoralists so that their farming and pastoral practices can be improved and made more practical, given the harsh realities of Djibouti's climate.

210. This project contributes towards building the resilience of ASAL communities by mobilising water resources, developing best-practice watershed (i.e. catchment) management committees and by conducting on-the-farm and on-the-pasture training to allow the mountainous populations to use soil and water conservation methods. Agro-pastoralists will also gain the capacity to use sustainable practices such as composting, planting drought-resilient forage species, and using water recycling and drip irrigation technologies. Such skills can be transferred to other ASAL communities by the NGOs/CSOs/community leaders who will be training beneficiaries.

211. The project has also considered that the needs for capacity building (both equipment and human resources) are too great to cover every community in the mountain regions of Djibouti. Involving regionally-based active CSOs will enable the CSOs to replicate project activity developments (tree plantations, stone mulching, apiculture, aviculture, etc.) in adjacent communities. Also, by creating market stalls, other mountain communities will have the opportunity and motivation to sell their products in these open markets.

212. Finally, as dynamic modelling will be a new tool used to inform the NCCC on cross-sectoral adaptation opportunities, funds have been reserved to train nationally-based dynamic modelling experts within the Technical Groups of the NCCC Secretariat to have the capacity to adapt the models as new data becomes available or as new strategies, funding sources and projects are introduced into Djibouti.

213. Training recipients and types of training are outlined below:

- Two workshop training sessions by the Secretariat staff to the NCCC and other ministry/organization focal points on the costs and benefits of CC adaptation options, climate finance readiness and how to integrate CC scenario information into existing policies and ministerial strategies.
- Training for nationals on dynamic modelling through the learning-by-doing approach.
- South-South co-operation to facilitate the exchange of lessons-learned by other countries on the development of a National Climate Change Strategy.
- Training for Water Point and Catchment Management Committees on sustainable operation and maintenance techniques for water infrastructure.
- Training for technicians in the relevant divisions of the Ministry of Agriculture (Large Works Division and Water Division) on water mobilization engineering techniques.
- Training for agro-pastoralists and pastoralists on sustainable practices (soil and water conservation techniques, drip irrigation, production of drought-resistant forage, diversification of crops).

- One study tour to Day Forest to capture lessons-learned on reforestation, fencing mechanisms, water capture, beekeeping, nursery cultivation and how to promote artisanal production and eco-tourism.
- Training for women on nursery development and artisanal production, including marketing and sales of seedlings and grafts.
- Training on the production of gabion, including proper weaving techniques.
- Training on aviculture and apiculture.
- Training for NGOs/CSOs on animal hygiene, nursery development, well maintenance, gabion construction, livelihood diversification, organization of communities and accounting.
- Training for 300 people, including local NGOs and regional extension services, in the two project regions on drought and flood mitigation measures, including a study tour for local representatives on other mountain-based community-led drought and flood mitigation practices.

2.9 Stakeholder involvement

2.9.1 Stakeholder baseline analysis

214. During project preparation, three extensive field consultations with the two local populations in Adailou and Assamo were organized (See Meeting Minutes, Annex 6). Bilateral and multilateral stakeholder consultations also took place to collect information and confirm costs and management arrangements. The overall goal of stakeholder consultations has been to identify relevant agencies involved in supporting rural community adaptation in Djibouti's mountainous regions, particularly those who will be responsible for continuing project activities in the long-term. Consultations have ensured the proposed project is grounded in local realities whilst being aligned with national policy.

215. The following table shows the list of consultations that have taken place to develop the LDCF3 financed project document. The project outcomes, outputs and activities are based upon the recommendations of the stakeholders given the technical, operational and financial constraints of the project. The role and participation of each agency is indicated by the column headings described in the legend.

Legend

Inception Consultations – participated in first mission consultations.

Technical Validation Consultations – participated in the secondary consultations used to confirm project activities and costs.

Validation Workshop – participated in the validation workshop.

Baseline Assessment – consulted to provide baseline situation during project development.

Management Arrangements – identified as a member of the project management arrangements (e.g. Steering Committee, etc.).

Risk/Barrier Analysis – consulted to document their view of specific institutional risks or barriers.

Policy/ Strategic Alignment with Priorities – institution has policies/strategies or implements policies / strategies aligned with project priorities.

Co-financing Identification – institutions / organizations that have other projects or existing material to support and be supported by the project financially.

Gender Representation – organisation that is concerned with promoting the involvement of women during project development and implementation.

Upscale / Sustainability planning – responsible for scaling-up (duplicating) the project and reinforcing the sustainability of activities after project completion.

Potential Partnerships – Memoranda of Understanding obtained between ministries and institutions to support project implementation.

Furthermore, Djiboutian women have been involved during project development and will continue to be involved during project implementation. Women are an important target group because they are more dependent on natural resources for their livelihoods. Climate change has a strong impact on the female beneficiaries who are living in rural regions and have limited mobility. In addition, women may be excluded from some activities due to cultural norms, or due to lack of capital and ownership arrangements that confer all rights to men in the family.⁷³ This inequality is compounded by a lack of opportunities arising from limited access to education and information services which prohibit participation in decision-making. Due to all of these reasons, this project is targeting women to develop nurseries and market artisanal products. The Women's Association of Tadjourah and the National Women's Union will be heavily involved during project design and implementation to facilitate the engagement and empowerment of women.

⁷³ Buhl, S. *Gender equality? No! What do Fulbe women really want?* In Homewood, K. (ed.) *Rural Resources and Local Livelihoods in Africa*, James Currey, Oxford, pp. 137- 154, 2005.

Eriksen, S., J.T. Klein Richard, K. Ulrud, L.O. Naess, K. O'Brien. *Climate Change Adaptation and Poverty Reduction: Key interactions and critical measures*, GECHS Report, 2007.

Eriksen, S., Brown, K. and Kelly, P.M. *The dynamics of vulnerability: locating coping strategies in Kenya and Tanzania*. *The Geographical Journal*, 171(4): 287-305 2005.

Table 7: Stakeholder Involvement Matrix

Stakeholder	Inception Consultations	Technical Validation Consultations	Validation Workshop	Involvement in Baseline Assessment	Management Arrangements	Risk/Barrier Analysis	Policy/ Strategic Alignment with Priorities	Co-financing Identification	Gender Representation	Upscale / Sustainability Planning	Potential Partnerships
Federal/Sector											
Ministry of Habitat, Urbanism and Environment (MHUE), Directorate of Land Use and the Environment (DATE)	X	X	X	X	X	X	X	X		X	
Directorate of Rural Hydraulics (DRH) within the Ministry of Agriculture, Livestock and Hydraulic Resources (MALHR)	X	X	X	X	X	X	X	X		X	
Ministry for the Promotion of Women											
Ministry of Energy, Water and Natural Resources	X	X	X	X	X						
Ministry of Equipment and Transport		X	X	X	X			X			
Ministry of Interior		X	X	X	X						

Stakeholder	Inception Consultations	Technical Validation Consultations	Validation Workshop	Involvement in Baseline Assessment	Management Arrangements	Risk/Barrier Analysis	Policy/ Strategic Alignment with Priorities	Co-financing Identification	Gender Representation	Upscale / Sustainability Planning	Potential Partnerships
Directorate of Economy, Ministry of Budget	X		X	X		X					
Djiboutian Agency for Social Development (ADDS)	X		X	X	X	X	X				
Ministry of Finance											
Djibouti Meteorological Agency											
Technical / Research Institutions											
CERD	X	X	X	X	X	X				X	
Private Sector											
Port of Tadjourah						X				X	X
Apiculture Specialists						X				X	
Regional/ Sector											
Regional Government of Tadjourah	X	X	X	X	X	X				X	
Regional Government of Ali-Sabieh	X	X	X	X	X	X				X	

Stakeholder	Inception Consultations	Technical Validation Consultations	Validation Workshop	Involvement in Baseline Assessment	Management Arrangements	Risk/Barrier Analysis	Policy/ Strategic Alignment with Priorities	Co-financing Identification	Gender Representation	Upscale / Sustainability Planning	Potential Partnerships
NGOs/CSOs											
Village Ecology Association (EVA)	X	X	X	X	X	X		X	X	X	X
Agricultural Cooperative of Assamo											
National Women's Union (Union Nationale des Femmes Djiboutiennes, UNFD)	X	X	X	X		X			X	X	
Women's Association of Tadjourah (Association des femmes de Tadjourah)	X	X	X	X		X			X	X	
Association Ecologique d'Ali Sabieh											
Donor Partners											
African Development Bank, AfDB			X			X		X			X
Intergovernmental Authority on Development			X			X		X			X

Stakeholder	Inception Consultations	Technical Validation Consultations	Validation Workshop	Involvement in Baseline Assessment	Management Arrangements	Risk/Barrier Analysis	Policy/ Strategic Alignment with Priorities	Co-financing Identification	Gender Representation	Upscale / Sustainability Planning	Potential Partnerships
(IGAD)											
PRODERMO, World Bank (WB)	X		X	X		X		X			X
PROMES (WB)	X		X	X		X		X			X
United Nations High Commissioner for Refugees (UNHCR)			X			X					X
UN Food and Agriculture Organization (FAO)			X			X					X
European Union (EU)			X			X					X
JICA			X	X		X		X			X

2.9.2 Stakeholder involvement plan

216. The stakeholders identified during project preparation will continue to be involved during project implementation. A Stakeholder Involvement Plan has been created to provide a framework to guide interactions between implementing partners and the key stakeholders, particularly end-users, to validate project progress. All stakeholders involved in the baseline self-capacity assessment will be addressed again in order to track the efficacy of stakeholder capacity building, both operationally and technically. Also, the National Women's Union will continue to be involved and consulted in order to ensure women are properly trained and engaged. Gender-focused NGOs/CSOs will have the role of conducting gender-disaggregated surveys to ensure women develop skills to diversify their livelihoods and are involved in decision-making. Details of the Stakeholder Involvement Plan are provided in Annex 6.

2.9.3 Expected Socio-Economic and Environmental Benefits

217. The project will have significant adaptation and socio-economic benefits. With the creation of the National Climate Change Committee, climate change-related initiatives will be facilitated through cross-sectoral coordination, the optimisation of resources and diversified fund mobilization. Dynamic modelling outputs will inform NCCC decision-making so that co-benefits are maximized.

218. Best water management practices will be developed by the Catchment Management Committees, which will provide a holistic, watershed viewpoint for water management, including how to improve water quality and maintain groundwater resources considering upstream and downstream water mobilisation activities. Indeed, the capture and storage of runoff will benefit local communities by supplying potable water as well as water to serve the needs of irrigation. The reforestation and re-vegetation activities will limit runoff erosion and help Djibouti in its fight against desertification (supporting the National Plan to Combat Desertification, PAN).

219. The LDCF3 financed project will also strengthen and diversify the available Income Generating Activities (IGAs) of community members in the mountain regions. Currently, there are no other livelihood options available due to the remoteness of the mountain villages. LDCF funds will be used to create and rehabilitate markets so that trading can occur. Funds will also facilitate the communities' access to capital, such as promoting aviculture and apiculture. Such opportunities will increase the asset base of the communities so that they can more effectively handle climate shocks.

220. At the regional level, targeted drought and flood preparation plans disseminated by an informed regional government trained in disaster risk management will provide economic benefits by reducing losses of agricultural produce, infrastructure (roads and bridges) and disruption to people's livelihoods. Communities will also immediately benefit by being empowered to perform activities which build drought and flood resilience, including recording rainfall gauge measurements, reinforcing infrastructure and wadi walls with locally-produced gabion and repairing and maintaining water points (shallow wells). Although approximately 7,000 beneficiaries are targeted in both project zones, the total population which can benefit from these developments has the potential to grow to the extent of the regions covered.

221. Many of the beneficiaries will be women. It is expected that improvements in water availability/management, nursery development and poultry breeding (i.e., aviculture) will provide disproportionate benefits to women and girls. Women will also be included as members of the Water Point Management Committees and will be provided targeted training on how to market artisanal products. Furthermore, cookstoves will reduce the need for fuelwood collection, liberating time for women to engage in resilience-building activities. Cookstove provision will also reduce the risk of inhaling toxic smoke emissions by women and children⁷⁴.

⁷⁴ Global Alliance for Cookstoves, *Clean Cookstoves and Climate Change*, 2013: www.cleancookstoves.org

222. Finally, during the first 3 months of the project, in accordance with Djiboutian law, the LDCF3 financed project will support an Environmental Impact Assessment for all water and irrigation infrastructure activities as per Djiboutian law. During project development, the project has also been designed to adhere to the UNDP Environmental and Social Screening Safeguards. The screening has classified the project as Category C (See Annex 9). As such, the following mitigation measures are recommended and will be re-visited at the time of the detailed EIA:

223. Environmental safeguards being applied to the LDCF3 financed project in full compliance with Djibouti's EIA requirements include the following:

- Conducting in-depth hydro-geotechnical studies to ensure that wells will have sufficient yield and that water mobilisation infrastructure will support sufficient groundwater recharge.
- Providing on-the-farm and in-the-field training on environmentally-friendly adaptation technologies (e.g. equipment/practices that reduce erosion and limit degradation) to build the climate resilience of the agro-pastoralists.
- Establishing Catchment Management and Water Point Management Committees to ensure best water practices (e.g. water conservation, storage and hygiene).
- Training locally-based NGOs/CSOs on the most climate-resilient agro-pastoral, water management and drought/flood mitigation strategies in order to ensure they can transfer such knowledge to surrounding communities after termination of the project.
- Covering existing water points to prevent contamination.

224. Social safeguards being applied include the following:

- Facilitating feedback from marginalized mountain populations on the utility of adaptation technologies and financial services (micro-finance access for clean cookstove purchase).
- Promoting women's involvement in nursery development, aviculture and artisanal marketing and production.
- Ensuring that each Water Point Management Committee receives a water quality kit and maintenance tools.

3 PROJECT RESULTS FRAMEWORK

<p>This project will contribute to achieving the following Country Programme Outcome as defined in CPAP or CPD: <u>CPAP FOCUS AREA 2 (SUSTAINABLE ENVIRONMENT AND CLIMATE CHANGE) OUTPUT 2:</u> Vulnerable communities better equipped when faced with climate change <u>CPAP FOCUS AREA 2 OUTPUT 3:</u> More effective preservation interventions for the environment and ecosystems</p>					
<p>Country Programme Outcome Indicators: <u>CPD Indicator:</u> By 2017, the capacity of environmental management process is enhanced, the results of socio-economic surveys are available, the unemployment situation has improved, jobs are created, the resilience of communities to climate change is strengthened</p>					
<p>Primary Applicable Key Environment and Sustainable Development Key Result Area (same as that on the cover page, circle one): Promote climate change adaptation</p>					
<p>Applicable GEF Strategic Objective and Programme: Objective 2: Increase adaptive capacity to respond to the impacts of climate change, including variability, at local, national, regional and global level</p>					
<p>Applicable GEF Expected Outcomes: Outcome 2.1: Increased knowledge and understanding of climate variability and change-induced risks at country level and in targeted vulnerable areas Outcome 2.2: Strengthened adaptive capacity to reduce risks to climate-induced economic losses</p>					
<p>Applicable GEF Outcome Indicators:</p> <ul style="list-style-type: none"> % of population covered by climate change risk measures 					
	Indicator	Baseline	Targets End of Project	Source of verification	Risks and Assumptions
<p>Project Objective⁷⁵ Reduction of climate-related vulnerabilities facing the inhabitants of mountainous regions of Djibouti through institutional strengthening, climate-smart water management and targeted investment.</p>	<p>1. Number of households with enhanced livelihoods through access to water, improved ecosystem services and reforestation</p>	<p>1. The 2010 Rapid Drought Impact Assessment found that the total economic loss attributed to the recent drought amounted to 3.9% of GDP. Due to the impacts of drought, transhumance is being constrained by a reduction in grazing routes with sufficient water and pasture. More than 70% of the population and herds do not have access to water within a reasonable distance. In the mountainous areas, communities are disproportionately poor due to the lack of infrastructure, limited market access and harsher agricultural conditions relative to lowland areas. Habitat loss is a major threat in the Horn of Africa's dryland highlands as well.⁷⁶ In Djibouti,</p>	<p>1. TARGET: USD 2,000 HHs⁷⁹ have enhanced livelihoods due to water mobilisation and reforestation</p>	<p>1. Initial socio-economic survey and final survey.</p>	<p>ASSUMPTION: There is sufficient political support and capacity within the agencies dealing with adaptation for successful execution and implementation of the project.</p> <p>RISK: The National Climate Change Committee fails to meet regularly due to lack of incentives.</p>

⁷⁵ Objective (Atlas output) monitored quarterly ERBM and annually in APR/PIR.

⁷⁶ FAO *Highlands and Drylands, Mountains a source of resilience in arid regions* 2011.

⁷⁹ The population of Adailou ranges between 8,000 and 12,000 (Perrin, J. Study on rural hydraulic works in Adailou). The population size is similar in Assamo. In accordance with

	<p>2. Reactivation of the National Climate Change Committee (NCCC) to coordinate climate change and resilience-building projects / activities.</p>	<p>mountain vegetation is a vital natural resource and a source of livelihood for the mostly nomadic pastoralists. Without any alternatives, pastoralists are currently forced to over-exploit mountain resources, contributing to further weakening of the natural environment.⁷⁷ Deforestation, occurring at a rate of 3% per year,⁷⁸ has worsened the impacts of flash floods and erosion by reducing rates of water retention.</p> <p>BASELINE 1: All target farmers and pastoralists require strengthened livelihoods to become less vulnerable to climate shocks. Livelihoods need to be strengthened by mobilizing water with physical infrastructure for use during the dry season (e.g., earth dams and retention basins, boreholes, etc). Also, livelihoods need to be strengthened with reforestation/afforestation and sustainable land use practices. Farmers and pastoralists need to be provided technical and applied knowledge on soil and water conservation methods and other sustainable practices to ensure that they can continually make use of productive ecosystem services.</p> <p>2. In 1999, a National CC Committee (NCCC) was formally established by Presidential Decree. The Committee was able to convene only 2 meetings before it was dissolved due to an unclear mandate and a lack of institutional and financial backing. Most Government institutions have limited understanding of the transversal impacts of climate change on diverse socio-economic</p>	<p>2. TARGET: Reactivation of the National Climate Change Committee (NCCC) with a clear mandate and a technically-capable Secretariat. The NCCC will be authorised to have</p>	<p>2. Legal mandate of the NCCC.</p> <p>Minutes from NCCC meetings.</p>	<p>RISK: Investments in water mobilisation, agriculture and pastoral systems are jeopardised by an unanticipated increase in the frequency of flood events and continued drought.</p>
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national statistics, it is assumed that there are 6 people per household.

⁷⁷ MHUE, *Fourth National Report on Biological Diversity in the Republic of Djibouti*, March 2009.

⁷⁸ MHUE, *Fourth National Report on Biological Diversity in the Republic of Djibouti*, March 2009, data for Day Forest, near Adailou.

		sectors (e.g. health, poverty, employment). <u>2. BASELINE:</u> The former National Climate Change Committee has effectively ceased to exist.	the power of a Government Permanent Secretariat and the Ministry of Environment (MHUE) will be officially designated as the host for the Secretariat.		
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	Indicator	Baseline	Targets End of Project	Source of verification	Risks and Assumptions
<p>Outcome 1 Institutional capacities for coordinated, climate-resilient planning strengthened.</p> <p>Mechanisms and a de-risked investment environment established to catalyse finance for climate change adaptation.</p>	<p>1. Development of a National Climate Change Strategy to guide the NCCC on appropriate coordination mechanisms and diversified, financing strategies to support adaptation-related activities in the long-term.</p> <p>2. Development of a roadmap outlining how to establish and capitalise a Fund for the Environment and Climate Change.</p>	<p>1. There is no national strategy on how to approach the challenge of climate change, how to coordinate climate change-related projects, or how to prioritise adaptation activities based on their cross-sectoral benefits and impacts. The country has no expertise in cost-benefit or adaptation economics which can support dynamic modelling.</p> <p><u>1. BASELINE:</u> A National Climate Change Strategy does not exist in Djibouti.</p> <p>2. Current Government funds are used to address extreme short-term challenges such as poverty and malnutrition. The Government often finds it difficult to justify the allocation of scarce fiscal revenues to longer-term needs. As a result,</p>	<p>1. <u>TARGET:</u> Creation of a National Climate Change Strategy informed by dynamic modelling results which guides the NCCC's work and provides strategic coherence to climate change initiatives in Djibouti.</p> <p>2. <u>TARGET:</u> Roadmap defining how to establish and capitalise a National Environment and Climate Change Fund which supports climate-smart</p>	<p>1. Review of the NCC Strategy.</p> <p>Review of adaptation projects/programmes and their uptake into the NCC Strategy.</p> <p>2. Review of the roadmap on how to establish and capitalize an Environment and Climate Change Fund.</p>	<p>ASSUMPTION: Institutions have the will and ability to engage in coordinated long-term planning to mitigate potential climate change risks.</p> <p>ASSUMPTION: Relevant Ministries have an interest in fully integrating adaptation strategies into their long-term planning.</p> <p>ASSUMPTION: The Government of Djibouti has sufficient incentive to design a Fund for the Environment and Climate Change which can be effectively targeted towards adaptation-</p>

	Indicator	Baseline	Targets End of Project	Source verification of	Risks and Assumptions
		<p>existing budget plans (excluding donor support) do not have long-term financing mechanisms which target activities, projects or programmes that build resilience to climate change. In addition, in spite of the fact that there are more than 50 international public funds and 6,000 private equity funds providing climate change financing, Djibouti has no capacity to access and channel these funds to address the climate and development needs identified by the NAPA and NAPs. Djibouti requires capacity reinforcement in how to identify which funds are appropriate, how to coordinate the actions funded by such funds, and how to strengthen national ownership of climate finance.</p> <p><u>2. BASELINE:</u> No mechanism to attract and channel funding for medium- to long-term climate resilience-strengthening activities.</p>	<p>adaptation activities for rural and urban populations in the long-term and which supports ongoing and future climate resilience projects.</p>		<p>related activities in a transparent manner with appropriate financial management.</p> <p>RISK: Institutions working in adaptation have little financial literacy and capacity to establish funds and financial instruments and to assess the costs and measures of different adaptation options</p>
<p>Outcome 2 Improved water management in the targeted regions (Adailou and Assamo) to conserve scarce water resources and manage temporal flows to reduce flooding and erosion.</p>	<p>1. Number of micro-dams, cisterns, retention basins and bank fortifications built with the dual goals of reducing downstream impacts during flood events and retaining water to replenish groundwater resources.</p> <p>2. Percentage of total hectareage of agro-pastoralists' land which is irrigated by boreholes.</p>	<p><u>BASELINE 1-3:</u> The rural mountainous populations are at extreme risk because they do not have sufficient water for drinking and irrigation. They are also subject to loss of crops and livestock due to the fact that the most fertile areas are within or adjacent to wadis which are susceptible to flash flooding. Due to the geomorphic context, the region is subject to significant erosion and surface water cannot be effectively captured to recharge groundwater resources. There is a need to reforest and re-</p>	<p><u>TARGETS 1-3:</u> 1. Design and construction of 3 micro-dams; fifteen (15) 100 m³ cisterns, where each will provide potable water to 15 families; 16 semi-underground sills (8 in Adailou and 8 in Assamo); 2,000 m³ and 4,000 m³ of bank fortifications with rock-filled</p>	<p>1-3: Construction log of the Department of Large Works (micro-dams, cisterns, sills, gabion reinforcement) Borehole drilling log (Ministry of Water).</p>	<p><u>ASSUMPTION:</u> Initial hydrogeological studies and technical assessments are accurate in their predictions of water capture and storage capacities.</p> <p><u>ASSUMPTION:</u> Local populations, including nomadic</p>

	Indicator	Baseline	Targets End of Project	Source verification	of Risks and Assumptions
	3. Number of hectares of land replanted and reforested in Assamo, Adailou and Ayladou to: i) regenerate dwindling species and valued pastoral species and ii) reduce erosion.	<p>vegetate the mountain regions.</p> <p>The agro-pastoral communities also require the technical and operational capacities to produce diversified crops and develop more sustainable agro-pastoral and pastoral practices (e.g. producing drought- and salt-tolerant forage and a diverse variety of crops to generate revenues throughout all seasons).</p> <p><u>BASELINE 1-3:</u> 1 borehole in each zone, 10 shallow wells in Adailou, 14 in Assamo, 2 ha of agro-pastoral plots in Adailou (not irrigated) and 10 ha of agro-pastoral plots (not irrigated) in Assamo, 10 ha of reforestation/re-vegetation/re-seeding activities.</p>	<p>wirework (i.e. gabion) in Adailou and Assamo respectively to protect wadi banks and agricultural plots from erosion.</p> <p>2. 30 hectares irrigated in Assamo and 30 hectares in Adailou.</p> <p>3. 70 ha in Assamo and 380 hectares in Adailou replanted and reforested.</p>		<p>pastoralists, will not trespass into protected reforestation and re-vegetation areas due to being informed of the purpose of these areas to restore the natural environment and reduce erosion, and due to introducing security guards and robust fencing as protection measures.</p> <p>RISK: Works associated with water mobilisation and retention infrastructures lead to unanticipated environmental impacts.</p> <p>RISK: Limited capacity of local populations to perform maintenance on boreholes and solar-powered well pumps.</p>
	4. Number of pastoral centres (pastoretums) in each region	<p><u>BASELINE 4:</u> The pastoralists in each region have had no capacity reinforcement on soil conservation measures, re-seeding, veterinary medicine and animal hygiene to ensure more sustainable pastoralist practices. Pastoretums provide an enclosed and guarded plot to practice sustainable pastoralism with expert knowledge transfer. However, neither region has had the opportunity to learn in such a manner.</p>	<p><u>TARGET 4:</u> 1 pastoretum in each region created.</p>	4. Ministry of Livestock records on the pastoretums	
	5. Number of women's tree seedling nurseries created in both Adailou and Assamo to i)	<p><u>BASELINE 5:</u> 1 tree nursery in Assamo (0 nurseries in Adailou).</p>	<p><u>TARGET 5:</u> At least 1 women's tree seedling nursery created in</p>	5. Irrigation and nursery records kept by the Ministry of	

	Indicator	Baseline	Targets End of Project	Source verification	of Risks and Assumptions
	<p>produce seeds, ii) multiply species (e.g. wind-blocking plants, fruit-bearing trees, etc), and iii) support reforestation;</p> <p>6. Creation of Catchment and Water Point Management Committees.</p>	<p><u>BASELINE 6:</u> No Catchment Management or Water Point Management Committees exist in either Assamo or Adailou to enable the sustainable management of water use. Most diesel-powered wells have become non-functional due to the high price of diesel and the fact that there is no one with the ability to maintain the pumps locally.</p>	<p>both Adailou and Assamo.</p> <p><u>TARGET 6:</u> 5 Catchment Management Committees formed (4 in Adailou in the Weima watershed and 1 in Assamo, the Juba watershed) and 27 Water Point Committees formed in total (one around each water point). All Committees will have 4 people including 1 female representative.</p>	<p>Agriculture.</p> <p>6. Conventions signed, confirming creation of Catchment and Water Point Management Committees</p> <p>Operation and Maintenance training provided by the Ministry of Water to the communities</p> <p>Meeting minutes / records of the Catchment and Water Point Management Committees</p>	
<p>Outcome 3</p> <p>Improved resilience to hydrological climate change risks.</p> <p>Enhanced resilience to climate-mediated economic shocks through income generation and diversification.</p>	<p>1. Number of Automatic Weather Stations (AWSs) procured and installed.</p>	<p>1. The Executive Secretariat for Risk and Disaster Management advises the National Committee on Natural Disasters on technical matters and coordinates prevention, mitigation and response activities. In line with Djibouti's decentralization approach, SEGRC established Local Risk and Catastrophe Management Committees (LRCMCs) to transfer risk-related responsibilities to the regional level. Additionally, SEGRC drafted general flood action</p>	<p><u>TARGETS</u></p> <p>1. One automatic weather station procured and installed in each region. See Annex 8c).</p>	<p>1. National Meteorological Service Procurement records.</p>	<p>ASSUMPTION: One weather station in each project zone is sufficient to extend the weather and climate monitoring network to help with forecasts and provisions.</p>

	Indicator	Baseline	Targets End of Project	Source verification	of	Risks and Assumptions
	2. Number of community adaptation measures implemented to build drought or flood-resilience.	<p>plans for each region in Djibouti with the support of FAO. In spite of these efforts, the LRCMC lacks the technical and operational capacities to prepare community populations for droughts and floods. Similarly, the action plans are general and focused predominantly on the regional capitals, which are located in the lowlands. As such, they do not consider the highland, steep, varied terrain and, most notably, the remote mountainous communities of Assamo and Adailou.</p> <p>Exacerbating the need for information in the highlands is that there are only limited rainfall measurements and no in-situ hydro-meteorological measurements taken to support disaster preparedness decisions (early warnings) in either the Adailou or Assamo watersheds. Limited data collection prevents the identification of risks, delineation of vulnerable zones and projections for extreme weather events.</p> <p><u>BASELINE 1:</u> 1 rain gauge in Adailou and 5 rain gauges in Assamo. No weather stations located in either zone.</p> <p>2. Rural communities in Djibouti, particularly those in remote mountain villages, lack knowledge on the uses of earth dams for water harvesting and the importance of maintaining dams for flood mitigation, as well as the means to properly maintain them. This is in spite of the fact that action plans</p>	<p><u>TARGET 2.</u> One (1) community DRR/DRM adaptation measure implemented in each region (e.g. water point reinforcement with gabion, micro-dam de-silting).</p>	2. Training log for regions and communities maintained by the Executive Secretariat on Risk and Catastrophe Management.		<p>RISK: There is insufficient technical and operational capacity within the regional governments to coordinate drought and flood preparedness.</p> <p>RISK: Targeted farmers and pastoralists are sceptical and unwilling to engage in poultry breeding, bee-keeping and gabion fabrication. so as to diversify their livelihoods and/or income diversification strategies do not significantly increase household incomes.</p> <p>RISK: Limited long-run support for rural mountain regions in terms of sustainable livelihood development.</p>

	Indicator	Baseline	Targets End of Project	Source verification	of Risks and Assumptions
	3. Number of rural inhabitants (disaggregated by gender and type of activity) who actively participate in bee-keeping, poultry raising	<p>have been drafted for the Ali Sabieh and Tadjourah regions by the Executive Secretariat on Risk and Catastrophe Management. No targeted action plans are concerned with the mountain regions (e.g. consideration of higher erosion rates).</p> <p><u>BASELINE 2:</u> No community DRM/DRR adaptation preparedness plans.</p> <p>3. Due to the fact that the mountainous regions of Assamo and Adailou are remote and isolated from selling points, they have limited means to diversify their livelihoods. In Adailou, the rural population has no other option than to farm with traditional, ineffective methods (due to lack of knowledge on appropriate farming practices) or to continue grazing livestock in spite of recurring drought. In Assamo, the region has one fruit that is grown locally (goyave) and this is increasingly susceptible to climate shocks. Stakeholder consultations indicate community members want to diversify their livelihoods with poultry breeding and beekeeping.</p> <p><u>BASELINE 3:</u> No community members are active in poultry breeding and bee-keeping.</p>	<p><u>TARGET 3.</u> 70 households (HHs) active in poultry breeding in Assamo and 50 HHs in Adailou. 14 people in Adailou and 6 in Assamo active in beekeeping and which have been provided appropriate materials.</p>	3. Ministry of Agriculture and Ministry of Environment annual surveys (disaggregated by gender and type of activity).	

	Indicator	Baseline	Targets End of Project	Source of verification	Risks and Assumptions
	<p>4. Number of local market stalls rehabilitated / created to facilitate access of Adailou and Assamo farmers/cultivators/pastoralists to larger regional markets.</p> <p>5. % change in revenue to artisanal activities, poultry-breeding, bee-keeping and nursery sales (disaggregated by gender).</p>	<p>4. In Assamo and Adailou, there is a need to rehabilitate/create market stalls to help incentivize crop and milk product diversification. As indicated during stakeholder consultations, selling points are desired to fix prices, to sell “fresh local produce” and to act as training and tourist tasting centres.</p> <p><u>BASELINE 4:</u> A market stall in Ali-Sabieh exists but it needs to be rehabilitated and extended to have a permanent structure. The market stall in Tadjourah needs to be created.</p> <p>5. In Assamo, prior to the repeated drought, there was a culture of producing guava jams. Currently, there is no diversification of activities as the entire population is dependent on farming/husbandry which has limited production due to inefficient practices and susceptibility to climate shocks (most notably the present 4-year drought).</p> <p><u>BASELINE 5:</u> Only limited and irregular sales of guava in Assamo. No sales of products in Adailou. No participation of community members in livelihood diversification measures in either region.</p>	<p><u>TARGET 4.</u> Rehabilitation of the Ali-Sabieh market stall and creation of the Tadjourah market stall.</p> <p><u>TARGET 5.</u> % change in revenue for community members (including % increase in supply of eggs, chicken, honey, nursery seedlings and gabion) - disaggregated by gender.</p>	<p>4. Sales records of the market stalls in Ali Sabieh and Tadjourah.</p> <p>5. Mid-term and final survey of community members demonstrating revenues accrued from selling eggs, chicken, honey and gabion (disaggregated by gender and type of activity).</p>	

4 TOTAL BUDGET AND WORKPLAN

Award ID:	00079962	Project ID(s):	00089831
Award Title:	Rural mountain adaptation		
Business Unit:	DJI10		
Project Title:	Supporting rural community adaptation to climate change in mountain regions of Djibouti		
PIMS no.	5189		
Implementing Partner (Executing Agency)	Ministry of Habitat, Urbanism and Environment (MHUE)		

SOF (e.g. GEF) Outcome/Atlas Activity	Responsible Party/ Implementing Agent	Fund ID	Donor Name	Atlas Budgetary Account Code	ATLAS Budget Description	Amount Year 1 (USD)	Amount Year 2 (USD)	Amount Year 3 (USD)	Amount Year 4 (USD)	Total (USD)	See Budget Notes:
OUTCOME 1: Institutional capacities for coordinated, climate-resilient planning strengthened. Mechanisms and a de-risked investment environment established to catalyse finance for climate change adaptation.	MHUE	62160	LDCF	71200	International Expert	10,000	20,000	20,000	0	50,000	A
				71300	National Expert	0	4,000	4,000	0	8,000	B
				71400	Contractual Services Ind.	42,500	42,500	32,500	42,500	160,000	C
				75700	Training, Workshops & Conferences	76,500	74,500	69,500	61,500	282,000	D
					sub-total LDCF	129,000	141,000	126,000	104,000	500,000	
	4000	UNDP	72400	Grant	263,325	263,325	263,325	263,325	1,053,300		
				sub-total Grants	263,325	263,325	263,325	263,325	1,053,300		
					Total Outcome 1	392,325	404,325	389,325	367,325	1,553,300	
OUTCOME 2: Improved water management in the targeted regions to	MHUE	62160	LDCF	71200	International Expert	28,480	8,480	8,480	8,480	53,920	E
				71300	National Expert	22,840	27,840	19,840	28,840	99,360	F

conserve scarce water resources and manage temporal flows to reduce flooding and erosion.				71400	Contractual Services Ind.	283,250	171,030	260,610	239,910	954,800	G		
				72100	Contractual Services Co.	142,500	974,500	696,500	488,400	2,301,900	H		
				72200	Equipment	197,500	51,500	11,500	7,500	268,000	I		
				72300	Materials & Goods	0	28,920	68,840	73,840	171,600	J		
				75700	Training, Workshops & Conferences	43,420	94,000	63,000	0	200,420	K		
					sub-total GEF	717,990	1,356,270	1,128,770	846,970	4,050,000			
				4000	UNDP	72400	Grant	263,325	263,325	263,325	263,325	1,053,300	
							sub-total Grants	263,325	263,325	263,325	263,325	1,053,300	
			Total Outcome 2	981,315	1,619,595	1,392,095	1,110,295	5,103,300					
OUTCOME 3: Improved resilience to hydrological climate change risks. Enhanced resilience to climate-mediated economic shocks through income generation and diversification.	MHUE	62160	LDCF	71300	National Expert	12,000	9,000	3,000	0	24,000	L		
				71400	Contractual Services Ind.	55,750	31,750	11,750	21,750	121,000	M		
				72200	Equipment	35,000	0	0	0	35,000	N		
				72300	Materials & Goods	54,000	40,000	36,600	22,600	153,200	O		
				72800	Information Technology Equipment	20,000	0	0	0	20,000	P		
				75700	Training, Workshops & Conferences	107,044	70,044	38,000	5,000	220,088	Q		
					sub-total GEF	283,794	150,794	89,350	49,350	573,288			
				4000	UNDP	72400	Grant	263,350	263,350	263,350	263,350	1,053,400	
					sub-total Grants	263,350	263,350	263,350	263,350	1,053,400			

					Total Outcome 3	547,144	414,144	352,700	312,700	1,626,688	
PROJECT MANAGEMENT UNIT	MHUE	62160	LDCF	71600	Travel	7,500	7,500	7,500	7,500	30,000	R
				71400	Contractual Services Ind.	38,551	38,551	38,551	38,551	154,205	S
				72500	Supplies	5,000	5,000	5,000	5,000	20,000	T
				74599	UNDP Cost recovery charges	17,320	17,319	8,660	8,660	51,959	U
					sub-total	68,372	68,371	59,711	59,711	256,164	
					Total Management	68,372	68,371	59,711	59,711	256,164	
PROJECT TOTAL						1,989,156	2,506,435	2,193,831	1,850,031	8,539,452	

Summary of Funds:⁸⁰

	Amount Year 1	Amount Year 2	Amount Year 3	Amount Year 4	Total
Agricultural Cooperative of Assamo	25,000	25,000	25,000	25,000	100,000
EVA	125,000	125,000	125,000	125,000	500,000
European Union	3,060,000	3,060,000	3,060,000	3,060,000	12,240,000
Ministry of Habitat, Urbanism and Environment	175,000	175,000	175,000	175,000	700,000
Ministry of Equipment and Transport	5,000,000	5,000,000			10,000,000
UNDP	790,000	790,000	790,000	790,000	3,160,000
IGAD	57,500	57,500	57,500	57,500	230,000
Ministry of Agriculture (PRODERMO project)	425,000	425,000	425,000	425,000	1,700,000
GEF	1,194,825	1,712,105	1,408,161	1,064,361	5,379,452
TOTAL	10,852,325	11,369,605	6,065,661	5,721,861	34,009,452

⁸⁰Summary table should include all financing of all kinds: GEF financing, cofinancing, cash, in-kind, etc...

Budget Note	Description of cost item (Activity and Output number)
A *	<ul style="list-style-type: none"> - International expert to train on Systems Dynamic Modelling and cost-benefit analysis - International expert to assist with estimating the costs of CC on the public budget using cost-benefit and economics of adaptation analysis
B **	<ul style="list-style-type: none"> - National expertise to support establishing a National Fund on the Environment and Climate Change
C	<ul style="list-style-type: none"> - Study to identify financing sources both national and international to capitalise the Fond on the Environment and CC - Development of a transparent governance mechanism for the Fond on the Environment and CC - Knowledge Management - Monitoring and Evaluation
D	<ul style="list-style-type: none"> - Workshop to decide on the decree and mandate of the National Climate Change Committee - Awareness workshop for the members of the NCCC on previous, on-going and planned climate change related projects/initiatives - Training to reinforce the capacity of the NCC Secretariat on the mobilisation of funds and other pertinent topics - Development of the National Climate Change Strategy - Publication and awareness on adaptation measures and the costs of adaptation for various ministries, NGOs/CSOs and the private sector - Workshops to support the establishment of the National Fund on the Environment and Climate Change - Coordination workshops with IGAD, donors and other project initiatives
E*	<ul style="list-style-type: none"> - International expert assistance with hydrological studies - Technical expert
F **	<ul style="list-style-type: none"> - Civil Engineering supervisor - National expert training on different water efficient irrigation methods - National expert training on the diversification of drought resilient forage - National expert to support the creation of pastoretums (Pastoral Centres) - National expert to train pastoralists - National expert to train Catchment Management Committees - National expert to train on fruit tree cultivation and the fruit value chain
G	<ul style="list-style-type: none"> - Contractual services for hydrogeological, hydrological, topographic, geotechnical and water balance studies - Contractual services to conduct the Environmental Impact Assessment - Contractual services to identify sites - Contractual services to rehabilitate existing irrigation systems - Baseline study on the use of natural resources including a livestock census and survey - Contractual services to re-fertilise soils - Assistance with stone mulching around water points - Assistance with creating nurseries (1 in each region) - Monitoring and Evaluation
H	<ul style="list-style-type: none"> - Contractual services by a company for 1 borehole, 12 shallow wells - Contractual services for the installation and procurement of solar panels for the boreholes - Construction of 3 microdams, 15 cisterns, 16 subsurface sills, 8 infiltration galleries, reinforcement of wadi walls with gabion and 3

	<p>retention ponds</p> <ul style="list-style-type: none"> - Creation of 1 ha agro-pastoral plot (10 ha) with storage - Contractual services for reforestation, re-seeding and re-vegetation and gabion placement to prevent erosion
I	<ul style="list-style-type: none"> - Procurement of solar power equipment - Permeability meters, piezometers and evaporation gauges to measure groundwater aquifer recharge
J	<ul style="list-style-type: none"> - Materials to support the creation of 1 pastoral centre in both Adailou and Assamo - Materials for re-fertilization of soils with compost and use of locally-produced manure and organic material to increase productivity and contribute to enhancing the local value chain - Materials for re-seeding and re-vegetation and gabion placement - Materials for Catchment Management Committees - Materials for stone mulching around water points - Materials for nurseries (1 in each region) - Materials for profitable fruit tree cultivation (dates, almonds, apricots, jujube, olive, fig, orange, grape, etc.)
K	<ul style="list-style-type: none"> - Training for DGT and the M. of Water technicians on water mobilisation - Training for farmers on sustainable practices, different methods of water efficient irrigation, introduction and diversification of drought-tolerant forage and fruit trees - On the pasture training for the pastoralists on how to enhance the local value chain (e.g., milk) and Soil and Water Conservation methods - One study tour to Day Forest to capture lessons learned on reforestation, fencing mechanisms and community involvement - Training for Catchment Management Committees and Water Point Management Committees - Knowledge and awareness reinforcement for women on the multi-purpose uses and sustainability of nurseries including a study tour with other nurseries in Djibouti
L	<ul style="list-style-type: none"> - National expert to assist with training on beekeeping and poultry breeding (apiculture and aviculture respectively)
M.	<ul style="list-style-type: none"> - Contractual services for creation of a regional risk inventory for the Adailou and Assamo regions which will serve climate projections by forming a catalogue of historical risk events - Design and establishment of usage patterns, end-user preferences and affordability constraints for clean cookstoves in both Adailou and Assamo - Socio-economic survey (disaggregated by gender) to quantify the benefits of the livelihood diversification schemes - Construction of a meeting place for NGOs/CBOs to serve as an education/training and meeting centre and a place to stock materials - Monitoring and Evaluation
N	<ul style="list-style-type: none"> - Installation of 1 automatic weather station (AWS) in each region and training for select locals on how to maintain the equipment - Gabion construction equipment and materials - Development of local artisanal gabion production teams in both Assamo and Adailou - Materials for aviculture and apiculture - Construction materials for a meeting place for NGOs/CBOs to serve as an education/training and meeting centre and a place to stock materials
O	<ul style="list-style-type: none"> - Rehabilitation of 1 market stall in Ali-Sabieh and construction of 1 market stall in Tadjourah to allow Assamo and Adailou respectively to sell nursery and agro-pastoral products

P	- Acquisition of computers, printer, and supplies for NGOs/CBOs to monitor, control and supervise activities throughout the region
Q	- Training for 300 people, including local NGOs and regional extension services, in the two project regions on drought and flood mitigation measures - Study tour of similar mountain regions, such as in neighbouring Somaliland, on community-based drought and flood mitigation practices - Formalized collaboration with private and public sector neighbours who could be potential buyers and distributors of artisanal products - Training to improve commercial aspects of artisanal production - Training on gabion fabrication and installation - Training for 70 families in Assamo and 50 families in Adailou to conduct poultry-breeding - Training for bee-keeping - Training for NGOs/CBOs on animal hygiene, nursery development, solar-powered well maintenance, agro-pastoralism, organizing and training agro-pastoralists, soil and water conservation methods, local gabion construction, accounting and financial management
R	- Field validation support (transport, mobile phone, etc.)
S	- Support for the Project Management Unit, including a Project Coordinator and a Finance/Admin Assistant
T	- Supplies for Project Management Unit (furniture, hardware, etc.)
U	- UNDP Direct Project Costs to provide services such as recruitment, procurement, assistance for training and payments services

* Assuming international expert fee: \$800 flight/visas, hotel \$100, daily expenses \$100 and salary \$500 per day

** Assuming national expert fee: \$300 per day

No.	Component	Type of Expert	Role	Days Required	Fee (USD)
1	1	International	Environmental Economist	50	38,000
2	2	International	Oceanography Expert	300	228,000
2	2	International	Information Systems Management	300	228,000
3	2	National	Budgeting and financial management	20	30,000
4	2	International	Lead technician for oceanographic monitoring equipment	60	84,000
5	2	National	2 National technicians	60	36,000
6	3	International	Finance Mobilisation	125	95,000
No.	Component	PM	Project Management Role	Monthly Salary (USD)	Project Total (USD)
7	All	National	Admin/Finance	1100	66,000
8	All	National	Project Coordinator	2500	150,000

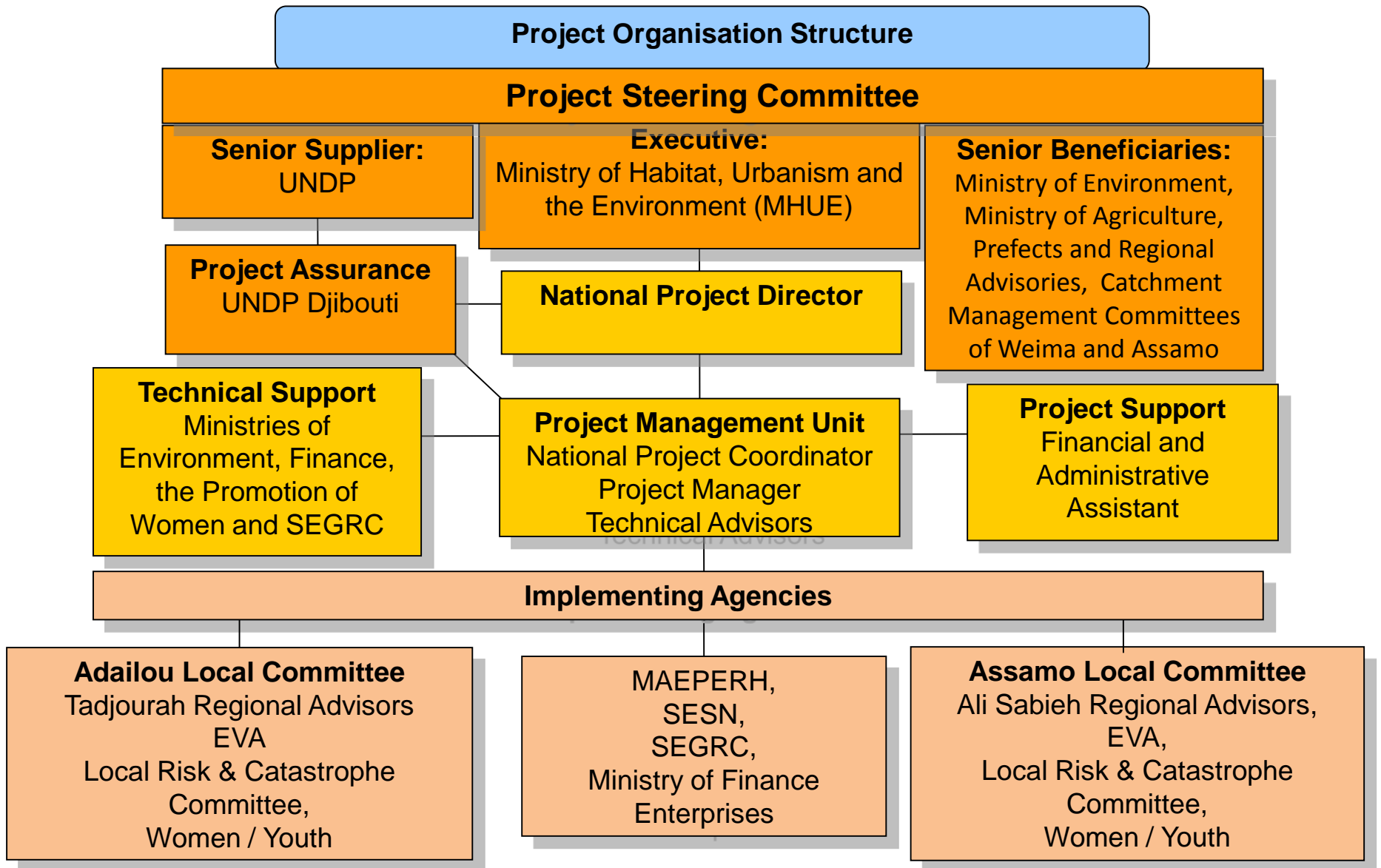
9	All	National	Technical Steering Committee (monthly meeting)	500	30,000
10	All	National	Monitoring and Evaluations Officer (50%)	2500	75,000
11	All	National	Communications Officer (25%)	2500	50,000

5 MANAGEMENT ARRANGEMENTS

225. The execution modality for this project will be UNDP's National Implementation Modality (NIM). The Implementing Partner (IP) for this project will be the Ministry of Habitat, Urbanism and the Environment (MHUE), which will have project ownership and will appoint a Project Manager (PM), paid for by the project, to coordinate project operations. The main beneficiaries of this project will be the MHUE and the Ministry of Agriculture, Water, Fisheries, Animal Husbandry and Marine Resources (MAEPERH) as well as Regional Governments and CBOs. The Project Steering Committee, led by MHUE, will be responsible for approving programme activities. Based on the approved activities, the Project Management Unit (PMU) will ensure the provision of funds to all institutions/organizations for their respective activities. All executing agencies will be responsible for managing tasks allocated to their institution/organisation. A Memorandum of Understanding and Terms of Reference (TOR) indicating the role of each executing agency will be developed under the guidance of the PMU during project implementation. A Letter of Agreement (Annex 3a) describes all additional services required of UNDP beyond its role in oversight between the IP and UNDP. The IP has requested UNDP to provide services such as recruitment, procurement, assistance for training and payments services. The direct project costs requested of UNDP are detailed in the Total Budget Work Plan (TBWP, Section 4).

226. The Stakeholder Involvement Table, indicating the key inputs of all project partners during project implementation, is provided in Annex 6.

227. A schematic detailing the Management Arrangements, including the responsible decentralised agencies and support committees/organizations, is presented below. The roles and responsibilities of the parties involved in managing the project are described below.



228. The **Project Steering Committee** (PSC) established by a Ministerial Order will be directed by MHUE and will be responsible for approving reports and activities. It will also provide guidance for proper implementation of the project. Members of the Project Steering Committee will include UNDP, representatives from the Ministry of Urbanism, Habitat and the Environment and the Ministry of Agriculture, Fisheries, Livestock and Hydraulic Resources as well as the regional heads (préfets, Conseils régionaux) and Catchment Management Committees of Assamo and Adailou. The Project Steering Committee will be responsible for making management decisions for the project, in particular when guidance is required by the Project Implementation Unit. The PSC plays a critical role in project monitoring and evaluation by quality-assuring processes and products and using evaluations for performance improvement, accountability and learning. It: i) ensures that required resources are committed, ii) arbitrates on any conflicts within the project and iii) negotiates a solution to any problems with external bodies. In addition, it approves the appointment and responsibilities of the Project Implementation Unit and any delegation of its project assurance responsibilities. Based on the approved Annual Work Plan, the Project Steering Committee can also consider and approve any essential deviations from the original plan. The Committee will convene 2 times per year and can include a maximum of 10 participants. Potential members of the Project Steering Committee will be reviewed and agreed upon during the Project Appraisal Committee (PAC) meeting. Representatives from other institutions/organizations can be included in the PSC as appropriate. (Preliminary Terms of Reference for the PSC are attached as Annex 4, TOR A.) The Project Steering Committee contains four distinct roles which have been filled as follows:

- 1) **An Executive:** individual representing the project ownership to chair the group.
 - Ministry of Habitat, Urbanism and the Environment
- 2) **Senior Supplier:** group representing the interests of the parties concerned which provide funding for specific cost-sharing projects and/or technical expertise to the project. The Senior Supplier's primary function within the Project Steering Committee is to provide guidance regarding the technical feasibility of the project and alignment of the outcomes/outputs with the LDCF.
 - UNDP
- 3) **Senior Beneficiary:** group of individuals representing the interests of those who will ultimately benefit from the project. The Senior Beneficiary's primary function within the Project Steering Committee is to ensure the realization of project results from the perspective of project beneficiaries.
 - The Ministries for Environment, Agriculture, and Higher Education and Research as well as the regional heads (préfets, Conseils régionaux) and CBO heads. Additional members can be determined during the Inception Workshop.
- 4) **The Project Assurance** role supports the Project Steering Committee Executive by carrying out objective and independent project oversight and monitoring functions in line with UNDP and GEF/LDCF policies and procedures.
 - UNDP Djibouti Programme Officer and UNDP-GEF

229. **Project Manager:** The Project Manager has the authority to run the project on a day-to-day basis on behalf of the Implementing Partner within the constraints laid down by the PSC. The Project Manager's prime responsibility is to ensure that the project produces the results specified in the project document, to the required standard of quality and within the specified constraints of time and cost. The PM is accountable to UNDP, the IP and the Project Steering Committee for the quality, timeliness and effectiveness of the activities carried out, as well as for the use of funds. He/she will also be responsible for coordinating budgets and work plans at the regional level with the Regional Committees. The Project Manager is assisted by a Technical Committee, a Project Coordinator and a Financial and Administrative Assistant.

230. **Project Coordinator:** A representative from MHUE will act as the Project Coordinator and will support the PM with overall administration and maintaining a liaison with UNDP. The Project Coordinator will be appointed by MHUE and act as a permanent staff of MHUE (i.e., not supported by the LDCF3 financed project). Travel indemnities will be paid for the PC and have been accounted for in the TBWP (Annex 4).

231. **Technical Committee (TC):** The Technical Committee includes as permanent members the following: MHUE (2 representatives), the UNDP Programme Officer, the Project Manager, a representative from the Department of Major Works (GTP), a representative from the Ministry of Agriculture, Fisheries, Livestock and Hydraulic Resources, and a representative from the Research and Study Centre of Djibouti (CERD). The role of the Technical Committee is to provide technical advice and guidance to the Project Implementing Unit, namely financial and technical support as required by the needs of the PIU. As per the TOR (Annex 4), the Technical Committee is required to meet once per month to ensure timely project implementation.

232. Note that the Project Implementation Unit's overall role will be to ensure comprehensive technical and management support is provided to project activities and local beneficiaries, such as overseeing knowledge management and Monitoring and Evaluation. The PIU must have adequate multi-disciplinary technical capacity to be able to support technical and financial activities. As a result, the team of project manager, project coordinator and the Technical Committee must be able to work with a large range of natural resource, economic, policy and organizational issues, and be able to ensure that activities are designed and implemented in line with national and international best practices.

233. **Regional Committees (RCs):** The RCs will provide a support role to the PIU to ensure no duplication of activities with other adaptation-related initiatives. The two regions for the pilot projects, Ali-Sabieh and Tadjourah, will each have an RC consisting of the head (Préfet) of the region, 2 regional council members and heads of locally-based NGOs/CSOs. The regional head will be responsible for two-way communication with all communities in the RC's jurisdiction. The regional heads will be supported by the regional advisory committees already in place. The responsibility of the RCs is to ensure very close cooperation with, and responsibility to, the national and local governments/organizations for the purposes of implementing local activities, discussing technical issues, setting priorities, resolving conflicts and supervising site-level activities. The RCs are accountable to the Project Implementation Unit.

6 MONITORING FRAMEWORK AND EVALUATION

The project will be monitored through the following M&E activities. The M&E budget is provided in the table below. The M&E framework set out in the Project Results Framework in Part III of this project document is aligned with the AMAT and UNDP M&E frameworks.

Project start: A Project Inception Workshop will be held within the first 2 months of project start with those with assigned roles in the project organization structure, UNDP Country Office and, where appropriate/feasible, regional technical policy and programme advisors as well as other stakeholders. The Inception Workshop is crucial to building ownership for the project results and to plan the first year annual work plan.

The **Inception Workshop** should address a number of key issues, including:

- Assist all partners to fully understand and take ownership of the project. Detail the roles, support services and complementary responsibilities of UNDP CO and Regional Coordinating Unit (RCU) staff (i.e. UNDP-GEF Regional Technical Advisor) vis-à-vis the project team. Discuss the roles, functions and responsibilities within the project's decision-making structures, including reporting and communication lines, and conflict resolution mechanisms. The Terms of Reference for project staff will be discussed again as needed.
- Based on the project results framework and the LDCF-related AMAT set out in the Project Results Framework in Section III of this project document, finalize the first annual work plan. Review and agree on the indicators, targets and their means of verification, and recheck assumptions and risks.
- Provide a detailed overview of reporting, monitoring and evaluation (M&E) requirements. The Monitoring and Evaluation work plan and budget should be agreed and scheduled.
- Discuss financial reporting procedures and obligations, and arrangements for annual audit.
- Plan and schedule Steering Committee meetings. Roles and responsibilities of all project organisation structures should be clarified and meetings planned. The first Steering Committee meeting should be held within the first 12 months following the inception workshop.

An **Inception Workshop report** is a key reference document and must be prepared and shared with participants to formalize various agreements and plans decided during the meeting.

Quarterly:

- Progress made shall be monitored in the UNDP Enhanced Results Based Management Platform.
- Based on the initial risk analysis submitted, the risk log shall be regularly updated in ATLAS.

Risks become critical when the impact and probability are high. Note that for UNDP/GEF projects, all financial risks associated with financial instruments such as revolving funds, micro-finance schemes or capitalization of ESCOs are automatically classified as critical on the basis of their innovative nature (high impact and uncertainty due to no previous experience justifies classification as critical).

- Based on the information recorded in Atlas, a Project Progress Report (PPR) can be generated in the Executive Snapshot.
- Other ATLAS logs will be used to monitor issues and lessons-learned. The use of these functions is a key indicator in the UNDP Executive Balanced Scorecard.

Annually: Annual Project Review/Project Implementation Report (APR/PIR): This key report is prepared to monitor progress made since project start and in particular for the previous reporting period (30 June to 1 July). The APR/PIR combines both UNDP and GEF reporting requirements.

The APR/PIR includes, but is not limited to, reporting on the following:

- Progress made toward project objective and project outcomes - each with indicators, baseline data and end-of-project targets (cumulative).
- Project outputs delivered per project outcome (annual).
- Lesson learned / good practice.
- AWP and other expenditure reports.
- Risk and adaptive management.
- ATLAS QPR.

Periodic Monitoring through site visits: UNDP CO and the UNDP-GEF region-based staff will conduct visits to project sites based on the agreed schedule in the project's Inception Report/Annual Work Plan to assess first hand project progress. Other members of the Project Steering Committee may also join these visits. A Field Visit Report/BTOR will be prepared by the CO and UNDP RCU and will be circulated no less than one month after the visit to the project team and Project Steering Committee members.

Mid-term of project cycle: The project will undergo an independent Mid-Term Review at the mid-point of project implementation (expected to be in September 2016). The Mid-Term Review will determine progress being made toward the achievement of outcomes and will identify course correction if needed. It will focus on the effectiveness, efficiency and timeliness of project implementation; will highlight issues requiring decisions and actions; and will present initial lessons-learned about project design, implementation and management. Findings of this review will be incorporated as recommendations for enhanced implementation during the final half of the project's term. The organization, terms of reference and timing of the mid-term review will be decided after consultation between the parties to the project document. The Terms of Reference for this Mid-Term Review will be prepared by the UNDP CO based on guidance from the Regional Coordinating Unit (RCU) and UNDP-GEF. The LDFC/SCCF AMAT as set out in the Project Results Framework in Section III of this project document will also be completed during the mid-term evaluation cycle.

End of Project: An independent Terminal Evaluation will take place three months prior to the final PB meeting and will be undertaken in accordance with UNDP-GEF guidance. The terminal evaluation will focus on the delivery of the project's results as initially planned (and as corrected after the mid-term review, if any such correction took place). The terminal evaluation will look at impact and sustainability of results, including the contribution to capacity development and the achievement of global environmental benefits/goals. The Terms of Reference for this evaluation will be prepared by the UNDP CO based on guidance from the Regional Coordinating Unit and UNDP-GEF. The LDFC/SCCF AMAT as set out in the Project Results Framework in Section III of this project document will also be completed during the terminal evaluation cycle. The Terminal Evaluation should also provide recommendations for follow-up activities and requires a management response, which should be uploaded to PIMS and to the UNDP Evaluation Office Evaluation Resource Centre (ERC).

Learning and knowledge-sharing: Results from the project will be disseminated within and beyond the project intervention zone through existing information sharing networks and forums.

The project will identify and participate, as relevant and appropriate, in scientific, policy-based and/or any other networks, which may be of benefit to project implementation though lessons-learned. The project will identify, analyse and share lessons learned that might be beneficial in the design and implementation of similar future projects.

There will be a two-way flow of information between this project and other projects of a similar focus.

Audit: This project will be audited in accordance with UNDP Financial Regulations and Rules and applicable audit policies.

Table 8: Project Monitoring and Evaluation Work Plan and Budget

Type of M&E activity	Responsible Parties	Budget US\$ <i>Excluding project team staff time</i>	Time frame
Inception Workshop and Report	<ul style="list-style-type: none"> ▪ Project Manager ▪ PIU (Project Implementation Unit) ▪ UNDP CO, UNDP GEF 	Indicative cost: 10,000	Within first two months of project start-up.
Measurement of Means of Verification of project results.	<ul style="list-style-type: none"> ▪ UNDP GEF RTA/Project Manager will oversee the hiring of specific studies and institutions, and delegate responsibilities to relevant team members. ▪ PIU, esp. M&E expert 	To be finalized in Inception Phase and Workshop.	Start, mid and end of project (during evaluation cycle) and annually when required.
Measurement of Means of Verification for Project Progress on output and implementation	<ul style="list-style-type: none"> ▪ Oversight by Project Manager ▪ PIU, esp. M&E expert ▪ Implementation teams 	To be determined as part of the Annual Work Plan's preparation. Indicative cost is 20,000	Annually prior to ARR/PIR and to the definition of annual work plans.
ARR/PIR	<ul style="list-style-type: none"> ▪ Project manager ▪ PIU ▪ UNDP CO ▪ UNDP RTA 	None	Annually
Periodic status/ progress reports	<ul style="list-style-type: none"> ▪ Project manager and team 	None	Quarterly
Mid-Term Review	<ul style="list-style-type: none"> ▪ Project manager ▪ PIU ▪ UNDP CO ▪ UNDP RCU ▪ External Consultants (i.e. evaluation team) 	Indicative cost: 40,000	At the mid-point of project implementation.
Terminal Evaluation	<ul style="list-style-type: none"> ▪ Project manager ▪ PIU ▪ UNDP CO ▪ UNDP RCU ▪ External Consultants (i.e. evaluation team) 	Indicative cost : 40,000	At least three months before the end of project implementation.
Audit	<ul style="list-style-type: none"> ▪ UNDP CO ▪ Project manager ▪ PIU 	Indicative cost per year: 3,000 (12,000 total)	Annually
Visits to field sites	<ul style="list-style-type: none"> ▪ UNDP CO ▪ UNDP RCU (as appropriate) ▪ Government representatives 	For GEF-supported projects, paid from IA fees and operational budget.	Annually for UNDP CO.
TOTAL indicative COST Excluding project team staff time and UNDP staff and travel expenses		US\$ 122,000 (+/- 5% of total GEF budget)	

7 LEGAL CONTEXT

This document together with the CPAP signed by the Government and UNDP which is incorporated by reference constitute together a Project Document as referred to in the SBAA and all CPAP provisions apply to this document.

Consistent with the Article III of the Standard Basic Assistance Agreement, the responsibility for the safety and security of the implementing partner and its personnel and property, and of UNDP's property in the implementing partner's custody, rests with the implementing partner.

The implementing partner shall:

- a) put in place an appropriate security plan and maintain the security plan, taking into account the security situation in the country where the project is being carried;
- b) assume all risks and liabilities related to the implementing partner's security, and the full implementation of the security plan.

UNDP reserves the right to verify whether such a plan is in place, and to suggest modifications to the plan when necessary. Failure to maintain and implement an appropriate security plan as required hereunder shall be deemed a breach of this agreement.

The implementing partner agrees to undertake all reasonable efforts to ensure that none of the UNDP funds received pursuant to the Project Document are used to provide support to individuals or entities associated with terrorism and that the recipients of any amounts provided by UNDP hereunder do not appear on the list maintained by the Security Council Committee established pursuant to resolution 1267 (1999). The list can be accessed via <http://www.un.org/Docs/sc/committees/1267/1267ListEng.htm>. This provision must be included in all sub-contracts or sub-agreements entered into under this Project Document.

8 ANNEXES

Annex 1: Risk Analysis

#	Description of the risk	Potential consequence	Countermeasures / Management response	Type (Risk category) Environmental Financial Operational Organizational Political Regulatory Strategic Other	Probability & Impact (1-5, low to high)	Owner	Submitted updated by	Last Update	Status
1	The project could encounter delays due to the lack of nationally-available expertise and human resources	Initial technical studies on water and groundwater resource mobilisation can be delayed. Similarly, the Project Implementation Unit could be hindered in decision-making due to lack of inter-institutional collaboration.	The project will establish a database of national and international experts able and willing to provide technical support to the project – for instance, to assist with infiltration gallery design and construction. When expertise is not available nationally, regional and international experts will be recruited. Close linkages with co-financing partners and baseline projects will also ensure the availability of technical expertise. The project will also benefit from structures and mechanisms established for the Great Green Wall Action Plan and the newly-commenced UNDP-AF project (both of which are also executed by the Ministry of Habitat, Urbanism and Environment, MHUE). The project design has been informed by prior hands-on analysis of Djiboutian pastoral systems by WISP and others and has – building on the lessons-learned from the	Operational, Political	P=3 I=4				

#	Description of the risk	Potential consequence	Countermeasures / Management response	Type (Risk category)	Probability & Impact (1-5, low to high)	Owner	Submitted updated by	Last Update	Status
			PROMES-GDT project – deliberately adopted a conservative and focused approach to project activities.						
2	Low level of cooperation between executing institutions	Project activity implementation could be delayed.	The implementation arrangements have been discussed in detail at the Validation Workshop in January 2013, and have been accepted by all involved parties. MHUE is very willing to coordinate activities with the different executing agencies (as evidenced in the LDCF1 and Adaptation Fund projects), and the UNDP Country Office will closely monitor the project's execution so as to limit any deviations. All involved parties are strongly interested in the project activities and outcomes, and will benefit from capacity building from the project. Moreover, the project's support to the National Climate Change Committee is specifically intended to facilitate inter-ministerial and other inter-institutional coordination.	Operational, Political	P = 2 I = 3				
3	Works associated with	Upstream and downstream	UNDP's Environmental & Social Screening Procedure has been applied	Strategic	P = 3 I = 3				

#	Description of the risk	Potential consequence	Countermeasures / Management response	Type (Risk category)	Probability & Impact (1-5, low to high)	Owner	Submitted updated by	Last Update	Status
	water mobilization and retention infrastructures lead to unanticipated environmental impacts	populations might be affected by poorly managed and designed water mobilisation strategies.	during project development, providing a thorough analysis of possible environmental impacts of interventions, and their associated best management practices and mitigation strategies. Djibouti's EIA regulation will be applied during project implementation.						
4	The participatory approach could be ineffective due to lack of community ownership or lack of understanding on the part of implementers and beneficiaries	Local populations, particularly women, could be marginalized in decision-making and planning during project implementation.	The participatory approach and community training components are central to the project's activities and will include awareness-raising at all stages of implementation, targeted training and the availability of technical expertise. Most community investments targeted by the projects (micro-dams, tree-planting, etc.) are relatively simple in their technical design and implementable in a reasonable timeframe (up to 1 year, as opposed to several years). For example, it is expected that the Catchment Management Committees and Water Point Management Committees will be trained and will start to provide	Operational	P = 2 I = 2				

#	Description of the risk	Potential consequence	Countermeasures / Management response	Type (Risk category)	Probability & Impact (1-5, low to high)	Owner	Submitted updated by	Last Update	Status
			maintenance and water quality materials during the first year. This will facilitate the participation and involvement of communities and will ensure that demonstrable results are achieved quickly, thereby avoiding frustration and credibility loss. Gender benefits for women and girls are also expected to be high (notably in the context of livelihood diversification through poultry-breeding and artisanal handicraft training); the engagement of women, as traditional managers of households, is expected to improve household participation rates.						
5	Water management strategies are made ineffective by an unanticipated increase in the frequency of flood events and continued	Recurring drought can hinder sustainable crop production for agro-pastoralists and flash floods can damage the water points and cultivated areas	Project investments will be climate-proofed in terms of their locations, designs and capture capacities so as to be able to withstand forecast future climate stresses. Diversified and secured access to water resources, combining both surface and ground water, as well as the implementation of adapted cultivation techniques of forage and other crop varieties, will be used. Water points will	Operational,	P = 4 I = 4				

#	Description of the risk	Potential consequence	Countermeasures / Management response	Type (Risk category) Environmental Financial Operational Organizational Political Regulatory Strategic Other	Probability & Impact (1-5, low to high)	Owner	Submitted updated by	Last Update	Status
	drought which jeopardizes agricultural and pastoral production	near the wadis.	be constructed with sufficient barriers, such as protective trees and rocks and covers, to prevent damage and contamination. Investments will be selected and designed using a community participatory process, thereby allowing local knowledge of climate risks to be incorporated into the prioritization and selection of investments. Water infrastructure installed/rehabilitated by the LDCF3 financed project will be accompanied by management plans, developed in conjunction with the local communities and the regional governments, regulating usage (volume, frequency, beneficiaries) of the water and preventing over-use and accompanying degradation / over-grazing / trampling of the land surrounding the water points. The creation of Water Point and Catchment Management Committees will also ensure that best practices are used at each water point and within the catchment considering potential downstream and upstream impacts.						

#	Description of the risk	Potential consequence	Countermeasures / Management response	Type (Risk category)	Probability & Impact (1-5, low to high)	Owner	Submitted updated by	Last Update	Status
			Drought-resilient tree species will be planted and community members will be trained in Soil and Water Conservation methods.						
6	Targeted farmers and pastoralists are sceptical and unwilling to use adaptation technologies / practices and engage in poultry breeding, beekeeping, etc. so as to diversify their livelihoods and/or income diversification strategies do not significantly increase household incomes.	Without sufficient awareness and training, agro-pastoralists may be reluctant to try seemingly more complicated technologies and livelihood practices which can build their resilience to climate change.	The LDCF3 financed project will build on community farming practices. In both regions, best practices will be adopted. LDCF funds will provide strong support to local NGOs such as EVA (Adailou) and the Agricultural Cooperative of Assamo who are both assisting the communities in agriculture, yet lack sustainable practice knowledge such as Soil and Water Conservation methods and year round crop choices. During Stakeholder consultations, the community members voiced their desire and willingness to adopt aviculture and apiculture. Other rural communities have had success with both new livelihood methods in other initiatives facilitated by the Ministry of Agriculture. Significant training and expertise on how to introduce and upscale aviculture and apiculture will	Operational, Strategic	P = 3 I = 3				

#	Description of the risk	Potential consequence	Countermeasures / Management response	Type (Risk category) Environmental Financial Operational Organizational Political Regulatory Strategic Other	Probability & Impact (1-5, low to high)	Owner	Submitted updated by	Last Update	Status
			<p>be provided by LDCF funds. Both IGAs can be easily scaled up by breeding chickens and by increasing bee pollination.</p> <p>The agro-pastoral development component will start gradually, with the objective of identifying a limited number of 'lead' farmers and pastoralists who will serve as examples and possible success stories to others. Those lead farmers and pastoralists will learn how to use best adaptation technologies / practices, will serve as a basis for the organization of technical group meetings with other farmers, and will be able to test new livelihood practices. By designating motivated leaders, it is more likely that they will influence the community to use the same resilient-building practices.</p> <p>Also, by supporting capacity building of active, local NGOs, it will be more likely that knowledge transfer will be sustained in the future and that household incomes will increase and become</p>						

#	Description of the risk	Potential consequence	Countermeasures / Management response	Type (Risk category)	Probability & Impact (1-5, low to high)	Owner	Submitted updated by	Last Update	Status
			diversified with time.						
7	Theft of solar panels from solar-powered wells and Automatic Weather Stations, pump parts or fencing materials	Threat to the sustainability of water supplies and waste of financial resources.	Borehole costs include the construction of protective casings around the solar panels and pump infrastructure to deter theft and prevent point contamination from grazing animals. Fencing costs are quite high because robust materials will be installed to adequately protect the tree reforestation areas and agro-pastoral plots which will prevent easy theft of materials. Guards will be placed at the Automatic Weather Stations. Furthermore, the full implication and participation of local communities will serve to reduce theft risks.	Operational, Financial	P = 1 I = 3				
8	Unwelcome livestock (livestock from surrounding pastoralists) invading the agro-pastoral plots	Disputes are provoked between the farmers and pastoralists.	Secure metal and stone fencing will be constructed around each agro-pastoral site to deter all unwelcome animals. This will prevent the risk of invading livestock and potential disputes between the pastoralists and agro-pastoralists. Awareness raising by local NGOs/CSOs and by the local Water Point Management Committees will facilitate communication	Operational, Strategic, Financial	P = 3 I = 3				

#	Description of the risk	Potential consequence	Countermeasures / Management response	Type (Risk category)	Probability & Impact (1-5, low to high)	Owner	Submitted updated by	Last Update	Status
			of the environmental and socio-economic importance of supporting best practices for agro-pastoralists and to protect the reforestation areas.						
9	Limited capacity of local populations to perform maintenance on boreholes and solar-powered well pumps	Boreholes become non-operational.	Water Point Management Committees will be created to maintain the wells. The project includes activities to form and train these committees as well as to provide them with maintenance tools and water quality kits so that they will be empowered to perform minor repairs and detect when water quality is poor. The sub watershed-based Catchment Management Committees will serve as a liaison between the Water Point Management Committees and the Ministry of Water when maintenance or water quality issues are flagged.	Organizational, Operational	P=3, I=3				
10	The National Climate Change Committee fails to meet regularly due to lack of incentives	The NCCC will stop coordination of climate and disaster risk related projects.	The NCCC's mandate and decree will be reactivated so that it will become an official convening body with the role of coordinating all climate and disaster risk management-related activities/projects/programmes through its	Structural, Political, Financial	P=3, I=3				

#	Description of the risk	Potential consequence	Countermeasures / Management response	Type (Risk category)	Probability & Impact (1-5, low to high)	Owner	Submitted updated by	Last Update	Status
			<p>legal mandate. It will be supported by a Secretariat and a National Climate Change Strategy to be developed through the LDCF3 financed project. The Strategy will be formally endorsed by the Office of the Prime Minister and will provide the Secretariat and the NCCC with a framework for assessing and achieving programming coherence. The Committee will be empowered by holding projects/programmes accountable to a formalised, recognised NCC Strategy. The NCC Strategy will provide influence for other ministries to participate. Furthermore, the potential establishment of a National Environment and CC Fund under the NCCC will reinforce its authority and influence. Cross-sectoral ministries and organisations on national, regional and local levels are expected to be beneficiaries of actions by the NCCC which will increase the Committee's influence and clout.</p>						
11	Limited long-run	After project	LDCF funds will be used to diversify the	Strategic	P =2,				

#	Description of the risk	Potential consequence	Countermeasures / Management response	Type (Risk category)	Probability & Impact (1-5, low to high)	Owner	Submitted updated by	Last Update	Status
	support for rural mountain regions in terms of sustainable livelihood development	completion, the remote mountain regions will become neglected and lack government support to continue building resilience to climate change and extreme weather risks.	livelihoods of the rural mountain populations in Adailou and Assamo. Support will be provided for the populations to cultivate revenue-bearing crops and trees and to have a market place within reach to sell the fresh local produce. Also, funds will be used to support artisanal production (e.g. jams, handicrafts) and commercial sales of artisanal products.		I=3				
12	There is insufficient technical and operational capacity within the regional governments to coordinate drought and flood preparedness	Local mountain communities will continue to be isolated and lack information required to take adaption or mitigation measures before floods and droughts.	Component 3 of the project includes substantial training for the existing regional Local Risk and Catastrophe Management Committees (LRMC). They will be trained in how to understand drought and flood preparedness with national and regional knowledge-sharing opportunities. Newly procured weather stations and a risk inventory will support their ability to plan, forecast and alert populations. LDCF funds will also be used to provide a study tour of neighbouring	Operational, Strategic	P =2, I=3				

#	Description of the risk	Potential consequence	Countermeasures / Management response	Type (Risk category) Environmental Financial Operational Organizational Political Regulatory Strategic Other	Probability & Impact (1-5, low to high)	Owner	Submitted by	Last Update	Status
			Somaliland on how communities are constructing gabion and reinforcing wadi banks with gabion using a Cash for Work scheme. The study tour will be provided to the LRCMCs as well as to NGO representations and community heads. Study tour beneficiaries will also be supported to provide public awareness and to train community members on possible community led flood and drought preparedness schemes.						

Annex 2: Work Plan

	Répartition annuelle des activités															
	Yr-1				Yr-2				Yr-3				Yr-4			
	QR-1	QR-2	QR-3	QR-4	QR-1	QR-2	QR-3	QR-4	QR-1	QR-2	QR-3	QR-4	QR-1	QR-2	QR-3	QR-4
COMPOSANT 1																
1.1.1 Actualisation d'arrête, précision du mandat pour le CNCC	20,000															
1.1.2 Atelier de sensibilisation sur les projets de resilience, de la gestion des risques, de l'environnement, etc en cours	10,000															
1.1.3 Renforcement de capacité du Secretariat du CNCC en mobilisation du fonds, etc	15,000				15,000											
1.1.4 Réunions trimestrielles du CNCC y compris louer la salle	4,500			4,500	4,500		4,500		4,500		4,500		4,500		4,500	
1.2.1 Développement de la Stratégie Nationale du CC					20,000				20,000				20,000			
1.2.2 Formation sur les simulations dynamiques, l'economie d'adaptation, les coûts	10,000				10,000				10,000							
1.2.3 Etudes pour estimer les couts du CC sur le budget public par utiliser les methodes de couts-benefices et l'economie d'adaptation en regardant des scenarios du CC					10,000				10,000							
1.2.4 Publication et sensibilisation des mesures d'adaptation qui maximisent les couts-benefices avec plusieurs ministères, organisations, les OSCs, ONGs et le secteur privé									10,000				10,000			

1.3.1 Etude pour identifier des sources de financement (national et International) pour capitaliser le Fond d'Environnement et du CC	10,000	10,000		
1.3.2 Etablissement du Fond d'Environnement et du CC		12,000	12,000	
1.3.3 Developpement d'un mecanisme de gouverance qui est efficace et transparent pour le Fond d'Environnement et du CC				10,000
1.3.4 Coordination	22,500	22,500	22,500	22,500
1.3.5 Knowledge Management	25,000	25,000	25,000	25,000
1.3.6 Suivi et Evaluation	7,500	7,500	7,500	7,500
COMPOSANT 2				
2.1.1 a Etudes hydrogéologiques	60,000			
2.1.1 b Identification des sites potentiels avec la communauté, personnel technique des départements concernées	5,000			
2.1.1 c Etudes hydrologiques des micro barrages	100,000			
2.1.1 d Etudes topographiques pour les micro barrages	15,000			
2.1.1 e Etudes géotechniques pour les micro barrages	15,000			
2.1.1 f Etudes d'aménagement des berges		15,000		5,000
2.1.1 g Etudes topographiques pour implantation des seuils semi souterrains (16 seuils x 1500\$/unité)		6,000	6,000	6,000
2.1.1 h Etudes topographiques pour implantation des citernes impluviums (15 citernes x 1000\$§unité)	3,750	3,750	3,750	

2.1.1 I Etude bilan hydrique		20,000			
2.1.2 Etude de l'Impact d'Environnement (EIE)		25,000			
2.1.3 a Extraction de 1 forage en zone Adailou			37,500	75,000	
2.1.3 b Equipement solaire			20,000	40,000	
2.1.3 c Construction du local pour l'equipe solaire			5,000		
2.1.3 d Construction de 12 puits communautaires y compris équipement de surface avec système de pompage solaire (2 à Assamo et 10 à Adailou)				168,000	168,000
2.1.3 e Aménagement des ouvrages de surface de 4 puits communautaires existants et équipement de système de pompage solaires (reservoirs) (Assamo)				30,000	30,000
2.1.4 Construction de 3 micro barrages (2 à Adailou et 1 à Assamo)			100,000	200,000	
2.1.5 Construction de 15 citernes impluviums dans les parcours du bassin versant d'Adailou				112,500	112,500
2.1.6 Construction de 16 seuils semi souterrains (8 à Adailou et 8 à Assamo)				270,000	260,000
2.1.7 Construction de 8 galeries drainantes (5 à Adailou et 3 à Assamo)				49,500	49,400
2.1.8 Amenagement des berges, renforcement des cotés de wadi et des périmètres de wadi avec gabion 2,000 m3 à Adailou et 4,000 m3 à Assamo				40,000	30,000

2.1.9 Construction de 3 mares artificielles dans les parcours d'Alaadou			22,500	22,500	22,500
2.1.10 Formation des techniciens sur la mobilisation d'eau pour des départements techniques concernées (DGT, Meau, etc)		15,000	15,000		
2.1.11 Conseil Technique		8,480	8,480	8,480	8,480
2.1.12 Civil Engineering Supervisor		8,840	8,840	8,840	8,840
2.1.13 Suivi et Evaluation du recharge du nappe		7,500	7,500	7,500	7,500
2.2.1 Création d'1 périmètre agro-pastorale de 10 ha à Adaïlou avec un retenue de 200 m3 et des installations de stockage avec des capacités de 100 kg.			40,000	80,000	80,000
2.2.2 Equipment solaire des perimetres existents		170,000			
2.2.3 Appui aux agricultures		15,000	15,000		
2.2.4Rehabiliter la systeme d'irrigation des systemes existents		30,000	30,000		
2.2.5 Formation sur les différentes méthodes d'irrigation utilisées pour conserver l'eau (irrigation goutte à goutte, recyclage d'eau)		17,000			
2.2.6 Mise en défens pour les espèces sensibles pendant au moins 3 ans sur 2400 ha à Ayaladou, 2000 ha à Adaïlou et 1200 ha à Assamo			7,000	14,000	14,000
2.2.7 Formation sur l'introduction et la diversification des cultures fourragères qui sont résilients a la sécheresse pour		6,420			

ajouter la nutrition du bétail.					
2.2.8 Création de 2 pastorétums, 1 à Adailou et 1 à Assamo , y compris une étude de faisabilité sur les pratiques pastorales durables , la formation des 20 éleveurs de bétail et l'acquisition de la médecine vétérinaire .			25,920	51,840	51,840
2.2.9 Enquêtes de base, Analyse des règles d'utilisation des ressources naturelles, Recensement du cheptel des zones retenues, Enquêtes zootechniques (Pour Adailou, Assamo et Adaylou)	17,000	17,000			
2.2.10 Formation pour les éleveurs	4,000	4,000			
2.2.11 Re - fertilisation des sols par le compostage et l'utilisation de fumier et les matières organiques produits localement pour accroître la productivité et contribuer à l'amélioration de la chaîne de valeur (value chain)			5,000	5,000	
2.2.12 Un voyage d'étude à la forêt du Day pour capturer des leçons apprises sur le reboisement et les mécanismes de clôture		10,000			
2.3.1 CES 1 & 2: Amenagements antierosifs et regeneration des parcours sur 50 ha respectivement à Assamo, Adailou et Ayaladou			24,220	48,440	48,440

<p>2.3.2 CES 3 & 4 Regeneration assistee des ligneux et herbacees sur 360 ha à Adailou et Ayladou et 290 ha à Assamo respectivement pour prévenir l'érosion et pour améliorer les provisions d'eau souterraine dans les bassins versants, Réplantation et reboisement pour régénérer des espèces pastorales de valeur et pour minimiser l'érosion sur 290 ha en Assamo, 240 ha en Adailou et 120 ha en Ayladou.</p>			<p>28,560</p>	<p>57,120</p>	<p>57,120</p>
<p>2.4.1 Création et formation de comités de bassins versants</p>		<p>22,500</p>	<p>22,500</p>		
<p>2.4.2 Formation des comités de gestion des points d' eau sur le fonctionnement durable et les techniques d'entretien des puits</p>		<p>40,500</p>	<p>40,500</p>		
<p>2.4.3 Application of proven stone mulching approach to stabilize soil around water collection points</p>			<p>20,000</p>		
<p>2.4.4 Plantation d'arbres autour de 10 puits, y compris l'ensemencement et la préparation des sols</p>			<p>3,700</p>		
<p>2.5.1 Construction des pépinières d'un ha à Adailou et à Assamo y compris l'équipement d'exhaure solaires</p>			<p>44,100</p>	<p>44,100</p>	
<p>2.5.2 Renforcement des femmes sur les usages polyvalents et la durabilité des pépinières y compris un voyage d'étude avec d'autres pépinières en Djibouti</p>			<p>10,000</p>		

2.5.3 Formation sur, et la promotion de la rentabilité de l'arboriculture fruitière (dates , amandes , abricots , jujube , oliviers, figuiers , orange, raisin, etc) à Adailou				28,000
2.5.4 Suivi et evaluation	11,250	11,250	11,250	11,250
COMPOSANT 3				
3.1.1 Formation de 300 personnes, y compris les ONG locales et les services régionaux de vulgarisation, dans les deux régions du projet sur le changement climatique, la sécheresse et les mesures d'atténuation des inondations	25,000	25,000		
3.1.2 Visite d'étude des régions de montagne semblables sur la sécheresse et les pratiques d'atténuation des inondations pour deux représentants de la communauté de montagne, 2 représentants d'ONG et deux membres régionaux du personnel de l'autorité du gouvernement communautaire.	20,000			
3.1.3 Création d'un inventaire des risques régional pour les régions Adailou et Assamo avec la collection des données des risque historiques, la collecte de données hydrométéorologiques et une cartographie des risques par rapport aux moyens d'existence et le degré de vulnérabilité	10,000			

<p>3.1.4 Installation de 1 station météo pour chaque région et de la formation pour certains habitants sur la façon d'enregistrer et de transmettre des données manuellement. Les coûts comprennent les pièces de rechange et de matériel de communication et un gardien à chaque station. Achete des telephone satellitaire et es equipments de sécurité</p>	<p style="text-align: center;">35,000</p>			
<p>3.2.1 Réhabilitation de 1 point de vent à Ali Sabieh et la construction de 1 point de vent à Tadjourah pour permettre les populations à Assamo et à Adailou respectivement à vendre leurs produits agro-pastoraux et pastoraux</p>			<p style="text-align: center;">22,600</p>	<p style="text-align: center;">22,600</p>
<p>3.2.2 Collaboration formalisée avec les voisins des secteurs privés et publiques qui pourraient être des acheteurs potentiels et les distributeurs de produits artisanaux (par exemple, le nouveau port de Tadjourah)</p>			<p style="text-align: center;">5,000</p>	<p style="text-align: center;">5,000</p>
<p>3.2.3 Formation pour améliorer les aspects commerciaux de la production artisanale.</p>			<p style="text-align: center;">30,000</p>	
<p>3.2.4 Développement des équipes de production artisanale de gabion locales à Adailou et à Assamo, y compris la formation sur les techniques de tissage appropriées pour réduire le coût élevé de cages de gabions et créer une source de l'emploi.</p>	<p style="text-align: center;">35,000</p>	<p style="text-align: center;">35,000</p>		

3.2.5 Formation en aviculture et provision de 8 poulets par famille pour 70 familles à Assamo et 50 familles à Adailou	40,000	20,000	20,000	
3.2.6 Formation en apiculture et provision des materials pour 20 personnes (14 adailou et 6 Assamo)	27,000	27,000		
3.2.7 Enquête initiale pour établir des habitudes d'utilisation, les préférences de l'utilisateur final et les contraintes d'accessibilité pour les foyers améliorés à Adailou.	14,000			
3.2.8 Etude socio-economique pour montrer les benefices des moyes d'existence (apiculture, aviculture)		10,000		10,000
3.3.1 Formation des ONG / OSC sur l'hygiène animale, la création de pépinières, l'entretien à l'énergie solaire et, de l'agro-pastoralisme, l'organisation et la formation des agro-éleveurs, la mobilisation de l'eau, les méthodes de conservation des sols, la construction de gabions locales, la gestion comptable et financière et de la documentation / organisation des leçons apprises pour aider d'autres populations locales à long terme	22,044	22,044		
3.3.2 Acquisition d'ordinateurs, des imprimantes, etc pour les ONG /OSC pour surveiller, contrôler et superviser les activités à chaque site.	20,000			

3.3.3 Construction d'un lieu de rencontre pour les ONG / OSC pour servir de centre d'éducation / formation, de rencontre et de stockage. Il servira également comme un centre de sensibilisation communautaire locale pour permettre la sensibilisation et la mobilisation communautaire.	24,000			
3.3.4 Suivi et evaluation	11,750	11,750	11,750	11,750

Annex 3a: Letters of Agreement (Direct Project Cost)

Letter of Agreement between UNDP and the Ministry of Habitat, Urbanism and Environment of Djibouti

United Nations Development Programme



STANDARD LETTER OF AGREEMENT BETWEEN UNDP and MINISTRY OF HABITAT, URBANISM and ENVIRONMENT FOR THE PROVISION OF SUPPORT SERVICES

Under project "Supporting rural community adaptation to climate change in mountainous regions of Djibouti"

Excellency,

Reference is made to consultations between officials of the Ministry of Habitat, Urbanism and Environment of Djibouti (hereinafter referred to as "MHUE") and officials of UNDP with respect to the provision of support services by the UNDP country office for nationally managed programmes and projects. UNDP and the MHUE hereby agree that the UNDP country office may provide such support services at the request of the MHUE as described below.

The UNDP country office may provide support services for assistance with reporting requirements and direct payment. In providing such support services, the UNDP country office shall ensure that the capacity of the Government-designated institution is strengthened to enable it to carry out such activities directly. The costs incurred by the UNDP country office in providing such support services shall be recovered from the administrative budget of the office.

The UNDP country office may provide, at the request of the designated institution, the following support services for the activities of the project:

Recruitment of the International consultants as per the Terms of Reference annexed to the document.

Identify training institutions abroad and administer participation of trainees in training programmes as needed

The procurement of goods and services and the recruitment of International Consultants by the UNDP country office shall be in accordance with the UNDP regulations, rules, policies and procedures. Support services described in paragraph 3 above shall be detailed in an annex to the project document, in the form provided in the Attachment hereto. If the requirements for support services by the country office change during the life of a project, the annex to the project document is revised with the mutual agreement of the UNDP Resident Representative and the designated institution.

The relevant provisions of the UNDP Standard Basic Assistance Agreement with the Government of Djibouti (the "SBAA"), including the provisions on liability and privileges and immunities, shall apply to the provision of such support services. The MHUE shall retain overall responsibility for the

nationally managed project through its designated institution. The responsibility of the UNDP country office for the provision of the support services described herein shall be limited to the provision of such support services detailed in the annex to the project document.

Any claim or dispute arising under or in connection with the provision of support services by the UNDP country office in accordance with this letter shall be handled pursuant to the relevant provisions of the SBAA.

The manner and method of cost-recovery by the UNDP country office in providing the support services described in paragraph 3 above shall be specified in the annex to the project document.

The UNDP country office shall submit progress reports on the support services provided and shall report on the costs reimbursed in providing such services, as may be required.

Any modification of the present arrangements shall be effected by mutual written agreement of the parties hereto.

If you are in agreement with the provisions set forth above, please sign and return to this office two signed copies of this letter. Upon your signature, this letter shall constitute an agreement between your Government and UNDP on the terms and conditions for the provision of support services by the UNDP country office for nationally managed programmes and projects.

Yours sincerely,

Signed on behalf of UNDP
Nicole Kouassi
Resident Representative a.i

For the National Implementing Agency:
Dini Abdallah Omar
Secretary General – Ministry of Habitat, Urbanism and Environment

Attachment 1

DESCRIPTION OF UNDP COUNTRY OFFICE SUPPORT SERVICES

1. Reference is made to consultations between the Ministry of Habitat, Urbanism and Environment, of the Government of Djibouti and officials of UNDP with respect to the provision of support services by the UNDP country office for the nationally managed project “Supporting rural community adaptation to climate change in mountainous regions of Djibouti”

2. In accordance with the provisions of the letter of agreement and the project document, the UNDP country office shall provide support services for the “Supporting rural community adaptation to climate change in mountainous regions of Djibouti” as described below.
 - a. Recruitment of the International consultants as per the Terms of Reference annexed to the document.
 - b. Identify training institutions abroad and administer participation of trainees in training programmes as needed

3. Support services to be provided:

Support services (insert description)	Schedule for the provision of the support services	Cost to UNDP of providing such support services (where appropriate)	Amount and method of reimbursement of UNDP (where appropriate)
Recruitment of the International consultants as per the Terms of Reference annexed to the document. Advertisement, Identification, selection and contracting of International consultants (including advertising, short-listing and recruitment)	June 2014 – Dec-2017	As per the pro-forma costs: ○ 180 days over 48 months of GS6 Procurement Associate: \$18,572	UNDP will directly charge the project upon receipt of request of services from the Implementing Partner (IP)
Services related to finance (including but not limited to): ○ Payments	Ongoing throughout implementation when applicable	As per the pro-forma costs: ○ 110 days over 48 months of GS6 Finance Associate: \$11,350 ○ 150 days over 48 months of GS7 Programme/Financ	As above

		e Associate: \$19,974	
Services related administration of training needs (including but not limited to): <ul style="list-style-type: none"> o Identification of institutes o Travel authorization o Ticket requests (booking, purchasing, etc.) o F10 settlements o Asset management 	Ongoing throughout implementation when applicable	As per the pro-forma costs: <ul style="list-style-type: none"> o 20 days over 48 months of GS6 Finance Associate: \$ 2,064 	As above
Total		\$ 51,959	

4. Description of functions and responsibilities of the parties involved:

UNDP will conduct the full process while the role of the Implementing Partner (IP) will be as follows:

- The Implementing Partner will send a timetable for services requested annually/ updated quarterly
- The Implementing Partner will send the request to UNDP for the services enclosing the specifications or Terms of Reference required

For Hiring CV: the IP representatives will be on the interview panel, or participate in CV review in case an interview is not scheduled.

Annex 3b: Letters of Agreement (Cofinancing)

**GROUPEMENT PAYSAN AGRICOLE D'ASSAMO
COMITÉ EXÉCUTIF**

Email : gpaa.assamo@gmail.com

Tél. : 27 53 02 94, 77 81 04 01, 77 81 72 74

Djibouti, le 31/03/2014

A Madame Adriana Dinu
UNDP-GEF Officer in Charge
304 East 45th Street, 9th Floor, New-York
Fax: +1212 906 6998

Objet : lettre de cofinancement

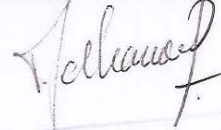
Madame Dinu,

Nous avons le plaisir de confirmer le cofinancement du Groupement Agricole d'Assamo au projet « Soutien à l'adaptation au changement climatique des communautés rurales des régions montagneuses de Djibouti », projet en cours de montage par le PNUD en collaboration avec le Ministère de l'Habitat, de l'Urbanisme et de l'Environnement pour financement auprès du Fonds pour les Pays les Moins Avancés.

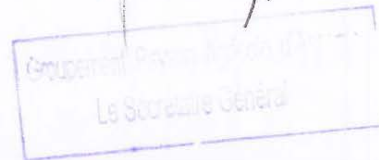
Le Groupement Agricole d'Assamo est une coopérative agricole qui regroupe les agriculteurs de la vallée d'Assamo. Les populations de la vallée d'Assamo, aussi bien les agriculteurs, les éleveurs et la population en général ont été associées à l'identification des besoins ainsi qu'à la formulation des activités du projet. Notre groupement va participer au cofinancement du projet à hauteur de 100,000 \$ US sous forme d'investissement dans les domaines de l'eau, l'agriculture et la protection des berges de l'Oued. Notre contribution facilitera l'atteinte des résultats dans les composantes 2 et 3 du projet. Veuillez agréer Madame, l'expression de nos salutations les meilleures.

Le Secrétaire Général du Groupement Agricole d'Assamo

Mahamoud ABDI MOUSSA



Copie :
Représentante Résident du PNUD à Djibouti
Mr Robert Watkins



CPEC - B.P. 2059 - Djibouti - Tél. 35 39 43 / 81 04 01 - Récapissé N° : 170/DRG/2010

Adresse mail : cpec@intnet.dj - **Compte Bancaire BIS : 101020734 300 0 00**

UNDP translation of the co-financing letter of “Groupement Agricole de Assamo”

Ms. Adriana Dinu
UNDP-GEF Officer-in-charge
304 East 45th St., 9th Floor, New York, NY, 10017 USA

Ms. Dinu,

We have the pleasure to confirm the cofinancing of the “Groupement Agricole d’Assamo” to the project “**Supporting rural community adaptation to climate change in mountainous regions of Djibouti**”. The project is currently at a development stage by UNDP in collaboration with the Ministry of Habitat, Urbanism and Environment, and will be submitted to Least Developed Countries Fund.

The “Groupement Agricole d’Assamo” is an agricultural cooperative which regroups the farmers in the valley of Assamo. The communities of Assamo as well as the farmers, the livestock herders have been associated to the identification of the needs and the design of the activities of the project. Our cooperative will participate to the cofinancing of the project at a level of 100,000 USD in investment in water sector, agriculture and protection of wadi banks. Our cofinancing will help in the achievement of results in component 2 and 3 of the project.

Yours sincerely

Translation undertaken and certified by UNDP



Siège social : Adaiou BP : 7375 Djibouti
Tel : 77854803 / 77824111
E-mail : asso_eva@yahoo.fr

Djibouti, le 16/02/2014

A Madame Adriana Dinu
UNDP-GEF Officer in Charge
304 East 45th Street, 9th Floor, New-York
Fax: +1212 906 6998

Objet : lettre de cofinancement

Madame Dinu,

Nous avons le plaisir de confirmer le cofinancement de l'Association Ecologie Villageoise d'Adaillou au projet « Soutien à l'adaptation au changement climatique des communautés rurales des régions montagneuses de Djibouti », projet en cours de montage par le PNUD en collaboration avec le Ministère de l'Habitat, de l'Urbanisme et de l'Environnement pour financement auprès du Fonds pour les Pays les Moins Avancés.

L'association EVA qui œuvre dans la région de Weima et en particulier dans le village d'Adaillou ainsi que les communautés rurales ont été consultées de façon étroite lors de la formulation du projet. Les interventions retenues reflètent pleinement les besoins exprimés par notre communauté et nous confirmons que notre association va contribuer au cofinancement du projet.

Notre cofinancement d'un montant de 500,000 USD en nature correspondent aux travaux de reboisement et de régénération des pâturages que notre association met en œuvre dans la région de Weima et notamment par la mise en défens. La contribution de l'association EVA permettra l'atteinte des résultats dans les composantes 2 et 3 du projet.

Veuillez agréer Madame, l'expression de nos salutations les meilleures

Le Président de l'Association

AHMED ALI MOHAMED

Copie :

Représentante Résidente du PNUD à Djibouti
Madame Hodan A. Haji-Mohamud



**UNDP translation of the co-financing letter of the Association Ecologie Villageoise
d'Adaillou**

Ms. Adriana Dinu
UNDP-GEF Officer-in-charge
304 East 45th St., 9th Floor, New York, NY, 10017 USA

Ms. Dinu,
Dear Madam,

This is to confirm the co-financing of “Association Ecologie Villageoise d'Adaillou”, to the project “Supporting rural community adaptation to climate change in mountainous regions of Djibouti”. We understand that the project is currently under development by UNDP and the Ministry of Habitat, Urbanism and Environment for a LDCF funding.

The “Association Ecologie Villageoise d'Adaillou” is active in the Weima region and in particular the Adaillou village and rural communities. Our organization has been active in the formulation of the project. The designed interventions fit the needs of our communities and we confirm the contribution of our association to the co-financing of the project.

Our in-kind co-financing in the amount of 500,000 USD will serve in the regeneration of pastureland and reforestation as part of our activities in the Weima region. The contribution of our organization will contribute to the achievements of results in the components 2 and 3 of the project.

Yours sincerely

Translation undertaken and certified by UNDP

REPUBLIQUE DE DJIBOUTI
UNITE - EGALITE - PAIX

MINISTÈRE DE L'HABITAT, DE
L'URBANISME ET DE
L'ENVIRONNEMENT

LE MINISTRE

N° : 061

Djibouti, le : 11 FEV. 2014

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

جمهورية جيبوتي
الوحدة - المساواة - السلام
وزارة الإسكان والتعمير والبيئة
الوزير

رقم : _____

جيبوتي في : _____

A

Madame Adriana Dinu
UNDP-GEF Officer in Charge
304 East 45th Street, 9th Floor, New-York
Fax: +1212 906 6998

Objet : Lettre de cofinancement

Madame Dinu,

La présente a pour but de confirmer l'engagement du Ministère de l'Habitat, de l'Urbanisme et de l'Environnement de la République de Djibouti à contribuer au cofinancement du projet « Soutien à l'adaptation au changement climatique des communautés rurales des régions montagneuses de Djibouti », projet en cours de montage par le PNUD en collaboration avec les Institutions Nationales pour financement auprès du Fonds pour les Pays les Moins Avancés.

Notre Ministère va cofinancer le projet avec un montant de 700,000 US \$ en nature correspondant à l'utilisation des infrastructures immobilières du Ministère, l'utilisation des moyens logistiques et au temps consacré par le staff du Ministère à la mise en œuvre du projet ainsi qu'au temps consacré par les décideurs exécutifs du Ministère au plaidoyer et à la coordination de haut niveau.

Notre cofinancement contribuera à l'atteinte des résultats dans les trois composantes du projet.

Madame Dinu, nous vous prions de croire à l'importance de ce projet pour la République de Djibouti.

Veuillez agréer, Madame, à l'expression de mes salutations les meilleures.

MOHAMED MOUSSA IBRAHIM BALALA

Copie : Représentante Résidente du PNUD

هاتف : ٢١ ٣٥ ٠٠ - فاكس : ٢١ ٣٥ ١٦ ١٨ - ص.ب : ١١ - ١١ BP 11 - +253 21.35.00.06 - +253 21.35.16.18

UNDP translation of the co-financing letter of the Ministry of Habitat, Urbanism and Environment

Ms. Adriana Dinu
UNDP-GEF Officer-in-charge
304 East 45th St., 9th Floor, New York, NY, 10017 USA

Object: co-financing letter

Dear Ms. Dinu,

This is to confirm the engagement of the Ministry of Habitat, Urbanism and Environment of the Republic of Djibouti to contribute to the co-financing of the project “Supporting rural community adaptation to climate change in mountainous regions of Djibouti”, project which is currently under formulation by UNDP and national institutions for funding under the Least Developed Countries Fund.

Our Ministry will provide to the project in kind co-finance in the amount of 700,000 US \$. This co-finance relates to the utilization of the offices of the Ministry, logistical support and the time given by the high level decision makers for the advocacy and staff of the Ministry to the project.

Our co-financing will contribute to the achievements of results in the three components of the project.

Ms. Dinu, please be ensured of the importance of this project to the Republic of Djibouti.

Yours sincerely

Copy: UNDP Resident Representative

Translation undertaken and certified by UNDP

RÉPUBLIQUE DE DJIBOUTI

Unité -Egalité-Paix

MINISTÈRE DE L'EQUIPEMENT
ET DES TRANSPORTS

LE SECRETAIRE GENERAL

Réf : 86/G.G : المرجع

Date : 1.5. FEB. 2014 : التاريخ



جمهورية جيبوتي

الوحدة-المساواة-السلام

وزارة المعدات
والنقل

الأمين العام

A

Madame Adriana Dinu

UNDP-GEF Office in Charge

304 East 45TH Street, 9th Floor, New-York

Fax: +12129016 6998

Objet: lettre de cofinancement

Madame Dinu,

La présente a pour but de confirmer l'engagement du Ministère de l'Equipement et des Transports de la République de Djibouti à contribuer au cofinancement du projet « Soutien à l' adaptation au changement climatique des communautés rurales des régions montagneuse de Djibouti », projet en cours de montage par le PNUD et le Ministère de l'Habitat ,de l'Urbanisme et de l'Environnement pour financement auprès du Fonds pour les pays les Moins Avancés. Notre cofinancement contribuera à l'atteinte des résultats du projet dans la composante 3 en facilitant l'accès au marché pour les communautés rurales de Weima.

Le cofinancement de notre institution est évalué à dix Millions US S(10.000.000 USS) sous forme de cash pour la période de 2013 à 2015 et entre dans le cadre de la mise en œuvre de nos activités dans les régions Nord du pays .

Ce montant représente les dépenses et investissements en nature et en espèces prévus dans le cadre de la construction de la route Tadjourah -

COMMUNE RAS DIKA, PLATEAU DE SERPENT, AV. IDRIS O. GUELLEH
Tél : (253) 21.32.35.80 - (253) 21. 21.32.35.73 - FAX : (253) 21.35.59.75 - P.O Box : 2501 Djibouti
الهاتف: ٢١ ٣٢٣٥٨٠ (٢٥٣) - ٢١ ٣٢٣٥٨٠ - صندوق بريد: ٢٥٠١ جيبوتي
www.met.gouv.dj - Email : cabinmet.sg@intnet.dj

Balho qui va permettre de désenclaver entre autre Adaillou et les villages alentours et contribuer ainsi à l'atteinte des résultats attendus du projet.

Je vous prie d'agréer, **Madame Adriana Dinu**, l'expression de ma parfaite considération.



Copie :

Ministre de l'Équipement et des Transports
Représentante résidente du PNUD à Djibouti
Madame Hodan A. Hadji Mahamud

UNDP translation of the co-financing letter of the Ministry of Equipment and Transport of the Republic of Djibouti

Ms. Adriana Dinu
UNDP-GEF Officer-in-charge
304 East 45th St., 9th Floor, New York, NY, 10017 USA

Ms. Dinu,
Dear Madam,

This is to confirm the engagement of the Ministry of Equipment and Transport of the Republic of Djibouti to contribute to the co-financing of the project “Supporting rural community adaptation to climate change in mountainous regions of Djibouti”. We understand that the project is currently under formulation by UNDP and the Ministry of Habitat, Urbanism and Environment for funding under the Least Developed Countries Fund. Our co-financing will contribute to the achievements of results in Component 3 of the project by increasing the access to market for the rural communities of the Weima region.

The cash co-financing of our Ministry is estimated to be ten Million US \$ (10,000,000 US \$) for the period 2013-2015. This co-financing will take place under the implementation of our activities in the Northern part of the country.

This co-financing consists of the cash and in kind investments planned in the construction of the road Tadjourah-Balho which will remove the access constraint for the Adaillou village and other villages and will contribute to the achievements of the expected results of the project.

Yours sincerely

Translation undertaken and certified by UNDP

MINISTRE DE L'AGRICULTURE,
DE L'EAU, DE LA PECHE,
DE L'ELEVAGE
ET DES RESSOURCES HALIEUTIQUES

جمهورية جيبوتي
الوحدة - المساواة - السلام

وزارة الزراعة والتربية الحيوانية
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هاتف : ٣٥ ١٢ ٩٧
تلكس : ٥٨١١ ج
فاكس : ٣٥ ٣١ ٧٨ (٢٥٣)
ص.ب. ٤٥٣

LE COORDINATEUR DE L'UGP

e-mail : maem_baragoita@hotmail.fr

REF: 113.../146.../2014

Djibouti, 17 March 2014

Ms. Adriana Dinu
UNDP-GEF Officer-in-charge
304 East 45th St., 9th Floor, New York, NY, 10017 USA

Re: Co-financing for the UNDP LDCF project "Supporting rural community adaptation to climate change in mountainous regions of Djibouti"

Dear Madam,

This letter is to confirm the support of the PRODERMO project for the UNDP Least Developed Country Fund (LDCF) project **Supporting rural community adaptation to climate change in mountainous regions of Djibouti**. The PRODERMO project is a World Bank funded project which is aiming to increase access of rural communities to water and enhance their capacity to manage water and agro-pastoral resources in the project areas using a participatory approach to community-based development. The PRODERMO project will be implemented through three components which are:

1. Priority Community Investment Subprojects;
2. Capacity Building and Provision of Technical Assistance;
3. Project Coordination and Management.

Therefore there are great possibilities of synergies and complementarity between the two projects. On the basis of the complementarity of activities, the PRODERMO project will provide a cash co-financing contribution of 1.7 Millions US \$ to support the Component 1, Increased incorporation of climate change adaptation and adaptation finance in climate-resilient development planning at the national level and Component 3, Improved resilience to hydrological climate change risks, of the project of the LDCF project.

Yours Sincerely,

Baragoita Said Mohamed
Coordinator of the Project Management Unit



IGAD

**INTERGOVERNMENTAL AUTHORITY
ON DEVELOPMENT**

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**AUTORITÉ INTERGOUVERNEMENTALE
POUR LE DÉVELOPPEMENT**

Avenue Georges Clemenceau
P.O. Box 2653, Djibouti
Republic of Djibouti

Ref: ES30-217/117/14

Date: 27 February 2014

**Ms. Adriana Dinu
UNDP-GEF Officer-in-charge
304 East 45th St., 9th Floor,
New York, NY, 10017 USA**

Re: **Co-financing for the UNDP LDCF project "Supporting rural community adaptation to climate change in mountainous regions of Djibouti"**

Dear Madam,

This letter is to confirm the support and commitment of the IGAD Secretariat for the Least Developed Country Fund (LDCF) project *Supporting rural community adaptation to climate change in mountainous regions of Djibouti*. Through its Inland Water Resource Management Programme, (INWRMP) IGAD has the following complementary activities to the LDCF project:

- 1) Capacity reinforcement for the water sector;
- 2) Support for water-related initiatives and
- 3) Supporting flood preparedness with IGAD's Hydrological Cycle Observing System (HYCOS) project.

IGAD through the projects, INWRMP and HYCOS, is planning to invest around 230,000 USD in the construction of water infrastructures and deployment of hydrological stations in Guistir which is located in the same watershed of Assamo. These interventions will contribute to the achievements of the component 2 and component 3 of the UNDP LDCF project.

As mentioned above, the IGAD Secretariat will contribute to the overall objective of the LDCF Project by supporting climate-smart water management. We look forward to a close collaboration in the implementation of this important project.

Yours Sincerely,


Amb(Eng) Mahboub M. Maalim
Executive Secretary



Djibouti, 10 April 2014

Ms. Adriana Dinu
UNDP-GEF Officer-in-charge
304 East 45th St., 9th Floor, New York, NY, 10017 USA

Re: statement in US \$ of the EU cash co-financing letter issued in Euro

Dear Ms. Dinu,

UNDP Djibouti has received a co-financing letter from the local Delegation of European Union in Djibouti in support for the LDCF project "*Supporting rural community adaptation to climate change in mountainous regions of Djibouti*".

The EU delegation co-financing letter stated the amount of 9 Million **Euro**. Considering the UN operational exchange rate for the month of January 2014 (date of issuance of the letter), we estimate that the equivalent co-financing of the EU delegation in Djibouti to the project is at 12,413,793 US \$.

Yours sincerely

Nicole Kouassi
Deputy Resident Representative
UNDP Djibouti





Djibouti, 17 February 2014

Dear Ms. Dinu,

It is with pleasure that I confirm UNDP Djibouti's support for the LDCF project "**Supporting rural community adaptation to climate change in mountainous regions of Djibouti**" which was developed in close coordination with the Ministry of Habitat, Urbanism and Environment of Djibouti. The project is in line with UNDP country program document and action plan to support the government and rural communities of Djibouti to reduce vulnerabilities and adapt to climate change.

The UNDP Djibouti Country Office will be committing 3,160,000 \$ US of cash co-financing through its own resources (90,000 USD) and mobilized resources for projects in the areas of poverty reduction, disaster risk reduction and recovery, climate change adaptation, support to budget and planning (3070,000 \$ US). This support will contribute to the achievements of the results in the three components of the project.

I would like to ensure you the importance of this project for Djibouti and hope that it will be approved.

Yours sincerely

Nicole Kouassi
UNDP Resident Representative a.i



Ms. Adriana Dinu
UNDP-GEF Officer in Charge
304 East 45th Street, 9th Floor, New-York
Fax: +1212 906 6998

Annex 3c: Synergy between the LDCF2 and the LDCF3 financed projects

Expected Coordination between LDCF2 and LDCF3 financed projects		
	LDCF2 (UNEP managed)	LDCF3 (UNDP managed)
1	Reforestation of degraded wadi banks.	Component 2 also includes reinforcement of wadi banks with reforestation, re-vegetation and gabion placement. National expertise on how to best perform these practices can be shared between the two projects.
2	Nursery development to produce seedlings for reforestation.	Component 2 also includes nursery development, so the projects will collaborate to see if joint training sessions are feasible for the Tadjourah region. In addition, the projects can minimize costs of recruitment of national experts. The same national experts can be engaged for both projects at different time considering the different project regions.
3	Public awareness campaign on potential to reduce vulnerability to floods, droughts and desertification by conserving and restoring vegetation on wadi banks.	Component 3 will focus on building the capacity of the Local Risk and Catastrophe Management Committees (LRCMC) on drought and flood preparedness through awareness and training. As both projects consider the Tadjourah region, workshop costs can be consolidated by merging the awareness activities for the Tadjourah LRCMC.
4	Support sustainable agro-pastoralist practices including drip irrigation and the use of high quality inputs.	Component 3 will promote the same agro-pastoral sustainable practices. National expertise on how to best perform these practices can be shared between the two projects.
5	Financial training to use micro-finance loans to buy farmer input packages.	The LDCF3 financed project will facilitate the access of the rural mountain populations to micro-finance which can then be used to buy fuel-efficient cookstoves.
6	Increasing access to finance from local banks and MFIs so as to facilitate the marketing and transport of goods.	Both projects will focus on increasing access to micro-finance for their specific regions. Training and awareness costs can be consolidated for the Tadjourah region if possible.
7	Training of trainers in demonstration of agro-pastoral plots and learning-by-doing by demonstrating practices on the agro-pastoral plots	Component 2 includes the same training mechanism, so the trainers can be used in both sites. There will be cost savings for both projects when transportation and housing costs for the trainers are consolidated.
8	Promoting handicraft production with the assistance of the Tadjourah Women's Association.	Both projects will promote handicrafts. For the Tadjourah region, the Tadjourah Women's Association can assist both projects to develop this skill. With good coordination, the projects can save costs for artisanal workshops by consolidating training times.
9	Training local communities on the development of apiculture, aviculture and handicraft activities.	Both projects will promote these livelihood diversification activities. National expertise on how to best perform these practices can be shared between the two projects.

10	Training agro-pastoralists on rainwater harvesting technologies.	Both projects will reinforce the capacity of the communities to use rainwater harvesting techniques and practices. National expertise on how to best perform these practices can be shared between the two projects.
11	Hosting an inter-ministerial workshop on the NCCC.	Component 1's goal is to revitalize the NCCC. Both projects will support this goal, with more emphasis on its achievement in the LDCF3 financed project. A small amount of funds from the LDCF2 financed project will be used for the initial workshop of the NCCC. The LDCF2 financed project can then exploit the full development and capacity building of the NCCC and its Secretariat implemented by the LDCF3 financed project.
12	Establishing agro-pastoral management committees and agro-pastoral cooperatives.	Component 2 will focus on the complementary establishment of establishing Water Point and Catchment Management Committees. Lessons learned in establishing both agro-pastoral and water management committees will be shared between projects for future up-scaling. The Tadjourah coastal or near-coastal communities supported by the LDCF2 financed project will also be able to exploit the products and training provided by the Catchment Management Committee to be formed in the Tadjourah Weima watershed under the LDCF3 financed project. Products include best water management guidelines, maintenance tools and water quality kits.
13	Promoting market access for products in a timely manner.	The LDCF3 financed project will create a market in Tadjourah to facilitate products sales for the rural mountain regions. Coastal and near-coastal beneficiaries supported by the LDCF2 financed project can exploit the market to sell their own products.

Annex 4: Terms of Reference

A. Le Comité de Pilotage (Note de service)

Le Ministère de l'Habitat, de l'Urbanisme et de l'Environnement est l'Entité désignée pour l'exécution sur le terrain des activités du projet « développement des périmètres agropastoraux comme stratégie d'adaptation au changement climatique des populations rurales pauvres de Djibouti », et pour assurer un fonctionnement pertinent, mis en place un comité de pilotage du projet.

Ce Comité a pour mandat :

- ✓ Garantir la conformité du projet par rapport aux orientations stratégiques du pays en matière de sécurité alimentaire et de lutte contre le changement climatique ;
- ✓ Superviser et valider les plans de travail annuels et les exigences à court terme en matière d'expertise
- ✓ Superviser les activités du projet en assurant le suivi des progrès et en approuvant les rapports d'activités trimestriels, semestriels, les rapports annuels, la revue à mi parcours, l'évaluation finale et les rapports d'audit
- ✓ Suivre l'avancement du projet et prendre les mesures idoines pour résoudre les contraintes de mise en œuvre;
- ✓ Prendre acte des recommandations des rapports d'audits et veiller à leur mise en œuvre ;
- ✓ Réviser et approuver les plans de travail ainsi que les plans financiers et les rapports
- ✓ Fournir des conseils stratégiques aux institutions de mise en œuvre afin de garantir l'intégration des activités du projet dans les objectifs nationaux et infranationaux de résilience climatique et de développement durable ;
- ✓ Assurer une coordination inter-agences et une diffusion transversale des résultats stratégiques et d'appuyer la réplique des « bonnes pratiques » et leçons apprises par le projet pour les autres régions du Pays et pour d'autres pays;
- ✓ Assurer la pleine participation des parties prenantes aux activités du projet ;
- ✓ Aider à l'organisation des revues du projet et des contrats de prestation de services au titre de l'assistance technique ;
- ✓ Fournir des orientations au Coordinateur du Projet
- ✓ Exécuter toute tâche à lui confier par les ministères impliqués et les autres institutions.

Le Comité de pilotage dudit projet comprend les membres suivants :

- ✓ Un représentant de la Direction de l'Aménagement du Territoire et de l'Environnement;
- ✓ Un représentant de la Direction des financements extérieurs du ministère des finances ;
- ✓ Un représentant de la Direction des Grands Travaux (point focal) ;
- ✓ Un représentant du Centre de d'Etudes et de Recherche de Djibouti (CERD point focal) ;
- ✓ Un représentant du Secrétariat d'Etat à la Solidarité Nationale (point focal) ;
- ✓ Un représentant du Programme des Nations Unies pour le Développement (PNUD) ;
- ✓ Un représentant de la préfecture de Tadjourah ;
- ✓ Un représentant de la préfecture d'Ali-Sabieh ;
- ✓ Un représentant du Conseil Régional de Tadjourah ;
- ✓ Un représentant du Conseil Régional d'Ali-Sabieh.

La présidence du comité de pilotage est assurée par le Secrétaire Général du Ministère de l'Habitat, de l'Urbanisme et de l'Environnement ou son représentant

Le Coordinateur du Projet assure le secrétariat du comité de pilotage.

Le Comité de pilotage peut, s'il juge nécessaire, demander le concours d'institutions spécialisées, d'organismes du système des nations unies installés à Djibouti, et de toutes autres personnes morales ou physiques dont l'appui lui paraît utile.

Pour que la réunion se tienne, il faudra un quorum de 60% des membres.

Le comité de pilotage de pilotage se réunit deux fois par an en session ordinaire et autant de fois nécessaires en sessions extraordinaires.

B. Coordonnateur National de Projet (CNP)

L'Entité chargée de l'exécution du projet (MHUE) désignera un Coordonnateur National du Projet qui sera responsable de l'administration globale du projet. Le CNP rend compte au Ministère de l'Environnement (MHUE) et assure la liaison avec le PNUD. Le CNP sera logé au sein du MHUE et sera chargé de

- Contrôler et coordonner quotidiennement la mise en œuvre des activités du projet
- Recruter et superviser le personnel technique et le personnel chargé de la formation, tel que requis pour la mise en œuvre du projet
- Nouer et conserver des relations étroites avec les organismes étatiques compétents, le PNUD, les ONG, les sociétés civiles, les organisations internationales et les partenaires de mise en œuvre du projet
- Coordonner de manière optimale l'équipe du projet dans l'exécution de ses devoirs en assurant une utilisation efficiente et efficace des ressources
- Coordonner les intrants dans les plans de travail annuels axés sur les résultats et les cadres logiques, tel que requis par la direction.
- Procéder à la répartition annuelle du plan de travail pour l'ensemble des objectifs du projet; et préparer des plans de travail trimestriels.
- Coordonner les intrants dans tous les rapports de projet, tel que requis (incluant les rapports annuels sur le projet, le rapport initial, les rapports trimestriels et le rapport final)
- Élaborer des rapports de situation et financiers trimestriels pour commentaires et approbation par le Coordinateur du Projet
- Coordonner la mise en place d'équipes de travail sous-nationales.
- Organiser des réunions d'équipe annuelles pour partager les expériences et les enseignements tirés

C. Coordinateur du Projet (CP)

Le Coordinateur du Projet devra rendre compte au Comité de Projet et diriger l'équipe de projet dans la planification et la réalisation du projet. Le CP sera hébergé par le Ministère de l'Environnement et sera chargé de conduire le projet au quotidien au nom du Partenaire de mise en œuvre, selon les conditions établies par le Comité. La responsabilité principale du Coordinateur du Projet est d'assurer que le projet produit les résultats spécifiés dans le descriptif de projet, selon la norme de qualité requise et dans les limites imposées en matière de temps et de coût. Le CP sera responsable de la gestion financière et des décaissements, et sera tenu de rendre compte au gouvernement et au PNUD. Le CP se réunira chaque mois avec le Comité de Soutien Technique.

Responsabilités

- Assurer un partenariat efficace entre les bureaux sous-nationaux et les agences nationales participantes
- Gérer les ressources financières en collaboration avec le Coordonnateur national du projet (CNP) en vue de réaliser les résultats conformément aux produits et aux activités spécifiés dans le descriptif du projet
- Diriger l'élaboration et la mise en œuvre des plans de travail annuels axés sur les résultats et des cadres logiques, tels qu'approuvés par la direction

- Assurer la liaison avec les activités connexes et parallèles avec la coopération des ministères et des bureaux d'exécution
- Assurer le suivi des activités du projet, y compris des questions financières, et élaborer des rapports d'activités mensuels et trimestriels, et organiser des évaluations mensuelles et trimestrielles des progrès réalisés
- Appuyer le CNP dans l'organisation des réunions d'équipe et des conférences d'apprentissage
- Coordonner la répartition des rôles au sein de l'équipe et organiser les systèmes de contrôle et de suivi
- Rendre compte et fournir des retours d'informations sur les stratégies, les activités et l'avancement du projet ainsi que les obstacles rencontrés par Comité de Projet
- Organiser une réunion tous les trimestres avec le Comité de Soutien Technique

D. Assistant financier et administratif

Un assistant administratif et financier devra rendre compte au CNP et sera recruté par le Ministère de l'Environnement. Ses responsabilités seront les suivantes:

- Créer et mettre à jour les dossiers relatifs au projet et les systèmes de comptabilité tout en veillant à la compatibilité avec les procédures comptables financières du Ministère de l'Environnement et du PNUD
- Préparer les révisions budgétaires du projet et soutenir l'élaboration des plans de travail annuels
- Traiter les demandes de paiement à des fins de règlement incluant les avances trimestrielles aux partenaires de mise en œuvre à l'issue d'un examen conjoint
- Mettre à jour les plans financiers, élaborer des rapports de situation, des rapports d'étape et d'autres rapports financiers
- Procéder aux formalités de clôture financière du projet, notamment la présentation de rapports finaux, le transfert et la cession des équipements, le traitement des révisions semi-définitives, et le soutien à l'équipe professionnelle dans l'élaboration des rapports d'évaluation finaux
- Soutenir l'attribution des marchés dans des délais rapides et veiller aux autres droits admissibles au personnel, aux experts et aux consultants en préparant des plans de recrutement annuels.
- Recueillir et mettre à jour les informations relatives au projet et établir des procédures de contrôle des documents
- Administrer les réunions du Comité de Projet
- Administrer le contrôle des révisions du projet
- Produire, copier et distribuer tous les rapports de projet
- Fournir de l'aide dans l'utilisation du système ATLAS pour le suivi et le rapportage

E. Le Comité Technique (Note de service)

Le Ministère de l'Habitat, de l'Urbanisme et de l'Environnement est l'Entité désignée pour l'exécution sur le terrain des activités du projet « développement des périmètres agropastoraux comme stratégie d'adaptation au changement climatique des populations rurales pauvres de Djibouti », et pour assurer un fonctionnement pertinent, a mis en place un comité technique de pilotage du projet.

Ce Comité a pour mandat :

- ✓ Garantir la conformité du projet par rapport aux orientations stratégiques du pays en matière de sécurité alimentaire et de lutte contre le changement climatique ;
- ✓ Apporter une assistante technique au plan de travail annuel et aux différents programmes de travail trimestriels du projet;

- ✓ Superviser les activités du projet en assurant le suivi des progrès et en proposer des avis techniques ;
- ✓ Suivre l'avancement du projet et prendre les mesures idoines pour résoudre les contraintes techniques de mise en œuvre;
- ✓ Aider à une coordination technique des points focaux et une diffusion transversale des résultats techniques, d'appuyer la réplication des « bonnes pratiques » et leçons apprises par le projet pour les autres régions du Pays et pour d'autres pays;
- ✓ Assurer la pleine participation des parties prenantes aux activités du projet ;
- ✓ Aider à l'organisation des revues techniques du projet et des contrats de prestation de services;
- ✓ Participer aux activités de projet telles que la sélection des bénéficiaires du projet, le choix des sites de périmètres agropastoraux, aux différentes études, aux formations et la validation des différents ouvrages réalisés, des études et des formations;
- ✓ Fournir des orientations techniques au Projet ;
- ✓ Valider des Termes de Référence des études pour les consultants, la sélection des prestataires et aider la cellule du projet dans la préparation des dossiers d'appel d'offre ;
- ✓ Peut faire des recommandations des personnes ressources dont les compétences et les expertises sont nécessaires à facilitation de la mise en œuvre du projet.

Le Comité technique dudit projet comprend les responsables des points focaux suivants :

- ✓ Le Direction de l'Aménagement du Territoire, Directeur National du projet ;
- ✓ Le Directeur des Grands Travaux ;
- ✓ Un représentant de la Direction de l'Agriculture et des Forêts ;
- ✓ Un représentant de la Direction de l'Élevage ;
- ✓ Un représentant du Centre de d'Études et de Recherche de Djibouti (CERD) ;
- ✓ Un représentant de l'Agence Djiboutienne de Développement Sociale (ADDS) ;
- ✓ Un représentant de la Caisse d'Épargne et de Crédit (CEPEC) ;
- ✓ Un représentant du Programme des Nations Unies pour le Développement (PNUD) ;
- ✓ Le Coordinateur du Projet.

La présidence du comité Technique est assurée par le Directeur National du Projet, Directeur de l'Aménagement du Territoire et de l'Environnement.

Le Coordinateur du Projet assure le secrétariat du comité.

Le Comité technique peut, s'il juge nécessaire, demander le concours d'institutions spécialisées, d'organismes du système des nations unies installés à Djibouti, et de toutes autres personnes morales ou physiques dont l'appui lui paraît utile.

Le comité technique se réunit une fois par mois en session ordinaire et autant de fois nécessaires selon que les circonstances l'exigent.

F. Conseiller technique principal (CTP) (marché international, longue durée, 20 jours par an, les quatre derniers ans du projet)

Le CTP fournira des conseils techniques sur les différents aspects de la mise en œuvre du projet notamment les méthodes et approches appropriées pour les études de référence et d'évaluation, l'examen et l'utilisation du cadre stratégique de résultats pour contrôler le projet de manière efficace et tirer des enseignements et les contributions des autres consultants techniques. Le CTP fournira l'assurance-qualité technique des activités et résultats du projet. Le CTP travaillera en étroite collaboration avec le Coordinateur du Projet, le CNP, et le Comité Technique et rendra compte au Ministère de l'Environnement (MHUE).

Ses responsabilités incluent:

- Veiller à l'assurance qualité et procéder à l'examen technique des résultats et des activités du projet, surtout la construction des barrages en terre et des barrages sous-terrains.
- Fournir une assistance dans l'élaboration des TDR concernant les consultations techniques et la supervision des consultants recrutés
- Fournir une assistance dans le contrôle de la qualité technique des systèmes de suivi-évaluation du projet, notamment des plans de travail, des indicateurs et des objectifs annuels
- Fournir des conseils sur les approches et méthodologies les plus appropriées pour la réalisation des résultats et objectifs du projet
- Fournir une assistance dans la gestion des connaissances, la communication et la sensibilisation

G. Consultant Hydrologue, Termes de Reference pour l'étude technique pour la réalisation des ouvrages de retenions des eaux

Objet des études

L'objet des études est d'élaborer les dossiers d'Avant Projet Détaillés (APD) qui constitueront la base de travail pour la construction en régie administrative de six (06) ouvrages de retenions des eaux de pluies dans les régions d'Arta et d'Ali-Sabieh.

I. Fonction des ouvrages

Ces sont des ouvrages hydrauliques permettant la mobilisation des eaux de ruissellement. L'objectif principal est le développement agricole autour par des actions de mise en valeur agricole, utilisant rationnellement l'eau stockée.

II. Situation des sites à étudier

La première visite doit être effectuée en compagnie des techniciens de l'administration.

III. Contenu et phases des études

IV.1. L'étude préliminaire (A.P.S) :

Une première étude préliminaire confirmera dans une première étape le choix technique des sites des ouvrages de mobilisation des eaux en donnant les justifications relatives à l'opportunité socio-économique de ces ouvrages. Cette étude préliminaire sera enrichie par une étude d'aménagement antiérosif du bassin versant (BV).

Elle englobera trois volets, à savoir :

- les critères de caractérisation et d'identification physique du bassin versant,
- Une étude topographique détaillée,
- Une étude hydrologique détaillée de chaque bassin-versant (apports moyens et fréquents, débits fréquents, laminage des crues, apports solides et durée de vie de l'ouvrage).

Les caractéristiques géologiques de chaque site, de la fondation et de la cuvette ; seront fournies en une première phase avec une carte portant les coupes géologiques détaillées à une échelle convenable. A partir de ces données géologiques, l'attributaire fournira dans la phase APD, les résultats du programme de reconnaissance géotechnique permettant de dégager les principales caractéristiques géotechniques de chaque site

L'étude préliminaire (A.P.S) doit constituer un diagnostic de la situation actuelle au niveau du BV et du site des ouvrages. Il s'agira d'une situation de référence au niveau de laquelle doivent être précisées les principales caractéristiques suivantes :

- Apport annuel mobilisable,
- Rendement topographique,
- Géologie du site et de sa cuvette,
- Étanchéité du site et de sa cuvette,
- Matériaux d'emprunt,
- Description du milieu physique du B.V de l'ouvrage et de ses environs (climat, sol, pente, hydrologie, couvert végétal et occupation des sols, état actuel des ressources naturelles, érosion, ...),
- Les aménagements antiérosifs existants dans le bassin versant de la retenue.

Cette étude sera menée suite à une campagne topographique détaillée que le consultant mènera sur le terrain. Un plan côté à l'échelle 1/500 sera fourni (emprise de l'ouvrage, de la retenue et de l'évacuateur) avec une densité minimale de 150 points/hectare (ha).

Également, le consultant doit élaborer des cartes à une échelle convenable décrivant l'état de dégradation du bassin versant (formes d'érosion).

De plus, l'étude comportera un volet hydrologique détaillée de chaque bassin-versant (apports moyens et fréquentiels, débits fréquentiels, laminage des crues, apports solides et durée de vie de l'ouvrage).

IV.2. L'étude d'exécution (A.P.D) :

Dans une deuxième étape, et après validation de l'étude préliminaire par l'Administration du projet, le Consultant entamera l'étude d'exécution (A.P.D).

Chaque étude d'exécution devra comprendre deux parties :

- L'étude technique de l'ouvrage,
- Le dossier d'exécution de l'ouvrage.

a) APD phase 1 : L'étude technique de l'ouvrage :

Elle doit comprendre les éléments suivants :

- Un rappel de l'étude hydrologique détaillée de chaque bassin-versant,
- Un rappel des caractéristiques géologiques du site, de la fondation et de la cuvette avec un support cartographique à une échelle convenable.

A partir de ces données géologiques, un programme de reconnaissance géotechnique permettant de dégager les principales caractéristiques géotechniques est réalisé pour dégager et analyser :

- La stabilité du site et de sa fondation,
- L'étanchéité du site et de sa cuvette,
- Les quantités et qualité de matériaux d'emprunt nécessaire à la réalisation de la digue avec leur situation exacte sur un fond topographique (les reconnaissances topographiques et géotechniques complémentaires et nécessaires à l'étude d'exécution devront être réalisées par l'attributaire).

Les plans et volets suivant doivent faire partie intégrante de l'étude APD :

- Un plan côté à l'échelle 1/500 (emprise de la digue, de la retenue et de l'évacuateur avec une densité minimale de 150 points/ha).
- Un plan parcellaire couvrant la cuvette et les parcelles exploitables,

- Un plan d'ensemble des ouvrages à l'échelle 1/500,
- Une étude hydraulique détaillée
- Une étude de génie civil et stabilité détaillée, à savoir :
 - Coupe type de l'ouvrage à l'échelle 1/100 avec le système de protection et de drainage,
 - Détail de la tour de prise et de la chambre de commande (plan de coffrage et de ferrailage à l'échelle 1/50 ou 1/20),
 - Détail de la conduite de vidange (dimensions, génie civil, plan de ferrailage),
 - Évacuateur de crue (calculé pour une période de retour de 50 ans) :
 - Profil détaillé à l'échelle 1/200,
 - Détail des ouvrages (chute, bassin de dissipation, seuil à l'échelle 1/50).

Tous les paramètres donnés, formules utilisées et détails de calcul doivent figurer dans le texte, essentiellement :

- La conception définitive des ouvrages de mobilisation et des ouvrages annexes avec tous les plans et coupes détaillées permettant à l'Administration du projet de négocier et de passer les contrats d'exécution en régie administrative,
- Un planning des travaux et moyens de réalisation (humains et matériels) nécessaires à ces travaux,
- Un devis estimatif détaillé et le bordereau des prix pour chaque site retenu.

a) APD phase 2 : Le dossier d'exécution de l'ouvrage

Après achèvement et approbation de la phase APD, le Consultant procédera à l'établissement des plans d'exécution.

IV. Rapports

Les études se dérouleront en deux phases qui seront soldées chacune par un rapport:

- Élaboration des A.P.S : le rapport relatif à chacun des ouvrages proposés pour étude sera soumis à l'approbation de l'Administration du projet qui disposera de 10 jours pour communiquer ses remarques et observations à l'attributaire. L'attributaire disposera également de 10 jours à compter de la réception de ces remarques et observations pour soumettre les documents définitifs.
- Élaboration des A.P.D : après réception et approbation des documents définitifs des A.P.S par l'Administration du projet, l'attributaire démarrera les études A.P.D. Des réunions périodiques seront tenues avec l'Administration du projet pour rendre compte de l'état d'avancement des études. Les rapports seront soumis à l'approbation de l'Administration du projet qui disposera de 10 jours pour communiquer ses remarques et observations à l'attributaire. L'attributaire disposera également de 10 jours à compter de la réception de ces remarques et observations pour soumettre les documents définitifs.

Tous les rapports, en version provisoire et en version définitive, seront établis en cinq exemplaires et rédigés en français.

V. Durée pour l'établissement de l'étude

La durée globale fixée par l'Administration du projet pour l'établissement de l'étude est de **150 jours (cent cinquante jours)**. Ce délai ne tient pas compte du temps mis par l'Administration du projet pour formuler ses commentaires sur les différents rapports.

L'Administration du projet pourra si nécessaire échelonner les prestations en privilégiant l'exécution de l'étude de certains sites par rapport à d'autres. Cette démarche est de nature à permettre le

démarrage des travaux de construction des ouvrages pour ces sites pendant la finalisation de l'étude pour les sites restants.

Le cachet de l'Unité de Gestion du Projet fait foi pour toutes les dates des échanges et des transmissions des documents entre les deux parties.

VI. Engagements de l'Administration

L'Administration du projet fournit au Consultant retenu toutes les données, tous les documents et informations qu'elle a à sa disposition. Elle lui prête le concours que le Consultant peut demander en vue de l'acquittement de ses obligations dans le cadre de l'étude.

H. Expert en Etude d'impact environnemental et social, Termes de Reference, ÉTUDE D'IMPACT ENVIRONNEMENTAL ET SOCIAL DU PROJET DEVELOPPEMENT DES PERIMETRES AGROPASTORAUX COMME STRATEGIE D'ADAPTATION AU CHANGEMENT CLIMATIQUE DES POPULATIONS PAUVRES DE DJIBOUTI

Les tâches de cette EIES sont de:

- Décrire le projet proposé en fournissant une description synthétique des composant espertinentes du projet et en présentant des plans, cartes, figures et tableaux.
- Identifier le cadre politique, légal et administratif dans lequel s'inscrit le projet.
- Définir et justifier la zone d'étude du projet pour l'évaluation des impacts environnementaux et sociaux.
- Décrire et analyser les conditions des milieux physique, biologique et humain de la zone d'étude avant l'exécution du projet. Cette analyse doit comprendre les interrelations entre les composantes environnementales et sociales et l'importance que la société et les populations locales attachent à ces composantes, afin d'identifier les composantes environnementales et sociales de haute valeur ou présentant un intérêt particulier. L'accent doit être particulièrement mis sur l'analyse de la qualité des eaux, les impacts de l'utilisation des intrants agricoles et zootechniques, des pratiques agropastorales sur la nappe phréatique et l'environnement, les attentes des populations et la prise en compte des indicateurs socioéconomiques de référence de la zone du projet.
- Présenter et analyser les solutions de rechange au projet proposé, incluant l'option "sans projet", en identifiant et en comparant les solutions de rechange sur la base de critères techniques, économiques, environnementaux et sociaux.
- Pour la solution de rechange sélectionnée, identifier et évaluer l'importance des impacts potentiels environnementaux et sociaux négatifs et positifs, directs et indirects, à court et à long terme, provisoires et permanents, sur la base d'une méthode rigoureuse.
- Définir les mesures appropriées d'atténuation et de bonification visant à prévenir, minimiser, atténuer ou compenser les impacts négatifs ou à accroître les bénéfices environnementaux et sociaux du projet, incluant les responsabilités et les coûts associés.
- Identifier les risques des changements climatiques sur les différentes composantes du projet et proposer des mesures d'adaptation appropriées pour améliorer la résilience climatique du projet;
- Examiner les impacts cumulatifs potentiels en tenant compte des autres initiatives prévues dans la zone d'étude.
- Développer un Programme de suivi environnemental et social, incluant des indicateurs, les responsabilités institutionnelles et les coûts associés.
- Identifier les responsabilités institutionnelles et les besoins en renforcement des capacités, si nécessaire, afin de mettre en œuvre les recommandations de l'évaluation environnementale et sociale.
- Conduire des consultations auprès des parties prenantes afin de connaître leurs opinions et leurs préoccupations par rapport au projet. Ces consultations doivent se tenir pendant la préparation du rapport de l'EIES afin d'identifier les principaux enjeux et impacts environnementaux et sociaux,

ainsi qu'après la préparation du rapport préliminaire de l'EIES afin de recueillir les commentaires des parties prenantes sur les mesures d'atténuation et de bonification proposées.

- Préparer le rapport de l'EIES conformément au contenu typique du PNUD.
- Préparer un Plan de gestion environnementale et sociale (PGES) conformément au canevas du PNUD. Ce plan de gestion doit être présenté dans un document distinct au rapport de l'EIES.
- Organiser la validation du document par les parties prenantes.

Enfin le rapport de l'étude d'impact comprendra de façon non limitative les parties suivantes :

- a) Un résumé non technique
- b) Le cadre juridique, réglementaire et institutionnel ;
- c) La description du Projet
- d) La description des conditions environnementales initiales des différents sites du programme ;
- e) La qualification et la quantification des impacts (positifs ou négatifs), compte tenu des conditions environnementales et de type de travaux programmés ;
- f) Les mesures d'atténuation des impacts
- g) Le Plan de Gestion Environnementale et Social (PGES)
- h) Un programme de suivi ;
- i) Estimation des coûts pour les différentes mesures correctives et de protection
- j) Annexes
- k) Liste des références

Profil du consultant

Le consultant est un cabinet d'études qui devra mettre en place une équipe composée d'un expert en évaluation environnementale, chef de mission et d'un expert en évaluation des impacts sociaux des projets. Le chef de mission doit avoir au minimum un Master dans les disciplines en rapport avec le travail demandé : Evaluation Environnementale, Eaux et forêt, Agriculture/Agronomie, Planification, Sciences de l'Environnement, Développement International, hydrologie ou hydrogéologie ou toute autre discipline connexe. Il doit justifier d'au moins 10 ans d'expérience en évaluation environnementale et d'au moins deux expériences de chef de mission d'EIES. L'expert en évaluation des impacts sociaux doit avoir au minimum un Master en sociologie, socio-économie, agro-économie ou toute autre discipline connexe. Il doit justifier d'au moins 10 ans d'expérience en évaluation des impacts sociaux des projets de développement. Les deux experts doivent être familiers avec les procédures du PNUD en matière d'évaluation environnementale et sociale. L'équipe doit contenir en son sein un hydrologue barragiste ou hydrogéologue familier des ouvrages de mobilisation des eaux de surface et des eaux souterraines.

Durée de l'étude et rapports

Pour l'EIE, le Consultant présentera, dans le délai les rapports suivants :

- une semaine sera consacrée aux travaux de terrain pour le démarrage de l'étude;
- dans un délai de six (6) semaines après la date de notification, un rapport provisoire en six (6) exemplaires ;
- dans un délai de 2 semaines suivant la date de transmission de l'ensemble des observations par les parties prenantes et le projet, un rapport définitif en six (6) exemplaires et qui fera l'objet d'une validation au cours d'un atelier qui sera organisé par le Ministère de l'Habitat, de l'Urbanisme et de l'Environnement.

Le rapport d'EIE sera présenté en format A4 et doit être complet.

I. Consultant Hydrologue Barragiste, Termes de Référence

Objet de l'étude

L'objectif de la consultation est d'appuyer sur le plan technique l'équipe du CERD et de la Direction des grands travaux dans la conception, la réalisation et la supervision des ouvrages de mobilisation des eaux de surface.

Les objectifs spécifiques sont de :

- Confirmer le choix technique des sites d'implantation des ouvrages de mobilisation des eaux et l'étude d'aménagement antiérosif du bassin versant ;
- Valider l'étude technique des ouvrages en relation avec l'étude hydrologique détaillée de chaque bassin-versant, les caractéristiques géologiques des sites, de la fondation et de la cuvette avec un support cartographique à une échelle convenable ;
- Valider les dossiers d'exécution des ouvrages.

Tâches du consultant

L'hydrologue barragiste se prononcera sur la qualité et la représentativité de la documentation disponible, et de vérifier si la conception des ouvrages est conforme aux règles de l'art et aux conditions locales. Il analysera et fournira à l'équipe des avis et recommandations notamment par :

- Vérification des calculs de la conception des digues en terre, de percolation, des bassins de rétention et des barrages sous terrains en tenant compte d'un environnement sismique ;
- Vérification de l'étanchéité des barrages et les conditions de fondation du barrage ;
- Analyse des données hydrologiques des bassins versants de Petit et Grand Bara ;
- Modélisation hydrologique et hydraulique des barrages et calculs pour déterminer la capacité optimale de la retenue, les débits de crue etc. ;
- Conception et dimensionnement des barrages en terre avec ou sans bassin de rétention, des évacuateurs de crues et sécurité d'exploitation ;
- Vérification des caractéristiques des matériaux envisagés pour la construction, en particulier des agrégats et des liants pour le béton des barrages afin de prévenir des impacts négatifs sociaux ou environnementaux des ouvrages ;
- Analyse si nécessaire de la stabilité des ouvrages dans des conditions de charge normales, rares ou extrêmes avec les coefficients de sécurité correspondants ;
- Elaborer un calendrier prévisionnel, phasage des travaux et contrôle des eaux ;
- Suivi du phasage des travaux et de leur conformité avec le calendrier hydrologique.
- Vérification des résultats des contrôles des matériaux de remblai et des matériaux constituant les bétons ;
- Etude des scénarii de la disponibilité des ressources en eau, de la demande et des scénarii de la disponibilité en eau des bassins versants de petit Bara et grand Bara ;
- Participera à une évaluation des impacts des ouvrages en collaboration avec un cabinet d'études d'impacts environnementale et sociale ;
- Elaborer un rapport de mission.

Résultats attendus

- Le choix technique des sites d'implantation des ouvrages de mobilisation des eaux ;
- L'étude technique des ouvrages en relation avec l'étude hydrologique détaillée de chaque bassin-versant, les caractéristiques géologiques des sites, de la fondation et de la cuvette avec un support cartographique à une échelle convenable est validé ;
- Les dossiers d'exécution des ouvrages sont validés ;
- La conception et le dimensionnement des barrages en terre avec ou sans bassin de rétention, des évacuateurs de crues et sécurité d'exploitation approuvés ;
- Vérification des caractéristiques des matériaux envisagés pour la construction, en

particulier des agrégats et des liants pour le béton des barrages afin de prévenir des impacts négatifs sociaux ou environnementaux des ouvrages est réalisée;

Etude des scénarii de la disponibilité des ressources en eau, de la demande et des scénarii de la disponibilité en eau des bassins versants de petit Bara et grand

Bara réalisée ;

Des appuis conseils ont été apportés ;

Un rapport de mission est établi.

Profil du consultant

Le consultant doit être de formation ingénieur hydrologue ou hydraulicien (Bac + 5) ayant au moins 10 ans d'expériences dans la conception et la réalisation des ouvrages de mobilisation des eaux de surface dans les régions arides et semi-arides d'Afrique. Il doit être familier des questions de salinité et d'alcalinité des eaux et des sols et doit maîtriser l'analyse des eaux d'irrigation à buts agricoles. La connaissance de l'hydrologie de la République de Djibouti serait un atout.

Durée de la consultation

Le consultant fournira à l'équipe du projet ses analyses des documents qui lui sont soumis et émettra des recommandations dans des délais compatibles avec le calendrier du projet pour qu'elles puissent être effectivement prises en compte par l'équipe projet.

Toutes les interventions du consultant feront l'objet d'un rapport provisoire qui sera soumis à l'équipe du projet qui dispose de 15 jours ouvrables pour consulter ses partenaires et transmettre ses observations au consultant qui dispose de 21 jours ouvrables pour finaliser son rapport.

Tous les rapports du consultant seront rédigés en français. La durée de la consultation charge est estimée à 60 hommes/jours pour la période de mai à août 2013 durant la conception et la réalisation des ouvrages.

L'Administration du projet pourra si nécessaire échelonner les prestations en privilégiant l'exécution de l'étude de certains sites par rapport à d'autres. Cette démarche est de nature à permettre le démarrage des travaux de construction des ouvrages pour ces sites pendant la finalisation de l'étude pour les sites restants.

Le cachet de l'Unité de Gestion du Projet fait foi pour toutes les dates des échanges et des transmissions des documents entre les deux parties

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L'Administration du projet fournit au Consultant retenu toutes les données, tous les documents et informations qu'elle a à sa disposition. Elle lui prête le concours que le Consultant peut demander en vue de l'acquittement de ses obligations dans le cadre de l'étude

Coût

Les calculs seront faits en fonction des jours de travail effectifs. Les frais tiendront en compte les coûts liés aux différents déplacements et hébergement du consultant.

Chronogramme

La prestation se déroulera de façon suivante :

- une semaine sera consacrée à l'exploitation de toute la documentation pour le démarrage de l'étude après signature du contrat;
- dans un délai d'une semaine après chaque mission, un rapport provisoire est fourni ;
- dans un délai de 2 semaines suivant la fin de contrat, un rapport de l'ensemble de la prestation est fourni et les observations de l'équipe de projet sont intégrées trois semaines après par le consultant.

Présentation de l'offre du consultant

Le consultant présentera son offre en deux variantes :

- variante 1 : Telle que définie par le présent terme de référence :
- variante 2 : Dans cette variante le consultant assumera l'exécution directe de l'ensemble des prestations définies dans le présent terme de référence et l'administration du projet en collaboration avec ses partenaires (CERD, Direction des Grands Travaux) n'aura qu'un rôle de vérification et d'approbation du travail du consultant.

Documents à fournir lors de la remise de l'offre

Le consultant transmettra une offre technique et financière lors de la manifestation d'intérêt.

J. Recensement du bétail

A. Mission

Objectif :

Dans le cadre du Programme de développement agropastoral des régions d'Adailou et d'Assamo, il est préconisé de mieux connaître l'effectif du bétail (et leurs différents mouvements) utilisant les parcours et points d'eau des trois zones couvertes par ledit programme. Ceci en vue de mieux évaluer la capacité de charge des différents parcours et le besoin en eau du bétail utilisant les points d'eau.

Durée de la mission :

Période :

B. Rappel

1. les données sur l'effectif du bétail au niveau national sont obsolètes
2. le Programme de développement de l'agropastoralisme couvre 2 zones du pays à savoir la sous préfecture d'Adailou et une partie de la sous préfecture d'Assamo. Ce Programme a pour objectif global d'améliorer les conditions de vie des communautés pastorales en promouvant une gestion durable des ressources naturelles.
3. Il se propose de promouvoir la mobilisation des eaux de surface pour les personnes et pour les animaux afin de lutter contre la soif des populations et de permettre une meilleure répartition de la charge animale en facilitant l'accès à des pâturages actuellement peu exploités par manque d'eau. Le programme souhaite favoriser le déplacement des éleveurs afin de diminuer la charge animale dans les zones fragilisées par le surpâturage. Les pâturages ainsi soulagés pourront faire l'objet de mesures favorisant leur régénération ainsi que la conservation des eaux et des sols.
4. Les éleveurs ayant leur point d'attache dans ces zones sont naturellement la population cible de ce programme. Cependant, les populations ayant leur point d'attache en dehors de ces zones, mais qui les utilisent traditionnellement lors de leur transhumance sont aussi considérées comme des populations-cibles du programme et devront être incluses lors de l'élaboration des schémas d'aménagements hydrauliques et pastoraux.

C. Taches du consultant

Sous la supervision du coordinateur du programme, assisté par les coordinateurs régionaux, le consultant sera chargé de :

- faire une revue bibliographique ;
- identifier les besoins en ressources humaines et matérielles pour la bonne exécution de l'enquête ;
- proposer une méthodologie de l'enquête de recensement du bétail (fiche d'enquête,
- identification des périodes optimales ;
- proposer un planning pour la mise en œuvre de l'étude ;
- recenser le bétail des 3 zones du programme sur 2 périodes de l'année

- enregistrer les mouvements du bétail aussi bien dans les zones du programme qu'à l'extérieur de ces zones. Ceci sur au moins 2 périodes de l'année ;
- traiter les données recueillies ;

D. Résultats attendus

- une méthodologie pratique de recensement du bétail est mise en place
- le Ministère de l'agriculture dispose des données actualisées sur l'effectif du bétail utilisant les 3 zones
- un rapport de mission est fourni

E. Documents à produire

- un rapport final bien illustré (carte)

K. Analyse des rapports sociaux et des règles gérant l'utilisation des ressources naturelles

A. Contexte

Le Programme de développement agropastoral des régions d'Adailou et d'Assamo souhaite promouvoir une modification des modes de gestion des ressources naturelles par les populations pastorales de Djibouti. Afin d'intervenir de façon pertinente, le programme réalisera une série d'études techniques afin de mieux comprendre les systèmes d'élevage existant dans les différentes zones d'intervention.

Toutefois, la connaissance précise des systèmes d'élevage en zone aride nécessite la compréhension des règles d'usage des ressources naturelles, en particulier pour l'accès à l'eau et aux pâturages. De plus, une compréhension des rapports sociaux existant au sein des communautés, en particulier entre les hommes et les femmes et entre les jeunes et les plus vieux, notamment pour les prises de décision et le contrôle des règles, est un enjeu essentiel pour la définition des stratégies d'intervention du programme.

B. Objectifs de l'étude

L'étude a pour objectif de donner une analyse des règles actuelles d'usage des ressources naturelles ainsi que des rapports sociaux dans les sociétés rurales des 2 zones du programme.

Tâches du consultant

Sous la supervision du coordinateur du programme, assisté par les coordinateurs régionaux, le consultant sera chargé de :

- faire une revue de la bibliographie existante sur le sujet (concernant principalement Djibouti) ;
- Réaliser des enquêtes de terrain dans un échantillon de communautés représentatif de la diversité culturelle et anthropologique existant dans les sociétés pastorales de Djibouti ;
- Décrire et analyser, pour chaque communauté, les règles actuelles de gestion des ressources naturelles ainsi que leur évolution récente ;
- Décrire, pour chaque communauté, les possibilités d'évolution de ces règles et les stratégies que le programme pourrait utiliser pour promouvoir la régénération des terres de parcours ;
- Analyser, pour chaque communauté, les rapports sociaux existants, notamment la place des femmes et des jeunes dans les prises de décisions ;
- Evaluer, pour chaque communauté, les stratégies les plus pertinentes qui pourraient être mises en œuvre pour favoriser la participation de l'ensemble de la communauté à l'élaboration des schémas d'aménagement.

D. Documents à produire

Un rapport final bien illustré

L. Enquête zootechnique

A. Mission

Objectif :

Dans le cadre du Programme de développement agropastoral des régions d'Adailou et d'Assamo, il est préconisé de mieux connaître les différents paramètres zootechniques des différentes espèces (chèvre, mouton, dromadaire et bovin) utilisant les parcours et points d'eau des trois zones couvertes par ledit programme. Cette enquête de base sera une référence pour les étapes futures notamment lors de l'évaluation de l'impact du programme sur la productivité du bétail.

Durée de la mission :

Période :

B. Rappel

1. réactualiser les paramètres zootechniques pour les animaux domestiques.

2. Programme de développement pastoral couvre les sous prefectures d'Adailou et Assamo appartenant respectivement aux régions de Tadjourah et d'Ali-Sabieh. Ce Programme a pour objectif global d'améliorer les conditions de vie des communautés pastorales en promouvant une gestion durable des ressources naturelles.

3. Il se propose de promouvoir la mobilisation des eaux de surface pour les personnes et pour les animaux afin de lutter contre la soif des populations et de permettre une meilleure répartition de la charge animale en facilitant l'accès à des pâturages actuellement peu exploités par manque d'eau. Le programme souhaite favoriser le déplacement des éleveurs afin de diminuer la charge animale dans les zones fragilisées par le surpâturage. Les pâturages ainsi soulagés pourront faire l'objet de mesures favorisant leur régénération ainsi que la conservation des eaux et des sols.

4. Les éleveurs ayant leur point d'attache dans ces zones sont naturellement la population cible de ce programme. Cependant, les populations ayant leur point d'attache en dehors de ces zones, mais qui les utilisent traditionnellement lors de leur transhumance sont aussi considérées comme des populations-cibles du programme et devront être incluses lors de l'élaboration des schémas d'aménagements hydrauliques et pastoraux.

C. Taches du consultant

Sous la supervision du coordinateur du programme, assisté par les coordinateurs régionaux, le consultant sera chargé de :

- faire une revue bibliographique ;
- identifier les besoins en ressources humaines et matérielles pour la bonne exécution de l'enquête ;
- proposer un planning pour la mise en œuvre de l'étude ;
- caractériser les différents systèmes d'élevage pratiqués dans les zones du programme
- évaluer les différents paramètres zootechniques pour chacune des espèces domestiques élevées ;
- définir la structure et le dynamisme du troupeau
- à partir des connaissances empiriques des éleveurs donner une idée des différentes races au sein de chacune des espèces domestiques ;
- traiter les données recueillies ;

D. Résultats attendus

- les paramètres zootechniques des zones d'étude sont mieux connus
- un rapport de mission est fourni

E. Documents à produire

Un rapport final bien illustré

Annex 5: References

Ahmed, Dr. Nabil Mohamed, *National Capacity Self Assessment 2008, Plan d'Action National pour le Développement des Capacités en matière de Gestion Durable de l'Environnement en République de Djibouti* Novembre 2008,

<http://www.thegef.org/gef/sites/thegef.org/files/documents/document/Djibouti%20final%20report.pdf>

Barkat, Abdellah, *Pastoral Development Programme for the Regions of Assamo and Adailou, National Expert report*, July 2013.

Bassi, A.M. and P.N.K. Deenapanray, *Chapter 4 -A Green Investment Analysis using System Dynamics Modeling – the case of Mauritius*. Economic Review and Basic Statistics, 16(12): 256–265 2012.

Buhl, S. *Gender equality? No! What do Fulbe women really want?* In Homewood, K. (ed.) *Rural Resources and Local Livelihoods in Africa*, James Currey, Oxford, pp. 137- 154 2005.

Decan Association *Protected Area of Assamo, Saving the Beira Antelope. Aire Protégé d'Assamo, pour la sauvegarde de Dorcatragus megalotis (Antilope Beira)*, Djibouti 2011.

Deenapanray, P.N.K. Chapter from *Energy Policy Modeling in the 21st Century*, Springer Press, 2012.

Deenapanray, P.N.K. and A. Bassi *The Experience of ISLANDS in Deploying System Dynamics Modeling as an Integrated Policy Tool*. Natural Resources Forum. 2014. DOI: 10.1111/1477-8947.12037

DifferGroup, *Light Our Fire: Commercializing Clean Cookstove*, 7 November 2012.

Eriksen, S., J.T. Klein Richard, K. Ulsrud, L.O. Naess, K. O'Brien. *Climate Change Adaptation and Poverty Reduction: Key interactions and critical measures, GECHS Report 2007*.

Eriksen, S., Brown, K. and Kelly, P.M. *The dynamics of vulnerability: locating coping strategies in Kenya and Tanzania*. The Geographical Journal, 171(4): 287-305 2005.

FAO (2008), *Overview of Main Water Harvesting Systems*:
<http://www.fao.org/docrep/U3160E/u3160e03.htm>.

GFDRR, *Evaluation des Dommages, Pertes et Besoins Suite à la Sécheresse Post Disaster Needs Assessment: Drought*, Oct. 2011

Global Alliance for Clean Cookstoves, *Scaling Adoption of Clean Cooking Solutions through Women's Empowerment*. 2013 www.cleancookstoves.org

Global Alliance for Cookstoves, *Clean Cookstoves and Climate Change*. 2013:
www.cleancookstoves.org

Irawan S, Heikens A, Petrini K (2012) *National Climate Funds: Learning from the experience of Asia-Pacific countries*. UNDP Discussion Paper.

MHUE *Stratégie et Plan d'Action pour la mise en œuvre de la Grande Muraille Verte à Djibouti (SGMVD)* March 2011.
http://www.fao.org/fileadmin/templates/great_green_wall/docs/Djibouri_Document_de_startegie_et_plan_d_action_final.pdf

FAO *Highlands and Drylands, Mountains a source of resilience in arid regions* 2011.

Joint National Action Plan in the Pacific (JNAP), *Development and Implementation in the Pacific: Experiences, Lessons and Way Forward*, SPREP, 2013.

Ministry of Natural Resources, *National Adaptation Programme of Action on Climate Change*, Somalia 2013

MHUE and UNHCF project report, *Environmental Rehabilitation Project*, Projet: Accord N°42 /2012/1061009/DJI, ABC/PILLAR1/12021/1900/1DJIB/PF 2013.

MicroEnergy International *Opportunities and Challenges in Micro-financing Improved Cooking Stoves*, Berlin 2008.

Mountain Partnership, *Why Mountains Matter for Climate Change Adaptation and Disaster Risk Reduction, A call for action on the Sustainable Development Goals (SDGs)* Jan 2014.

Mountain Partnership, *Why Mountains Matter for Forests and Biodiversity, A call for action on the Sustainable Development Goals (SDGs)* Jan 2014.

Ministry of Habitat, Urbanism and Environment, Djibouti *National Adaptation Programme of Action*, July 2007.

Government of the Republic of Zambia, Ministry of Tourism, the Environment and Natural Resources, *National Climate Change Response Strategy*, December 2010.

Perrin, J. Study on rural hydraulic works in Adailou «*Appui Technique à la finalisation du catalogue HIMO en milieu rural, Dibouti. Rapport d'Etude sur l'Amenagement Rural et Petits Hydrauliques. Mission Adailou*, 21 Mars - Avril 2012.

Stephens, Tim *Manual on Small Earth Dams, A Guide to Siting, Design and Construction*, FAO, 2010

Stockholm Environment Institute (2013), *Assessing the Climate Impacts of Cookstove Projects: Issues in Emissions Accounting*, Stockholm, Sweden.

Thrash and Derry (1999), *The nature and modelling of piospheres: a review: African Protected Area Conservation and Science*, Vol 42, p.73-94.

Transparency International, *Global Corruption Report 2011*.

UNEP *Managing Fragile Ecosystems: Sustainable Mountain Development*, 2012.
<http://www.unep.org/Documents.Multilingual/Default.asp?DocumentID=52&ArticleID=61>

Verner, Dorte, *Adaptation to a Changing Climate in the Arab Countries*, MENA Development Report, World Bank 2012.

UK Department for International Development (DFID) *Review of the use of 'Theory of Change' in International Development* Review Report by Isabel Vogel, April 2012.

UNDP Sep 2011. *Blending Climate Finance Through National Climate Funds A Guidebook for the Design and Establishment of National Funds to Achieve Climate Change Priorities*

World Bank, *Natural Disaster Hotspots: A Global Risk Analysis*. 2005.

World Food Programme. *Evaluation de la Sécurité Alimentaire en Situation d'Urgence en Zone Rurale, République de Djibouti*, July 2003.

Annex 6: Stakeholder Involvement Plan

1. The stakeholders identified during project preparation will continue to be involved in project implementation. A stakeholder involvement plan has been created to provide a framework to guide interaction between implementing partners and the key stakeholders, particularly end-users to validate project progress. All stakeholders involved in the baseline self-capacity assessment will be addressed again in order to track the efficacy of stakeholder capacity building, both operationally and technically. Also, the women's interest organizations (the Women's Association of Tadjourah and the National Women's Union) will continue to be involved and consulted in order to ensure women are properly properly trained and engaged. These gender-focused NGOs/CSOs will conduct the gender-disaggregated survey to ensure women develop skills to diversify their livelihoods and are involved in decision-making.

2. During implementation, the communication and consultation process will be divided into three main phases:

3. Phase 1 – Developing a strategy and action plan:

This is the mobilization phase in the first year of the project. The details of the activities and implementation structures will be designed, partnerships for action will be forged and stakeholder engagement will focus around these design processes. The Environmental Impact Assessment and the Technical Studies will take place simultaneously during the first 6 months.

4. Phase 2 – Consultation through implementation:

This is the main implementation phase where investments will be made on the ground in the target areas and stakeholder consultation about engagement will focus on output-oriented actions.

5. Phase 3 – Project completion and scale-up promotion:

The third and final phase represents the completion of the project. The plans for scale-up and long-term sustainability of the LDCF investments will be developed. Consultation will focus on learning, bringing experience together and looking at processes for continued post-project impact.

6. Specifically, in Phase 1, Technical Studies will begin from the project's inception. The studies are planned to take place during the first 2 quarters of the project, in which technical experts will collect data from the field and gather indigenous knowledge. After the first quarter, suitable sites for retention basins, micro-dams and boreholes will be identified. Based on the sites identified, LDCF funds will be used to conduct an Environmental Impact Assessment on the project design to validate the appropriateness of the sites and to provide mitigation plans for any expected environmental and social impacts. The local populations in Adailou and Assamo, as well as surrounding populations, will be consulted to obtain data to conduct the EIA. Ultimate locations for construction works will be determined throughout the third and fourth quarters based on conclusions from the technical studies, EIA, and consensus among the local populations and the technical Ministries.

7. At the beginning of the project, overarching criteria to determine training beneficiaries will be well-defined. A specific beneficiary selection group composed of community heads and representatives from the technical ministries (Ministry on the Environment, Ministry of Agriculture and ADDS) will be created to conduct the field consultations to see how local customs should be used to determine beneficiary selection criteria.

8. As indicated in Activity 3.2.9, a socio-economic survey (disaggregated by gender) will also take place during Phase 1. The survey will be used to obtain baseline data on livelihood diversification schemes supported through the LDCF3 financed project

9. In Phase 2, public consultations will become more of an ongoing exchange of information where there will be two main purposes:

- To gather information from beneficiaries and stakeholders about the impact and effectiveness of the planned water mobilisation (micro-dam, reservoir, cistern, well and shallow well

placement) and training strategies (Training of Trainers or lead farmers on-the-farm, demonstration plots); and

- To provide interested Government and donor stakeholders and the general public with information about the progress and impact of the project as it is implemented.

10. Phase 3 will be a process of ensuring completion, hand-over and long-term sustainability of the LDCF investment. Consultation will focus on bringing experience together, sharing key lessons-learned (through the UNDP Adaptation Learning Mechanism (ALM) and other forums) and looking at processes for promoting scale-up of this project in order to build the resilience of more rural mountain rain-fed farmers and pastoralists.

Overall, the types of consultation mechanisms to be used include:

- Meeting with the former members of the National Climate Change Committee to obtain lessons-learned;
- Preparation meetings with NGOs/CSOs to confirm their roles in project implementation;
- Initial consultation meetings in target regions to discuss appropriate water mobilisation strategies;
- Initial field surveys to develop selection criteria to choose the lead farmers and pastoralists who will receive training;
- Initial consultations to choose the Water Point and Catchment Management Committees;
- Meetings with regional government officials to determine how to best reinforce their capacities in drought and flood preparedness;
- Initiation of public awareness campaign on sustainable agro-pastoral and pastoral practices;
- Public awareness campaign on community-based drought and flood management;
- Periodic information briefings for government and co-financing institutions on activity development;
- Monitoring and evaluation campaigns.

Annex 7: Decree of the National Climate Change Committee

Arrêté n°99-0277/PR/MATETA portant création du Comité Directeur National des Changements Climatiques

LE PRESIDENT DE LA REPUBLIQUE, CHEF DU GOUVERNEMENT

VU La constitution du 15 septembre 1992 ;

VU Le décret n°91-0059/PR/PM du 11 mai 1991 créant le Comité National pour l'Environnement ;

VU Le décret n°96-007/PR modifiant et complétant le décret n°91-050/PR/PM du 11 mai 1991 ;

VU Le décret n°97-0191/PRE du 28 décembre 1997 portant remaniement des membres du Gouvernement et fixant leurs attributions ;

SUR Proposition du Ministre de l'Environnement, du Tourisme et de l'Artisanat ;

ARRETE

Article 1er : Il est créé un Comité Directeur National des Changements Climatiques dont le rôle est de :

- Superviser toutes les activités liées aux Changements Climatiques au niveau national et encadrer l'équipe de gestion de projet.
- Donner une orientation générale sur les actions à mener dans le domaine des Changements Climatiques.
- Assurer la coordination des structures institutionnelles en charge des problèmes liés aux Changements Climatiques.

Article 2 : Le Comité Directeur National des Changements Climatiques comprend un représentant des Directions, Services, Institutions et Associations suivants :

- Direction de l'Environnement
- Secrétaire Générale du Ministère de l'Énergie
- Direction de l'Électricité de Djibouti
- Service de l'Agriculture et des Forêts
- I.S.E.R.S.T
- Service Technique du District
- Service de la Météorologie
- C.R.I.P.E.N
- Service d'Hygiène et d'Épidémiologie
- Une O.N.G travaillant dans le secteur de l'Énergie ou du Développement Rural

Article 3 : Le Comité Directeur National des Changements Climatiques sera présidé par le Directeur de l'Environnement et travaillera sous l'autorité du Comité Technique pour l'Environnement. Le président du Comité pourra faire appel en cas de besoin, à toutes les institutions ou personnes compétentes, notamment les partenaires au développement.

Article 4 : Le Secrétariat Technique du Comité Directeur National des Changements Climatiques sera assuré par l'Unité des Changements Climatiques au sein de la Direction de l'Environnement en étroite collaboration avec le Service de la Météorologie.

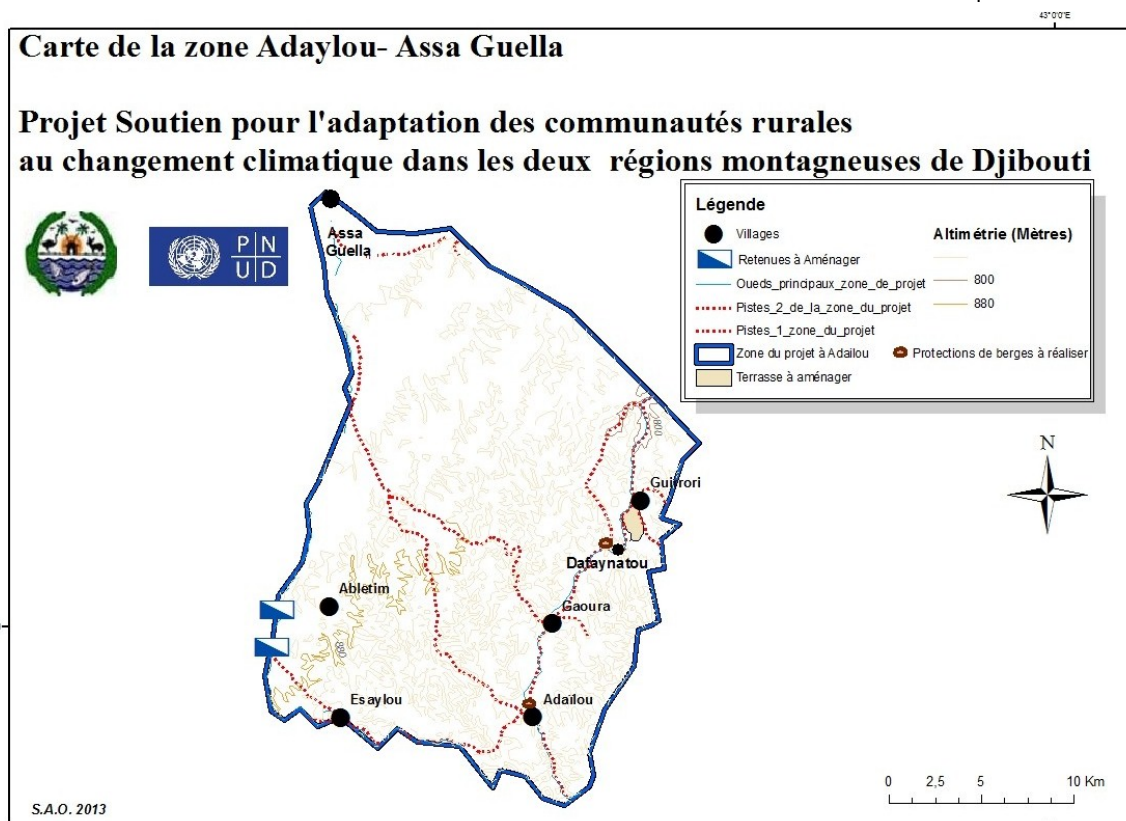
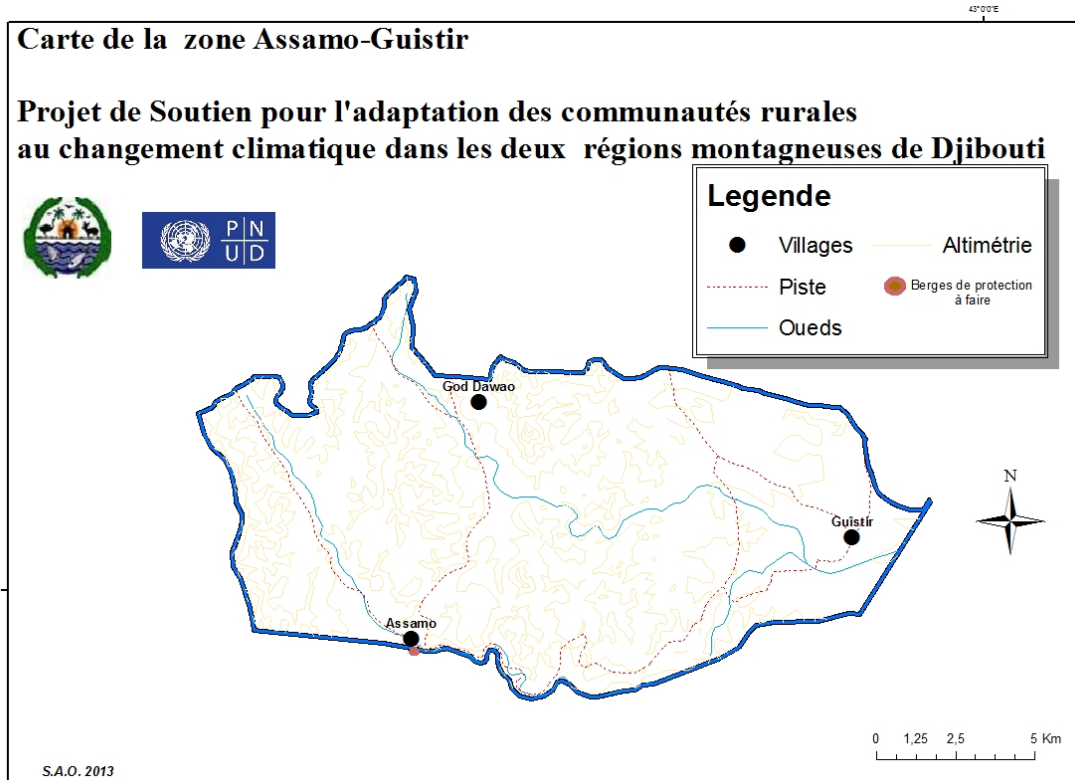
Article 5 : Le présent arrêté sera enregistré, publié et exécuté partout où besoins sera.

Fait à Djibouti, le 11 mai 1999

Par le président de la République,
chef du Gouvernement

ISMAIL OMAR GUELLEH

Annex 8a: Maps of Assamo (top) and Adailou (bottom) including wadi locations



Annex 8b: Proposed Rain Gauge Networks for Assamo and Adailou

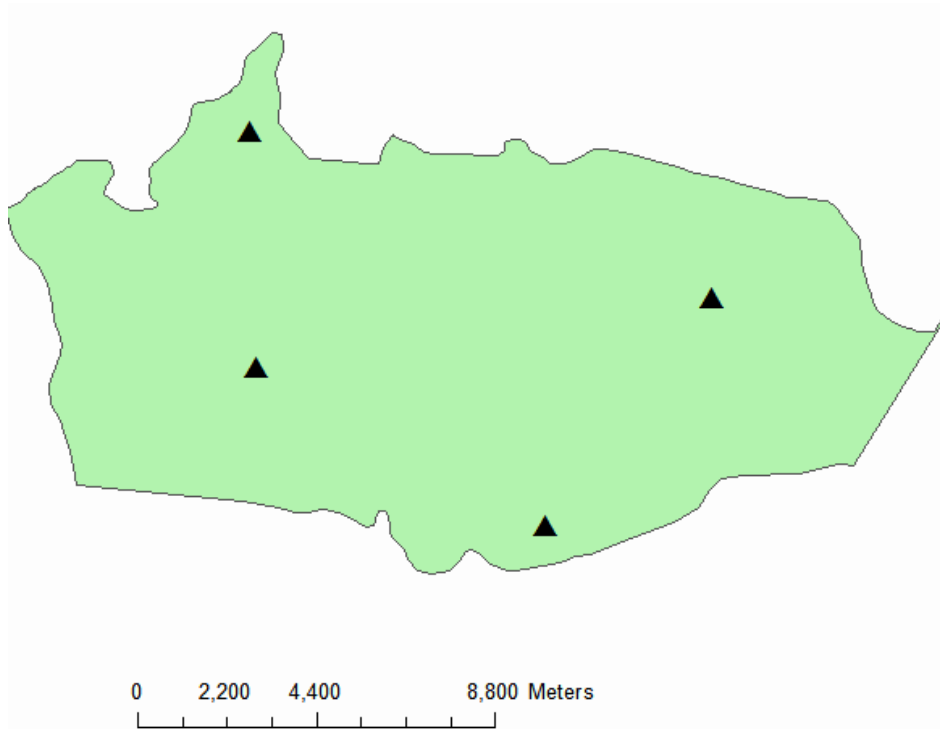


Figure 1, Annex 8b, Proposed network of rain gauges in Assamo

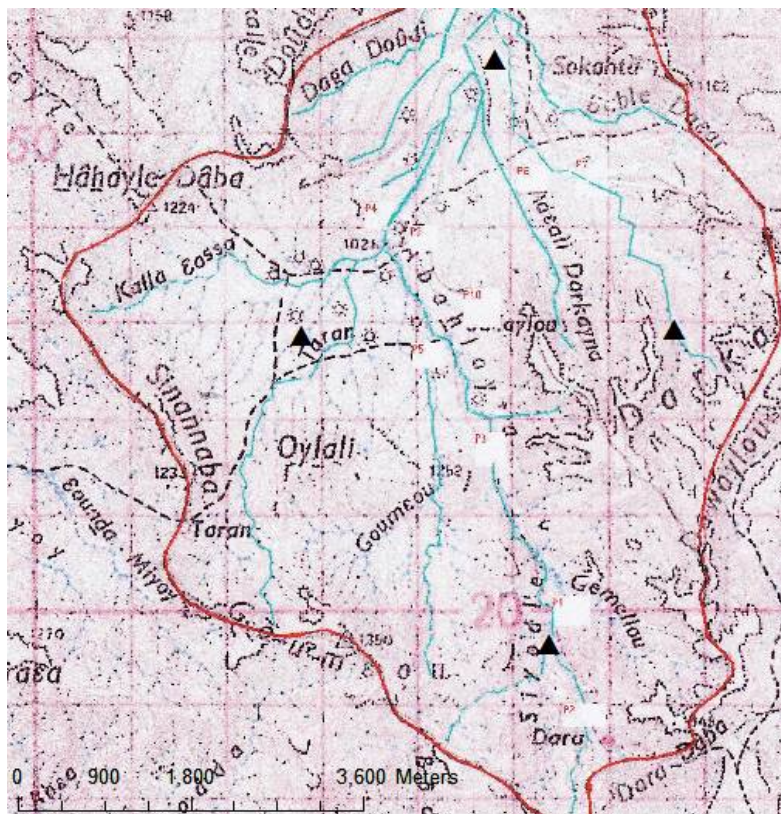


Figure 2, Annex 8b, Proposed network of rain gauges in Adailou

Annex 8c: Site Visit Photos



Figure 1 : Almost dry shallow well with primitive pulley system



Figure 2: Solar power well outside of Adailou



Figure 3: Canal system feeding into covered reservoir outside of Adailou



Figure 4: Existing private agricultural plot near Assamo



Figure 5: Reforestation site: Adailou



Figure 6: Chicken coup near Assamo (attempt at aviculture)

Annex 8d: Stakeholder Consultation Meeting Minutes

12 au 14/06

Etaient presents :

- Abdoulmalik Med Banoita : prefet de Tadjourah
- Aden Atteye : consultant national
- Houssein Rirache : Directeur de l'environnement
- Samatar : consultant national
- Simon Badji : VNU forestier
- Hassan Houssein president du conseil régional de Tadjourah
- Abdallah Barkat : consultant national
- Mme Clara : consultant international
- Kamil Moukoula mahamadé : élu local du conseil régional

Le préfet nous informe que la région comprend 4 sous préfectures et le chef lieu. Il préconise des formations pratiques sur le terrain aux producteurs et une concurrence saine entre les régions. L'arrondissement d'Adailou étant vaste il propose que les secteurs de Guirori et Adoila fassent partie du projet et nous fait accompagner par un élu local de la région.

Il affirme qu'un forage est en cours pour alimenter en eau le village d'Adailou. L'AEVA

M. Rirache indique le projet concerne les secteurs d'Assamo et d'Adailou et comprend les composantes suivantes : améliorer la gestion durable des terres et de l'eau, réactiver le comité national du changement climatique, mettre en place un comité de gestion de l'eau par bassin versant.

Le préfet indique que l'AEVA s'occupe déjà d'un projet de nutrition, de la collecte des ordures ménagères.

13/06

Tadjourah – Adailou

Visite d'un jardin à Essalou

Le jardin d'Ali Kamil est irrigué à partir du forage et n'a pas de bassin propre. Sont cultivées : les fourrages –chloris, sudan grass), les oignons, piment, pastèque. Les fourrages se vendent bien.

A Essalou, Il y a 4 exploitations et 7 autres sont en cours.

Les cultures suivantes sont aussi observées : manguiers, citronniers

Les Dabamela habitent dans la zone.

Un bassin alimente le petit village D'Essalou et celui d'Adoila.

Visite d'Alai Madag, mise en défens de près de 12 km². La régénération de l'Acacia etbeica est observée malgré la période de sécheresse. La mise en défens a bénéficié du cash for work pour près de 4,5 millions. Des travaux de CES sont entrepris pour lutter contre l'érosion hydrique et favoriser l'infiltration de l'eau de ruissellement. En plus de l'Acacia etbeica, le buis et le genévrier.

Un gardien a été payé sur le projet mais maintenant « food for work » et du bénévolat avec la contribution de l'association. Il y a 3 petites retenues d'eau de près de 200 m³.

Réunion avec les représentants des populations

Rirache : les activités éligibles pour ce projet de changements climatiques sont l'eau volet très important, activités génératrices de revenu et le volet formation.

Président de l'AEVA : nécessité de résilience face aux effets de la sécheresse.

Med Seho : compte tenu du déficit en eau important, le puits d'Adailou a tari d'où nécessité d'infiltration de l'eau de ruissellement. Il y a nécessité de mettre en place les retenues d'eau, citerne enterrée, forage. Périmètre agro-pastoral

Ismael Houmed : president de la coopérative de Dafeynaitou

L'eau c'est la vie. Il n'y a pas eu de pluie regulier depuis 5 ans.

Necessiter de mettre des travaux de CES pour améliorer l'infiltration. Il y a au total 50 exploitations agricoles dans la vallée d'Adailou. Entre Gawra et Guirori l'eau est disponible mais il y a un besoin de rehabilitation des puits, équipement en moyen d'exhaure economique (le panneau solaire), aménagement de bassin et fourniture d'outillage agricole.

Protection des berges en vue de limiter les degats lors des crues violentes.

Formations dans la conduite des productions vegetales et animales

Pour ceux pratiquant l'agro-élevage, il y a nécessité d'un conseil en habitat, abreuvoir, mangeoir.

petite antilope « oreotrague » est recensée dans la zone.

Ali Adab : notable

Pluie rare mais le peu d'eau reçu se perd par ruissellement d'où la nécessité de mettre en place des micro-seuil. Il y a l'urgence aussi pour sauver les animaux restants.

Med Houmed

Aujourd'hui nous sommes convaincu de l'interet des travaux CES/DRS et de la mise en defens à l'exemple d'Alai Madag. L'approvisionnement constitue une urgence.

Ali Hamadou : piste d'accès à Himisso pour l'aménagement de points d'eau et desenclavement pour notamment evacuer les malades.

Ahmed Ambassa : secteur de Diri

Problème d'accès à l'eau, puits trop profond non équipé en panneau solaire. A l'origine ce puits a été construit par une dame ayant reçu une médaille de la main du président.

C'est le seul point d'eau entre Assa Gayla et Adailou.

Il est nécessaire de mettre en place un ouvrage de protection du puits, d'équiper le puits en panneau solaire. L'ADDS a réhabilité le puits et a construit.

Hassan Yassin Guirori

L'eau est une urgence. Nécessiter de fournir un camion citerne pouvant approvisionner en eau les secteurs sans eaux.

Là où il y a de l'eau les actions suivantes sont proposées : amélioration de l'exhaure, accès à l'eau, hygiène de l'eau, appuyer les perimètres agricoles.

Pour le secteur sans eau : creusement de forage, aménagement des ouvrages de retention d'eau.

La formation pratique est necessaire pour améliorer la productivité agricole.

Ahmed Med Ali : notable de Dafeynaitou

Le premier facteur limitant est l'eau ensuite il y a la pauvreté. Ensuite il y a la santé des jeunes et des animaux où il y a beaucoup de mortalité.

La vision de l'AEVA :

- Aménagement du bassin versant
- Trouver une solution acceptable au problème de l'eau : forage, puits, citerne y compris le moyen d'exhaure
- Etude de la situation de l'eau dans la région
- Doter les zones de paturage en point d'eau
- Identifier les sites favorables à l'implantation des perimètres agro-pastoraux
- Preservation de l'environnement à travers les mises en defends et les travaux de CES/DRS
- Activités generatrices de revenu et micro credit
- Mettre en place un local où sera organiser les activités de formation.

Après avoir listé ces besoins il sera nécessaire de prioriser ces besoins en tenant compte du budget disponible.

Reunion avec les femmes au nombre de 7

L'eau de boisson devient rare au village d'Adailou où cette denrée rare est rationnée et certains tentent de s'approvisionner la nuit.

Certaines exploitantes souhaitent les outillages agricoles, la formation en agriculture et la fourniture de moyen d'exhaure économique car des femmes arrosent à la main un petit lopin de terre.

Pour initier les activités génératrices de revenu il faut notamment investir dans un atelier de couture, boulangerie solaire, le foyer amélioré, l'artisanat.

14/06

Le puits d'Adailou presque tari d'où le rationnement de l'eau (4 jerrican de 25 l/j par ménage) surtout en période d'été où il y a un afflux des vacanciers en provenance de Djibouti.

Ad Houmed Ela puits exposé à l'érosion hydrique d'où un besoin de rehabilitation. Une étude hydrogéologique nécessaire.

Un forage est en cours en aval du village mais l'ancien forage italien est sans eau.

Garbaad léboda puits nécessite une protection.

Dafeinatou :

jardin d'Ismael : arboriculture fruitière (mangue, goyave, citronnier, datte)

Les espèces locales se trouvent aussi dans son jardin : Righozom somalense, Balanites aegyptiaca, Salavadora persica,

Il pratique de l'élevage au sein de l'exploitation avec aussi des moutons de Moussa Ali, une vache laitière.

Le fourrage se vend bien avec 500 Fd un sac de 50 kg et 1000 Fd/sac de 100 kg

Les agro-éleveurs ont besoin de formation

Guirori : nécessité de rehabiler les puits et réservoir d'eau d'irrigation, mettre en place un réseau d'irrigation

Exploitation Ali Afkada ; 1 ha, palmier dattier, élevage des moutons et chèvres mais pas assez de cultures fourragères

27/06

La sous préfecture couvrira une superficie de plus de 1 000 km² et les communautés suivantes l'utilisent : Ablé, Haissamalé, Farka, Adokom, Mafa, Adaali, Dahimela

Le plateau de Garbaadlé Boda un PAP est possible à condition de trouver de l'eau (forage). Une soixantaine de ménages sont au environ. Il y a aussi un espace propice au PAP en aval.

Nécessité d'une pépinière pastorale à mis chemin peut être à Gawra.

Jardin de Ibrahim Loubak :

1,5 ha 2 système d'exhaure : solaire et moto pompe

Formation en technique de séchage des fourrages pour éviter de pertes d'éléments nutritifs

L'exploitation élève des chèvres au sein de l'exploitation vend des fourrages mais aucun stock n'est en place pour son élevage

La méthode de compostage n'est pratiquée par aucun exploitant alors que le fumier est abondant et il y a un besoin de fertilisation des parcelles cultivées.

Lieu dit Oud Ganga un PAP est possible pas loin de Tikiblé alt 800 m

Un autre PAP à Darma

Lieu dit Hargui en face du forage en cours PAP est possible

L'aviculture familiale est préconisée

Travaux CES en courbe de niveau et le long des bras des oueds

Sur la route d'Assa Guayla se trouve Dirri qui est une zone pastorale où il n'y a pas assez d'eau pour la valoriser. Cette zone est habitée par les Mafa et les Ablés.

Possibilité de mettre en place des citernes enterrées, puits

Si forage à Diri possibilité de PAP

Le puits de Diri est le seul point d'eau pastoral entre Assa Gayla et Adailou, il a été réhabilité par l'ADDS mais ne possède aucun moyen d'exhaure. D'où la nécessité de l'équiper en panneau solaire et mettre en place une galerie drainante. Près d'une centaine de ménage utilisent ce point d'eau sans compter les transhumants.

La zone de Diri est assez boisée et bien préservée.

Un puits pastoral est sollicité à Tikiblé Af

Retenue d'eau de Silal Miéa envasée, l'emprise d'eau n'est pas aménagée nécessité de réhabilitation

Rencontre de l'Okal général du secteur d'Assa Gayla

La soif est le premier problème

Dans la région les travaux de CES/DRS seraient très utiles pour lutter contre les ravinements et améliorer les parcours. Il évoque la présence d'une faille où une déviation est souhaitée.

Le parcours d'Ayladou est une zone pastorale mais son accès est réglementé. Il est possible de mettre en défens un secteur donné mais cela nécessite la concertation avec les communautés.

Zone de contact entre les assayahmara et adoyahmara d'où notre souci d'équité lors de la programmation des activités d'un projet.

Possibilité d'un PAP à Maguido à condition de mettre un forage (eau à 60 m)

Essalou 1 forage pour un PAP

Près de 1000 ménages dans le secteur d'Assa Gayla

Micro barrage à Harssali

Possibilité de puits à Kakomita, wabeyta, tibidiha, Makahi

PV reunion du 28 juin 2013 apres midi

Etaient presents :

- Abdallah Ahmed Ali eleveur de Goumeou secteur rive gauche de l'oued Adailou prolongement vers la partie
- Ali Adoita med eleveur et enseignant coranique de Taran secteur rive gauche de l'oued Adailou
- Houed ahmed ali : notable sectreur garbaad le boda, 70 menages

Goumeou 40 ménages et Taran 27 ménages

Effectif du bétail : 10 à 20 chèvres par ménages **voir les données récoltées par Saleh plus complète.**

Revenu : vente de charbon de bois et du bois de chauffe en cas d'actif suffisant possibilité de faire près de 60 sacs de charbon de bois en 1 mois ou moins et cela peut suffire à subvenir aux besoins alimentaires de base pour 2 ménages.

Bon fourrage : graminée halwan, bidou, guiniamo, ississou, farahya, durfu, askena, hamo

Arbuste : heda, assia ado, halaweli,

Axe de trashumance :

pendant le karma: Ala adou, Doda,

pendant la saison fraiche : vers la zone cotière : dafo,

commentaires d'un éleveur : en terme d'arbuste fourrager l'acacia assak produit +sieurs fois dans l'année : fleurs, feuillage mais les gousses une fois par an.

L'acacia tortilis semble talonnée l'assak. Ces arbustes fourrager peuvent etre cultivés sur exploitation agricole.

Mise en defens comme Alay madag disponible car les terres de parcours sont déjà limité mais necessité de concertation entre les usagers mais travaux de CES/DRS possible et necessaire.

Revenu : M. Adoita est kabir donc minimum 1000 Fd/mois/jeune donc près de 15 000 Fdj environ par mois, vente de lait si disponible 300 Fd/1,5 l gros ruminants et 250 Fd/1,5 l chèvre

Repartition des taches au sein du ménage dans la journée :

Le chef de ménage : M. Adoita de 8 h à 17 h coran, matin aide sa femme et en fin d'apres midi : recherche du bois de chauffe verifie si tous en ordre et recherche d'eau la nuit si necessaire.

La femme du chef du ménage : ouverture et traite des chèvres, envoie du troupeau du ménage du campement, petit dejeuner, garde de chèvres en cas de besoin, préparation du repas, recherche de l'eau et du bois de chauffe.

Le 28/06 adailou – Adoila - Essalou – Afaré - abletim

Secteur d'Essalou 150 ménages avec en moyenne 20 à 30 chèvres/ménage

Communautés : Dabaméla, Haissamalé, Ablé (Data)

Hamadou Ahmed : notable

A Afaré : 10 ménages en cette période de secheresse, secteur assez boisée avec une steppe arbustive Fosse pour citerne enterrée necessitant la construction, ancienne retenue envasée et ouverte Bouhlé, enfin Kadid Dorra envasée

mouvement : axe aila adou mais les autres viennent de Diri, Essalou

Abletin : rencontre avec M. Abdallah Ali Ibrahim

2 citernes enterrées : 1 contruite par un projet et l'autre individuel avec dimension respective : 12mx6mx3m et petite

Mouvement : Mabla, Fodo

Grand problème d'eau depuis l'été dernier. La citerne a été approvisionnée une fois en eau par un camion militaire

Ont l'habitude de proteger les jeunes pousses d'arbustes avec un muret et du bois mort mais maintenant tous est sec bas besoin de mise en defens. Pour la mise en defens d'un parcours necessité de concertation avec les autres usagers.

Les animaux elevés par ordre d'importance : les chèvres, camelins, moutons et vaches

20 ménages voir ds le decompte d'Essalou et environ

Effectif elevé : 30 à 100 chèvres/ menage

Mouvement du bétail ; Aila Adou, Assa gayla, Dorra (piste interieur de Dorra) vers l'ouest et le Mabla vers l'est, Abletin, Essalou, Randa

Le secteur d'Aila Adou est paturé par la plupart des Adoyahmara : Ablé, Haissalé Dabaméla, Roukbak dermela, Ad'ali

Scolarité des enfants ; une partie est scolarisé les autres s'occupe des animaux

En double

Adailou – Essalou

M. Hamadou Ahmed nous accompagné

Près de 150 ménages avec 20 à 30 chèvres/ménage

Dabaméla, Haissamalé et Ablé

Lieu dit Afaré citerne enterrée avec mise en place de la fosse necessite la contruction

Retenue d'eau envasée à Bohlé à rehabiliter

Ableitim

2 Citerne enterrées en place

20 à 30 chèvres avec que dromadaires par ménage

Axe de transhumance : Ayla adou - Dorra – Assa Gayla

29/06

Jardin Dafeynaitou

10 à 20 sacs de fourrage/mois à raison de 500 Fd/sac

Ismael a démarré les cultures fourragères il y a 3 ans, il eleve : 16 moutons, 12 chèvres et 3 vaches depuis 1 an

Emploi 3 salariés à raison de 10 000 Fd/pers + alimentation

20 litres d'essence/mois car panneau solaire ne couvre pas le besoin du perimètre

Recette : 40 000 Fd pour les oignons, 30 000 Fd pour les fourrages, souhait d'accroître la superficie des fourrages

Gawra

Petite exploitation pratique des cultures fourragères à cause de la dégradation des parcours. Les chèvres conduites au sein de l'exploitation sont en meilleur état alors que les chèvres utilisant les parcours ne sont pas productives et sont morbide.

Maladies suivantes sont rencontrées : pneumonie, tique, maladie nutritionnelle

En ce moment même le dromadaire animal le plus résistant meurt à cause du manque de fourrage

Assamo

04/07

Les exploitations agricoles vont de près de Rahlé Higlé jusqu'à Hadaw

Il y a une 50 taines de jardin dans la vallée d'Assamo

7 bras d'oued à aménager en amont du village

Necessiter d'équiper en solaire le puits alimentant l'école et le village avec galerie drainante.

Le goyavier produit 3 à 4 mois alors que le manguier ne produit qu'une seule fois

Le site de production est éloigné du marché surtout pour le melon, pastèque, goyave

Sur la route de Guestir

Oued Dousseyé, puits Doussa Gadmoun, El Goud

Oued Assamo El Dagaassé approvisionne bcp d'éleveurs et leur animaux près de 60 familles

Entretien avec le vieux M. Megané Doualé Bahdon à Guestir

- El Goud sans eau
- Pas d'eau entre El Goud et El Doussayé
- Guestir un puits
- Kidil assé un puits

Le vieux est soucieux de la préservation des pâturages car la multiplication des points d'eau entraîne la dégradation des bon parcours.

Il est favorable pour les travaux de DRS/CES dans l'objectif de régénération. Les zones suivantes peuvent être concernées : Gadowlé madob et Assé, Hagarbarré, Inda were, Roble Awl

L'effectif des animaux varient entre 5 à 100 chèvres avec 5 à 15 têtes de dromadaires par ménage

Nima Said Obsieh

Jardin de 2 ha

4 x 4 panneaux solaires. Dimension d'1 panneau : 50 cm x 90 cm, une moto pompe

Près de 140 arbres de Goyavier, manguier
La culture fourragère plus importante que le fruit
Pas de possibilité de stockage et éloignement du marché
Pas de compostière

Aviculture et apiculture

Le panneau solaire fait 1,5 jour pour remplir le bassin de 50 m³

2 salariés 20000 FD/mois/per plus alimentation

Alimentation : près de 30 000 FD/mois

Recette goyage :

- 2 mois : 15 j x 5000 Fd
- 1 mois : 15 000 Fd x 15 j
- 1 mois : 5 000 Fd x 15j

Fourrage : 120 000 Fd

Chèvre : 0,5 l/traite sans le petit

Micro seuil au niveau des zones pastorales

Possibilité de mise en défend devant son campement mais mise en défend en general pas possible

Maladie animale : tique, aphte (virus), gale, pneuemonie et petit ruminants

Micro seuil : Assowé omar, Boholey, Golhoul, Icha Asse, Armalé

Mouvement du bétail : Ethiopie, Somalie et secteur d'Ali-Sabieh

Formation entretien panneau solaire, ennemie des cultures, techniques cultures, irrigation

Possibilité de promouvoir l'énergie eolienne

Travaux à grande intensité de main d'œuvre

Annex 8e: Location Map showing AfDB (BAD), PROMES and PRODERMO projects



Annex 9: Environmental and Social Screening Procedure

Please see the signed Environmental and Social Screening Procedure attached.