



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: Adailou 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
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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).

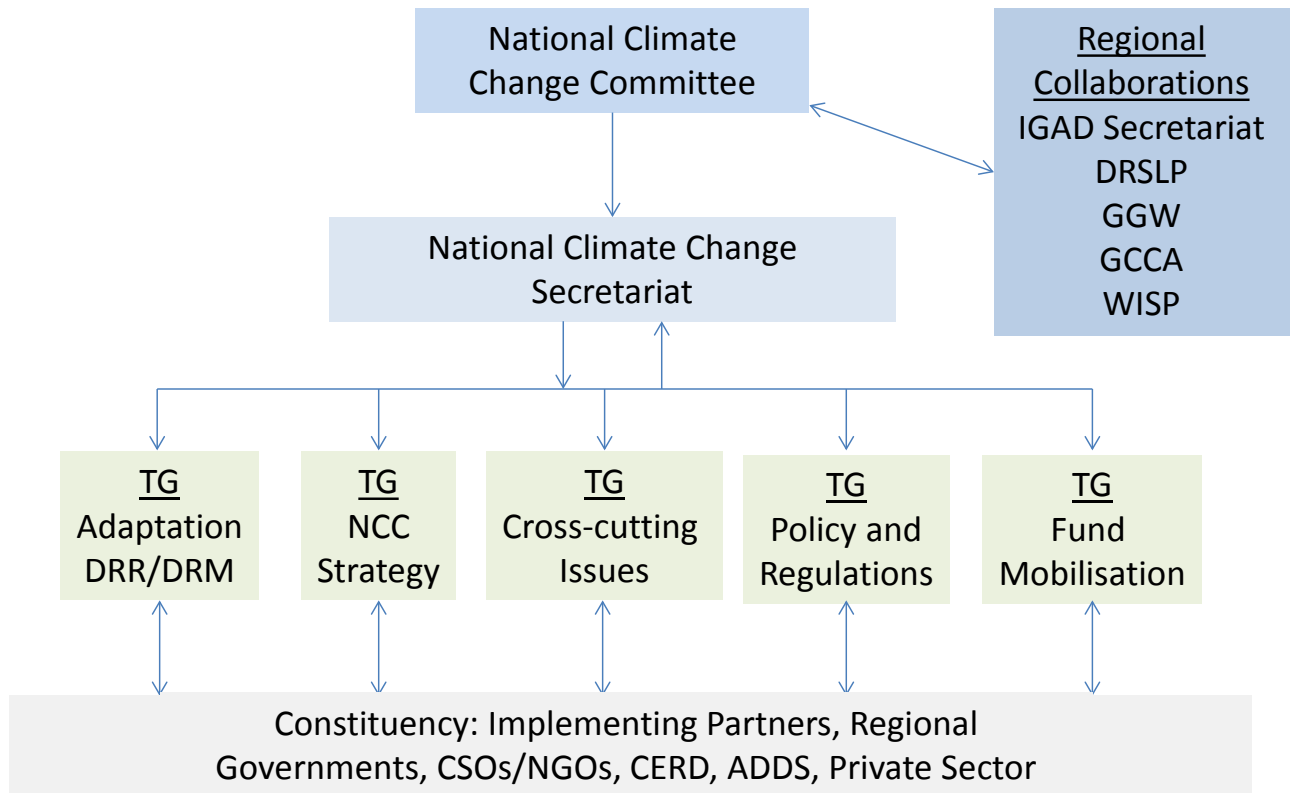


Figure 1: Proposed arrangement for the National Climate Change Committee of Djibouti. Note: ‘TG’ refers to a Technical Group.

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.

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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
GEF5 CEO Endorsement Template-December 2012.doc

- 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><u>2. 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>1. <u>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 provisions. 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>
<p>3</p>	<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.