



PROJECT IDENTIFICATION FORM (PIF).

PROJECT TYPE: FULL-SIZED PROJECT

TYPE OF TRUST FUND: LEAST DEVELOPED COUNTRIES FUND

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PART I: PROJECT INFORMATION

Project Title:	Strengthening agro-ecosystems' adaptive capacity to climate change in the Lake Chad Basin (Lac, Kanem, Bahr El Ghazal, and part of the Hadjer-Lamis region)		
Country(ies):	Chad	GEF Project ID: ¹	
GEF Agency(ies):	FAO	GEF Agency Project ID:	631053
Other Executing Partner(s):	Ministère de l'Agriculture, de l'Irrigation et des Equipements Agricoles (MAIEA)	Submission Date:	16 May 2018
GEF Focal Area(s):	Climate Change	Project Duration (Months)	48
Integrated Approach Pilot	IAP-Cities <input type="checkbox"/> IAP-Commodities <input type="checkbox"/> IAP-Food Security <input type="checkbox"/>	Corporate Program: SGP	<input type="checkbox"/>
Name of parent program:	N/A	Agency fee (\$) (including PPG fee)	384,837

A. INDICATIVE FOCAL AREA STRATEGY FRAMEWORK AND OTHER PROGRAM STRATEGIES²:

Objectives/Programs (Focal Areas, Integrated Approach Pilot, Corporate Programs)	Trust Fund	(in \$)	
		GEF Project Financing	Co-financing
CCA-1 Reduce the vulnerability of people, livelihoods, physical assets and natural systems to the adverse effects of climate change	LDCF	2,200,000	3,300,000
CCA-2 Strengthen institutional and technical capacities for effective climate change Adaptation	LDCF	1,350,913	7,432,945
CCA-3 Integrate climate change adaptation into relevant policies, plans and associated processes	LDCF	500,000	7,367,055
Total Project Cost		4,050,913	18,100,000

B. INDICATIVE PROJECT DESCRIPTION SUMMARY

Project Objective: To increase the resilience of agricultural and agro-pastoral production systems in the Lake Chad region against climate threats, particularly climate variability and droughts						
Project Component	Financing Type ³	Project Outcomes	Project Outputs	Trust Fund	(in \$)	
					GEF Project Financing	Co-financing
1. Strengthening climate change adaptation (CCA) local level planning and implementation capacity in the Lake Chad hydrological basin	TA	1.1 Capacities of local authorities, farmers' organisations, transhumant, and stable herders enhanced (in collaboration with the ongoing projects and programmes) to analyse and understand climate change (CC)-induced threats, and to introduce corresponding adaptive measures.	1.1.1 At least 20 members of staff from state administrations and civil society organisations capacitated in promoting the use and application of sound and appropriate legal packages into land and natural resource sectors. 1.1.2 Core managers from 20 farmers' organizations trained in preparation and implementation of a <i>knowledge based territorial management strategy</i> based on lessons learned from past/ongoing projects and programs aiming at optimizing the resilience and sustainable use of local biodiversity and ecosystem	LDCF	900,000	3,300,000

¹ Project ID number will be assigned by GEFSEC and to be entered by Agency in subsequent document submissions.

² When completing Table A, refer to the GEF Website, *Focal Area Results Framework* which is an *Excerpt from GEF-6 Programming Directions*.

³ Financing type can be either investment or technical assistance.

			services for 10,000 beneficiaries. 1.1.3 Herders from at least 50 communities (30 % of the trainees are women) trained on CCA planning with special focus on activities in recessional agriculture areas for seasonal crops and spirulina production and access to transhumance areas.			
2. Diversification of agricultural systems through pasture improvement, Spirulina production, aquaculture, agroecology and the introduction of Farmers and Agro-pastoral Field Schools (FFS/APFS) to improve CC resilience	INV	2.1 Farmers and herders (5000) validate, adapt, and adopt CCA/SLM (sustainable land management) practices through FFS/APFS training 2.2 Technologies introduced and adopted by targeted women groups (500 households) to increase ecosystem production functions for spirulina	2.1.1 A total of 125 CCA FFS/APFS established with a core group of 25 program managers, trainers and extension officers educated as FFS facilitators in locally adapted CCA and SLM practices. 2.1.2 CCA best practices and technologies integrated into FFS curricula and training material (including gender-related FFS) and implemented in spirulina production areas to promote CCA strategies and practices, including pasture improvement and dissemination of aquaculture. 2.1.3 Introducing CCA-methods in the agenda of on-going interventions (PROADEL II AND WFP's Food for Work), including agroecology, the sustainable intensification of seasonal recession agriculture, including horticulture and pastures, grassland rehabilitation, dry cereals, and market oriented spirulina production 2.2.1 Strengthening /expanding existing locally based spirulina value chains targeting at least 45 pastoral women groups	LDCF	2,198,013	11,450,000
3. Mainstreaming CCA into national development policies	TA/Inv	3.1 Increased institutional capacity at national level aiming at developing CCA policies, strategies and programs and activities that reach 50.000 indirect beneficiaries	3.1.1 A core group of 30 national level programme managers educated on the potential for mainstreaming CCA in rural development through FFS/APFS capacity building approaches, including the sustainable intensification of seasonal agriculture in recessional areas for horticulture, grassland rehabilitation, dry cereals , and market oriented spirulina production. 3.1.2 National level inter-sectoral working group/task force in place and strengthened defining the agenda for, and programming of local and	LDCF	500,000	2,300,000

			<p>national level CCA agricultural sector interventions, including the reinforcement and implementation of the <i>Plan Stratégique de Développement</i> (PSD), in close collaboration with the Chad National Adaptation Plan</p> <p>3.1.3 Consultative process to develop a draft of the implementing decree for the Code Pastoral (Livestock Code) undertaken and linked to the establishment of a network that includes bilateral and multilateral actors (i.e. GIZ), global level actors (i.e. UNFCCC and the EU Global Alliance on Climate Change), complementing the work delivered under the Chad National Plan.</p> <p>3.1.4 National capacities strengthened to support climate resilience, including support for CC-linked biodiversity needs in accordance with the Aichi Biodiversity Targets.</p> <p>3.1.5 Reinforced membership to the International Treaty on Plant Genetic Resources for Food and Agriculture with appropriate actions, including community produced spirulina in appropriate international legal frameworks</p>			
4. Project monitoring and dissemination of results	TA	4.1 Results based management project implementation and facilitated application of project lessons learned in future operations	<p>4.1.1 Operational system in place for collection of field based data that is used to monitor project outcome indicators.</p> <p>4.1.2 Midterm and final evaluation conducted.</p> <p>4.1.3 Project-related “best-practices” and “lessons-learned” (including elements relating to climate resilience strengthening and expansion through the concept of “functional biodiversity”) disseminated via publications, project website and other means</p>	LDCF	260,000	520,000
Subtotal				LDCF	3,858,013	17,570,000
Project Management Cost (PMC) ⁴				LDCF	192,900	530,000
Total Project Cost					4,050,913	18,100,000

C. INDICATIVE SOURCES OF CO-FINANCING FOR THE PROJECT BY NAME AND BY TYPE, IF AVAILABLE

Please include confirmed co-financing letters for the project with this form.

⁴ For GEF Project Financing up to \$2 million, PMC could be up to 10% of the subtotal; above \$2 million, PMC could be up to 5% of the subtotal. PMC should be charged proportionately to focal areas based on focal area project financing amount in Table D below.

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Amount (\$)
Donor Agency	World Food Program (WFP)- Food for Work through FAO	Grant	9,000,000
Recipient Government	World Bank Regional Sahel Pastoralism Support project - World Bank (WB) through the Ministry of Livestock and Hydraulics	Loans	500,000
Recipient Government	World Bank Climate resilient agriculture and productivity enhancement project.	Loans	600,000
Recipient Government	ANADER/MAIEA (Agence Nationale d'Appui au Développement Rural/ Ministère de l'Agriculture, de l'Irrigation et des Equipements Agricoles) various projects	Grant	2,300,000
Recipient Government	ANADER/ MAIEA various projects	Grant	4,000,000
Recipient Government	Building resilience to food and nutrition insecurity in the Sahel (P2RS)- project by the African Development Bank (AfDB)	In-kind	1,000,000
GEF Agency	Sweden through FAO <i>Support to Agro Pastoral Households Affected by Lake Chad Crisis (OSRO/CHD/701/SWE)</i>	Grant	700,000
Total Co-financing			18,100,000

D. INDICATIVE TRUST FUND RESOURCES REQUESTED BY AGENCY(IES), COUNTRY(IES) AND THE PROGRAMMING OF FUNDS ^{a)}

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Programming of Funds	(in \$)		
					GEF Project Financing (a)	Agency Fee (b) ^{b)}	Total (c)=a+b
FAO	LDCF	Chad	Climate Change	(select as applicable)	4,050,913	384,837	4,435,750
Total GEF Resources					4,050,913	384,837	4,435,750

- No need to fill this table if it is a single Agency, single Trust Fund, single focal area and single country project.
- Refer to the Fee Policy for GEF Partner Agencies.

E. PROJECT PREPARATION GRANT (PPG)⁵

Is Project Preparation Grant requested? Yes No If no, skip item E.

⁵ PPG requested amount is determined by the size of the GEF Project Financing (PF) as follows: Up to \$50k for PF upto \$1 mil; \$100k for PF up to \$3 mil; \$150k for PF up to \$6 mil; \$200k for PF up to \$10 mil; and \$300k for PF above \$10m. On an exceptional basis, PPG amount may differ upon detailed discussion and justification with the GEFSEC.

PPG AMOUNT REQUESTED BY AGENCY(IES), TRUST FUND, COUNTRY(IES) AND THE PROGRAMMING OF FUNDS

GEF Agency	Trust Fund	Country/ Regional/Global	Focal Area	Programming of Funds	(in \$)		
					PPG (a)	Agency Fee ⁶ (b)	Total c = a + b
FAO	LDCF	Chad <input type="checkbox"/>	Climate Change	(select as applicable)	150,000	14,250	164,250
Total PPG Amount					150,000	14,250	164,250

F. PROJECT'S TARGET CONTRIBUTIONS TO GLOBAL ENVIRONMENTAL BENEFITS⁷

N/A as project is solely financed through LDCF.

PART II: PROJECT JUSTIFICATION

PROJECT

OVERVIEW

1. PROJECT DESCRIPTION.

1.1) THE GLOBAL ENVIRONMENTAL AND/OR ADAPTATION PROBLEMS, ROOT CAUSES AND BARRIERS THAT NEED TO BE ADDRESSED

Chad is a landlocked country of 1,284,000 sq. km with a population estimated at 11,039,873 people in 2009 and an annual population growth rate of 2.8%. Chad is ranked 184th out of 187 countries in the UNDP 2012 Human Development Index (HDI) with 58.7% of whom live on less than \$1.25 a day in 2005. 64% of its population lives below the poverty line. The climate is dry to tropical characterized by two alternating seasons (dry and rainy). From 1960, the mean annual temperature has increased by 0.7°C with an average increase of 0.16°C per decade and is projected to increase between 1.6 -5.4°C by 2090s⁸. As a result, Chad has been experiencing several serious droughts in the last half century. Other climate related shocks including floods and rainfall deficit have further hindered its economic development. Chad's economy is mainly based on agriculture and livestock, which accounts for an average 38% of the GDP and occupies 80% of the total population.

Lake Chad in Chad is located in the Sahelian zone and is the largest lake in the country. The Lake spreads onto three regions: the Lake region, Kanem and Hadjer Lamis; a fourth region - Bahr El Ghazal was included as it used to be part of the Lake's watershed area and still contains a lot of recessional agriculture. Since the 1970s the lake's water quantity has been declining at an alarming rate, going from 25,000 sq. km in 1963 to about 2000 sq. km today with impact on crop and fish productions and ultimately on livelihoods. However, the surface of the lake has started growing bigger again since 2007. The Lake Chad basin in Chad is a marginalised area characterized by insufficient and irregular rainfall, poor soils, and high temperatures. Food insecurity is especially prevalent in the Lake and Kanem regions due to challenging ecological conditions and lack of capacity to adapt to climate change. The Kanem region is the most vulnerable to climate change impacts and drought, it also lacks diversification of sources of income and suffers from a sharp deterioration of productive resources. In the neighboring region of Bahr El Ghazal, the phenomena of drought, siltation and erosion are continuing to amplify. In recent years, insecurity and big number of displaced populations have put further pressure on these marginal resources in the Lake Chad Basin and disrupted food access and availability with negative impacts on livelihoods.

The NAPA (2009)⁹ reported that the current situation revealed a number of major problems, one of them being the decline from 40% to 60% of the flow system of the rivers Logone and Chari that feed Lake Chad, resulting in the shrinkage of the lake, the decrease in groundwater recharge, degradation of vegetation cover and soil, and finally a continuing decline in agricultural yields. These effects are accelerated by climate change but also by population growth. These unfavorable conditions create conflicts due to access to limited resources between land users and particularly between farmers and herders. The NAPA recognizes the important disruptions that stem from climate change ; one of the priority sector that is already being impacted is food crops, which are already suffering from a loss of biomass, genetic diversity loss, harvest decrease and food deficit. The current project proposes to address all four of these elements. Other priority sectors recognized by the NAPA to be impacted by climate change are human density which creates pressure on arable lands, rural exodus, internal migrations among others. Additionally, the health and nutrition sectors record a high mortality rate and a host of diseases, many of whom can be mitigated with proper nutrition. Therefore, the proposed project addresses many key priorities identified by the NAPA, and

⁶ PPG fee percentage follows the percentage of the Agency fee over the GEF Project Financing amount requested.

⁷ Provide those indicator values in this table to the extent applicable to your proposed project. Progress in programming against these targets for the projects per the *Corporate Results Framework* in the *GEF-6 Programming Directions*, will be aggregated and reported during mid-term and at the conclusion of the replenishment period.

⁸ IFAD. 2012. Chad. Improving resilience of agricultural systems in Chad.

⁹ <http://unfccc.int/resource/docs/napa/tcd01.pdf>

offers mitigation solutions. The selected regions were selected in consultation with the Ministry of Environment which wanted to give an opportunity to areas not already covered by other GEF projects while prioritizing the Lake Chad area. Since this was a rather small area, the decision was taken to expand it towards the North of the country and include Bahr el Gazal as well. This was made possible thanks to the presence of other FAO projects in those areas.

The following barriers prevent stakeholders at the local and national levels from taking the necessary additional steps to adapt to climate change in an integrated and sustainable manner.

Barrier 1: Inadequate knowledge and understanding of CC impact resulting in little to no experience in developing adequate local planning tools and strategies. Knowledge management in Chad is poor. Many initiatives on agriculture adaptation are undertaken independently from each other with little organized exchange of information or use of adaptation knowledge at national and local levels. There is insufficient action to try and blend together traditional/ indigenous knowledge with modern practices and knowledge management is at its weakest within local communities. A contributing barrier to effective planning is the country's skeletal land legislation which dates back from 1967. The legislation does not reach critical issues of land tenure, including the evolution of communal tenure to individualized rights, rights to pasture and range land, and the pressure of a growing population on limited arable land¹⁰. This favours the emergence of land disputes which represent a source of quasi-permanent social instability¹¹.

Barrier 2: Limited experience in identifying and implementing integrated CC adaptation measures for livelihoods and interdependent natural eco-systems Based on the FAO Country Programme Framework 2012-2016, the technical and socioeconomic rural development of Chad is characterized by various constraints. The main constraints¹² on the effectiveness of the national agriculture system of extension are the lack of information and knowledge in technology and innovation, inadequate quantity and quality of genetic material (seeds, improved varieties etc.) and their high costs, the lack of synergy between research and extension, the lack of agricultural inputs in the markets, and the low level of equipment availability. Additionally, the high illiteracy rate of the rural population (70%) often leads to non-compliance with technical advice. Finally, low income producers do not have a sufficient leverage of financial capital to access innovation and inputs.

Barrier 3: *Lack of Integration of CC in national and international sector-wide policies* To this day, adaptation and resilience to Climate Change are not universally integrated in national policies, or in local development plans. This lack of concerted policies on the topic renders the coordination and execution of uniform and transparent adaptation and resilience measures to Climate Change difficult to enact at local level (NAPA, 2010¹³).

1.2) THE BASELINE SCENARIO AND ANY ASSOCIATED BASELINE PROJECTS

The baseline includes a number of initiatives/projects funded by the African Development Bank, the World Bank, the World Food Programme and FAO. It also consists of activities funded by the Government - Agence Nationale d'Appui au Développement Rural (ANADER) within the Ministry of Agriculture, Irrigation and Agricultural Equipment (MAIEA) whose mission includes the agricultural development of the Lake Chad areas and in rural water infrastructure building and maintenance. ANADER provides agricultural extension services in the Lake Chad region. These services include, rural development activities; training, organization and guidance of farmers.

The AfDB recently approved a USD 231 million grant on "Building resilience to food and nutrition insecurity in the Sahel (P2RS)," as part of the Global Alliance for resilience in the Sahel and West Africa of which Chad is one of the participating countries. The P2RS aims to eliminate the structural causes of acute and chronic food and nutrition crises by helping vulnerable households to increase their productivity, production and incomes, gain access to infrastructure and basic social services and build a heritage that strengthens their livelihoods in a sustainable manner. The programme will aim for an emphasis on improving the economic situation of women and their access to resources; a key factor in overcoming infant malnutrition. The programme has 3 main components; (i) Rural Infrastructure Development; (ii) Value Chains and Regional Markets Development; and (iii) Project Management. This project will be a complimentary project to the proposed project in Chad particularly on infrastructure, investment and value chains development. The proposed project will provide complimentary information on agricultural diversification for climate and economic resilience.

The **World Bank-funded project Local Development Program Support Project II (PROADEL II)** (Phase 1 of the project from March 2011 to June 2015 phases 2 and 3 lasting throughout 2023) has a total budget of USD 74 million with the aim to a) improve the capacity of local institutions and communities to manage the development process, b) increase access to basic

¹⁰ http://usaidlandtenure.net/sites/default/files/country-profiles/full-reports/USAID_Land_Tenure_Chad_Profile.pdf

¹¹ La législation foncière pastorale au Niger et au Tchad. Savanes africaines en développement : innover pour durer, Garoua : Cameroun (2009). http://hal.inria.fr/docs/00/47/12/81/PDF/007_avella.pdf

¹² Diagnostique du Système national de recherche et de vulgarisation agricole au Tchad, 2008. <http://www.fao.org/uploads/media/chad.pdf>

¹³ Op.cit

infrastructure and c) support community development through income generating activities in rural areas. The implementing agency is Chad Ministry of Agriculture (MATUH). The PROADEL II will provide important baseline information but will also benefit from activities and lessons learned from the present project by inserting CCA in its activities (Component 1) and by planning small scale infrastructure building (LCBC Component 2). The project will provide a co-financing of USD 1.5 USD million. **The World Food Program (WFP)** provides continuous assistance to Chad where crisis are recurrent. Its **Food for Work programs** (continuous) offer food as payment when community members provide their labor (building infrastructure). Meanwhile, **Food for Training programs** (continuous) provide food for those who participate in projects that teach skills (sewing, gardening, etc...) or when they offer education on nutrition and health. However, the WFP addresses disasters and droughts without taking into account Climate Change. The WFP will provide an important baseline to the present project Component 2 by providing co-financing of USD 9 million to the proposed project.

World Bank's Regional Sahel Pastoralism Support (PRAPS) project is aimed at to improving access to essential productive assets, services, and markets for pastoralists and agro-pastoralists in selected trans-border areas and along transhumance axes across six Sahel countries, and strengthens country capacities to respond promptly and effectively to pastoral crises or emergencies. The project has three main components; a) animal health improvement; b) improving natural resources management to enhance pastoral and agro-pastoral communities sustainable management of and secure access to natural resources; and c) market access facilitation aims to increase pastoralists' access to competitive, inclusive markets, and to increase trade in pastoral products. The project was launched in 2015 and runs until 2021 with a budget of USD 45 million in Chad. The WB will provide important baseline on livestock and pastoral components of the project.

Multi-risk contingency plan for the Republic of Chad (PNCM) is a government plan in place to reduce risk of catastrophes and the preparation and response to emergencies, with the plan set to be provoked only in case of emergencies and disasters. The plan comes in the context of considerable vulnerability of Chad and thus the need for a tool defining a global and multi-sectoral vision of response to the multiple disasters the country has faced. The objective of the plan is to ensure that the organizational and operational capacities of state and non-state entities are coordinated and are effective in responding to critical to catastrophic emergencies and to minimize the loss and damage to populations. The approach of the plan takes into consideration and references the flooding and epidemics of 2011 and 2012 respectively. To that effect, the country has set aside a budget to 1.9 million dollars for health emergencies and resettlement of populations. The plan that was launched in 2017 is set to be in place for 3 to 6 years depending on the evolving context of the country..

The **FAO** has also supported the government through several projects that aim at reinforcing farmer's adaptation to climate change capacities. In 2009, FAO had established 907 FFS in the three Southern provinces, reaching out to an estimated 26,000 participants. A number of projects facilitated by FAO provide a strong technical baseline on which this project will build upon.

The FAO project **OSRO/CHD/701/SWE Support to Agro Pastoral Households Affected by Lake Chad Crisis** aims to strengthen the resilience of Chad's agro-pastoral livelihood of returnees and local communities affected by the Lake Chad Crisis. The project will run from 2017 to 2019. The Lake region is one of the most affected by crisis in the Lake Chad Basin and as a result the most vulnerable area of Chad in socio-economic terms. Thus FAO in close co-operation with the Government and in coordination with other actors such as WFP and UNICEF, will through the project cover the six strategic areas including; a) Strengthening the food and nutritional security of vulnerable populations and groups; b) Promoting supply chains and diversification of sources of income; c) Strengthen access to basic social services for displaced and host populations (health and nutrition, education, water, sanitation and hygiene); d) Promote mechanisms for the prevention and management of conflicts for peaceful coexistence between displaced and host populations; e) contribute to the protection of displaced populations and the promotion of gender equality and the empowerment of women and protection against gender-based violence; and f) Address climate risks and environmental degradation.

FAO has also been supporting the preparation of a project on "Climate resilience agriculture and productivity enhancement project (*Projet de promotion de la productivité agro-sylvo-pastorale durable (ProPAD)*). The project implemented by the Chadian government is financed through a USD 40million World Bank (IDA) loan. The 5-year project aims to promote the adoption of improved technologies to sustainably increase agricultural productivity and enhance climate resilience in the Sudanian agro-ecological zone of Chad. The Component A - National Institutional Support for Agriculture and Climate Resilience – is designed to i) strengthen the agricultural research and development (AR&D) system; ii) develop national agricultural and climate resilience support services; and iii) support sectoral policy development. The Component B - Local Support for Climate-Smart Agriculture Productivity – aims to i) improve the effectiveness of agricultural support services in target areas; ii) accelerate the adoption of agricultural technologies and innovations; and iii) implement climate-smart agriculture in local development plans (CSA-Plans). The project also includes a component designed as contingency emergency response, as well as another for project coordination, monitoring and evaluation (M&E) and knowledge management (KM).

1.3) THE PROPOSED ALTERNATIVE SCENARIO, WITH A BRIEF DESCRIPTION OF EXPECTED OUTCOMES AND COMPONENTS OF THE PROJECT

With financing from the GEF, the proposed intervention will expand the scope of the activities already carried out in the country allowing the expansion of CCA activities to agricultural and grassland areas by using the FFS/APFS approach. This approach will ensure the sustainable adoption by farmers of local and improved varieties, horticulture, crop rotation, dry cereal, small-scale irrigation, small scale wind erosion infrastructure, grassland and meadow rehabilitation¹⁴, boeuf kouri preservation, diversified use of spirulina, and others for increased food security.

Component 1: Strengthening climate change adaptation (CCA) local level planning and implementation capacity in the Lake Chad hydrological basin

Baseline: Previous projects such as the PROADEL financed the improved access to infrastructure and basic social services in the country, ANADER is contributing to the increased production of agricultural areas in the surroundings of Lake Chad, and the OSRO /CHD/406/USA and extensions project focussed on local scale agreements to reduce farmers/herders conflict. However, none of these activities holistically took CCA into consideration. The FAO activity: OSRO/CHD/406/USA *Strengthening the food security coordination and building the resilience of agro-pastoral communities in the semi-arid areas of Bahr el Gazal and in the conflict affected areas of southern Chad* focused on diversification of agro-pastoral communities' livelihood in the semi-arid region of Bahr el Gazal by establishing local scale agreements for farmers/herders to access land. However, this project was not strongly linked with local policies. Adaptation benefits provided by the current project (additionally): The component will be additional to the present baseline through the demonstration of improved management of land and water resources, including pasture rotation and setting defense zones in a participatory manner to reinforce stable strategies for transhumant pastoralists. Integrated management strategies and agreements will be introduced to breeders' associations, customary organizations and farmers by means of formulated participatory processes. This activity will be additional to the MATUH planning activities at a local scale and should contribute to enabling women to maintain the security of ownership of ponds used for Spirulina crop and seasonal production activities. Furthermore, the capability of local level managers, decision makers, farmers' organisations, transhumant, and stable herders will be reinforced to tackle climate vagaries and to introduce corresponding adaptive measures.

Component 2: Diversification of agricultural systems through pasture improvement, spirulina production, aquaculture, agroecology and the introduction of Farmers and Agro-pastoral Field Schools (FFS/APFS) to improve CC resilience

Baseline: The diversification of the agricultural and pastoral production will be based on local seed valorization and conservation of genetic resources. These activities will be supported by the LCBC (to be determined during the PPG phase), with the *Institut Tchadien de Recherche Agronomique pour le Développement* (ITRAD) ongoing activities, MDPRA, and with civil society. The FAO project GCP /CHD/038/EC which aims at establishing a food security early warning systems does not include any agricultural or pastoral field activities; it does however reinforce the local level service providers. These activities will be a very important baseline co-financing of Component 2 of the present project and will provide climate forecast to the farmers in the field.

Adaptation benefits provided by the current project (additionally): Infrastructural interventions will be conducted alongside ongoing World Bank projects and the WFP's "Food for Work" introducing CCA into their agendas. The diversification will include technology improvements of small scale Spirulina production, including the introduction of simple tools for collecting, filtering, pre-concentration, extrusion, solar drying, improved security, and packaging. The CCA-methods will include agroecology, the sustainable intensification of seasonal recession agriculture, including horticulture and pastures, grassland rehabilitation, dry cereals, and market oriented spirulina production. The first output aims to impact 5000 farmers and herders for them to validate, adapt and adopt CCA/SLM practices. The second output aims for women groups representing a total of 500 households to increase ecosystem production functions for spirulina. The component will also reinforce the executing partner capacity to promote ecologically sustainable CCA practices in crop-livestock production systems in selected areas including the production of Spirulina, plant and root tubers, cereals, and supports the integration of crop/livestock/tree systems.

Component 3: Mainstreaming CCA into national development policies

Baseline: The country does not have a national policy for adaptation but will soon commence together with UNDP a GEF funded project towards the national adaptation plan. The present project will aim to link up with this initiative including in providing much needed information in support of pastoral sector which accounts for 80% of national herds and faces severe challenges with changing climate.

Adaptation benefits provided by the current project (additionally): The activities of Component 3 will aim at the reinforcement and implementation of the *Plan Stratégique de Développement* (PSD). The PSD is a document used as a reference framework

¹⁴ Halwart, M. , Settle, B., 2008. Participatory training and curriculum development for Farmer Field Schools in Guyana and Suriname. *FAO Publication*. Available at: <http://www.fao.org/docrep/012/ba0031e/ba0031e.pdf>

for the socio-economic development of the country. The CCA cross-sectoral interventions will be coordinated through an inter-institutional collaborative mechanism to be applied for CC interventions. The latter will include all relevant actors/decision makers, and will allow for an integrated management and the production of outreach strategies, as well as facilitate the involvement of partner projects and/or national/provincial programs in the mainstreaming of CCA in sector policies and programmes. A core group of 50 national level managers will be trained to be educated on the potential for mainstreaming CCA in rural development. CCA best practices will be integrated into the policy sector, and lessons learned will be developed, disseminated and replicated (in conjunction with results of Component 4). Finally, collaboration with bilateral and international actors will strengthen the national capacity to reach Aichi Biodiversity Targets, and reinforce membership to the International Treaty on Plant Genetic Resources for Food and Agriculture (ITPGRFA) to enable Chad to become a champion for naturally grown spirulina to be inserted into international schemes. The activities will be additional to the agricultural policies by ANADER /MAIEA and will expand the scope of agro-pastoral related considerations in planning.

Component 4: Project monitoring and dissemination of results:

The performance monitoring will rely essentially on the project Monitoring and Evaluation (M&E) system. The monitoring and evaluation system will include outcome and output indicators of the Adaptation Monitoring and Assessment Tool (AMAT) relevant to LDCF objectives targeted by the project (see Table B). Outcome and output indicators, targets and baseline will be established during the full proposal preparation stage. The impact of adaptation practices and improvement of adaptive capacities and livelihoods will be assessed through surveys of farmer groups and households. Best climate change adaptation practices will be screened based on the indicators: environment friendliness, potential to reduce the impacts of climate risks, economic viability, sustainability, social acceptability, gender sensitivity, income generation, enterprise diversification, seasonal relevance and community’s need. The GEF funds will be used to carry out a mid-term and a final evaluation, and to disseminate good practices and lessons-learned for up-scaling by the partners and stakeholders.

1.4) INCREMENTAL/ADDITIONAL COST REASONING AND EXPECTED CONTRIBUTIONS FROM THE BASELINE, THE GEFTF, LDCF, SCCF AND CO-FINANCING

The project will receive co-financing from different sources, as shown in the following table. This information will be updated during the PPG process in order to finalize co-financing arrangements.

Project name and area of intervention	Budget (USD M) / timing	Baseline project description	Co-financing and additional value
WFP- Food for Work through FAO	Annual recurrent budget varies depending on emergencies Geographical extent: Bahr el Gazel region Continuous assistance	WFP’s Food for Work programs offer food as payment when people go to work - building elements of their communities’ infrastructure (roads, bridges, hospitals, schools, water ponds, dykes, etc...). Dykes and ponds are enabling communities increase cultivation of off season crops that are grown after rainy season water recedes. This is part of an asset creation strategy aimed at increasing resilience. Meanwhile, food for training programs provide food for those who participate in projects that teach a skill, such as sewing or gardening, or offer education on nutrition and health issues.	Co-financing: US\$ 9M to Component 2 WFP’s comparative advantage is in emergencies. As the programme also moves towards increasing resilience of community’s FAO’s project will provide important climate related information and resilience strategies while WFP can provide baseline by co-financing activities and investments undertaken in the framework of APFS.
World Bank Regional Sahel Pastoralism Support project (PRAPS)	Varies according to country activities.	The project aims at benefitting 400,000 people directly in Chad including women and youth whose livelihoods rely directly on livestock. This Will be done through support for improved production, resilience to	Co-financing: USD 0.5million The WB project will provide important socio-economic data in common intervention areas. The present project will help provide information on improving

Project name and area of intervention	Budget (USD M) /	Baseline project description	Co-financing and additional value
		pastoral livelihoods as underlined in the Nouakchott Declaration ¹⁵ on Pastoralism.	resilience of pastoral and agro-pastoral communities in sustainable management of natural resources (particularly water and pastures) in face of current variable and erratic climate.
World Bank Projet de promotion de la productivité agro-sylvo-pastorale durable (ProPAD)	To be implemented in agro-ecological zones.	The project aims at promoting technology adoption to improve resilience of agricultural productions systems to climate change.	<p>Co-financing: USD 0.6million</p> <p>The project is aimed at promoting adoption of technologies for sustainable agricultural productivity. The GEF project will support adaptation to climate change aspects of the WBG project including strengthening of agro-pastoral groups including access to market to their products, negotiating access to pasture and water with neighbors and alternative crops such spirulina while also strengthening women's access to and control of resources of assets such as spirulina ponds.</p> <p>Both the GEF project and the WBG project can jointly contribute to ongoing policy work in the country around climate change such as NAP.</p>
FAO project OSRO/CHD/70 I/SWE Support to Agro Pastoral Households Affected by Lake Chad Crisis	USD 1,988,731	The project is aimed at strengthening the livelihoods of populations affected by the Boko Haram crisis including the host and displaced communities. It aims at using sustainable solutions by giving the beneficiaries opportunities to access land and socio-economic activities to strengthen their self-resilience through food self-sufficiency and resilient livelihoods.	<p>Co-financing: USD 0.7million</p> <p>This GEF project will reinforce this project by taking into account climate aspects and increasing affected communities resilience to climate change. Socio-economic activities such as diversified livelihoods will be cross-shared by the two projects. Additionally in line with Output 2.2 of FAO Chad Country Programme Framework (CPF), the two projects will jointly contribute to "improving the capacity to implement cross-sectoral policies and strategies for food security and nutrition including through gender sensitive resilience projects."</p>

¹⁵ Nouakchott Declaration on Pastoralism, 2013.

Project name and area of intervention	Budget (USD M) / timing	Baseline project description	Co-financing and additional value
MAIEA, various projects	<p>State Institution Entity : ANADER</p> <p>Annual recurrent budget varies</p> <p>Geographical extent: ANADER: Lake Chad MAIEA:Entire country</p>	<p>ANADER is a MAIEA government body and is the main player in the agricultural development including in the Lake Chad areas and in infrastructure building and maintenance of the rural water sector. ANADER provides agricultural extension services in the Lake Chad region. These services include: rural development activities, training, organization and guidance of farmers.</p> <p>Since ANADER is a government institution, it has the potentials to sustain project results through time. Preliminary discussions with ANADER(previously SODELAC) on the LDCF project have assured full support and engagement into the project. The project can therefore count on ANADER's:</p> <ul style="list-style-type: none"> - Knowledge of the project intervention area, its operational basis in the area (Bol), and the sectors in the administrative regions (Départements); - Services provided to FAO in the context of numerous projects; and - Qualified staff. 	<p>Co-financing: US\$ 2.2M to Component 1, and 1.05M to Component 2, and 2 M to Component 3, and 0.52 M to Component 4 and 0.53M to Management. (total 6.3M)</p> <p>ANADER will need to include more activities related to CCA and will do this through the present project. ANADER will be involved in the planning part of Component 3. ANADER has various activities that will provide an important baseline to the present project and will co-finance activities:</p> <ul style="list-style-type: none"> • Feasibility study for sunflower production and transformation • Feasibility study for the development of Liwa polders and wadis • Support the improvement of race <i>kouri</i> to increase milk production and meat for domestic consumption • Hydrological and agricultural water use improvement <p>ANADER ensures land tenure management in the Lake Chad region, and guarantees equal access to land for women. ANADER is therefore responsible for the sustainable development of wadis through local producer organisations. The LDCF project will build on ANADER's experience in empowering women. It will be supported by ANADER for the local information sharing campaigns and sensitization of beneficiaries, local administrative and traditional authorities. The LDCF project will work with local programme managers to increase understanding of the importance of climate change adaptation to rural development and the role FFS can play in promoting and applying CCA technologies at scale. A core group of sensitised programme managers will work in close collaboration with an inter-sectoral working group, coordinated by ANADER, in charge of developing</p>

Project name and area of intervention	Budget (USD M) /	Baseline project description	Co-financing and additional value
			<p>sensitization strategies, monitoring of CCA activities, and identification of new CCA practices and technologies in the Lake Chad region.</p> <p>The LDCF project will furthermore strengthen inter-institutional collaboration and inter-sectoral coordination at the local level, not the least to better promote CCA best practices, indicators of success and lessons learnt which will be scaled up and reproduced at the national level.</p>
<p>AfDB Building resilience to food and nutrition insecurity in the Sahel (P2RS)</p>	<p>USD 231 (shared by 12 countries including Chad).</p>	<p>The programme's goal is to build the resilience of vulnerable populations to food and nutrition insecurity in the Sahel. P2RS therefore seeks to eliminate the structural causes of acute and chronic food and nutrition crises by helping vulnerable households to increase their productivity, production and incomes, gain access to infrastructure and basic social services and build a heritage that strengthens their livelihoods in a sustainable manner</p>	<p>USD 1 million</p> <p>The GEF project will coordinate closely with the AfDB project through the Ministry of Agriculture to apply the FFS approach for climate adaptation purposes, while also testing and upscaling water and land management practices and technologies. The project will also contribute to mainstreaming CCA strategies and approaches into national policies and programmes (multi-sectoral, multi-level coordination) and contribute to improved community-driven development and management of agro-pastoral land at the local level</p>

1.5. GLOBAL ENVIRONMENTAL BENEFIT (GEFTF) AND/OR ADAPTATION BENEFITS

The LDCF project is expected to generate the following adaptation benefits in the area; (i) integrated management strategies for climate resilience applied and at least 20 local scale plans and agreements established and implemented, (ii) 5,000 farmers use CCA/SLM practices through FFS/APFS approach, increasing sustainable production services and at least maintaining agro-biodiversity in selected ecosystems, (iii) increased institutional capacity at local and national levels aiming at developing CCA policies, strategies and programs and activities that reach 50.000 indirect beneficiaries, and (iv) increased capacities for the participation and application of international policy framework and treaties.

1.6. INNOVATIVENESS, SUSTAINABILITY AND POTENTIAL FOR SCALING UP

The **innovativeness of the project approach** is implicit into the FFS approach. Inherent in the FFS approach is an experimental learning cycle following the growing season in members farmers' fields making FFS/APFS "grass-root labs" of learning-by-doing. FAO's Plant Production and Protection Division (FAO-AGP) will make the best use of the experience developed in various African countries and the project will also play an important role in catalyzing and assisting Chad in transferring lessons learned from other GEF FAO FFS-based CCA projects initiatives in Burkina Faso, Niger, Mali, Senegal, Angola and Mozambique. Additionally, agroecology is going to be included in the curricula of FFS; FAO has just organized the first International Symposium on Agroecology for Food Security and Nutrition where agroecology was official recognized as "a

promising approach to moving food production onto a more sustainable path¹⁶. Agroecology is increasingly recognized by the scientific community as three-fold: it is at once a science, a practice and a social movement (Wezel et al., 2009¹⁷). As a science, agroecology integrates multiple disciplines drawing on fields such as ecology, agronomy, political economy and sociology. As a set of practices, it helps reducing pollution from agriculture and supporting the conservation of the environment, it boosts nutrition security and improves resilience. As a movement, it can address the issues of distributive and procedural justice in food and agriculture. As such, incorporating agroecological farming into FFS curricula is an effective way to enhance agricultural systems management in order to make them both more productive and better at conserving natural resources and adapting to the effects of climate change.

The **sustainability of the expected project outcomes** is built into the project approach and outputs as follows: (i) In the international context, the collaboration with bilateral actors (i.e. Gesellschaft für Internationale Zusammenarbeit (GIZ)) and global level actors (i.e. United Nations Framework Convention on Climate Change (UNFCCC) and EU Global Alliance on Climate Change) will strengthen the national capacity to reach Aichi Biodiversity Targets, and reinforce membership to the International Treaty on Plant Genetic Resources for Food and Agriculture. (ii) To support sound policy/programming against CC impacts, good operational practices, indicators, and "lessons learned" to adapt to the increasing climate risks are developed, disseminated and replicated at the national level. This includes identification of risks, investing, planning and implementing CCA agricultural sector interventions. (iii) At a local level, the agro-ecosystems intervention will be managed by local communities through FFS and APFS and integrated into CCA plans. (iv) At the national and international level, the marked demand of spirulina produced under Component 2 is expected to continue to increase¹⁸ sustaining profitable production in the long term.

The **potential for scaling up** is inherent to the FAO strategy in the country. The CCA activities are part of Output 2.2 of the FAO Country Program Framework (namely the output "Livelihoods of vulnerable populations to climate hazards and conflicts are protected and enhanced"). Scaling up of activities regarding CCA is strongly endorsed by the MAIEA, Ministère de l'Environnement, Eau et Pêches (MEP), MLAP, and LCBC. Implementation of pilot strategies based on lessons learned that are being developed by the Division for Securing Pastoral Aspects (DSPA) of the MLAP decreasing CC impact on selected pastoral areas in the Grand Kanem region.

2. Stakeholders. Will project design include the participation of relevant stakeholders from civil society and indigenous people? (yes /no) If yes, identify key stakeholders and briefly describe how they will be engaged in project design/preparation:

Key stakeholders are MAIEA (Ministère de l'Agriculture, de l'Irrigation et des Equipements Agricoles), MEP (Ministère de l'Environnement, Eau et Pêches), the MLAP (Ministry of Livestock and Animal Production), the ANADER, and the LCBC (Lake Chad Basin Commission) through its Direction for the Planning, the Monitoring and the Evaluation of Projects.

The FAO, MAIEA, MEP, MLAP, ANADER and LCBC will be the main co-partners for project execution. The LCBC also wishes to take part in the different committees involved in the operational monitoring of the project. The proposed project will be part of the general framework of national FAO activities taking into consideration the *Plan Stratégique de Développement* (PSD). Special emphasis will be put on developing partnerships with field based NGOs and civil society actors, as well as with the beneficiaries such as agropastoralists, herders, farmers, and women's groups. Those stakeholders will participate in the decision-making processes, influence the activities that will be decided on and participate in their carrying out, and share in guidance their management under a fair and transparent process. In particular a strong collaboration will be developed with the NGO, Agency for Cooperation and Research in Development (ACORD). ACORD is working with rural communities around the Lake Chad basin to achieve food security by strengthening agricultural production systems, as well as introducing new varieties of seeds and/or agricultural equipment to vulnerable groups (women and internally displaced people). The NGO also supports prevention and peaceful management of conflicts in the basin. Other collaborators will be Africare an NGO committed to addressing African development and policy issues by working in partnership with African people, Oxfam International, an NGO committed to find solutions to poverty and what it considers as injustice around the world and Caritas Internationalis, a Catholic relief NGO working in development and the organization of social services. Those NGOs are well-implemented in the Lake basin region and will be partners in the implementation of the project's component, specifically through a continuous consultation process with regards to the activities to be carried out and their specific locations.

3. Gender Considerations. Are gender considerations taken into account? (yes /no). If yes, briefly describe how gender considerations will be mainstreamed into project preparation, taken into account the differences, needs, roles and priorities of men and women.

¹⁶ <http://www.fao.org/news/story/en/item/247782/icode/>

¹⁷ <http://agroeco.org/socla/wp-content/uploads/2013/12/wezel-agroecology.pdf>

¹⁸ <http://www.watsystems.it/it/blog-en/22-global-demand-for-spirulina-derived-natural-blue-food-colorings-could-grow-10-fold-says-dic-as-it-plans-new-extraction-plant-in-california.html>

This project recognizes that women are often the most vulnerable to climate change and the need to incorporate gender considerations, into all components. The project will develop a Gender analysis that will identify the different roles and responsibilities of women and men, their control over and access to resources and services, their knowledge base and access to information, and their involvement in decision-making processes and leadership roles in local institutions, organizations and networks. The project will use improved gender-equality and sex disaggregated indicators to ensure that improvements are monitored and achieved. The project will also have a number of gender-sensitive indicators (e.g. targeted 30% women of trainees under output 1.1.3). Male and female farmers and agro-pastoralists adopt improved climate resilient practices (improved soil, water, crop, varietal diversity, crop-associated biodiversity, livestock and ecosystem management practices) through AP/FFS approaches, appropriately tailored to their different needs and with a minimum quota for female participation set to 30%. Participatory Rural Appraisals (PRA)¹⁹ and other activities outlined in FAO's Social Analysis for Agriculture and Rural Investment Projects are used with communities in all AP/FFS groups.

The project will therefore ensure the participation of men and women in the initial stages of project conception, approval and implementation. A needs assessment will be done at the project development phase and be used to define the roles of women and men early in the project. Moreover, the project will determine the interests and needs of other vulnerable groups such as youth, landless, children, elderly and internally displaced people.

4 Risk. Indicate risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and, if possible, propose measures that address these risks to be further developed during the project design (table format acceptable):

<i>Risk</i>	<i>Risk rate</i>	<i>Mitigation</i>
High-probability of increased occurrence of extreme weather events which may increase food/nutritional insecurity within project areas	H	The project will mitigate those risks by supporting the implementation of CCA policies and measures to strengthen pro-active and coordinated responses, as well as setting multi-stakeholder community-based capacity building initiatives (i.e. FFS) and by linking up with on-going initiatives. Furthermore, ecosystem wide management plans will take climate shocks into consideration. Finally, appropriate linking with on-going emergency/post-emergency initiatives as well as with governmental programs regularly supporting animal health, will improve responses to those risks.
Limited capacity of local and national institutions	H	Government capacity is likely to represent a high risk, although capacity for FFS activities and the projects already in place, as well as the ANADER has demonstrated the availability of sufficient capacities in the area. The limited capacity will be addressed by mobilizing the capacity of different actors, projects, programmes, and bilateral agencies to work intensively with government and gradually transfer FFS skills to local counterparts during the project phases. The lack of capacity will be focused in different project activities including: Component 1 (strengthening of capacity); and Component 3 (increase knowledge and understanding of CCA induced threats, best practices, and lessons learned)
Partnership building capacities constraint project implementation	M	Partnership building capacities to ensure mainstreaming into on-going initiatives may constitute a medium challenge. However, LDCF-funded activities and management will be blended with the ongoing programmes and will have benefits by the ongoing collaboration between FAO, MAIEA, MEP, MLAP, ANADER and LCBC. Exchanges with other countries will be organized at the beginning of the project cycle to benefit from the FAO's broader experience in the FFS-CCA approach.
Slowness/reluctance of local institutions in accepting proposed approaches (ex. FFS)	M	The risk of slowness of local institutions is present as FFS and SLM investments are not scaled up in the area but there is a high awareness of national and local authorities regarding spirulina production. To overcome that risk, common objectives will be established by giving emphasis on local ownership of the process as well as capacity. Partnership building capacities of local authorities will be enhanced to ensure mainstreaming of CCA strategies into on-going agricultural and pastoral programs.
Reluctance to participate in the project activities by	L/VL	The risk of reluctance of stakeholders is low as FAO activities are well distributed and known in the area. Nevertheless it will be addressed through local participation

¹⁹ Social Analysis for Agriculture and Rural Investment Projects. 2011. (Available at <http://www.fao.org/docrep/014/i2816e/i2816e00.htm>)

<i>Risk</i>	<i>Risk rate</i>	<i>Mitigation</i>
agriculturalist and pastoralists and slowness of local institutions to agree on project activities		in project implementation, and in areas where income has been generated or losses reduced because of adaptation activities that will be demonstrated and replicated.

5. *Coordination.* Outline the coordination with other relevant GEF-financed and other initiatives:

Coordination with other relevant GEF-financed and other initiatives will be ensured through the establishment of a national level inter-sectoral working group/task force (output 3.1.2). This working group will support coordinated programming of local and national level CCA agricultural sector interventions and will facilitate knowledge sharing and learning. Three ongoing LDCF-funded projects are of particular importance: IFAD-led “Improving resilience of agricultural systems in Chad” and the UNDP-led “Chad National Adaptation Plan” and “Community-based Climate Risks Management in Chad” under preparation.

As FAO has been invited by Chad to work as a delivery partner for the GCF National Adaptation Plan, internal coordination will help to inform the process and resources received by FAO for GCF NAP readiness plan will also complement these wider initiatives.

Collaboration will be established with the GEF-funded **Great Green Wall (GGW)** initiative led by the World Bank. The activities of the GGW will include an increase in policy and institution capacities, land management plans, CCA, and biodiversity conservation for climate change, and its activities will partially cover the present project areas. Further collaboration will be established with the World bank (*Projet de promotion de la productivité agro-sylvo-pastorale durable (ProPAD)*) project that is aimed at enhancing climate resilience in the Sudanian agro-ecological zone of Chad.

FAO is also providing GCF readiness support to Chad and in the preparation of a GCF proposal in the framework of the GGW, titled, “Improving Chad’s climate change readiness and developing a strategic program for adaptation and mitigation in the forest and land use sectors, as envisaged by the Great Green Wall (GGW) Initiative in the Republic of Chad.”

With a long term view on sustainable management of Lake Chad Basin resources and resilience to climate change, support will be roped in from the FAO Resilience Hub for West Africa in strengthening the capacities of the LCBC towards better national and regional policies. These will also be linked to activities of the **Lake Chad Preservation: Contribution to the Lake Development Strategy (FFEM-AFD)** that aims at preserving Lake Chad and its socio-economic and environmental role for transboundary countries by elaborating operational propositions, while respecting ecosystems’ preservation.

Chad will also be entering the **Pilot Programme for Climate Resilience (PPCR)**. The PPCR aims to incorporate Climate Change Resilience into sector-specific strategies and plans (both current and programmed) in order to move Chad up from a “development without Adaptation” framework to a “development with Adaptation” scenario.

6. **CONSISTENCY WITH NATIONAL PRIORITIES.** *Is the project consistent with the National strategies and plans or reports and assessments under relevant conventions? (yes X /NO). If yes, which ones and how: NAPAs, ASGM NAPs, MLAs, NBSAPs, NCs, TNAs, NCSAs, NIPs, PRSPs, NPFE, BURs, etc.:*

The project is fully consistent with Chad’s NAPA that was presented to UNFCCC on 5th June 2010. The project will follow up with 6 NAPA broad priority areas: (i) control and management of water for the adaptation of agriculture to climate change; (ii) development of intensive and diverse cultures that are adapted to extreme risks; (iii) improvement, dissemination and sustainability of crop calendars for small farmers vulnerable to climate change; (iv) information, education and communication on adaptation to climate change; (v) realization defense and land reclamation work for the development of agriculture to climate change and; (vi) improvement of grazing areas to reduce the inter-migration of farmers because of climate risks. In addition, the project will contribute to the objective of the NAPA “Creating and distributing banks forage to strengthen the capacity of farmers to pasture rehabilitation”.

The present project will work in close cooperation with the *Plan Stratégique de Développement (PSD)*, to increase CCA awareness and mainstream CCA into the policy sector. The PSD focuses on supporting employment opportunities, valorization of human capital, environment protection, and governance.

The present project is also consistent with various government strategies, such as: (i) the Strategic Plan for the Development of the Agricultural Sector (PEDSA 2011-2020); (iii) the Fisheries Master Plan (PDP 2010-2019); (iv) the National Programme for Food Security (NPFSS) 2013-2020; (vii) the National Plan of Livestock Development (PNDE) 2017-2021 ; (ix) the Master Plan for Water and Sanitation (ASDP) 2003; (x) the National Action Program to Combat Desertification (PAN / LCD) 2006; (xi) the National Action Plan for the Environment (NAPE) 2002 and the recently adopted National development Plan (NDP – 2017-2021). The proposed LDCF project will contribute directly to ESAN II and PEDSA. In particular, it will support PEDSA’s four strategic objectives: 1 - Agricultural production and productivity and its competitiveness increased; 3 - Land, water, forest and

wildlife resources used sustainably; 4 - Legal framework and policies conducive to agricultural investment in place; 5 - Agricultural institutions strengthened. The project will also be instrumental in supporting the forthcoming process of up-dating the PEDSA, PNISA and other related programs in order to allow for Climate Change Adaptation issues to be incorporated transversally. The project will strengthen MAIEA's capacities to ensure the integration of the dimensions of climate change and adaptation into the rural and agricultural development sector policies, strategies and programmes, and the mobilization of financial resources required for the implementation of climate change adaptation activities in crop and pastoral sector.

7. Knowledge management (Outline the knowledge management approach for the project, including, if any, plans for the project to learn from other relevant projects and initiatives, to assess and document in a user-friendly form, and share these experiences and expertise with relevant stakeholders.

The knowledge management for this project will be several-fold. The project will build onto previous FAO projects that gathered their long-term experience and their lessons learnt to publish a book called "The Future is an Ancient Lake" edited by "FAO Interdepartmental Working Group on Biological Diversity for food and Agriculture". The current project will benefit vastly from the experience and the network that have been built over the many years of FAO's presence in Chad. Additionally, once approved by the GEF, the inception workshop of this project will gather all stakeholders together to discuss, clarify and ultimately approve all the elements of this project in a direct and participatory manner with those that will be directly working for it and/or benefiting from it. The mid-term evaluation of this project will provide precious information to validate the health of the project and correct course of action if necessary. Lastly, the project will have its own page detailing its components and aims on the Plant Production and Protection Division website, hosted within FAO's website.

the project and correct course of action if necessary. Lastly, the project will have its own page detailing its components and aims on the Plant Production and Protection Division website, hosted within FAO's website.


PART III: APPROVAL/ENDORSEMENT BY GEF OPERATIONAL FOCAL POINT AND GEF AGENCY

A. Record of Endorsement²² of GEF Operational Focal Point (S) on Behalf of the Government(s):

NAME	POSITION	MINISTRY	DATE (MM/dd/yyyy)
Mr. Hakim Djibril	Operational Focal Point	Ministry of Environment and Fisheries	06/05/2014

B. GEF Agency(ies) Certification

This request has been prepared in accordance with GEF policies²³ and procedures and meets the GEF criteria for project identification and preparation under GEF-6.

Agency Coordinator, Agency name	Signature	Date (MM/dd/yyyy)	Project Contact Person	Telephone	Email
Alexander Jones, Director, Climate and Environment Division, Food and Agriculture Organization of the United Nations (FAO)		16 May 2018	Mrs. Caterina Batello, Team Leader AGPME, FAO Department of Agriculture and Consumer Protection Rome, Italy	+3906 5705 3643	Caterina.Batello@fao.org
Mr Jeff Griffin Senior Coordinator GEF Unit - FAO Viale delle Terme di Caracalla 00153 Rome, Italy Email: Jeffrey.Griffin@fao.org Tel: +3906 5705 55680					

²³ GEF policies encompass all managed trust funds, namely: GEFTF, LDCF, and SCCF