



Project Identification Form (PIF) entry – Full Sized Project – GEF - 7

Promoting Sustainable Agricultural Production and Conservation of Key Biodiversity Species through Land Restoration and Efficient Use of Ecosystems in the Dalol Bosso and Surrounding Areas (PROSAP/COKEBIOS)

Part I: Project Information

GEF ID

10420

Project Type

FSP

Type of Trust Fund

GET

CBIT/NGI

- CBIT
- NGI

Project Title

Promoting Sustainable Agricultural Production and Conservation of Key Biodiversity Species through Land Restoration and Efficient Use of Ecosystems in the Dalol Bosso and Surrounding Areas (PROSAP/COKEBIOS)

Countries

Niger

Agency(ies)

IFAD, UNEP

Other Executing Partner(s)

Executing Partner Type

Direction Générales des Eaux & Forêts, of the Ministry of Environment and Sustainable Development (DGEF-MESUDD), Ministry of Agriculture and Livestock, Government with technical support from World Resources Institute (WRI), Ministry of Finance and the Agricultural Development Bank (BAGRI)

GEF Focal Area

Multi Focal Area

Taxonomy

Focal Areas, Influencing models, Stakeholders, Gender Equality, Integrated Programs, Capacity, Knowledge and Research, Land Degradation, Sustainable Land Management, Restoration and Rehabilitation of Degraded Lands, Sustainable Forest, Ecosystem Approach, Sustainable Fire Management, Sustainable Agriculture, Integrated and Cross-sectoral approach, Sustainable Pasture Management, Sustainable Livelihoods, Drought Mitigation, Community-Based Natural Resource Management, Income Generating Activities, Improved Soil and Water Management Techniques, Land Degradation Neutrality, Carbon stocks above or below ground, Land Productivity, Land Cover and Land cover change, Drylands, Forest, Forest and Landscape Restoration, Fisheries, International Waters, Acquaculture, Freshwater, River Basin, Learning, Biomes, Biodiversity, Species, Wildlife for Sustainable Development, Threatened Species, Wetlands, Rivers, Grasslands, Conservation Finance, Financial and Accounting, Climate Change, Climate Change Adaptation, Complementarity, Climate information, Adaptation Tech Transfer, Private sector, Community-based adaptation, Livelihoods, Climate resilience, Mainstreaming adaptation, Least Developed Countries, Innovation, Ecosystem-based Adaptation, Climate Change Mitigation, Agriculture, Forestry, and Other Land Use, Renewable Energy, United Nations Framework Convention on Climate Change, Nationally Determined Contribution, Paris Agreement, Transform policy and regulatory environments, Convene multi-stakeholder alliances, Strengthen institutional capacity and decision-making, Demonstrate innovative approach, Deploy innovative financial instruments, Local Communities, Type of Engagement, Consultation, Information Dissemination, Participation, Partnership, Civil Society, Non-Governmental Organization, Academia, Community Based Organization, Private Sector, Financial intermediaries and market facilitators, Individuals/Entrepreneurs, SMEs, Capital providers, Communications, Awareness Raising, Education, Behavior change, Public Campaigns, Indigenous Peoples, Beneficiaries, Gender Mainstreaming, Sex-disaggregated indicators, Gender-sensitive indicators, Women groups, Gender results areas, Access to benefits and services, Capacity Development, Knowledge Generation and Exchange, Participation and leadership, Knowledge Generation, Targeted Research, Adaptive management, Theory of change, Indicators to measure change

Rio Markers

Climate Change Mitigation

Climate Change Mitigation 0

Climate Change Adaptation

Climate Change Adaptation 2

Duration

48 In Months

Agency Fee(\$)

503,197

Submission Date

10/11/2019

A. Indicative Focal/Non-Focal Area Elements

Programming Directions	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
BD-2-7	GET	880,038	58,300,000
LD-2-5	GET	4,416,770	79,400,000
	Total Project Cost (\$)	5,296,808	137,700,000

B. Indicative Project description summary

Project Objective

To strengthen national, regional and municipal capacity and actions to implement an integrated ecosystem management approach in the Dalol Bosso landscape in Niger

Project Component	Financing Type	Project Outcomes	Project Outputs	Trust Fund	GEF Amount(\$)	Co-Fin Amount(\$)
Component 1 (UNEP): Enhanced National Capacity for LDN implementation	Technical Assistance	Outcome 1.1. Government of Niger adopt and implement new integrated landscape management approaches to integrate LDN and BD conservation into development planning	Output 1.1.1. Training, Tools and Technical assistance provided with due gender equity consideration to national line ministries to improve the technical capacities and policy coherence/alignment of LDN with national development planning using integrated approach	GET	933,237	1,442,000
			Output 1.1.2. Data and monitoring system hub regarding SLM/LDN indicators and Subindicators developed to showcase successful LDN implementation[1]			
			Output 1.1.3. Capacities of key institutions build to support LDN/SLM monitoring, restoration and maintenance of functional landscapes taking into consideration the STAP/SPI guidelines on LDN framework			

Output 1.1.4. Institutional and legal frameworks strengthened to secure land tenure rights which enhance LDN implementation[2]

Output 1.1.5. Integrated Landscape Management Plan and relevant regulations and rules around LDN developed for the Dallol Bosso landscape to showcase integrating LDN and BD conservation into development planning

[1] With due consideration of STAP and SPI guidelines on LDN

[2] Taken into consideration (definition of activities during PPG) available resources and knowledge: e.g.
https://www.researchgate.net/publication/323915744_Integrated_Management_Systems_and_Sustainable_Development

Component 2 (UNEP): Improved biodiversity conservation and land restoration actions in the Dallol Bosso landscape	Investment	Outcome 2.1: Funding and technical assistance provided to demonstrate land restoration and biodiversity measures to improve local livelihoods in Dallol Bosso	Output 2.1.1 One Protected Area (for Giraffes) is created and two Integrated Management Plans (Giraffe PA and Hippo created Sanctuary) with due gender and indigenous people consideration are developed and implementation started	GET	1,529,637	56,858,000
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Outcome 2.2 The provided technical assistance provided to enables land and wildlife conservation income generating activities

Output 2.1.2 Institutional and technical capacity, enabling policies (e.g. communal development plans which integrate LDN and Biodiversity conservation) and infrastructure are established to manage the Giraffe Protected Area and the Kandadji Hippo Sanctuary

Output 2.1.3 34,987.5 ha of degraded tiger bushes/bushland landscape and 10 blocks of bourgoitieres^[1] are restored

Output 2.1.4 Communication toolkits and radio programs developed to improve adoption of SLM and restoration interventions, shared and disseminated to stakeholders

Output 2.2.1 Alternative Income Generating Activities contributing to land restoration identified and implemented with local communities to reduce threats to the giraffe Protected Area and the Kandadji Hippo Sanctuary

Output 2.2.2 Private investors, enterprises and business plans for investments to restore land and conserve BD identified through scoping and shared with the identified private sector.

[1] The 'bougoutieres' are plains where the bourgou grows. Rehabilitation efforts will focus on both replanting the bourgou which is a landrace in the area and on reducing pressure on its use by communities by alternative income generating activities.

Outcome 3.1 - 3,000 smallholder producers of selected VCs become market literate (at least 50% of whom are female producers) contributing to reduced post harvest losses by about 50%	Technical Assistance	Outcome 3.1 - 3,000 smallholder producers of selected VCs become market literate (at least 50% of whom are female producers) contributing to reduced post harvest losses by about 50%	Output 3.1.1. 3,000 participate in awareness-raising on market literacy[1] of the selected Value Chains. Output 3.1.2. Smallholder irrigation systems promoted and production is boosted on 500 ha to improve agricultural water management benefiting smallscale producers in Dallol Bosso and surrounding areas	GET	2,230,623	68,884,000
			3.1.3 Infrastructure established (e.g storage facilities with phytosanitary control serving as trading points, solar energy systems) for irrigation, processing and packaging to improve the marketability of			

selected CVs, benefiting 600 farmers, 50% of them being women.

3.1.4 Dissemination of knowledge products and lessons learned targeting decision makers and local communities

[1] Market literacy is the awareness, understanding and capacity to build the processes, institutions (such as viable cooperatives), competences/skills and relationships that enable markets to work for poor producers. Adapted from Hunger and Poverty: the Role of Biodiversity (2006). Ed. S. Bala Ravi, I. Hoeschle-Zeledon, M.S Swaminathan, & E. Frison

Component 4 (IFAD): Creating enabling capacity on environment at local level to manage post-harvest losses	Technical Assistance	Outcome 4.1. Reducing post-harvest losses (PHL) by 50% among smallholder producers contributes to biodiversity conservation within the Dolol Bosso landscape and surrounding areas 4.2 Risks to selected value chains (VCs) – rice, beef, onions and NTFP reduced through SLM	4.1.1. Participatory land-use planning on 34,987.5 ha of land 4.1.2 1,500 farming households undergo training and adopt post-harvest loss (PHL) reduction technologies (e.g hermetically sealed bags) and practices (e.g harvesting at correct moisture content) 4.1.3 At least 600 smallholder producers (of whom 50% will be female producers) participate in capacity building trainings at local level to handle common pest and disease outbreaks of selected key VCs in Dolol Bosso	GET	351,083	10,516,000
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Sub Total (\$)	5,044,580	137,700,000
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Project Management Cost (PMC)

GET	252,228	
Sub Total(\$)	252,228	0
Total Project Cost(\$)	5,296,808	137,700,000

C. Indicative sources of Co-financing for the Project by name and by type

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount(\$)
Government	Government of Niger	In-kind	Recurrent expenditures	500,000
GEF Agency	IFAD	Grant	Investment mobilized	85,000,000
GEF Agency	IFAD	In-kind	Recurrent expenditures	33,000,000
GEF Agency	West African Development Bank	Grant	Investment mobilized	10,000,000
GEF Agency	UNEP	In-kind	Recurrent expenditures	200,000
Others	WRI	Grant	Investment mobilized	2,000,000
Others	WRI	In-kind	Recurrent expenditures	7,000,000
Total Project Cost(\$)				137,700,000

Describe how any "Investment Mobilized" was identified

Investment mobilized for this proposed project was identified through consultations with co-financiers as well as the government of Niger. These investments also reflect programming and investment priorities of respective co-financiers in Niger as agreed with the Government of Niger.

D. Indicative Trust Fund Resources Requested by Agency(ies), Country(ies), Focal Area and the Programming of Funds

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount(\$)	Fee(\$)	Total(\$)
UNEP	GET	Niger	Biodiversity	BD STAR Allocation	1,540,058	146,305	1,686,363
IFAD	GET	Niger	Land Degradation	LD STAR Allocation	880,038	83,604	963,642
IFAD	GET	Niger	Land Degradation	LD STAR Allocation	2,876,712	273,288	3,150,000
Total GEF Resources(\$)				5,296,808	503,197	5,800,005	

E. Project Preparation Grant (PPG)

PPG Amount (\$)	PPG Agency Fee (\$)
181,279	17,221

Agency	Trust Fund	Country	Focal Area	Programming of Funds	Amount(\$)	Fee(\$)	Total(\$)
IFAD	GET	Niger	Land Degradation	LD STAR Allocation	89,955	8,546	98,501
UNEP	GET	Niger	Land Degradation	LD STAR Allocation	58,116	5,521	63,637
UNEP	GET	Niger	Biodiversity	BD STAR Allocation	33,208	3,154	36,362
			Total Project Costs(\$)		181,279	17,221	198,500

Please provide justification

There is a request for a \$181,279 PPG (+fees), within the allowable cap for a \$5.2 million project.

Core Indicators

Indicator 1 Terrestrial protected areas created or under improved management for conservation and sustainable use

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
70,975.00	0.00	0.00	0.00

Indicator 1.1 Terrestrial Protected Areas Newly created

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)
70,975.00	0.00	0.00	0.00

Name of the Protected Area	WDPA ID	IUCN Category	Total Ha (Expected at PIF)	Total Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)
Giraffe PA			69,975.00			

Kandadji Hippo Sanctuary	1,000.00	
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Indicator 1.2 Terrestrial Protected Areas Under improved Management effectiveness

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)
0.00	0.00	0.00	0.00

Name of the Protected Area	WDPA ID	IUCN Category	Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)	METT score (Baseline at CEO Endorsement)	METT score (Achieved at MTR)	METT score (Achieved at TE)
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Indicator 3 Area of land restored

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
34987.50	0.00	0.00	0.00

Indicator 3.1 Area of degraded agricultural land restored

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
34,987.50			

Indicator 3.2 Area of Forest and Forest Land restored

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)

Indicator 3.3 Area of natural grass and shrublands restored

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)

Indicator 3.4 Area of wetlands (incl. estuaries, mangroves) restored

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)

Indicator 4 Area of landscapes under improved practices (hectares; excluding protected areas)

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
70175.00	0.00	0.00	0.00

Indicator 4.1 Area of landscapes under improved management to benefit biodiversity (hectares, qualitative assessment, non-certified)

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
70,175.00			

Indicator 4.2 Area of landscapes that meets national or international third party certification that incorporates biodiversity considerations (hectares)

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)

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Type/Name of Third Party Certification**Indicator 4.3 Area of landscapes under sustainable land management in production systems**

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)

Indicator 4.4 Area of High Conservation Value Forest (HCVF) loss avoided

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)

Documents (Please upload document(s) that justifies the HCVF)

Title	Submitted

Indicator 6 Greenhouse Gas Emissions Mitigated

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO ₂ e (direct)	0	0	0	0
Expected metric tons of CO ₂ e (indirect)	0	0	0	0

Indicator 6.1 Carbon Sequestered or Emissions Avoided in the AFOLU (Agriculture, Forestry and Other Land Use) sector

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO ₂ e (direct)				
Expected metric tons of CO ₂ e (indirect)				
Anticipated start year of accounting				
Duration of accounting				

Indicator 6.2 Emissions Avoided Outside AFOLU (Agriculture, Forestry and Other Land Use) Sector

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)

Expected metric tons of CO ₂ e (direct)
Expected metric tons of CO ₂ e (indirect)
Anticipated start year of accounting
Duration of accounting

Indicator 6.3 Energy Saved (Use this sub-indicator in addition to the sub-indicator 6.2 if applicable)

Total Target Benefit	Energy (MJ) (At PIF)	Energy (MJ) (At CEO Endorsement)	Energy (MJ) (Achieved at MTR)	Energy (MJ) (Achieved at TE)
Target Energy Saved (MJ)				

Indicator 6.4 Increase in Installed Renewable Energy Capacity per Technology (Use this sub-indicator in addition to the sub-indicator 6.2 if applicable)

Technology	Capacity (MW) (Expected at PIF)	Capacity (MW) (Expected at CEO Endorsement)	Capacity (MW) (Achieved at MTR)	Capacity (MW) (Achieved at TE)

Indicator 11 Number of direct beneficiaries disaggregated by gender as co-benefit of GEF investment

Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)

Female	150,000			
Male	150,000			
Total	300000	0	0	0

Part II. Project Justification

1a. Project Description

Located in the heart of West Africa and with a total surface area of 1 276 000 km², Niger Republic is a landlocked country surrounded by 7 countries: Algeria and Libya in the north; Mali in the west; Burkina Faso and Benin in the south; Nigeria and Chad in the east. Owing to the adverse climatic and soil conditions, only half of the land is occupied. Administratively, the country is divided into eight regions. Each region is subdivided into Departments, and the Departments are further divided into Communes. The Human Development Index of Niger Republic for the year 2018 was 0.36, ranking 189 out of 189 countries and territories. Niger is therefore categorised among countries with low human development – the country remains one of the poorest countries of the world. The nation's population is estimated at 23.3 million people, with a growth rate of 3.3%[1] (the rate is of the highest in the region). The country also has a total fertility index of 7.2 children per woman in 2019[2]. The urbanization rate is low (21% in 2011), but steadily increasing. The population of Niger Republic is extremely young (more than 45% are under 20 years). Climate: Located in one of the hottest regions in the world, Niger experiences extreme temperatures accompanied by low annual rainfall of less than 800 mm. Rainfall is unequally distributed across the country, and most parts receive less than 100 mm. Bio-geographical areas: Niger covers three areas: the Saharan, the Sahelian and the Sudanese areas. The country covers two geo-botanical areas: the Saharo-Sindian in the extreme north and the major part of the country and the Sudano-Zambezian area. The transition between these areas is not clearly determined. Economy: Subsistence agriculture and livestock production represent about 40% of the GDP, and about three-quarters of the labor force are employed in the sector. The country is characterized by a particularly harsh climate, and inhabitable swaths of land. Therefore, the country's most important economic activities are dependent on a sector that is sensitive to the impacts of climate change. Land Use: Despite the 40% GDP contribution of the agriculture sector, less than 4% of the country is arable, 9% is permanent pastures and only 2% is forests and woodlands. The country records currently 1,266,000 ha of forests (of which 17% are natural forest) and 3,740,000 ha are other woodlands. Niger's Agricultural and Livestock Sectors are the mainstay of all but 18% of the population. Fourteen percent of Niger's GDP is generated by livestock (camels, goats, sheep and cattle), said to support 29% of the population. Thus 53% of the population is actively involved in crop production. The 15% of Niger's land that is arable is found mainly along its southern border with Nigeria. Pearl millet, sorghum and cassava are Niger's principal rain-fed subsistence crops. Average annual production is about 3,500,000 tons of cereals. Cowpeas and onions are grown for commercial export. Sahelo-Sudanian and Sudanian areas in Niger are considered as potentially sedentary areas, in contrast to the northern areas where mainly nomadic activities are practiced. Niger agriculture is one of the most vulnerable in the Sahel, as it is exposed to desertification, recurrent droughts, declining rainfall and degradation of natural resources. About 7.7 percent of the Niger's land is officially protected under some form of protected area status.

Project Target Area:

The chosen landscape for the project is located in the Dallol Bosso and its surrounding areas. The Dallol Bosso is situated in the Dosso region. Located between the Tillabéri region in the west, the Republic of Benin in the southwest, the Federal Republic of Nigeria in the southeast and the Tahoua region in the east, Dosso covers an area of 31,000 km² (2.45% of the national territory). Due to its proximity with these neighboring countries, Dosso region is the main gateway to Niger for convoys and goods from the port of Cotonou, Benin. Dosso is subdivided into eight (8) administrative departments which are: Boboïye,

Dioundou, Dogondoutchi, Dosso, Falmey, Gaya, Loga and Tibiri. The region is made up of 43 communes, of which 5 are urban and 38 rural communes. The Dosso region has three distinct agro-ecological zones: the Plateaux zone; the Dallols area and the river area. The plateaus are located in the center and north of the region. There are three Dallols: i) the Dallol Bosso found in the departments of Loga, Boboeye and Falmey; ii) the Dallol Maouri; and iii) the Dallol Foga. The River Zone borders the Benin Region, at the southernmost end of the Dosso region. The climate of the region is Sahelian with average temperatures ranging from 20°C to 30°C; a dry and cold season that runs from November to February and a dry and hot season that goes from the March-May period. The region of Dosso is the one that is the most watered in Niger. Mean rainfall amounts range from 600 to less than 1000 mm (SRAT 2015). The major food crises in the region are correlated with rainfall deficits (1984, 1987, 1995 and 2002). This serves to show that the region is highly vulnerable to climate change. The Dosso region has 2,037,713 inhabitants (2012 figures) of which 1,856,527 (91.1%) live in rural areas. Regional average density is 65.7 persons/km² but some places reach up to 100 persons/km². The principal socio-economic activities revolve around the agro-silvo-pastoral sector, which employs nearly 90% of the active population. Agriculture is the main economic activity in the region. Of the 2,691,220 ha arable land, 1,600,000 ha are planted with rainfed crops. Millet and cowpea, often grown in association, account for almost 84% of the cultivated area. The remainder is made up of Sorghum (8%), Peanut (6%) and other crops (2%). An estimated 1,754,217 ha is irrigated, mainly located in the Niger River Valley and in the Dallols. Livestock is the second most important economic activity, with an estimated 3,391,638 heads of cattle. 89,434 hectares are classified as pastoral lands in the region. The Dosso region has important protected areas (PAs) for the conservation of biodiversity. The PAs include Classified Forests, Protected Forests, and River and Dallol Maouri Rôneraies (see annex B for table of PAs). The PA estate covers 553,811 ha, 17.86% of the area of the region. There are also four RAMSAR sites in the region (see table 2 in annex B), the Dallon Bosso being one. Importantly to note, in the region of Doss, there are 45 rural firewood markets (as per 2015 records). They are located in the southern part of the region. The Dallol Bosso is one of two major seasonal river valleys in southwest Niger. The Dallol Bosso valley runs from the Azawagh area in Sahara west and south through the Dosso Region where it reaches the Niger River Valley. The valley spreads out as the Azawagh depression on the western shadow of the Air Mountains, contracting and feeding a handful of valleys. It is a system of seasonal watercourses and permanent pools in a long-inactive branch of the River Niger associated with a 775-kilometer depression running southward from Mali. The area is classified as the first Hot Spot of land degradation during the Land Degradation Neutrality Targets Settings process. Sandy soils and near-surface aquifer contribute to the agricultural importance of the area and enable the only viable West African giraffe[3] (*Giraffe camelopardalis* spp. *peralta*, also known as the Peralta giraffe, IUCN Red List category Vulnerable) population. Within the Dallon Bosso, approximately 116,625 ha is referred to as the 'giraffe zone'. The 'giraffe area' is not a protected area and contains roughly 30 villages with a population of more than 45,000 inhabitants. The habitat that the giraffes occupy in the Dallol Bosso consists of (i) the forest plateaus with contracted vegetation (known as tiger bush) dominated by *Combretum micranthum*, *Guiera senegalensis* and *Acacia* spp.; (ii) the intermediate zone between the slope of the plateau and the bed of the Dallol river; and (iii) the major bed of the Dallol river, Bosso, with forests dominated by *Faidherbia albida*, *Parinari macrophylla*, *Prosopis africana* and *Combretum glutinosum*[4]. These giraffes represent the last population of a species once widespread across West Africa. The Peralta giraffes of Niger are now only in their hundreds. During the rainy season they wander on the plateau through in the 'tiger bush' but then descend to the tributaries of the Niger River (the "Dallols") in the dry season. Their diet is almost exclusively leaves and branches of trees and shrubs, among which *Acacia* spp. occupy a large part, but on occasion they also consume all kinds of plants (for example, wild melons). Hippopotamus (*Hippopotamus amphibius*, IUCN Red List Category Vulnerable) are also found in reasonable numbers in the river Bosso in the Dallol Bosso.

The hippo sanctuary – the Kadadjji reserve

The number 2017-603 PRN/ME/DD decree of the government of Niger decided the establishment of an integral reserve Kandadjji Hippo Sanctuary on July 20, 2017. According to article 5 of the Decree, the integral hippo sanctuary is a state protected area, classified as category 1b of the IUCN. That means that the established hippo sanctuary is a protected area for the conservation and management of natural resources in Niger. To this end, the Decree includes that it is

prohibited to hunt, forest exploitation, fishing, agricultural production, mining or any mining exploration or surveys and works with the potential to modify the landscape, and the general floral and faunal integrity of the area. Camping, residing as well as trespassing have equally been prohibited.

The Kandadji Hippo Sanctuary is subdivided into specific areas under different protection regimes in view of the development objectives, the constraints resulting from the condition of the area and suggestions that considered the needs of the population settled there. These specific areas are:

- Central New Guinea which covers an area of 121,857 ha or 10% of the total area;
- the buffer zone covering 172 704 ha or 14%; and
- a transitional zone covering 912,439 ha, ie 76%.

Therefore, with the context of all the prohibitions, the purpose of the reserve classification is the conservation of biodiversity including migratory species, the safeguarding of fully protected species, including the hippopotamus, the manatee, the otter, the promotion of eco-system services, the development of eco-tourism activities, scientific research and taking into account issues related to the attack on human-hippo conflict.

With support from Africa Development Bank (AfDB), the government of Niger is constructing Kandadji Dam, downstream below the Kandadji Hippo Sanctuary (see annex II for the map of the Hippo Sanctuary). According to an Environmental Impact Assessment report,[1] the dam will lead to a loss of wetland due to submersion. The report notes that there will be moderate adverse impacts include vegetation losses, ecological and economic costs associated with the water hyacinth's invasion, the reservoir's capacity reduction due to the presence of the water hyacinth, the sanitary impact of the water hyacinth, the loss of habitats for birds, the loss of feeding areas for hippopotamuses and manatees and obstructions to their movement, the loss of fish biodiversity upstream, a downstream reduction in fish production, and anoxia in the deep layer, which will affect the survival of fish. The dam is part of the Kandadji Ecosystems Regeneration and Niger Valley Development Programme.

[1] Haut Commissariat à l'aménagement de la Vallée du Niger (2006). Detailed Environmental and Social Impact Assessment: Programme Kandadji de Régénération des Écosystèmes et de Mise en valeur de la vallée du Niger

<http://documentos.bancomundial.org/curated/es/856671468006608446/text/E29650v10EA0P1020Box367849B03305663.txt>

Threats to Biodiversity Loss and Causes of Land Degradation:

Loss of habitat: A 2015 Land Use/Cover Change (LUCC) analysis of Niger shows that a total of 6.12 million ha experienced LUCC and shrublands and grassland accounted for the largest change. Excluding the desert, 19% of the land in Niger experienced LUCC. Cropland expansion accounted for about 57% of deforestation followed by grassland expansion. Between the years 1990 and 2005, about 679,000 ha of forest have been lost i.e. 34.9% (2.3% loss annually). Land clearing and wood exploitation has led to the collapse of the original vegetation. Forests that occupy about 2% are cleared out to increase agricultural

frontiers. In terms of energy needs, about 80% of the country's energy consumption is fuelwood and other traditional fuels. The capital city, Niamey, alone consumes more than 11,000 tons of fuelwood per year. The tiger bush rangelands in Niger showed a steady decrease in woody plants between 2003 and 2012. Proximity to roads also facilitate the transport of fuelwood to nearby towns. Tiger bush rangelands in Niger are exploited to provide fuelwood and charcoal to Niamey and smaller towns along the Niger River. Due to its proximity to Niamey, Dallon Bosso is heavily impacted by fuelwood harvesting reducing the available habitat during the wet season. The expansion of agricultural fields in the Dallons also reduces the browsing habitat of giraffes in the dry season, as well as the grazing habitat of hippopotamus.

Human-wildlife Conflict: Due to anthropogenic pressures (clearing of land, cultivation of rangelands), the tiger bush is heavily degraded and so are the soils thereby forcing giraffes to eat food crops of local communities. More and more, they have been eating crops such as beans forcing their way to households in search of food – this breeds conflicts with communities. Human-wildlife conflict has also been experienced with hippopotamus, as hippos destroy crops and compete for fodder with livestock. Human-Hippopotamus encounters (on river and on land) frequently result in deaths of humans, resulting in retaliating slaugthers of hippos.

Reduced Soil Fertility and Land Productivity: According to Niger, LDN target setting report, the Dalol Bosso is the first land degradation hot spot and is characterized by very poor soil in terms of carbon content and most degraded areas which include bare land, rocky areas, and sand dunes. 80% of the Dalol Bosso basin soils have carbon content ranging from 0 to 14 tonnes/ha and 70% of the area is covered by barren lands. During 2017, the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) conducted interviews with farmers in four regions in Niger (Dosso, Maradi, Tahoua, Zinder)[5]. 79% of the farmers identified that the main cause of degradation of cultivated lands was the overexploitation of land, with other causes identified being land of inputs, especially manure and tree cutting. Additionally, the general reduction in cultivable land has shrunk the rotation cycle 3 to less than 2 years, severely affecting the the soil fertility status. The ecological balance is characteristically fragile. The combination of climatic shifts and anthropogenic pressure are responsible for drastic environmental changes in this harsh environment.^[6] For instance, the country is facing their fourth major drought-related emergency in less than ten years. The current crisis is the result of late and erratic rainfall, which has decreased harvests by 25%; leading to increased land pressure and prices of staple crops and the expansion of food insecurity. Livestock- the main wealth of affected the rural population, is also affected by frequent forage deficit in the pastoral zone.

Climate Change: Niger has been significantly affected by climate change, particularly with regards to food security as demonstrated by the three major food shortages in the last 10 years. The biggest impact of climate change in Niger include an increase in the frequency of droughts, resulting in a decrease in agricultural production, an associated increase in grazing pressure on pastoral ecosystems, and consequently soil erosion on a mass scale. Reduced food supply and income from agriculture as a result of climate change will increase the incidence of malnutrition and famine across the country. Additional socio-economic impacts of reduced agricultural yields as a result of variable climatic factors include such effects as reduction in income, land conflicts and deepening of rural poverty.[7]

Barriers:

Barrier 1: Lack of an overarching framework and capacity to realize Niger's Land Degradation Neutrality commitment:

Niger committed to achieving Land Degradation Neutrality (LDN) by 2030 and reducing the area of degraded land from 9% to 5%, by among others, increasing vegetation cover from 17% to 19% and sustainably improving the living conditions of the people. Through this commitment to achieving LDN, Niger seeks to restore 44% (4,440,500 ha) of the 10,761,076 ha of land that were degraded in 2010; reduce to 2% (252,101 ha) the area of cultivated lands showing negative trends on net primary productivity; reduce from 1% (100,074.3 ha) to 0% the annual rate of forest/savanna/wetland conversion into other types of land; halt sand encroachment and water erosion (gully erosion) along the Niger river; and sequester 292,000 tons of carbon in the ground and/or biomass through good agroforestry practices (windbreak system, hedges, assisted natural regeneration, forage bank, food bank, etc.)[8] In order to realise these ambitious LDN targets, several Government Ministries and other government structures need to work more closely and collaborate in planning and monitoring activities. These include: The High Commission of "3N" (Nigerien Nourissent les Nigeriens – Nigerien Feed Nigerien) under the Presidency and which represents the President political national agenda for the development and includes all sectors particularly the environment restoration issues. the Ministry of Environment , Urban Sanitation and Sustainable Development, the Ministry of Animal Resources, the Ministry of Agriculture, the Ministry of Planning, Territorial Management and Community Development, the Ministry of Water Resources and Sanitation; and the National Council of the Environment for Sustainable Development (CNEDD), which is attached to the Prime Minister's office. A coordinating and monitoring structure needs to be established and capacities built in order to support LDN integration in future plans and projects as well as into existing plans. The current weak tenure rights of communities in certain regions should also be addressed in order for rural communities and private sector to invest in SLM practices. There is also a need to pilot a new integrated approach of integrating LDN into a land management plan for a region and draw lessons from it so that future project/programme development under the auspices of the LDN targets maximises the opportunities presented. This will be done in collaboration with the Municipal Councils.

Barrier 2: Lack of legislative and financial incentives to promote biodiversity conservation in the Dallon Bosso landscape:

The Giraffe Zone is an unprotected area, compromising the legal implementation of conservation interventions that ensure for example, joint wildlife conservation initiatives that promote the well-being of both wildlife and rural human communities. Further, no mechanisms exist where development activities can be planned in areas not used by wildlife in order to minimize human-wildlife conflict, thus benefitting both wildlife and investment security. With the burgeoning population that is dependent on the exploitation of natural resources, agriculture and animal production constitute the main economic mainstay for communities in Giraffe Zone of Niger. Niger appreciates the establishment and management of the Giraffe Zone is an integral part of the economic development and planning process that will lead to sustainable development embedded in the national cultural conservation policy aspirations. There are, however, a total lack of capacity in the Dallon Bosso landscape to properly manage protected areas and the 'sanctuaries' that will result from an informed land use planning exercise. The region of Dallol Bosso is a complex landscape – a habitat of giraffes, and an area of agricultural crop production and pastoralism for the local population and beyond. It is an area that typifies a human-environment interaction where the survival and sustainability of the socio-ecological system hinges on rehabilitating and restoring the landscape that has severely been degraded due to anthropogenic activities and the corrosive impacts of climate change that continue rendering the landscape more and more fragile. It is an area where human-wildlife conflicts are not uncommon. The survival of biodiversity at both floral and faunal levels, as well as the sustainability of livelihoods for local communities depends on the integrity and productive capacity of the landscape. Improving the management of natural resources that underpin the survival of both wildlife and communities has huge potential in investment initiatives that will conserve giraffes as well as hippos. In general, there has been little focus on ecosystem approach to forest and biodiversity conservation issues in the baseline projects. Most fundamentally, there has hardly been any project focus that combines conservation of biodiversity in the region with economic incentives tapping into eco-tourism potential of the area. Thus, there is a need to tailor interventions to reflect the socio-economic and environmental challenges and needs of the region so as to increase the transformational impact of the project.

Barrier 3: Lack of innovative approaches to addressing heightened levels of post harvest losses in the Dallol Bosso region

With its fragile production landscapes, ensuring food security and sustainable production of food are policy priorities in Niger. However, the country still experiences elevated levels of post-harvest losses (PHL), estimated at 50%. PHL is in terms of the degradation in both quantity and quality of a food production from harvest to consumption. In this regard, quality losses relate to loss of nutrient and caloric composition, the acceptability, and the edibility of agricultural products. Quantity losses relate to those that result in the loss of the amount of agricultural products. PHL happens along all stages of the value chains of agricultural products. Mainly, these are: harvesting and handling at harvesting; threshing; drying, transport and distribution; storage; primary processing (cleaning, classification, hulling, pounding, grinding, packaging, soaking, winnowing, drying, sieving, milling); secondary processing (mixing, cooking, frying, molding, cutting, extrusion); product evaluation and quality control; packaging; and marketing (selling, distribution). Critical factors that contribute to PHL are internal and external. Internal factors include undeveloped maturity indices for key agricultural products, lack of pre-cooling systems and accompanying technical training, poor infrastructure including inappropriate transport systems, lack of long-term storage facilities, lack of proper packing and packaging technologies (including labelling), and biological and microbiological deterioration which compromises the taste of products.^[9] In sum, PHL in Niger in general, and in the Dallol Bosso in particular is due to limited and non-availability of suitable varieties for processing, lack of appropriate processing technologies, inadequate commercialization of new technologies and lack of basic infrastructure, inadequate facilities and infrastructure, and insufficient promotion of processed products in the Dallol Bosso region. External factors are related to biophysical characteristics of the region, particularly higher temperatures and time because the longer the time the food is stored the greater is the deterioration in quality and the greater is the chance of damage and loss. Due to some of these factors, producers are forced to sell their products by a certain time before waiting for the time when their products can fetch a better price.

Barrier 4: Lack of capacity environment to reduce post-harvest losses in the Dallol Bosso region

Building on barrier 3, barrier 4 is concerned with capacities, including technical know-how of smallholders and extension services to support adoption of PHL reduction technologies and practices. Therefore, while barrier 3 above identifies socio-economic and biophysical barriers, barrier 4 is distinguished to refer to smallholder capacities to manage PHL. Niger has in the past years endeavoured to build political momentum around addressing food security. Recently, the Head of State announced that Niger should become self-sufficient in the production of rice, and will stop importing rice in 2023.^[10] However, to realise this particularly for rice which is an important crop, the country is still lagging behind in capacity development to ensure that PHL are reduced. Smallholder producers lack capacities to manage PHL in ways can reduce the social, economic and environmental implications. Lack of community-level capacities is exacerbated by lack of trained extension officers to support smallholder producers in appropriate PHL. Consequently, as noted above, PHL are as high as 50%. During stakeholder consultations with community members, smallholder producers of rice severely echoed lack of capacity to improve their shredding in ways that do not compromise the appearance to lower the price. PHL in the Dallol Bosso region has compromised the livelihoods of farmers and other value chain actors, jeopardising nutritional security and production diversity, leading to over-exploitation of natural resources and the broader environment. Food loss and waste generates more than four times as much annual greenhouse gas emissions as aviation, and is comparable to emissions from road transport.^[11] Therefore, given the elevated level of PHL, the emission levels are significant.

[1] W [2] World Population Review 2019

[1]

| [1] [3] The West African giraffe is a subspecies of giraffe, distinguished from other types by its light, tan-coloured spots. West African giraffes only exist in the wild. They are nomadic, moving around to find food.

| Mor[4] Morou B, Karimou Ambouta JM, Karim S, Mahamane A, Saadou M, Mainassara ZA, Sinsin B. (2011). Etat de degradation de l'habitat de la girafe (*Giraffa melopardalis peralta Linnaeus, 1758*) au Niger. *Secheresse* 22 : 57-64. doi : 10.1684/sec.2011.0292

| http[5] <https://www.icrisat.org/farmers-perception-of-land-degradation-and-solutions-to-restoring-soil-fertility-in-niger/>

| Oba(6)Obame et al. (2014). Carbon sinks in small Sahelian lakes as an unexpected effect of land usechanges since the 1960s (Saga Gorou and Dallol Bosso, SW ger). *Catena* 114, 1-10

| Nati[7] National Climate Change Policy, Government of Niger, 2013

| Nig[8] Niger: Overview of LDN Targets <https://knowledge.unccd.int/home/country-information/countries-having-set-voluntary-ldn-targets/niger>

[9] Victor, Kiay (2014). Post-harvest losses and strategies to reduce them, *Action Contre la Faim*

[10] Niger plans to stops importing rice in 2023 http://french.xinhuanet.com/afrique/2019-07/20/c_138242784.htm

[11] High Level Panel of The African Union - European Union Agriculture Ministers Conference Climate Smart Agriculture and Reducing Food Losses and Waste, 2 July 2017, FAO HQ, Rome, Italy

1b. Project Map and Coordinates

Please provide geo-referenced information and map where the project interventions will take place.

1.1 The baseline scenario or any associated baseline projects

The ecological balance of Niger is critically fragile owing to the general biophysical and climate characteristics of the country. The government has been taking development initiatives to address challenges posed on the socio-ecological system. This is in view to sustaining people's livelihoods, but also environmental concerns, given the fact that the country is a signatory to various multilateral environmental agreements (MEAs). In Niger, MEAs collectively serve as a strategic framework to improve and sustain food security and sustainable land management. Niger is also involved in platforms and partnerships aimed at increasing agricultural productivity, reducing deforestation, and implementing sustainable land management practices. These platforms include: The AFR100 partnership; the Bonn Challenge and New York Declaration on Forests; the Global Alliance for Intelligent Agriculture in Climate; the World Food Council; the Sahelo-Saharan Initiative on the Great Green Wall, the African Initiative to Combat Desertification and the Commission for the Sahel region. In 2018 the country commits to achieving LDN by 2030 and reducing the area of degraded land from 9% to 5%. This, with the aim of increasing vegetation cover from 17% to 19% and sustainably improving the living conditions of people. Through these and other platforms the Government of Niger aims to enhance the forestry sector's contribution to agricultural production systems - improving food and water security and create more opportunities for employment and climate-resilient livelihoods especially on rice and meat production.

Baseline projects of particular relevance that have recently been implemented or on-going in the region include the following:

- **Projet de renforcement de la résilience des communautés Rurales à l'insécurité alimentaire et nutritionnelle au Niger –PRECIS (Project to strengthen the resilience of rural communities to food and nutrition insecurity in Niger):** With an overall goal to improve the food and nutrition security of rural households in a sustainable way and to strengthen their resilience to the socio-economic shocks of climate change and natural resource degradation, PRECIS is an IFAD-implemented project that covers 186 municipalities in the Dosso, Tahoua, Maradi and Zinder regions. In terms of population, the project's intervention regions have about 12.5 million inhabitants, or 57.3% of the national population, with an average density of 36 inhabitants per km² well above the national average (17 inhabitants per km²). It is focussed on sustainable agricultural development and building the resilience of rural households, and promoting entrepreneurship and market access.
- **Line of credit for low emission and climate resilient smallholder agriculture:** The objective of this project is to increase resilience of smallholders to climate change, Farmer Organisations (Fos) including youth and women organizations, cooperatives and small and medium-sized enterprises (MSMEs) in Niger to climate change by removing barriers to access financial and non-financial services for adopting and implementing best adaptation measures in agriculture and Ecosystem-Based Adaptation (EbA) and the use of Renewable Energy Technologies (RETs) for agriculture through incentives schemes. This is an €8.5 million GCF-IFAD project that is focused on innovative financing mechanism to foster the best adaptation practices and use of renewable energy along agricultural value chains, capacity-building and technical assistance for forest organisations, cooperatives and micro, MSMEs, National Agricultural Development Bank (BAGRI) and Micro Finance institutions (MFIs), and incentive scheme to encourage MFIs, FOS, cooperatives and MSMEs to adopt adaptation and mitigation measures.

- **Restoration of degraded green belts and trees planting along the streets in the city of Niamey, Niger:** The overall objective of the project is to improve the living conditions and well-being of the populations of the city of Niamey through the establishment and maintenance of trees plantations of multi-purpose woody species in the degraded parts of the Niamey green belt. The project seeks to enhance the landscape and the environment, promotes biodiversity, sequesters atmospheric carbon to mitigate climate change impacts and to promote the ecological restoration of degraded areas, and to improve the living conditions and well-being of local populations through the development of forestry and agroforestry and forest recreation to enhance the Niamey green belt ecosystem services and goods.
- **Sustainable land management project:** This is a \$2 million Bundesministerium für wirtschaftliche Zusammenarbeit und Entwicklung (Federal Ministry of Economic Development and Cooperation) (BMZ)-World Resources Institute (WRI) project in 5 African countries including Niger's giraffe zone of the Dallol Bosso region that is focusing on developing restoration action plans (setting a target for land restoration and lead a participatory process to develop restoration action plans at subnational level together with (subnational) governments); sharing knowledge and replicating successful restoration interventions (use the 100 Landscapes platform to showcase landscapes that are successfully restoring land, deliver targeted communications through radio, print media, and short videos to drive replication of what's working, and facilitate twice-yearly coordination meetings of donor/Implementers on FLR); increasing financial resource flows into the region (host investor roundtables, i.e. "matchmaking" events, develop briefings on funders active in relevant sectors, and support development of GEF and/or GCF proposals, where requested by countries); and setting baselines and monitor progress (establish vegetation baselines at sub-national level in all countries, using the Collect Earth tool where appropriate, build capacity of subnational governments to track and report progress against these baselines and assess impact from restoration, and report these results to national governments and through the AFR100 Secretariat).
- **Programme d'Appui au Developpement Agricole Durable dans la Region de Bosso (Support Program for Sustainable Agricultural Development in the Bosso Region):** This is an €18.8 million 2016 – 2020 project funded by the Luxembourg Cooperation (€13.4 million) and the government of the Republic of Niger (€5.4 million). It focuses on restoration of degraded soils; developing of agricultural food chains in 29 municipalities (rice, gardening, groundnuts and infrastructure development such as roads, warehouse and selling points); capacity development of partner business entities and technology services; training and capacity developing targeting the youth and offering subsidised credits to promising entrepreneurs.
- **Programme d'Appui au Developpement de l'Elevage (Support Program for Livestock Development):** This is 4 year €16 million project funded by the Kingdom of Belgium and the Republic of Niger. The project seeks to improve domesticated animal value chains by building capacities of pastoral communities and improving their resilience, improving the governance of the animal sector, securisation and development of pastoral areas. It is being implemented in 6 wards/departments in the region of Dosso.
- **Projet d'Appui a l'Agriculture sensible aux Risques Climatiques - PASEC (Climate Risk Sensitive Agriculture Support Project):** This project is a \$111 million project (2017 – 2022) that is promoting irrigating in 5 regions, including the region of Dallol Bosso. It is promoting land restoration initiatives and supporting the creation of pieces of infrastructure to improve pastoral activities in the 5 regions.

2.1 The proposed alternative scenario, GEF focal area^[1] strategies, with a brief description of expected outcomes and components of the project

The objective of the project is to strengthen national, regional and municipal capacity and actions to implement an integrated ecosystem management approach in the Dallol Bosso landscape in Niger. The project address the module D: Elements necessary to achieve neutrality; of LDN framework as it will help the country to include the LDN targets in regional and local land use planning and implement certain measures to reverse land degradation.

This project also proposes a suite of interventions that directly contribute to achieving 3 Aichi Targets below:

- Target 1: By 2020, at the latest, people are aware of the values of biodiversity and the steps they can take to conserve and use it sustainably;
- Target 5: By 2020, the rate of loss of all-natural habitats, including forests, is at least halved and where feasible brought close to zero, and degradation and fragmentation is significantly reduced; and
- Target 7: By 2020 areas under agriculture, aquaculture and forestry are managed sustainably, ensuring the conservation of biodiversity.

The proposed project is conceived around four components that consistently build on each other as described below:

Component 1: Enhanced National Capacity for LDN Implementation

In order to meet the ambitious LDN targets set by the government in 2030, the project will assist in the setting up of a multi-sector planning platform comprising institutions with sectoral responsibilities in the achievement of the targets. The project will assist in ensuring frequent meetings of this committee and discussion on how best to use resources and define policy and legislation in order to achieve the targets. The committee will also be regularly briefed on the implementation of the various government and partners' projects which are aligned with reaching the LDN targets. As part of this monitoring work, the project will also assist in the establishment of a information hub and information systems regarding SLM practices under the auspices of the Ministry of Environment and Sustainable Development. This information hub will greatly assist in providing a profile of successful LDN implementation and will provide the LDN target committee an easy accessible tool to assist in ensuring the targets are reached. The monitoring of SLM will also afford the project the ability to draw lessons to build knowledge base to share among stakeholders to support scaling up efforts and replication in areas with similar characteristics. Through the project, the capacities of key institutions will also be build to support LDN/SLM monitoring, restoration and maintenance of functional landscapes, and through it scale the implementation of lessons learnt on this project and others. The project will also seek to strengthen institutional and legal frameworks at a national level to secure land tenure rights. The need for strengthening land tenure rights is recognized as pivotal in ensuring long-term community and private sector investment in sustainable land management. As to showcase/pilot on how to integrate LDN and biodiversity conservation into development planning, the project will, through the LDN target committee and municipal councils, develop an Integrated Landscape Management Plan for the Dallon Bosso landscape. The plan will result in decisions made in the optimum use of land in terms of biodiversity conservation, ecosystem services and socio-economic development, but also ensure approval of the plan by the local stakeholders thereby increasing the chances of successful implementation of the plans.

Component 2: Improved Biodiversity Conservation and Land Degradation Actions in the Dallon Bosso Landscape:

Based on the results of the Integrated Landscape Management Plan (ILMP) for the Dallon Bosso landscape developed under Component 1, the Giraffe Zone[2] will be established as a protected area (most probably IUCN Protected Area Management Category V). The establishment of the protected area is founded on the following fundamental considerations: (i) the Giraffe Zone represents a habitat and associated ecosystems of adequate size that will ensure the long-term viability and maintenance of biological and genetic diversity of giraffes, hippos and various floral species in the area; (ii) the Giraffe Zone represents a habitat of productivity of ecosystems and natural resources that provide socio-economic benefits and upon which the welfare of local inhabitants is dependent; and the Giraffe Zone represents an area of special biological, ecological, educational, scientific, historic, cultural, recreational, aesthetic, and economic value, including in particular the fact that the zone is part of the wider ecological and biological processes that are essential to the functioning of the Niger's ecosystems. The created Kandadji Hippo Sanctuary (1,000 ha) will be supported with the development of relevant sanctuary development policies and guidelines, stakeholders participation in the management and identification of eco-tourism potential to contribute to the Niger Valley Development

Programme, regenerating the natural environment and reducing food insecurity. Consistent with the government of Niger's conservation and development aspiration in decreeing the establishment of the Kandadji Hippo Sanctuary,[1] this project will support the implementation of the land use plan providing sufficient land for the species to continue its presence in the area and reducing the human-wildlife conflict through continuing expanding agricultural and pastoral practices in the grazing areas of this species. The project will assist in setting up the institutional management of the protected area and the sanctuary, as well as technically capacitating the new management regimes. The implementation of the land use plan to safeguard hippos is rationalised on the fact that doing so with The use of land use plans (LUPs) to improve the management of hippos has been further substantiated, reflecting the current land uses, prevailing land tenure (communal) and community livelihoods. The proposed LUPs should be seen not in isolation but in connection and within the context of other proposed interventions, particularly alternative income generating activities that reinforce two aspects: first, reduction of human pressure on the habitat, and second, clarification of where humans can obtain livelihoods to avert conflicts with animals. Resources have been adjusted to increase the allocation to BD-related interventions, as per recommendation from peer reviewers.

[1] Government of Niger (2017). The classification of Kandadji as a National Natural Reserve: Decree 2017-629 PNR/ME/DD

Infrastructure (e.g. tourism information centers, surveillance points, water ponds, observation towers, habitat restoration sites, picnic areas, awareness materials, etc.) will be established to enable proper management of the areas. This component will seek to rehabilitate 34,987.5 ha of degraded tiger bushes and bourgoutieres for giraffe and hippos' habitat, respectively (at an estimated cost of USD 1.2 million from GEF resources). Communication toolkits and radio programs will be developed to assist in the awareness raising of the work done by the project on addressing land degradation and restoration interventions, so as to scale the impact of the project. Further, the component will broaden the bases of community livelihoods as it promotes financial mechanisms to ensure the sustainability of the sanctuary and the protected area. To that end, alternative income generating activities will actively be sought within and around the giraffe and hippo hotspots in the area. At least four alternative income generating activities contributing to land restoration (e.g. Arabic Gum Tree planting) will be identified in the Giraffe and Hippo landscapes together with local communities and implemented taking due consideration of gender aspects. A scoping exercise will also be funded by the project to identify business opportunities in the landscapes related to land restoration. To ensure the sustainability of the income generating activities, the protection and restoration of giraffe and Hippo and restauration of tigger bush will be designed and implemented in such a way it will provides a suite of social and environmental benefits, including supporting the well-being of local communities by ensuring the continued delivery of important ecosystem services that intact Bosso landscape provides. Where feasible, private sector investors will be identified and assistance provided in the drafting of business plans. Potential private investors will include i) Nigerien enterprises in land management and restoration - e.g. E3D, Addaxx.com, IBS Agro Industries, etc.; ii) private investors active in West Africa and interested in Niger's agricultural and forestry sectors (e.g. Injaro Agriculture Capital, Livelihood Venture, Lundin Foundation, etc.). The business plans will help to identify and prioritise activities that are relevant to restoration of habitats as well as the biodiversity conservation agenda of the Dolol Bosso landscape. Therefore, business plans will strengthen the business case for the biodiversity conservation and land restoration agenda. The business plans will be creating and implementing strategies that combine bold commitments to sustainability in conservation and restauration efforts with practical solutions that deliver benefits to the bottom line and the environment. The development of the business plaans will consider lessons from previous similar initiatives elsewhere including the IUCN "Lessons learned from building biodiversity business for conservation". These lessons include i) importance to look at the bigger picture and develop a vision for the business; ii) Stakeholder involvement needs to occur from the beginning; iii) learn about the market and its complexities; iv) Partnerships which can add value to the business; v) Manage expectations, particularly from local communities, and; vi) The possibility of scaling up needs to be factored in from the outset. During the PPG phase, more experiences will be analysed and consider in designing project activities.

Component 3: Promote innovative resilient solutions along key selected agricultural value chains

This component is pivotal to this project. It is in response to the elevated levels of post-harvest losses estimated at 40-50% in a country that suffers from extreme, chronic poverty and remains vulnerable to droughts and malnutrition. The component is embedded in the recommendations of the 2016-2020 Action Plan to develop and make agro-sylvo-pastoral and halieutic value chains at the core of the 3Ns 'Les Nigériens Nourrissent des Nigériens' initiative. In response to the policy direction of the 2016-2020 Action Plan of the 3Ns, this component will seek to promote innovative resilient solutions along key selected agricultural value chains that are relevant to the Dallol Bosso, including boosting the development of agro-silvo-pastoral and fisheries sectors in an integrated approach.^[3] This component recognises multiple challenges and barriers to reduce internal and external factors that drive PHL in the Dallol Bosso. It is therefore rationalized on the understanding that solar energy systems, irrigation systems, climate resilient storage facilities, early warning systems to respond to disease and pest outbreaks, participatory land use planning, among other interventions, will make key selected agricultural value chains more resilient. The component also recognises that improved post-harvest and processing techniques will not only improve the socio-economic wellbeing of farmers, but that farmers will become more efficient producers, thereby lessening their exploitation of natural resources, contributing to avoidance of carbon emissions. Generally, reducing food losses avoids carbon emissions estimated at 4.4 gigatonnes per year,^[4] and also offers an important way of increasing food availability without requiring additional production resources. Dealing with post-harvest losses will include widespread education of farmers in the causes of post-harvest losses; better infrastructure to connect smallholders to markets; more effective value chains that provide sufficient financial incentives at the producer level; opportunities to adopt collective marketing and better technologies supported by access to microcredit; and the public and private sectors sharing the investment costs and risks in market-orientated interventions.^[5]

Component 4: Creating enabling capacity environment at local level to manage post-harvest losses

Based on the initial wide stakeholder consultations at different administrative tiers, including community members themselves (see annex of stakeholder consultations), the asset portfolios of households in the Dallol Bosso are too lean for them to fully take advantage of existing products through value additions. PHLs are recognised as a challenge, however they lack the enabling capacity environment. This component therefore recognizes this lacuna in the management of PHL in the region and will seek to build capacities by training smallholders in PHL reduction technologies and practices, promoting the adoption of locally-adapted PHL technologies and practices, and Dissemination of knowledge products and lessons learned targeting decision makers and local communities. This component will also do an analysis to understand the stages in the value chain of selected products where PHLs are the most acute to respond more effectively to this challenge. The adoption of PHL reduction technologies and hermetically sealed bags, for example will lead to avoided carbon emissions in the order of 3,240 tons. To ensure that enabling capacity development is sustainable, the component will seek to train extension worker as well at local level who will continue supporting smallholders in other areas in the region and beyond. The training of extension workers will therefore support the institutionalisation, adoption and sustainability of PHL reduction technologies and practices.

Besides contributing to restoring and maintaining functional landscapes, building capacity environment PHL in a landscape that is almost entirely agriculture will create jobs. This holds promise in keeping particularly the youth from joining radical and extremist groups that are a constant threat in parts of Niger. Therefore, PHL technologies and practices are natural resource based employment opportunities that have a potential positive spin on decreasing fragility, and keeping conflicts of extremism and radicalization at bay.

d) Incremental/ additional cost reasoning and expected contributions from the baseline, the GEFTF, LDCF/SCCF and co-financing

The Dallol Bosso and surrounding areas as a landscape is characterized by the degradation of the plateaus, increasing land pressure from agriculture, burgeoning population growth, loss of biodiversity and important habitat, inter-community conflicts for resources, and the continuous silting and pollution of the water bodies. These highlight the limitations of current management systems to harmonize resources, adequately exploit the irrigation potential and improve value chains, especially in the river valley and the Dallol Bosso and surrounding areas. Furthermore, the mismanagement of agroforestry parks and production lands exacerbate desertification and poverty. To this constraint is added the lack of legislation on wildlife which does not allow the community to be compensated for damages caused by giraffe on crops. Alternatively put, without the GEF support, the situation in the Giraffe Zone and surrounding areas is characterized by frequent cases of human-animal conflicts, with giraffes and hippos poached in a legal and institutional vacuum since the area is hitherto unprotected. The conservation of these animals does not have well-established and coordinated policy mechanisms. In addition, land use from agricultural production systems lead to land degradation, further compromising the productive capacity of the Giraffe Zone to provide for the ecosystem services that are required by both humans and animals. This complex set of socio-economic and climate change challenges are exacerbated by the fact that populations in the zone are growing.

Lack of investments in the region will therefore mean that the status quo as summarized above will continue in the Giraffe Zone leading to i) continued degradation, fragmentation and loss of forest ecosystems; ii) exacerbation of human-animal conflicts, but also social conflict and land disputes; iii) poaching of giraffes and hippos; iv) reduced agricultural productivity and consequent impact on food security that may worsen the vicious poverty-natural resource dependency cycle, among others.

The with *GEF* support scenario, ***the project*** will lead to the rehabilitation and restoration of the landscape that is at the core of socio-economic wellbeing of communities, biodiversity conservation and lead to the avoidance of carbon emissions through the adoption of post-harvest climate-friendly technologies and practices. The rehabilitation with for example, tiger bush as proposed in this project will improve the productive capacity of the landscape. The GEF support scenario will help to improve the management of resources in the Giraffe Zone to address conservation challenges that the zone faces by the mere fact that it is not a protected area. The improvement of resource management in the Dallol Bosso is premised restoring and rehabilitating the degraded land. Improved management will also help to address the biodiversity and land degradation challenges in the Giraffe Zone as well as contributing to carbon emission avoidance in the order of 151,146 tCO₂, while securing food security through improved post-harvest handling and job creation. With the GEF funding, this project will therefore address key issues focusing on biodiversity loss, land degradation through deforestation, livelihood insecurity, social conflict, human-animal conflict and promotion of agricultural production system that pose minimal threat to biodiversity loss. GEF-funded interventions will consolidate ongoing projects and government. Therefore, the GEF strategic incremental cost for this project is rationalized on the basis that the GEF resources will conserve giraffes and hippos, abate the loss of habitats, support biodiversity conservation, and strengthen policy and institutional capacities to improve biodiversity conservation while empowering rural communities with sensitization programs and include them as partners in the conservation efforts of resources of global environmental value as well as socio-economic benefits at local and national levels. The GEF support will allow identification and promotion of good sustainable land management practices including agroforestry and other agricultural value chains, which will help boost soil quality and land productivity, while conserving and enhancing carbon stocks. Without the GEF resources, the observed trends in habitat loss, absence of eco-tourism to boost the local economy, lack of policy and institutional policies, unsustainable agricultural production systems, among others, will continue leading to the further loss of global environmental goods and loss of socio-economic opportunities for local communities and the nation at large.

Alignment with GEF-7 Strategic Objectives

The project seeks to improve the conservation of biodiversity at both floral and faunal levels by limiting habitat loss using a landscape approach in an area with competing landuse needs between wildlife and humans. It seeks to rehabilitate land within the Giraffe Zone and surrounding areas to improve the productive capacity of the land in ways that also contribute to carbon sequestration and improving livelihoods. Land rehabilitation and restoration will be in view to prospects for food security for smallholders and communities in the Giraffe Zone that are dependent on farming for their livelihoods. Thus, the project

will support communities as they seek to meet growing demand for increased crop and livestock production, reducing the risk to expand the frontiers of farmland, erosion of genetic diversity, overexploitation of land and water resources, and inefficient practices that lead to greenhouse gas emissions and food loss and waste in the Giraffe Zone. The project proposes a suite of interventions that will be tailored to contribute to improving management land and water resources of habitats and their conservation and sustainable use. Thus, this project contributes to the following Land Degradation, Biodiversity and Climate Change Focal Area Objectives:

- Land Degradation Objective 2: *Creating an enabling environment to support voluntary LDN target implementation*
- Biodiversity Objective 1: *Mainstream biodiversity across sectors as well as landscapes and seascapes*
- Biodiversity Objective 2: *Address direct drivers to protect habitats and species*
- Climate Change Objective 1: *Promote innovation and technology transfer for sustainable energy breakthroughs*

The proposed project is therefore in alignment with developing monitoring and information systems regarding LDN, strengthening institutional and legal frameworks to secure land tenure rights for improved livelihoods but also facilitate LDN objectives and building capacities of key institutions to support LDN monitoring, restoration and maintenance of functional landscapes – thus, consistent with creating an enabling environment to support voluntary LDN target implementation. Second, the project is in alignment with developing spatial and land-use planning (including building capacities), improving and changing production practices to be more biodiversity-positive and establishing appropriately tailored policy and regulatory frameworks to mainstream biodiversity in a landscape with interlinked multi and cross-sectoral drivers of resource degradation – thus, consistent with addressing drivers to protect habitats and species. Third, the project acknowledges that biodiversity loss (both fauna and flora), land degradation, habitat loss and climate change, including water loss are systemic processes within the same landscape that require an integrated approach that simultaneously addresses the different components and processes to demonstrate mitigation options to reduce carbon emissions, and to render the socio-ecological system more resilient to both anthropogenic and climate change influences.

The GEF investments in the Giraffe Zone will put the Republic of Niger on course towards combating illegal and unsustainable use of giraffes and hippos as well as improving biodiversity policy, planning, and review, thus mainstreaming biodiversity in priority development sectors of the country for both global environmental benefits as well as socio-economic wellbeing of communities in Dallol Bosso and surrounding areas. The proposed suites of activities directly respond to spatial and land-use planning to ensure that land and resource use are appropriately situated to maximize production without undermining or degrading biodiversity; improving and changing production practices to be more biodiversity-friendly. The proposed project is conceived to mainstream biodiversity conservation in the Giraffe Zone, a community based landscape through promotion of concrete and locally-responsive and biodiversity-friendly agricultural production systems (such as agroforestry, sustainable rangeland management, small-scale irrigation, etc.), community sensitization programs that are participatory in nature to stimulate community based conservation efforts, and capacity building at appropriate administrative levels to improve conservation, sustainable biodiversity, land resource management and minimize human-animal conflicts. These efforts will be institutionalized at appropriate administrative levels. The institutional anchoring of interventions of this project will not only ensure sustainability of project outcomes and impacts, but also contribute to mainstreaming biodiversity in priority development sectors of Niger.

3.1 Global environmental benefits (GEFTF), and adaptation benefits (LDCF/SCCF)

Besides estimated 300,000 people who are directly going to socio-economically benefit from this project, with about 1,500 households adopt the use of biodiversity-friendly agricultural production systems, limiting the expansion of cropland, this project is set to contribute to the generation of global environmental benefits in the following:

- 116,625 hectares of the Giraffe Zone within the Dallol Bosso under improved management effectiveness
- 34,987.5 hectares of degraded tiger bush lands restored
- 221,787.5 hectares of landscapes in production systems under sustainable land management through implementation of Integrated Land Use Plans
- 69,975 hectares as giraffe protected area created

69,975 hectares as giraffe protected area and 1,000 hectares for the hippo sanctuary with Integrated Management Plans

The proposed project will contribute to improved conservation of giraffes and hippos, ecosystem management and land-use practices, thereby reducing the current trend of desertification, deforestation and forest degradation, and animal-human conflicts. Increased productivity on existing farming and pastoral land will equally reduce the need for expanding farmlands, thus reducing Carbon emissions from land use change and agricultural production.

Protected Areas represent conscious conservation efforts to preserve not only wild species, but also the ecosystems in which species live. The conceptualization of this proposed project is premised on the recognition that biodiversity conservation in its various forms – species (flora and fauna), genetic diversity within species and of habitats and ecosystems - supports ecosystem function and has many practical, utilitarian benefits.^[6] Biodiversity conservation makes a critical contribution to maintaining and or improving the life-support system that underpins community livelihoods. This is particularly valid for the Republic of Niger given the biophysical characteristics of the country and the climate change challenges that the country faces. Given the co-habitation of giraffes, hippos and human communities in the same landscape in the Giraffe Zone, improved management of resources in Dallol Bosso and surrounding areas represents an opportunity to achieve multiple benefits: human wellbeing through improved agricultural production systems; rehabilitation and restoration of degraded production landscapes; reduction of Carbon emission, and improved sequestration capacity of the Giraffe Zone; and conservation of giraffes and hippos. This presents an opportunity for the Republic of Niger to slow the rate of biodiversity loss so that many species can continue to survive.

Describe the socioeconomic benefits to be delivered by the project at the national and local levels. Do any of these benefits support the achievement of global environment benefits (GEF Trust Fund) and/or adaptation to climate change?

. Around 100,000 households depend on the landscape resources and ecosystems of the Dallol Bosso for their livelihoods, jobs and incomes. The project will directly affect the socio-economic lives of agricultural producers, pastoral communities, fishermen, micro-entrepreneurs in the transformation and marketing of agropastoral products, consumers of agricultural products, as well as those who use/harvest woody products (firewood). Planned interventions in eco-tourism will deliberately seek to consider the involvement of marginalized community members - women, young people, elderly and handicapped, as beneficiaries. With improved eco-tourism accompanied by required infrastructure and business undertakings such as providing accommodation to eco-tourists, establishment of restaurants and training programs in art and craft, the potential for job creation is unquestionably huge, impacting about 5 000

households around the Giraffe Zone. In addition, these mentioned entrepreneurial activities are potential alternative income generating activities that will lead to reduced pressure on land through cutting down of the tiger bush for sale and land clearing for agricultural activities. The brunt of increased degradation which results in food insecurity, reduction of agricultural productivity and water, as well as the loss of biodiversity is borne by these marginalized members of the Giraffe Zone.

In addition to establishing and or improving value chains for rice, beef and NTFPs as well as enhancing capacities to reduce post-harvest losses, eco-labeling and improved access to market for these products will be an enormous opportunity for job creation among community members in the Giraffe Zone and surrounding areas. Community reliance, exploitation and further degradation of natural resources due to created jobs, the engagement in agricultural production systems underpinned by agroforestry systems will increase yields, limit expansion of farming frontiers and increase the carbon sequestration capacity of the Giraffe Zone and avoidance of additional carbon emissions. The promotion of ecotourism in the Giraffe Zone will improve the local economy, but also inform the allocation of often meagre financial resources at national level to other development sectors and regions of the country. In this way, what happens in the Giraffe Zone will benefit national level economy. The increased influx of ecotourists is an additional and obvious benefit to the national level economy. Likewise, improved agricultural production will have positive socio-economic spill-overs to areas beyond the project catchment area for the benefit of the whole country.

Reduced post-harvest losses and improved eco-labeling will increase the producers' ability to fetch better prices. There is also huge rice markets from business entities from Benin and Nigeria buying at farm gate prices. However, with improved packaging and strengthened marketing platforms, producers are more likely not only to break even, but make more decent profits to lift themselves up from abject poverty, reduce rural-urban migration and incentivise the youth into agriculture which they see more and more less lucrative.

The success of ecotourism in the Giraffe Zone of Niger partly depends on transformational change in agricultural production systems, pastoral communities but also on the establishment of enforceable land use planning regulations and legal and institutional infrastructure. All these points of transformational change require the involvement of local communities, partnerships with other stakeholders including NGOs, private operators and the government of Niger itself. In light of the fore-going, the following are additional direct and indirect socio-economic benefits of the proposed project with spillover effects at national level:

- Construction of infrastructure to enhance post-harvest handling: This will generally improve the physical infrastructure in the area, and create jobs in the construction as well as in the post-harvest handling, eco-labeling and improved access to markets. Job-creation is critical in Niger particularly given the wave of extremism and radicalisation among the youth linked to lack of employment ;
- Promotion of ecotourism small businesses such as art and crafts to provide additional but also diversified income for local people. At least 1 500 will be trained in art and craft and other tourism-boosting activities such as food services and accommodation – leading to provision of jobs that lessen the pressure exerted on resources. The involvement of the private sector will be an opportunity for jobs for local community members in the ecotourism operations;

- Besides diversifying and improving alternative income generating activities, training communities to respond to the demands of both local and international tourists is an opportunity for communities to have their capacities built and knowledge transferred. Therefore, this project will benefit communities through capacity development and knowledge transfer;
- The boost in eco-tourism will also improve the level of financial benefits that are attributed to communities as primary stakeholders in the management of giraffes in the giraffe zone and hippos in the surrounding areas. Currently, communities receive 50% of revenues from eco-tourism, while the state receives 20% and 30% is allocated to operations. However, the revenues are symbolic due to poorly developed tourism opportunities. Therefore, boosting eco-tourism, even with the current benefit sharing quotas, communities and the nation at large are more likely to benefit, in addition to jobs and conservation of giraffes, hippos and tiger bushes;
- Preserved biodiversity at the farm level through production systems involving agroforestry systems, intercropping, and preservation of locally adapted seed landraces. Through this project about 1 500 households will adopt the use of biodiversity-friendly agricultural production systems, limiting the expansion of cropland by about 269,975 ha in Giraffe Zone. In addition, the proposed agricultural production systems have potential to improve nutrient cycling in the soil, increased primary production, and carbon sequestration in cropland areas;
- Improved production systems will lead to alleviate threats of food insecurity, but also human-animal conflicts that are usually due to loss of habitat for wildlife as humans expand frontiers of cropland and grazing land for the domesticated animals;
- Conservation of cultural and natural landscapes and protection of cultural heritage. This benefit of this project points to the cultural value that this project will make not only to Dallol Bosso and surrounding areas, but also to the national level as a whole. Therefore, the project will make both economic and cultural contribution to the Republic of Niger; and
- The project will employ a participatory approach that will create opportunities for joint community biodiversity, land and water management activities, including sensitisation programs that will facilitate knowledge transfer. This will empower communities in the Giraffe Zone and surrounding areas with knowledge for improved management of resources and improved livelihoods.

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

The cost-effectiveness of this project is reflected in the project design in general, and particularly in the proposed components and associated activities. Improved management of land and water, the promotion of best farming practices and post-harvest handling and the strengthening of capacities will be informed and supported by local resources. In addition, resources will be invested, and the successful operation of the ecotourism will itself finance the operations to safeguard the promotion and protection of biodiversity in the region. Therefore, the first level of cost-effectiveness of this project is that the project will seek to leverage investments for the area, encouraging investments from banks and other private sector stakeholders. Second, the promotion of biodiversity-friendly agricultural production systems will be informed by locally available resources and cultural sensitivities and responsiveness. The reliance on local resources has showed that it does not only help to get social license/acceptance, but it is also monetarily cheaper. It is the cheaper way to invest in interventions that have high returns regarding the potential to generate environmental goods and services of global and local importance. The promotion of art and crafts, for example, will be based on the use of local resources, including local community members to build and promote the cultural heritage of the Giraffe Zone. Any investments in promoting eco-tourism will be one-off, and the operations will sustain themselves from revenues.

The cost-effectiveness of this project will also be through:

- Synergising with on-going and past interventions in the region, building on lessons from such interventions to avoid duplication of efforts and resources;
- Partnerships with community based organisations, NGOs and government institutions will help to strengthen ownership, but also a way of 'putting financial resources where mouths are' to generate global environmental benefits and socio-economic benefits.

The more costly alternative scenario would focus more on out-sourcing resources, including human resources to achieve the same aims of this project. In the alternative scenario, the approach would be more top-down without sufficiently acknowledging the livelihood assets and capabilities of local communities, and their potential contribution to the project. However, the proposed project will seek to acknowledge local-level community capacities and asset portfolio, as well as the competences of the private sector.

4.1 Innovation, sustainability and potential for scaling up.

Innovation

This project has been proposed to address land degradation of an ecosystem dominated by tiger bush to yield biodiversity and climate change positive impacts in a fragile yet important landscape for livelihoods as well as biodiversity. It is conceived to address the degradation of a landscape using integrated approaches in response to the both anthropogenic and climate change factors to improve the functioning of the tiger bush ecosystems but also the general productive capacity of the land.

The Giraffe Zone in Niger presents an opportunity to manage human-environment interaction in a strategic landscape approach that promotes human wellbeing, biodiversity conservation of giraffes and hippos, carbon sequestration and reduction of carbon emissions and engagement of the private sector. The project innovately seeks to achieve both socio-economic benefits and global environmental benefits within the same landscape that highlights a rare human-animal cohabitation in a giraffe hotspot that is important to the population of giraffes in the Sahelian eco-region. That is, The last population of giraffes in west Africa lives in Niger in an unprotected Sahelian region that is inhabited by farmers and herders.^[7] Given the status quo, there are a lot of opportunities lost in improving the conservation of giraffes and hippos, arresting land degradation and habitat loss, improving the income base of community members through value chains and improved agricultural production systems and promoting eco-tourism that has enormous potential in providing jobs – that is, alternative broadening the base of alternative livelihoods to support communities to rely and exploit less resources. The project builds on the understanding and recognition of the role of local communities as stakeholders in the conservation of giraffes and hippos, but also as contributors to emission reductions in the production systems, post-harvest handling and processing and value chains. Securing the legal status of Giraffe Zone as a protected area will improve its management - leveraging the legal status of the zone to invest in initiatives that will conserve giraffes as well as hippos that are equally important animals in the extended region, given the flow of the river Niger. Having a legal status a protected area will clarify and strengthen tenure rights of the people, including their negotiating abilities regarding environmental goods and services in the Giraffe Zone.

Through the landscape approach, the project promises the production of recommendations and strategic documents to strengthen human-fauna conflict resolution (for the last giraffes in West Africa), improve and increase of the implementation of *Maison de Paysans*; introduce innovative techniques such as biophysical change monitoring using remote sensing; deepen involvement of private sector and impact investors through the Land Accelerator and investment roundtables; facilitate increased financial investment—from both public and private sources—into enterprises and projects that restore land in the Giraffe Zone; and foster knowledge exchange and storytelling platforms such as the 100 Landscape Platform.^[8]

Sustainability

The first strategic path to the sustainability of this project and its outcomes is the engagement of local communities in the Giraffe Zone who are the direct beneficiaries of improved human-animal conflict resolution, but also who are the primary stewards of natural resources in the region. Thus, community members will be incentivised to sustain project activities as these will be part of their livelihood package. The engagement of community members in this project will be at the level agricultural production systems, post-harvest handling techniques, value chains, sensitisation programs, ecotourism business opportunities and job opportunities with ecotourist operators – the support to alternative income generating activities will be critical and will play a vital role in sustaining the projects and its outcomes during project implementation and after. This level of engagement will ensure that community members feel consulted, but also owners of benefits that accrue from the improved management of natural resources in Dallol Bosso and surrounding areas.

The second strategic path to the sustainability of the project and its outcome will be through the creation of financial mechanisms that support the operational costs of land restoration activities and two Wildlife Sanctuaries. Therefore, the establishment of financial mechanisms will be an important activity in view to ensuring that sustainability is realized for this project.

The third strategic path to the sustainability of this project is the anchoring of its implementation within government institutions that have a predictable level of existence but also with a legitimate legal mandate to implement and execute development programs and projects in the country. Policy and institutional capacities as well as frameworks to support the management of natural resources in Dallol Bosso of local and global importance, land use plans and extension services, among others will be supported through this project. Building capacities will ensure sustainability, and therefore will be crucial for the Giraffe Zone that hitherto is an unprotected area.

The fourth strategic path to the sustainability of this project is the engagement and involvement of other interest groups, particularly the banking sector (to leverage more investments) and ecotourism operators who are essentially the private sectors. Their business interests are a motivation to sustain the outcomes and outputs of this project. NGOs through their advocacy work provide checks and balances that are an important ingredient in sustaining the governance of the project and its outcomes during the project implementation and after.

The sustainability of the project also hinges on the diversity and the quality of the stakeholders. The implementation of the project will be anchored in two directly relevant Ministries: the Ministry of Environment (MESUDD); and the Ministry of Agriculture and Livestock. These ministries will form an Interministerial Coordination Committee (ICC). Besides the ICC, other key stakeholders of the project include: IFAD and UNEP as GEF Implementing Agencies, and World Resources Institute. Other government institutions to be involved include the Executive secretariat of the National Council Environment for sustainable development; the Ministry of Planning; the Ministry of Finance; the Permanent secretariat of the Rural Code; the Regional Councils and Communal Councils all of whom will be engaged as appropriate. This diversity of stakeholders will ensure the sustainability of the project outcomes.

Scaling up

The project has a high potential for scalability and replicability. To improve the conservation of giraffes and hippos, improving value chains, reducing post-harvest losses to improve food security and to improve biodiversity and land and water management are important responses to the several socio-economic and environmental threats that Niger faces as a country. These include loss of habitats and land degradation due to non-environmentally sound agricultural production methods and competing land uses due to burgeoning population growth. These challenges are accentuated by the impacts of climate change, but also by the general biophysical characteristics that make it that only half of the country is hospitable to human occupation. Therefore, the interventions related to improving agricultural production systems limit the potential for expansion of agricultural land, carbon emission and further biodiversity loss. As has been alluded to under the sustainability section, the project will be anchored in government legal and institutional processes which will serve as conduits for the

processes of scaling up within and beyond the project catchment area, during and after the life of project. Scaling up and replicability will also be ensured through regional programs that seek to promote biodiversity and landscape management and livelihoods derived from dryland forests as biomes. Scalability and replicability will be 'demand-driven' given the fundamentally national-level socio-economic, biophysical and climate change-related challenges cross the country that are similar in scope to the Giraffe Zone. Lessons from this project will therefore inform interventions in programs such as Sustainable Forest Management Impact. Additionally, best practices and lessons learned will be communicated through the 28-country African Forest Landscape Restoration Initiative (AFR100), of which Niger is a partner. The AFR100 platform can be leveraged for cross-country exchange, to drive replication of successful approaches, and as a means of accessing complementary technical and financial support.

| For biodiversity projects, in addition to explaining the project's consistency with the biodiversity focal area strategy, objectives and programs, please also describe which [Aichi Target\(s\)](#) the project will directly contribute to achieving.

| The Giraffe Zone is currently not classified as a Key Biodiversity Area, but should be as the Zone contains more than 1% of the global population size of *Giraffa camelopardalis* spp. Peralta, which is categorized as Vulnerable by the IUCN Red List (<https://www.iucnredlist.org/species/136913/4349726>). During PPG, more information will be obtained to justify the inclusion of the Giraffe Zone as a KBA.

| Haut Commissariat Termes De Reference Pour la Realisation de l'Etude Diagnostique Sur Les Pertes Post-Recolte Au Niger (n.d)

[4]High Level Panel of The African Union - European Union Agriculture Ministers Conference Climate Smart Agriculture and Reducing Food Losses and Waste, 2 July 2017, FAO HQ, Rome, Italy (quoting FAO, n.d)

| Hodges, R.J. J. C. Buzby, C.J & Bennett, B. (2010). Postharvest losses and waste in developed and less developed countries: opportunities to improve resource use

| Cardinale, B. J., Duffy, J. E., Gonzalez, A., Hooper, D. U., Perrings, C., Venail, P., Narwani, A., Mace, G. M., Tilman, D., Wardle, D. A., Kinzig, A. P., Daily, G. C., Loreau, M., ace, J. B., Larigauderie, A., Srivastava, D. S. and Naeem, S. (2012) 'Biodiversity loss and its impact on humanity', *Nature* 486: 59–6

| Yvonnick Le Pendu & Isabelle Ciofolo. (1999). Seasonal Movements of Giraffes in Niger. *Journal of Tropical Ecology* 15:341–253

| The 100 Landscape is a platform aiming to support farmers, communities, commercial enterprises and implementers gain access to the knowledge, expertise and finance they need to restore degraded lands across AFR100 partner countries

2. Stakeholders

Select the stakeholders that have participated in consultations during the project identification phase:

Indigenous Peoples and Local Communities Yes

Civil Society Organizations Yes

Private Sector Entities Yes

If none of the above, please explain why:

The development of this PIF has benefited from and been informed by a broad stakeholder mapping and engagement through consultation meetings and discussions that were held at national, regional and community levels. The elaboration of this PIF has had inputs from government officials at the Ministry of Planning, Ministry of Agriculture and Livestock, Ministry of Environment and Sustainable Development, and the Haut Commissariat of the 3Ns (Nigeriens nourrisson Nigeriens) Initiative, various development partners implementing different projects in the Dosso Regions and other regions in the country. Community-level consultations were equally held within the Dosso Region in Margou Bene, Falmey and Boumba, Koure and Lido. The community-level consultations allowed for on-ground appreciation of the socio-economic and environmental challenges of the region, while affording communities and their voice to inform the design and development of this PIF. Therefore, there has been due diligence in the conceptualization of this PIF in terms of ensuring that the priorities herein reflect the development priorities of the countries as well as the development aspirations at local level.

In addition, provide indicative information on how stakeholders, including civil society and indigenous peoples, will be engaged in the project preparation, and their respective roles and means of engagement.

Moving forward, the following stakeholders will continue to play critical and concerted roles to ensure the successful implementation of the project:

- IFAD and UNEP will be the GEF Co-Implementing Agencies of the project with IFAD taking the Lead role. WRI will provide the technical assistance to the Executing Agencies and will be a partner in executing selected activities in collaboration with the Ministries of Environment and The Ministry of Agriculture. IFAD and UNEP will provide project oversight to ensure that GEF policies and criteria are adhered to and that the project fully meets its objectives and achieves expected outcomes in an efficient and effective manner. It shall also in partnership with the Interministerial Coordination Committee (ICC) and other key project partners engage in promoting the project to mobilize resources and create partnership. Project supervision missions by the Task Managers of both IFAD and UNEP shall constitute part of the project supervision plan. IFAD and UNEP will perform the liaison function between Niger and the GEF Secretariat and report on the progress against milestones outlined in the CEO approval letter to the GEF Secretariat;
- As the Executing Agencies, the Ministry of Environment (MESUDD), the Ministry of Agriculture and Livestock shall take responsibility to ensure that the project is implemented in accordance with the agreed objectives, activities and budget; deliver the outputs and demonstrate its best efforts in achieving the project outcomes. To that end, the executing agencies will form a coordination committee to coordinate activities with the other key Government partners, including international and local NGOs, the Private Sector, and other relevant partners and address and rectify any issues raised by IFAD and UNEP with respect to project execution in a timely manner;
- World Resource Institute (WRI) – as the main executing partner – will support the Executing Agencies in implementing the project by providing technical expertise on land restoration and restoration monitoring systems; supporting capacity building activities and improving enabling conditions for greater resilience to climate change; as well as helping compile lessons learned, good practices and success stories from the project. WRI will also coordinate

efforts with the private sector (Nigerien enterprises in land management and restoration - e.g. E3D, Addaxx.com, IBS Agro Industries, etc.); private investors active in West Africa and interested in Niger's agricultural and forestry sectors (e.g. Injaro Agriculture Capital, Livelihood Venture, Lundin Foundation, etc.); the Global Impact Investing Network (GIIN) and the AFR100 financial partner (Permian Global, Form International, Terra Global Capital, Acumen, &Green Fund); and identify viable eco-tourism business opportunities.

- The ICC between the three Ministries will ensure a representation of required government expertise from the ministries, and also take advantage and leverage their strengths to concertedly work together on different facets of the project. This is strategic to ensure required government expertise is represented in project implementation. Therefore, the ICC will be in charge of national institutional coordination;
- The Interministerial Coordination Committee (ICC) will coordinate work with **research institutions** (National Institute of Agronomic Research of Niger; The AGRHYMET Regional Centre- specialized institute of the Permanent Interstate Committee for Drought Control in the Sahel (CILSS); The University Abdou Moumouni of Niamey; The University of Dosso; The University of Tillabery; The International Crops Research Institute for the Semi-Arid Tropics; The Research Institute for Development; Laboratory of studies and research on social dynamics and Local development), and **civil society organisations** (the national NGOs platform (group comprise of all the national NGOs in different sectors); the Association for the revitalization of livestock in Niger; the Association of the tourists guides and the Association of Association of tourism professionals; the Young volunteers in the environment; Coordination of Non-governmental organizations and women's Associations Niger; and National Coordination to Combat desertification);
- Government cross-sectoral ministries that include: The Ministry of Agriculture and Livestock; The Ministry of Water and Sanitation; The Executive secretariat of the National Council Environment for sustainable development; The Ministry of Planning; The Ministry of Finance; The Ministry of Commerce
- The Ministry of the Interior, public security, decentralization and customary and religious affairs; The Ministry of Equipment; The Ministry of Transport; The High Commission for 3N Initiative " Les Nigériens Nourrissent les Nigériens"; The Permanent Secretariat of the Rural Code and the Regional Councils and Communal Councils and
- All stakeholders indicated above will be consulted either for collaboration and synergies or for lessons learned from the past interventions. The Sahara Conservation Fund (SCF): it exists to conserve the wildlife of the Sahara and bordering Sahelian grasslands, together with the diverse landscapes required for its survival of the region's embattled fauna and flora. The NGO is a long term partner of Niger Ministry of Environment and collaborate just recently in the transfer of some Giraffe individuals to a new ecosystem to expand the specie range and provide adequate space and fodder to the growing population. Given the NGO experience in collaboration with Niger Government and on the giraffe population monitoring, the project will seek collaboration with the NGO during PPG phase and key possible interventions with the NGO will be identified.

3. Gender Equality and Women's Empowerment

Briefly include below any gender dimensions relevant to the project, and any plans to address gender in project design (e.g. gender analysis).

The Republic of Niger obliges that all development institutions take into account gender mainstreaming in all their activities. All project activities should operationally reflect gender equality. The Civil Society Organizations (CSOs) are also very active in gender issues. The Coordination ONG Associations Feminines Niger (CONGAFEN), a confederation of NGOs and women's association, coordinates more than 51 NGOs and women's Associations, and plays an important role in the promotion of women's strategic interests, improvement of their living conditions and working environment, and promotion of their status and basic rights. This project will synergise with CONGAFEN to ensure the representation of women interest in the project. CONGAFEN is highly represented throughout the country and reflects the entire population. It organizes periodic fora for experience sharing, awareness campaigns, training sessions and advocacy.

This proposed project recognizes the socio-cultural norms and gendered patterns of resource access, and the dependence of women on provisioning services of forests that this projects seeks to protect. In this regard, gender sensitive and responsive approaches will be ensured to integrate women in alternative livelihood activities, eco-tourism jobs and the promotion of biodiversity-sensitive agricultural production systems. Biodiversity sensitisation and land rehabilitation/restoration programs will deliberately ensure women participation. Gender equity in the socio-economic benefits of this projects will be the benefits for the whole project catchment area. Looking at the demographic dynamics between men and women, gender consideration for this project will not be an option, but part of the design to ensure that the project delivers on its development objective. In line with the national gender policy, gender will be considered as a cross-cutting issue to be mainstreamed into all components of the project.

Based on the interactions with community members, and particularly women groups in the Dosso region, it was established that women have been involved in alternative income generating activities including rice production and the harvesting of gum arabic. Women are involved in land preparation and harvesting, while men are involved during planting and marketing stages. Therefore, in the production and value chains of products such as rice and gum arabic, roles and activities are well culturally divided between men and women. To improve the production and marketing of gum arabic, women are organised in cooperatives. The proposed project will build on existing local-level structures, improve them for better socio-economic outcomes that do not disadvantage women and the youth.

Does the project expect to include any gender-responsive measures to address gender gaps or promote gender equality and women empowerment? Yes

closing gender gaps in access to and control over natural resources; Yes

improving women's participation and decision-making; and/or Yes

generating socio-economic benefits or services for women. Yes

Will the project's results framework or logical framework include gender-sensitive indicators?

Yes

4. Private sector engagement

Will there be private sector engagement in the project?

Yes

Please briefly explain the rationale behind your answer.

The project envisages ecotourism to be spearheaded by private operators with the policy support from the government institutions, while creating jobs for local community members. It is planned that ecotourism operators will be engaged to increase efficiency and success of the project outcomes. As ecotourism operators, they have experience in the industry, and therefore, will support efforts to establish infrastructure required to attract more ecotourists. In addition, this project offers an opportunity for the government to increase its engagement with the private sector in biodiversity conservation. WRI involvement in the project will also include coordinating efforts with the private sector (Nigerien enterprises in land management and restoration - e.g. E3D, Addaxx.com, IBS Agro Industries, etc.); private investors active in West Africa and interested in Niger's agricultural and forestry sectors (e.g. Injaro Agriculture Capital, Livelihood Venture, Lundin Foundation, etc.); the Global Impact Investing Network (GIIN) and the AFR100 financial partner (Permian Global, Form International, Terra Global Capital, Acumen, &Green Fund); and identify viable eco-tourism business opportunities

5. Risks

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)

Risks	Level (Low, Moderate, High)	Mitigation measure (how the risk will be minimized? How the mitigation measures will be minimized or eliminated with the project planned activities)
Weak and poor coordination with ongoing conservation, SLM and adaptation processes	Medium	Coordination and consultation mechanisms will be established to ensure ownership of the process and engagement by all stakeholders
Technical risk: Ecotourism operators as the private sector not found	Medium	Broad level consultations will be undertaken involving the appropriate Ministry and other quasi-government institutions to identify viable business entities to work in the Dalol Bosso and surrounding areas
Environmental risks: Climate Change affects agricultural production, particularly with the recurrent droughts in the country	Medium	Improving agricultural production will include the promotion of landraces and other crop varieties such as short maturity varieties and crops that have a high survivability in the Sahelian eco-region. Agricultural practices such as agroforestry systems that enable beneficiaries to become more productive and diversified economically, leading to more resilient livelihoods, will be promoted.
Political risks: Changes in political circumstances and government priorities	Low	Broad stakeholder engagement and aligning the project to broader government development goals embedded in government institutions will support the management of any changes in political circumstances.
Social risks: Communities turn down the project and refuse to be engaged	Low	Through sensitisation programs, community members will be consulted and engaged so that they appreciate the benefits of conservation and socio-economic benefits that will accrue to the Giraffe Zone. Communities will also be actively involved in joint community conservation initiatives.
Lack of technical and institutional capacities to improve the management of natural resources in the Giraffe Zone	Low	Capacity building is part of this project design, and therefore, capacity needs will be identified to ensure that the required policy and institutional capacities are in place
Since land in the Dosso region is communal, a typical case of a common pool resource, communities do not cooperate and go on with the business-as-usual scenario	Medium	Based on lessons from other projects such as the GEF-WB Programme d'Actions Communautaires in Lido, this project will seek to raise awareness and sensitise communities, and use a participatory approach to involve them in decision making regarding prioritization of activities, their implementation and build consensus on the use of land

6. Coordination

Outline the institutional structure of the project including monitoring and evaluation coordination at the project level. Describe possible coordination with other relevant GEF-financed projects and other initiatives.

IFAD and UNEP as the Implementation Agencies will provide overall project oversight, to ensure that GEF policies and criteria are followed and that the project fully meets its objectives and achieves expected outcomes. The Interministrial Coordination Committee (comprising Ministry of Environment (MESUDD); and the Ministry of Agriculture and Livestock) shall take responsibility for project execution with support from other Executing Partners including the World Resources Institute, ensuring that the project is implemented in accordance with the agreed objectives, activities and budget, to achieve envisaged project outcomes. The ICC will therefore, take the responsibility for regular reporting on the progress of the project that will feed into mid term report as well as the terminal report submitted to the GEF Secretariat.

The project will build and compliment the ongoing national and regional projects executed in Niger as well as the pan-African AFR100 Initiative. The project will particularly learn and be informed by both country level and regional projects with objectives centered on biodiversity conservation, food security, sustainable land management and climate change. These include the following with the GEF grants:

Integrating Climate Resilience into Agricultural and Pastoral Production for Food Security in Vulnerable Rural Areas through the Farmers Field School Approach: This is a \$3.8 million GEF/FAO country project that seeks to enhance the capacity of Niger's agricultural and pastoral sectors to cope with climate change, by mainstreaming climate change adaptation concerns and strategies into on-going agricultural development initiatives and mainstreaming climate change adaptation issues into agricultural policies and programming. Its components focus on integrating improved climate-resilient agricultural practices, capacity building and promotion of agricultural practices through Farmer Field Schools, and mainstreaming climate change adaptation strategies into agriculture sector policies and programs.

LCB-NREE Niger child project: Improving sustainable management of natural resources in Niger's Diffa region: This is a \$3.3 million GEF/AfDB project to enhance agro-sylvo-pastoralism and landscape productivity in Niger's Diffa region by rehabilitating agro and forest ecosystems in support of food security and environmental protection. Its components focus on improving agro-pastoral management and productivity in drylands, natural habitat protection to ensure ecosystem services from the landscape, and Improving and consolidating knowledge, data and monitoring.

Integrated Management of Oasis Ecosystems of Northern Niger (IMOENN): This is a \$4.6 million GEF/UNEP country project with the development objective to integrate natural resource management in development priorities to alleviate land degradation, address loss of biodiversity, reduce emission of GHGs, maintain forest and oasis ecosystem services and improve livelihoods in the Air Massif of Niger. Its components are focused on enhancing an enabling environment for oasis and arid valley forests ecosystem conservation in Niger; integrated landscape planning for oasis and arid valley forests and capacity development for SFM within local communities; and oasis and arid valley forests ecosystem conservation measures.

Large-scale Assessment of Land Degradation to guide future investment in SLM in the Great Green Wall countries: This is a \$1 million GEF/UNEP regional project to assess available tools and methodology for scientific measurement of the ecological impacts of land degradation and SLM practices to guide future investment decisions in the Great Green Wall Initiative (GGWI) region. It involves Burkina Faso, Ethiopia, Niger and Senegal. It has two components: comprehensive analysis of LD processes and SLM practices and programs in selected countries in the GGWI region; and monitoring and knowledge management systems for LD and SLM in the selected GGWI countries. As a pan-African programme launched by the African Union in 2007, the GGWI programme has a goal to reverse land degradation and desertification in the Sahel and Sahara, boost food security and support local communities to adapt to climate change.

Scaling up Community-Based Adaptation (CBA) in Niger: This is a \$3.8 million GEF/UNDP project to strengthen the responsiveness and adaptive capacity of administrative/technical support services at the commune-level to enable generation of a critical mass of climate resilient communities and achieve more climate resilient economies in Maradi region, Republic of Niger. Its components focus on Administrative and technical support services at the commune-level trained in climate risk management, and implementation of measures to build adaptive capacities of communities.

Institutional Arrangement. Describe the institutional arrangement for project implementation:

The institutional arrangements for project supervision at the national level will be carried out as indicated below:

- An Interministerial and Multiactors Coordination Committee (ICC) will serve as a Steering Committee with 3N as Chair. The complete composition will be discussed and agreed upon during the PPG phase
- A virtual Project Management Unit (PMU), which will include Project Coordinator, in Charge of M&E hosted by IFAD Office in Niamey; Two Deputy Project Coordinators (Agriculture hosted by the Ministry of Agriculture and Environment hosted by the Ministry of Environment); Executing Partners named in this proposal; Project Financial Assistants;
- External partners

A comprehensive project management structure and organogram will be provided at CEO Endorsement.

7. Consistency with National Priorities

Is the Project consistent with the National Strategies and plans or reports and assessments under relevant conventions

Yes

If yes, which ones and how: NAPAs, NAPs, ASGM NAPs, MIAs, NBSAPs, NCs, TNAs, NCSAs, NIPs, PRSPs, NPFE, BURs, INDCs, etc

To address the conservation and environmental challenges identified in the project area, the Republic of Niger has acceded to several international legal instruments and has developed various sector strategies. The preparation of the second edition of Niger's Stratégie Nationale et Plan d'Actions sur la Diversité Biologique, adopted in 2014, was guided by the objectives of the Strategic Plan for Biodiversity (2011-2020) and the National Plan for Social and Economic Development (2012-2015). The country has undertaken measures to mainstream biodiversity, integrally or partially, in several additional planning frameworks, including the National Environmental Plan for Sustainable Development. Gender is a cross-cutting consideration in the new NBSAP, and the country is upfront in promoting a decentralized bottom-up approach to implementation. Beyond biodiversity conservation objectives, poverty alleviation is an anticipated impact from the implementation of biodiversity-related frameworks.

The second edition of Niger's Stratégie Nationale et Plan d'Actions sur la Diversité Biologique accounts for 5 strategic objectives that have been mapped to the Aichi Biodiversity Targets: i) conserve and sustainably exploit ecosystems, species and genetic resources; ii) reduce various forms of pollution; iii) improve and develop tools for managing protected areas; iv) take into account biodiversity in policies and strategies; v) address the effects of climate change. Eighty actions have been formulated, along with associated responsible actors, indicators, verification sources, costs per year (including funding gaps), hypotheses and risks. Needs regarding capacity-building and access to technologies for implementing the new NBSAP have been identified, as have activities required to increase levels of communication and public awareness. Niger intends to adopt a system for monitoring and evaluation based on the principles of Results-based Management (RBM).

In light of the framework of the second edition of Niger's Stratégie Nationale et Plan d'Actions sur la Diversité Biologique, the current proposed project is equally consistent to the following:

Plan de Développement Régional de Dosso 2016 – 2020: In accordance with the rural development plan (RDP) of the Dosso region, development interventions in the region need to contribute to the vision to have 'a modern, prosperous, well-governed region, with its cultural diversity, which ensures the satisfaction of the needs of its citizens and solidarity in a peaceful environment with a dynamic, diversified, competitive, sustainable and harmoniously integrated economy,' taking advantage of its natural potential and opportunities for valorization. Overall, the RDP aims to improve the living conditions of the populations of the Dosso region through the enhancement of its socio-economic potential. RDP's strategic orientations and axes of development are: promotion and consolidation of good governance; sustainable growth and diversification of agrosilvopastoral and fisheries production; the promotion of a diversified and competitive economy through the modernization and strengthening of support sectors; improving the nutritional status of populations and their access to quality basic social services; and the establishment of conditions for the sustainability of regional development. These strategic orientations need to contribute to the following general objectives of the RDP for the Dosso region: create the conditions for efficient and effective management of local authorities; in the long term, ensure the food security of the population and stimulate the economy of the region; increase the income of the population by promoting the economic potential of the region; satisfy the needs of the population by improving basic social services and access to quality food; and sustain the achievements of the region and reduce poverty for balanced and sustainable development.

Plan Cadre des Nations Unies d'assistance au Développement (UNDAF) 2019-2021: The working assumption of the United Nations system in Niger under the prevailing UNDAF 2019-2021 is to support effective implementation of policies and programmes that are consistent with country's Vision 2030 and 2035 as defined in the Plan for Social and Economic Development. In the current UNDAF, the United Nations system has positioned itself to strategically support Niger with the vision to promote good governance, the achievement of food and nutrition security, human capital and the demographic dividend, structural transformation of society and the economy, within the framework of a strengthened partnership, effective and efficient coordination based on the principles of the United Nations Reform in order to act, united in action, for the benefit of the most women, young people and children to achieve the 2030 Sustainable Development Goals, leaving no one behind. This project will therefore, contribute to the vision of the Niger-UNDAF 2019-2021 as it seeks to improve food systems through improved land management and biodiversity conservation in Dallol Bosso and surrounding areas.

Action plan of the 3N Initiative "Nigeriens Nourrissent le Nigeriens" (Nigerien feed Nigerien) which is a statement of the ESDP, focuses on four major strategic axis including those relating to environment management. The 3N Initiative which is a strategy for food and nutrition security and sustainable agricultural development. It comprises strategic operational axes which include: (1) *Increase and diversification of agro-sylvo-pastoral and fisheries production*, through supporting small-scale farmers for increased use of agricultural inputs, equipment and other technological tools, and (2) *Improving the resilience of vulnerable groups to climate change, food crises and natural disasters*. These strategic axes linked to the sustainable management of the environment are based on the National Policy on Environment and Sustainable Development (PNEDD-2016), adopted by Decree No. 2016-522/ PRN/ME/DD of 28 September 2016.

National Forestry Plan 2011-2020: The National Forestry Plan (NFP) is adopted by the government in 2014. Its objective is "to achieve a forest cover rate of at least 15%, in order to meet the needs of populations for wood-energy, while conserving biodiversity through sustainable protection of risky areas and wildlife habitats ". More specifically, it aims at promoting: the planning and management of natural forests; planting of tree species that are useful for increasing forest cover and resilience to climate change; development of agro-forestry and management of community forest; extension of energy saving. The ambition of the NFP is to contribute to securing more than 2,000,000 hectares by 2020.

Strategic Investment Framework for Sustainable Land Management (SI-SLM 2015-2029): The SF-SLM is adopted by the government on 17th November, 2014. Its specific objectives are (i) establishment of a framework for financial resources mobilization in favor of SLM in Niger; (ii) ensuring the sustainability of the productive base of agriculture with a focus on sustainable ecosystem management; (iii) increasing forest production; (iv) capacity building for actors; (v) development of SLM monitoring and evaluation system and database of; (vi) dissemination of relevant information for SLM promotion.

National Defined Contribution – NDC has been adopted by the government in September 2015, with the following objectives: (i) ensuring food security to fight against poverty and (ii) contributing in the reduction of global greenhouse gas (GHG) emissions. The best sustainable land management practices (SLM) selected include: land restoration and assisted natural regeneration (ANR); forest management; sand dune fixation and grazing land seeding operations, planting of multipurpose tree species; etc.

National Environmental Policy: Adopted in 2006, the National Environment and Sustainable Development Policy (PNEDD) has as overall objective "to provide general conditions for suitable economic, social and cultural development, through the preservation and sustainable management of the environment and natural resources and strengthening mitigation and adaptation measures to the negative effects of climate change, so as to ensure long-term food security for citizens and improve their living environment. It consists of 4 strategic supporting pillars focused on Environmental Governance, Sustainable land and water management, Sustainable Environmental Management, and Sustainable biodiversity management.

Other national priorities that this proposed project speaks to include: Sustainable development and Inclusive growth strategy; Economic and social development Plan; Food and nutrition security Strategy for sustainable agricultural development (3N Initiative); National Policy on environment and Sustainable Development adopted by the Government; Niger National Determined Contributions; National environment Plan for sustainable development; National Land Use Policy; Strategic Climate Resilience program; Strategy of small irrigation in Niger; and National action Plan for integrated water resources management.

Niger LDN Voluntary Targets: Niger is committed to achieving Land Degradation Neutrality by 2030 and reducing the area of degraded land by 9% to 5% in order to increase the plant cover from 17% to 19% and to improve in a sustainable manner life of the people. Specifically, the necessary actions will be implemented to:

- Restore 44% (4,440,500 ha) of the 10,761,076 ha of degraded land in 2010;
- Reduce to 2% (252,101 ha) the area of cultivated land with a negative trend in net primary productivity;
- Reduce the annual conversion rate from forests / savannah / wetlands to other types of land use from 1% (100 074.3 ha) to 0%;
- Put an end to silting and water erosion (gully) along the Niger River;
- Sequester 292,000 tonnes of carbon in the soil and / or biomass through good agroforestry practices (windbreak, hedge, RNA, fodder bank, food bank etc.)[1]

The project is also conceived within specific regional development priorities, regulations and policy directions applicable to Dallol Bosso and its surrounding areas. These include Dallol Bosso's Land use scheme (others to be included after consultations).

Overall, the proposed project will contribute to the following Sustainable Development Goal aspirations:

- Goal 1 : End poverty in all its forms everywhere
- Goal 2 : End hunger, achieve food security and improved nutrition, and promote sustainable agriculture
- Goal13 : Take urgent action to combat climate change and its impact
- Goal15 : Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.

| <https://knowledge.unccd.int/home/country-information/countries-having-set-voluntary-ldn-targets/niger>

8. 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.

Improving the management of natural resources in an area of often conflictual human-animal cohabitation, but also which experiences unprecedented levels of land and forest degradation owing to exploitation for livelihoods will generate best practices and therefore lessons to be shared and scaled up. Therefore, knowledge management will be important to the overall project implementation process. The knowledge management strategy include documentation and capitalization of lessons learned and best practices. It will target the sharing of experiences and the definition of key elements of success that can be replicated and scaled up. Best practices and lessons learned will be communicated through the 28-country African Forest Landscape Restoration Initiative (AFR100), of which Niger is a partner. The AFR100 platform can be leveraged for cross-country exchange, to drive replication of successful approaches, and as a means of accessing complementary technical and financial support.

The project will include a comprehensive monitoring and evaluation component, which will be informed by the results of the context assessment and refined project theory of change. The project's Monitoring & Evaluation (M&E) plan will, first and foremost, provide reliable evidence to track progress, facilitate management decisions, and inform adaptive management throughout the life of the project.

Creation of impacts will form the basis for knowledge management and dissemination of best practices. It is here reiterated that this project is proposed in an area with ecotourism potential that has not yet been developed to make meaningful contribution to floral and faunal conservation, including associated genetic resources, while broadening the income base for communities in the Giraffe Zone.

Lessons learned from the project will be shared within community members, amongst ecotourism operators, agricultural producers, biodiversity and land managers, political decision-makers and civil society organizations through organization of exchange visits, and participation to national, regional and international conferences on sustainable forest and land management. Knowledge resources developed by the project will be shared with CSOs to widen the reach of these activities; and also, they will be shared within different fora and policy makers support sensitization beyond the Giraffe Zone and immediate surrounding areas to enhance potential for replication more broadly in the Republic of Niger. Other methods of dissemination will include radio and TV programs and publications such as flyers.

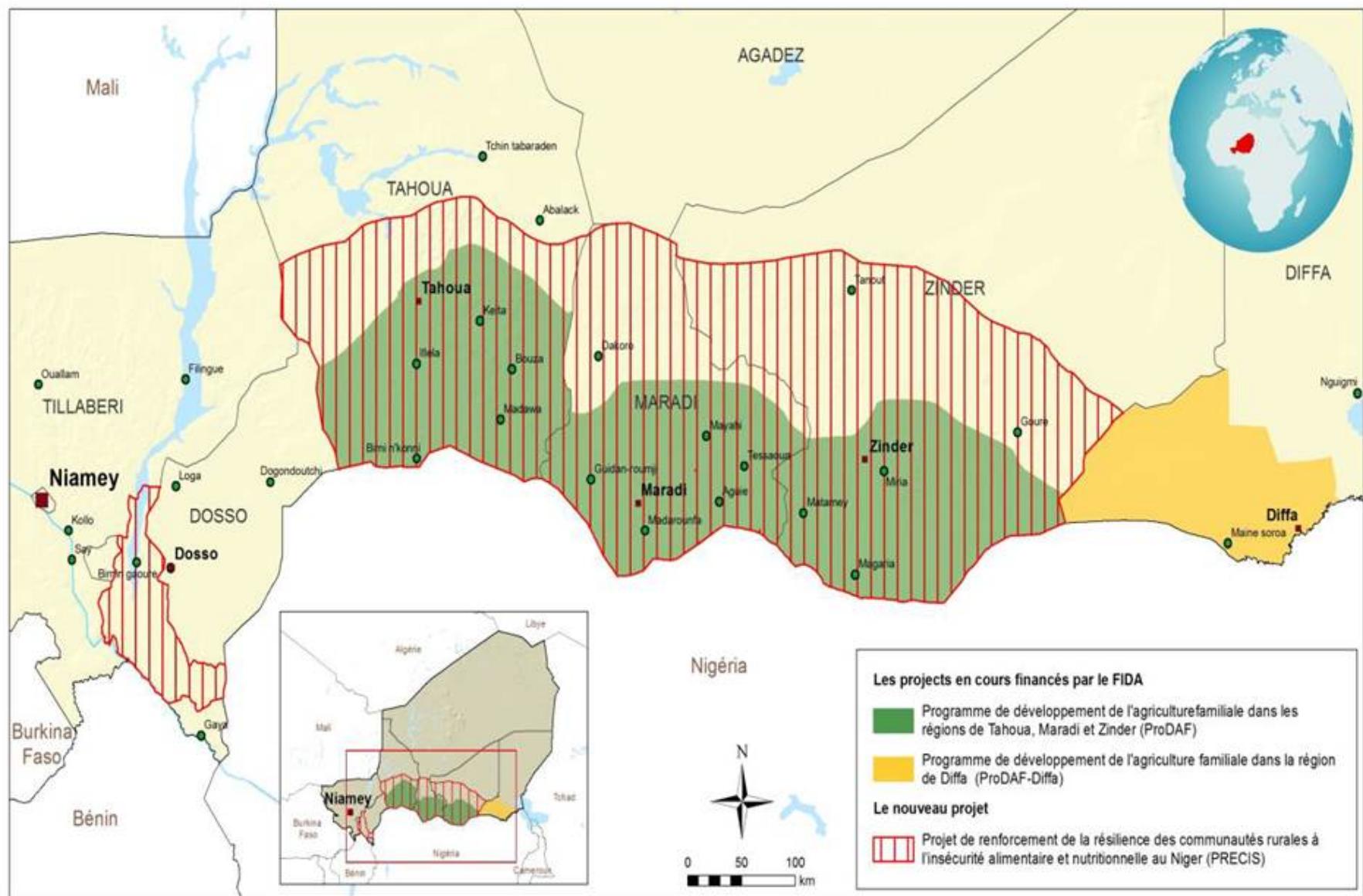
Part III: Approval/Endorsement By GEF Operational Focal Point(S) And Gef Agency(ies)

A. RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT (S) ON BEHALF OF THE GOVERNMENT(S): (Please attach the Operational Focal Point endorsement letter with this template).

Name	Position	Ministry	Date
Yakoubou	Mahaman Sani	Ministry of Finance and Planning	11/1/2019

ANNEX A: Project Map and Geographic Coordinates

Please provide geo-referenced information and map where the project intervention takes place



Les appellations figurant sur cette carte et sa représentation graphique ne constituent en aucun cas une prise de position du FIDA quant au tracé des frontières ou limites, ou aux autorités de tutelle des territoires considérés.

Source: FIDA | 15-07-2019

