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INTERNATIONAL DEVELOPMENT ASSOCIATION

PROJECT APPRAISAL DOCUMENT
ON A
PROPOSED CREDIT

IN THE AMOUNT OF EUR 144.3 MILLION
(US\$150.0 MILLION EQUIVALENT)

TO THE

REPUBLIC OF NIGER

FOR THE

NIGER INTEGRATED LANDSCAPE MANAGEMENT PROJECT

AUGUST 10, 2022

Environment, Natural Resources and The Blue Economy Global Practice
Western and Central Africa Region

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CURRENCY EQUIVALENTS

(Exchange Rate Effective June 30, 2022)

Currency Unit =

0.96154 EUR = US\$1

631 CFA = US\$1

FISCAL YEAR

January 1 - December 31

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ABBREVIATIONS AND ACRONYMS

CAPCR	Community Action Project for Climate Resilience
CBA	Cost-Benefit Analysis
CERC	Contingent Emergency Response Component
CILSS	Permanent Interstate Committee for Drought Control in the Sahel (<i>Comité permanent Inter-états de Lutte contre la Sécheresse dans le Sahel</i>)
CNEDD	National Council for Environment and Sustainable Development (<i>Conseil national de l'environnement et du développement durable</i>)
CNSEE	National Center for Ecological and Environmental Monitoring (<i>Centre national de surveillance écologique et environnementale</i>)
COFO	Land Commission (<i>Commission foncière</i>)
COFOB	Basic Land Commission (<i>Commission foncière de base</i>)
COFOCOM	Municipal Land Commission (<i>Commission foncières communale</i>)
COFODEP	Départemental Land Commission (<i>Commission foncière départementale</i>)
COPIL	Project Steering Committee (<i>Comité de Pilotage</i>)
CPF	Country Partnership Framework
CRI	Corporate Results Indicator
CSO	Civil Society Organization
DA	Designated Account
DGDRLC	General Directorate for Regional, Local and Communal Development (<i>Direction générale du développement régional, local et communal</i>)
DGDCT	General Directorate of Decentralization and Local Governments (<i>Direction Générale de la Décentralisation et des Collectivités territoriales</i>)
DGEF	General Directorate of Water and Forests (<i>Direction général des Eaux et Forêts</i>)
DGP	General Directorate of Planning (<i>Direction générale de la Planification</i>)
DPA	Directorate for Fisheries and Aquaculture (<i>Direction de la Pêche et de l'Aquaculture</i>)
ESMF	Environmental and Social Management Framework
ESS	Environmental and Social Standards
FACI	Integrated Community Agro-Silvo-Pastoral Farms (<i>Fermes agricoles communautaires intégrées</i>)
FCV	Fragility, Conflict, and Violence
FM	Financial Management
FSRP	Food System Resilience Program
GBV	Gender-based violence
GDP	Gross Domestic Product
GEMS	Geo-Enabled Initiative for Monitoring and Supervision
GGW	Great Green Wall
GHG	Greenhouse Gas Emissions
GRID	Green, Resilient and Inclusive Development
GRM	Grievance Redress Mechanism
GRS	Grievance Redress Service
IDP	Internally Displaced Person
ILDP	Integrated Landscape Development Plan
ILMP	Integrated Landscape Management Project
I3N	3N Initiative (Nigeriens Nourish Nigeriens Initiative (<i>Les Nigeriens Nourrissent les</i>

	<i>Nigeriens)</i>
IPC	Integrated Food Security Phase Classification
IRR	Internal Rate of Return
LDN	Land Degradation Neutrality
LUCC	Land Use/Land Cover Change
M&E	Monitoring and Evaluation
MCTA	Ministry of Culture, Tourism and Handicrafts (<i>Ministère de la Culture, du Tourisme et de l'Artisanat</i>)
ME	Ministry of Livestock (<i>Ministère de l'Elevage</i>)
MELCD	Ministry of Environment and Desertification Control (<i>Ministère de l'Environnement et de la Lutte Contre la Désertification</i>)
MP	Ministry of Planning (<i>Ministère du Plan</i>)
MRV	Monitoring, Reporting and Verification
MSMEs	Micro, Small, and Medium Enterprises
MTACD	Ministry of Territorial Management and Community Development
MTC	Multisectoral Technical Committee
MTR	Midterm Review
NDC	Nationally Determined Contribution
NGO	Non-Governmental Organization
NPV	Net Present Value
NTFP	Non-Timber Forest Product
PASEC	Climate-Smart Agriculture Support Project
PCRSS	Community-based Recovery and Stabilization Project for Sahel
PDC	Communal Development Plan (<i>Plan de Développement Communal</i>)
PDES	Economic and Social Development Plan (<i>Plan de Développement Economique et Sociale</i>)
PDO	Project Development Objective
PIM	Project Implementation Manual
PISEN	Niger Integrated Water Security Platform Project (<i>Projet de Plateforme Intégrée de la Sécurité de L'Eau au Niger</i>)
PMU	Project Management Unit
PRAPS	Regional Sahel Pastoralism Support Project (<i>Projet Régional d'Appui au Pastoralisme au Sahel</i>)
RSU	Regional Support Unit
SAWAP	Sahel and West Africa Program in support of the Great Green Wall
SDGs	Sustainable Development Goals
SEA/SH	Sexual Exploitation and Abuse/Sexual Harassment
SLM	Sustainable Land Management
SOE	Statement of Expenses
TOR	Terms of Reference

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DATASHEET

BASIC INFORMATION

Country(ies)	Project Name	
Niger	Niger Integrated Landscape Management Project	
Project ID	Financing Instrument	Environmental and Social Risk Classification
P177043	Investment Project Financing	Moderate

Financing & Implementation Modalities

<input type="checkbox"/> Multiphase Programmatic Approach (MPA)	<input checked="" type="checkbox"/> Contingent Emergency Response Component (CERC)
<input type="checkbox"/> Series of Projects (SOP)	<input checked="" type="checkbox"/> Fragile State(s)
<input type="checkbox"/> Performance-Based Conditions (PBCs)	<input type="checkbox"/> Small State(s)
<input type="checkbox"/> Financial Intermediaries (FI)	<input type="checkbox"/> Fragile within a non-fragile Country
<input type="checkbox"/> Project-Based Guarantee	<input checked="" type="checkbox"/> Conflict
<input type="checkbox"/> Deferred Drawdown	<input type="checkbox"/> Responding to Natural or Man-made Disaster
<input type="checkbox"/> Alternate Procurement Arrangements (APA)	<input type="checkbox"/> Hands-on Enhanced Implementation Support (HEIS)

Expected Approval Date	Expected Closing Date
01-Sep-2022	31-Oct-2028

Bank/IFC Collaboration

No

Proposed Development Objective(s)

To increase the adoption of climate smart landscape restoration practices and improve access to income earning opportunities in targeted communes in Niger.

**Components**

Component Name	Cost (US\$, millions)
Knowledge Creation and Territorial Planning for Climate Resilience	20.00
Investments in Landscape Restoration and Community Resilience to Climate Change	115.00
Project Coordination, Monitoring and Communication	15.00
Contingent Emergency Response	0.00

Organizations

Borrower: Republic of Niger
 Implementing Agency: Ministry of Environment

PROJECT FINANCING DATA (US\$, Millions)**SUMMARY**

Total Project Cost	150.00
Total Financing	150.00
of which IBRD/IDA	150.00
Financing Gap	0.00

DETAILS**World Bank Group Financing**

International Development Association (IDA)	150.00
IDA Credit	150.00

IDA Resources (in US\$, Millions)

	Credit Amount	Grant Amount	Guarantee Amount	Total Amount
Niger	150.00	0.00	0.00	150.00
National PBA	150.00	0.00	0.00	150.00



Total	150.00	0.00	0.00	150.00
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Expected Disbursements (in US\$, Millions)

WB Fiscal Year	2023	2024	2025	2026	2027	2028	2029
Annual	5.00	25.00	25.00	35.00	30.00	20.00	10.00
Cumulative	5.00	30.00	55.00	90.00	120.00	140.00	150.00

INSTITUTIONAL DATA**Practice Area (Lead)**

Environment, Natural Resources & the Blue Economy

Contributing Practice Areas

Agriculture and Food, Fragile, Conflict & Violence, Transport, Water

Climate Change and Disaster Screening

This operation has been screened for short and long-term climate change and disaster risks

SYSTEMATIC OPERATIONS RISK-RATING TOOL (SORT)

Risk Category	Rating
1. Political and Governance	● Substantial
2. Macroeconomic	● Substantial
3. Sector Strategies and Policies	● Moderate
4. Technical Design of Project or Program	● Moderate
5. Institutional Capacity for Implementation and Sustainability	● Substantial
6. Fiduciary	● Substantial
7. Environment and Social	● Moderate
8. Stakeholders	● Substantial
9. Other	● Substantial
10. Overall	● Substantial



COMPLIANCE

Policy

Does the project depart from the CPF in content or in other significant respects?

[] Yes [✓] No

Does the project require any waivers of Bank policies?

[] Yes [✓] No

Environmental and Social Standards Relevance Given its Context at the Time of Appraisal

E & S Standards	Relevance
Assessment and Management of Environmental and Social Risks and Impacts	Relevant
Stakeholder Engagement and Information Disclosure	Relevant
Labor and Working Conditions	Relevant
Resource Efficiency and Pollution Prevention and Management	Relevant
Community Health and Safety	Relevant
Land Acquisition, Restrictions on Land Use and Involuntary Resettlement	Relevant
Biodiversity Conservation and Sustainable Management of Living Natural Resources	Relevant
Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities	Not Currently Relevant
Cultural Heritage	Relevant
Financial Intermediaries	Not Currently Relevant

NOTE: For further information regarding the World Bank's due diligence assessment of the Project's potential environmental and social risks and impacts, please refer to the Project's Appraisal Environmental and Social Review Summary (ESRS).

Legal Covenants

Sections and Description



No later than three months after the Effective Date, the Recipient shall establish, and thereafter maintain, hosted by the regional directorates of the MELCD, the Regional Support Units (RSUs) in each region of the Recipient targeted under the Project, in form and manner and with terms of reference and resources acceptable to the Association.

Sections and Description

No later than three months after the Effective Date, the Recipient shall hire a technical assistance firm satisfactory to the Association for the provision of support to the PMU.

Sections and Description

No later than three months after the Effective Date, the Recipient shall hire partner institutions satisfactory to the Association for the provision of technical support to the PMU and RSUs for the preparation and implementation of Subprojects

Sections and Description

The Recipient shall establish, publicize, maintain and operate an accessible grievance mechanism, to receive and facilitate resolution of concerns and grievances of Project-affected people, and take all measures necessary and appropriate to resolve, or facilitate the resolution of, such concerns and grievances, in a manner acceptable to the Association.

Sections and Description

No later than three months after the Effective Date, the Recipient shall ensure that the PMU enter into various memoranda of understanding with the different national institutions involved in the implementation of different Project activities, all in form and manner satisfactory to the Association, and as further set out in the PIM.

Conditions

Type	Financing source	Description
Effectiveness	IBRD/IDA	The Project Steering Committee, the Multisectoral Technical Committee, and the PMU have been established by the Recipient, in form and manner, and with resources and terms of reference satisfactory to the Association
Effectiveness	IBRD/IDA	The Recipient shall prepare, disclose, consult upon, adopt and thereafter implement the Security Management Plan and a Sexual Exploitation and Abuse / Sexual Harassment Action Plan, all in accordance with, and as defined in, the ESCP, and in form and manner satisfactory to the Association.



I. STRATEGIC CONTEXT

A. Country Context

1. **Geography and climate.** Niger is a land-locked country with an area of 1,267,000 km² and two-thirds of the country are arid and semi-arid (in 85 percent of the total area, annual rainfall is less than 350 mm). Niger faces ever-increasing aridity, marked by very low rainfall varying along a negative gradient from the south (800 mm maximum in the Sahel) to the north, where it is often exceptional. The country is characterized by rising temperatures, and the occurrence of other extreme weather events such as floods and droughts, which expose the populations to climatic hazards with the risk of loss of crops, animals, and other resources. Compared to pre-industrial levels, the median temperature is expected to increase by 2.1 °C in 2030, while the annual number of very hot days (maximum temperature above 35 °C) is projected to rise substantially. In some parts, especially in south-western Niger, this would amount to about 300 days per year of very hot temperature by 2080.¹ Future projections of precipitation are less certain due to the high seasonal and annual variability which characterizes the Sahel region². Some models project almost no change in the mean annual precipitation over Niger, while other models project a decline and others an increase. The projections also show high variations within the country. What is certain, however, is that extreme weather events (floods and droughts) will become more common, and that farmers and pastoralists would need to adapt to erratic rainfall. The 2020 floods affected 350,000 people³.
2. **Demography.** In 2021, the population of Niger was estimated at 25.1 million people, with around 49.5 percent children below 14 years. Most of the population lives in rural areas (83 percent). About three-quarters of the population is concentrated along the Niger River (in the West) and the long (1,500 km) southern border with Nigeria. Some parts of the north are almost uninhabited except for a few small cities along the northern route to Algeria. Fertility remains high in Niger at 6.7 children per woman (2020), leading to an estimated population increase from today's 26 million to 31.3 million by 2027 and to 65.6 million by 2050⁴ while population density would increase from 13.5 inhabitants per km² in 2012, to 26.9 inhabitants per km² in 2030. Persistently high fertility and declining child mortality have resulted in high population growth at 3.65 percent in 2021 and a very young age structure, with 49.7 percent of the population below 15 years of age; the child dependency ratio is 104.1, i.e., there are 1.04 children for each person of working age in 2020.⁵ Such a large share of youth has implications at the household level, as well as the local and national levels in terms of health, nutrition, food security, human development, demand for jobs, service delivery and economic growth and stability. Rapid population growth is also posing threats to Niger's forest resources, protected areas, and their related ecosystem services. The demand for food has led to the expansion of agricultural cropland and the demand for fuelwood is diminishing forested areas.
3. **Economy.** Niger's economy is dominated by the agro-silvo-pastoral sector, which contributes 38 percent to the country's gross domestic product (GDP) and on which more than 80 percent of the population depend for food security and livelihoods. About 84 percent of the population depends on natural resources

¹ Potsdam Institute for Climate Impact Research (2020). *Climate Risk Profile: Niger*.

² <https://climateknowledgeportal.worldbank.org/country/niger/vulnerability>

³ Government of Niger (2020). *Integrated flood response plan for 2020*.

⁴ World Bank DataBank, Population estimates and projections – Niger, <https://databank.worldbank.org/source/population-estimates-and-projections>

⁵ World Bank DataBank, Age dependency ratio – Niger, <https://data.worldbank.org/indicator/SP.POP.DPND?locations=NE>



which are highly vulnerable to climatic factors. Niger's economy has been affected by high variability in rainfall, fluctuating terms of trade and volatility in development assistance flows. These shocks seriously affect human development and cause chronic food insecurity in Niger. Poor households, especially female-headed households, are more exposed to these shocks. Food insecurity is aggravated by the high incidence of rural poverty, which translates into low purchasing power, difficult access to food for vulnerable groups and endemic malnutrition. Due to the pandemic, climate and security crises, the growth rate fell from 5.9 percent in 2019 to 3.6 percent in 2020. The crisis in Ukraine further exacerbated food insecurity. However, the favorable economic outlook in 2022 could allow a rebound in growth to 5.2 percent. The 2021 Debt Sustainability Analysis for Niger rated its risk of external and overall public debt distress as Moderate. Debt indicators remain below their thresholds due to concessional financing from donors and the prospective post-COVID rebound.

4. **Poverty.** Niger has an undiversified economy, dependent mainly on the agro-silvo-pastoral sector. An estimated 2 million people are chronically food insecure, while 4.5 million people are at risk of food insecurity.⁶ Human development indicators are low with (i) a Human Development Index value of 0.394 (2019, latest available), positioning Niger last of 189 countries and territories; (ii) a 62.4 years life expectancy (at birth); and (iii) 6.5 years of expected schooling years, with 2.1 being the mean years of schooling⁷. Over 40 percent of the population is living in extreme poverty, with an aggravated gender disparity.⁸ There are striking disparities in poverty at the subnational level and the poverty incidence in rural areas is 47 percent, compared to only 12 percent in urban areas: a person in Niamey has a 7 percent probability of being poor, while a person living in the regions of Dosso, Zinder, Maradi, and Tillaberi has the highest probability, estimated at 48 percent, 48 percent, 46 percent, and 42 percent, respectively. Such wealth disparities between regions can be a source of social tensions and can potentially affect the country's future growth and security situation. In the absence of adequate coping mechanisms or programs that help the poor build resilience, shocks can contribute to deepen food insecurity, with long-term impacts on poverty reduction and human capital.
5. **COVID-19 and food insecurity.** The pandemic and its related economic downturn had an adverse effect on household welfare and on poverty reduction. In 2020, income losses due to job layoffs and lower remittances has caused poverty to increase, drawing an additional 685,000 people into extreme poverty. Growth was dampened by COVID-related restrictions on the movement of people and on business activities, implemented from March to May 2020, together with a halt in large infrastructure projects and lower global demand for commodities. The health crisis was followed by an acute food crisis linked to the deficit of the 2020/2021 agricultural campaign with a deficit of 38 percent, the difficulties and/or restrictions on the export of food products (particularly from Algeria), and the closure of the border with Nigeria from August to December 2020. The estimated IPC3+ (crisis and emergency level) impacted population for March-May 2022 stands at 3.35 million people and is projected to top 4.4 million people (17.7 percent of the population) in June-August 2022. The multiple drivers of food insecurity in Niger are also expected to persist in 2022 and extend into 2023.

⁶ Government of Niger (2017). *Economic and Social Development Strategy for 2017-2021*.

⁷ HDR report 2020: <http://hdr.undp.org/en/content/latest-human-development-index-ranking>

⁸ The impact of climatic shocks appears to be more significant for female headed households, as women have less access than men to resources (such as land, credit, agricultural inputs, training and extension services that would enhance their capacity to adapt to climate change. A higher gender disparity would keep the fertility rate high and trap the economy in a low-level equilibrium by delaying the demographic transition, holding up wealth accumulation and adding to pressure the human capital investments.



6. **Insecurity and fragility.** Niger is exposed to multiple conflicts and fragility risks stemming from structural causes and fragility drivers. The FY22 Niger Risk and Resilience Assessment identify structural drivers of fragility, conflict, and violence (FCV): (i) cross-border insecurity and limited access to justice; (ii) competition over scarce natural resources aggravated by climate change and demographic pressure; and (iii) social and income inter-group inequality amidst decreasing economic opportunities, for women and the youth, among others. Some of the security threats have increased in recent years, resulting in conflict spillovers and attacks by non-state armed actors in Tillaberi and Tahoua regions on Niger's Western border with Mali and Burkina Faso, in the Diffa region at the Eastern and Southern border, in the southern part of Maradi at the border with Nigeria and Tahoua regions at the border with Mali. In the north, the lawlessness created by the protracted conflict in Libya has affected the Agadez region by facilitating the trafficking of weapons, drugs, and people. As a result, the local economy in these regions has been affected, depriving thousands of livelihood activities and leading to humanitarian crises. In the Diffa region and certain zones in the Tillaberi and Tahoua regions, an emergency has been in effect since 2017. According to the United Nations Agency for Refugees (UNHCR), as of December 31, 2021, Niger hosts 249,945 refugees, 264,257 internally displaced persons (IDPs), 37,305 returnees, 16,526 asylum seekers, and 13,081 other persons of concern.⁹ Authorities often lack the human and financial resources to respond to such challenges partly because of limited institutional capacity and weak public service delivery.
7. **Gender.** Niger was ranked 154 of 162 countries in the 2019 Gender Inequality Index. According to the Global Findex data for Niger,¹⁰ the gap between men and women in labor force participation is higher in Niger compared with other low-income countries. In 2019, the labor force participation rate among females was 60 percent and among males 83.7 percent. Furthermore, vulnerable employment among women was 98 percent in 2019, compared to 91.6 percent among men. Moreover, women generally do not have access to business grants and opportunities, and they fail even to apply for business grants because of collateral factors, like access to land, low financial literacy, risk aversion and fear of failure.¹¹ Nigerian women are mainly involved in subsistence agriculture and earn 29 percent less than men for similar work.¹² On average, plots managed by women produce 20 percent less per hectare than plots managed by men. Gender-based violence (GBV) is relatively prevalent. In 2018, 12 percent of women aged 15-49 years reported that they had been subject to physical and/or sexual violence by a current or former intimate partner in the previous 12 months.¹³ Conflict, militarization, and insecurity in some areas of the country (notably the Diffa, Tahoua, and Tillaberi regions) have exacerbated preexisting risks of GBV in multiple ways.

B. Sectoral and Institutional Context

8. **Niger has considerable renewable and non-renewable natural assets, with natural capital comprising 38 percent of the country's total wealth.** The country's rich and considerable natural resources provide critical ecosystem goods and services on which the population relies on. Croplands, pasturelands, and

⁹ Most refugees come from Nigeria and Mali. The population is predominantly young.

¹⁰ (WBG, 2019). Access on: <https://genderdata.worldbank.org/countries/niger>.

¹¹ Global Enterprise Survey Data for Niger (WBG, 2017)

¹² UN Women, 2022

¹³ UN Women, 2022



protected areas represent 90 percent of Niger's natural capital.¹⁴ The economy is mainly based on the agro-silvo-pastoral and fishery sectors which represent 22 percent of exports and 84 percent of employment.¹⁵

9. **Forestry sector.** Forest resources are notable environmental assets for Niger. While a national inventory was never undertaken, the latest State of Environment report indicates that forests covered 16 million ha of the country in 1991, including 1.1 million ha of natural forests. Nigerien forests provide a variety of products and ecosystem services. In addition to traditional products such as wood energy and timber, forests and pastoral lands ensure the functions of protecting watersheds, provision of certain non-wood forest products, carbon sequestration, climate and water cycle regulation, soil protection against erosion, and contribute to job creation. Forests also contribute to the preservation of natural habitats that sustain biodiversity in Niger, hosting more than 2,761 flora species and 3,200 species of wildlife. Ten nature reserves cover approximately 208,099 km² or 17.5 percent of the national territory. The country has 19 internationally designated sites, of which 14 wetlands are listed as Ramsar sites with a reported total area of 24,141 km². In addition to nationally and internationally designated sites of ecological importance, additional areas known as "forêts classées" (covering 624,647 ha) and protected forests consisting essentially of public forests benefit from various protection regimes.
10. **Pastoral ecosystems.** Livestock employs nearly 87 percent of the active population and represents 11 percent of the GDP and 35 percent of the agricultural GDP. Animal production is at the forefront of exports of agro-silvo-pastoral products with 22 percent. At the household level, livestock contributes to more than 15 percent of income and fulfills up to 25 percent of food needs. While the pastoral system is characterized by different forms of seasonal animal mobility (by following traditional transhumance corridors) to make the best use of resources scattered in time and space, the agro-pastoral system combines extensive animal production and plant crops. In both systems, pastoral areas management affects the supply of different ecosystem services, including regulating services (such as carbon sequestration, dissemination and germination of seed species, prevention of soil erosion) by producing interactions among them.
11. **Fishery and fish farming.** Niger has appreciable fishery resources in the many water bodies of the country (410,000 ha): Niger River and tributaries, Lake Chad, Komadougou Yobé, natural ponds, and reservoirs of artificial water. Fisheries potential largely depends on hydrological conditions and the balance of ecosystems. The average annual production is around 45,000 tons, generating a turnover of US\$120 million. The halieutic richness of Nigerien waters is a major asset for food security since fish, in many cases, is the main source of animal protein. Fishing directly or indirectly affects more than 50,000 people, endowed with traditional and semi-modern know-how in fishing and aquaculture; 10,000 households practice at least one activity in the fishing sector.
12. **Non-farm rural activities.** Non-farm rural activities contribute 4 percent to agricultural GDP. These include craftsmanship, the processing of agro-silvo-pastoral products, the manufacture of agricultural and household equipment, construction, catering, petty trade, artisanal exploitation of mineral resources, and temporary seasonal migrations to urban centers in the country or subregion. These activities are an important source of income diversification in the face of the variability of agro-silvo-pastoral production and constitute safety nets for households. They are a major potential for employment in rural areas for years to come.

¹⁴ Niger Country Environmental Analysis, World Bank, 2022

¹⁵ Landscapes of West Africa: A window on a changing world. USGS and CILSS – 2016 (<https://eros.usgs.gov/westafrica/>)

***Threatened Landscapes***

13. **Nigerien resources and landscapes have experienced severe degradation, due preliminarily to human actions, with climate change exacerbating degradation.** Between 1975 and 2013, the Sahelian savannah decreased by 27 percent, the forests decreased by 66 percent, and sand surfaces increased by 25 percent.¹⁶ As described above, rural communities rely heavily on forest products such as fuel wood, medicinal plants, and wood for home construction. However, forests and pastoral areas are being cleared for grazing land and farms. Large-scale forest clearing threatens the ability of the country to satisfy future generations' needs. A 2011 report estimated that by 2050, the surface area of forests would only be 1.8 million ha (down from 16 million ha in 1991) and would produce only 3.1 million tons of wood, while the demand for wood would be over 14 million tons.¹⁷ This would result in a deficit of around 10 million tons, that is, an annual degradation of approximately 60,000 ha of forests. Continued depletion of Niger's natural resources will compromise the nation's health, food security, and economic development.
14. **Land degradation is particularly visible in areas that have experienced explosive population growth and intensification of agricultural activities, such as the Niger River Valley in the southwestern corner and along the south-central border.** The impact of climate change and anthropogenic activities on land in Niger results in extensive degradation of natural resources, leading to silting up of fertile basins and dwellings, cereal deficit, and a reduction of forest and grazing areas. This puts the entire Nigerien population at risk as the devastating impact of degraded agricultural and pastoral land is linked to food security, conflict, and fragility and has significant costs to the national economy. Land degradation affects the livelihoods of millions of farmers and in 2019 cost the equivalent of 5 percent of the country's GDP (box 1). Rural areas around Niamey and along the Niger River were most affected. The combined pressure of unsustainable land management practices, growing insecurity in the Tillabéri and Dosso regions, demographic changes and migration, and climate change and variability are causing severe environmental and economic damage.

¹⁶ Favreau G. et al (2009) Land clearing, climate variability, and water resources increase in semiarid southwest Niger: A review (Water Resource Research).

¹⁷ Conseil national de l'Environnement pour le Développement durable (CNEDD) (2011) Impacts des Changements climatiques sur les forêts au Niger (Africa Adaptation Programme, AFP)

**Box 1. Land Degradation: Regional Disparities and Related Costs**

Analysis of land degradation at the regional level shows wide disparity in the state of land among the eight regions of Niger. Regional land degradation maps show that the most affected regions were Niamey, Dosso, and Tillabéri, with 52 percent, 34 percent, and 34 percent of land degraded areas, respectively. Maradi registered 17 percent of its area under the process of land degradation, while the extent of degraded land in Tahoua represented 9 percent of its territory. Zinder and Diffa registered 3 percent of degraded areas each.

The total economic costs due to yield loss was estimated at US\$646 million for 2019, equal to 12 percent of the annual agricultural production and 5 percent of Niger's GDP. The costs of land degradation are estimated through the loss of agricultural productivity. The analysis is focused on the on-site economic losses alone and is therefore a conservative estimate since off-site costs often represent around 80 percent of the total costs of land degradation. The crops selected for this study were cowpea, millet, sorghum, rice, peanut, sesame, maize, and fonio, which together account for more than 97 percent of the total crops produced in Niger.

The region of Tillabéri alone bears nearly half the cost of land degradation in Niger and is challenged by multiple types of stress on its land and environment. In 2019, forgone yield loss in Tillabéri reached US\$287 million, or 44 percent of the total cost of land degradation in Niger. Cowpeas accounted for about half of Tillabéri's yield loss, and millet for another third. Looking at the drivers of land degradation, it is noticeable that the southwestern corner of Niger has experienced rapid population growth over the past decades. As a result, agricultural land has expanded, encroaching onto the pastoral land, which itself has witnessed an immense intensification in terms of heads of livestock. Compounding the impact of these trends, the region has been affected by extreme drought and is often marked by violent conflict.

Source: Country Environmental Analysis (forthcoming), World Bank, 2022

Climate Change and Insecurity

15. **Niger is experiencing a situation of structural climatic fragility characterized by a long dry season of seven to nine months and a short rainy season of three to four months, with strong inter-seasonal and interannual disturbances.** Climate change manifests in Niger in different forms: increase in the frequency and duration of droughts, increase and irregularity in maximum and minimum temperatures, increase in the interannual variability of rainfall, shortening and instability of the rainy season, number and flood intensity, and strong winds. The manifestations of climate change profoundly affect the natural and agro-silvo-pastoral systems of Niger, which translates into (a) a reduction in agricultural production (shortening of the agricultural season, drop in yields, and loss of crops and cultivable areas); (b) a reduction in pastoral resources (reduction in fodder and water availability); (c) a reduction in forest resources (overexploitation and fires); and (d) a reduction in fish production (early drying up of ponds and decline in water quality). Desertification is one of the most visible effects, together with the progressive degradation of land caused by wind and water erosion, global warming, and the overexploitation of forests, due to the strong pressure on natural resources, the growth population, and the poor distribution of rainfall causing floods or droughts. Forest land has evolved from 1975 to 2013, experiencing a regression of 1,100 km² per year. At the same time, sandy surfaces have increased by 744 km² from 1975 to 2013.¹⁸
16. **The security crisis in Niger has exacerbated the effects of climate change on local livelihoods and on the conditions of access to and use of natural resources.** It has a significant impact on rural economies with numerous effects on actors and agricultural investments along the agricultural value chains, including (a) reduced access to inputs and markets; (b) expansion of agriculture into marginal areas; (c) shrinking and scattering of grazing areas; (d) increased soil degradation because of water and wind erosion and desertification due to human and animal factors (such as overgrazing, soil degradation by acidification, and

¹⁸ FAO, 2013. <https://www.fao.org/niger/la-fao-au-niger/le-pays-en-un-coup-deoeil/fr/>.



removal of woody vegetation for firewood); (e) increased theft of various assets; (f) competition over natural resources; (g) links between changes in water availability, climate variation, and social conflicts and fragility; (h) increased prices of inputs and products; and (i) increased food insecurity. The growing insecurity along national borders is manifested by the theft of cattle, armed attacks, the impossibility of exploiting pastoral spaces and crop fields—pressure on all vital resources.¹⁹ Rural communities witness a pattern where high demographic growth, migration, and unprecedented climatic variability put pressure on loosely regulated and limited natural resources. This in turn leads to over-use and degradation of the assets, which in a context of scarce economic opportunities and high poverty, causes greater and unsustainable exploitation and thus more frequent and intense conflicts.

17. **Land tenure.** Most rural communities grapple with a land tenure system with often unclear and overlapping rights and a lack of land use classification and registry. Traditional or customary mechanisms have been used to resolve conflicts through dialogue and consensus, but they have recently become less effective due to disruptive social changes, increased pressure on land, and a reduced asset base. Land tenure in rural areas is based on the *Rural Code*, Ordinance 93-015 of March 2, 1993, that recognizes traditional land ownership and common natural resources management, including for irrigated land and pastoralism. This legislation established an affordable and expedited process to secure tenure rights through local land commissions (*Commissions foncière*, COFOs) the majority of which, however, are still not functional.²⁰

Key National Policies and Strategies

18. **By 2030, Niger commits to achieving land degradation neutrality (LDN) (no net loss), reducing degraded areas from 9 percent to 5 percent and increasing vegetative cover from 17 percent to 19 percent (net gain) with a view to sustainably improve the living conditions of rural populations.** Specific targets are the following: restoring degraded lands, reducing the area of cultivated lands with a negative net primary productivity trend, reducing the annual rate of conversion of forests/savannahs/wetlands into other types of occupation to 0 percent, putting an end to silting and water erosion (gullyling) along the Niger River, and sequestering carbon in the soil and/or biomass through good agroforestry practices.²¹ By achieving these targets, large areas of existing degraded lands can be recovered for agricultural and pastoral use, for the benefit of rural producers.
19. **Niger has strengthened its adaptation and mitigation ambition and updated in 2021 its Nationally Determined Contribution (NDC) based on new estimates in the sectors of agriculture, forestry and other land uses, and energy, using new climate projections.** The country has committed to conditional mitigation targets for the agriculture, forestry, and other land use sector of 14.60 percent by 2025 and 22.75 percent by 2030 from status quo and introduced unconditional contributions of 4.50 percent and 12.57 percent by 2025 and 2030, respectively, for this sector. Niger has also introduced an unconditional commitment to reduce its greenhouse gas emissions (GHG) in the energy sector by 11.20 percent by 2025

¹⁹ General About Tarka (HACP) quoted in “Niger between jihadist threat and food insecurity”, Le Monde, 20 April 2022.

²⁰ The Rural Code is a tool to respond to the challenges of land management in a context of limited natural resources with the objective of combating food insecurity, environmental degradation and conflicts in rural areas. The Rural Code sets the legal framework for agricultural, forestry and pastoral activities from the perspective of land use planning, environmental protection and human development. The Land Commissions are institutions that implement the Rural Code and ensure compliance with the standards established in its texts.

²¹ République du Niger. *Processus de Définition Des Cibles de Neutralité en Matière de Dégradation des Terres, Rapport Final du Programme de Définition des Cibles de NDT*, 2018



and 10.60 percent by 2030 compared to the status quo, as well as discounts conditional on 48 percent and 45 percent support for the same dates. The country has also developed a resource mobilization strategy to support the achievement of its NDC objectives.²²

20. **Niger has joined the Great Green Wall for the Sahel and the Sahara (IGGWSS) initiative supported by 11 African countries and endorsed by the African Union, which aims to restore 100 million ha of dryland by 2030 along an 8,000-kilometre strip, stretching from Senegal in the West to Djibouti in the East.** Niger's contribution to this goal is the greening of 3.6 million hectares of land by 2030, which represents more than 37.5 percent of its territory. By 2021, nearly 713,000 ha has been restored. In addition to halting desertification and increasing forest cover, the GGW Initiative also aims to increase access to water, improve sustainable land use, and provide diversified natural resources-based livelihoods for local populations. The Great Green Wall in Niger stretches East-West, covering parts of the six regions of Tillabéri, Dosso, Tahoua, Maradi, Zinder and Diffa.
21. **Other national policies and strategies relevant to the proposed project include:**
 - **Decentralization and Deconcentration.** The Government of Niger supports a bottom-up socioeconomic development, including management of natural resources. The objective of the decentralization policy is to strengthen local authorities to promote sustainable local development. However, despite initial promising results, deconcentration and decentralization have lagged, with 90 percent of the budget spent at the central level (nearly all in Niamey, where 50 to 90 percent of civil servants are based), accentuating the disparity with all other regions. Financial transfers to support elected local officials have been extremely limited (estimated at 0.5-2.0 percent of the budget) and local government revenues are relatively unreliable, modest, and based on out-of-date collection methods that are heavily dependent on central government management and control. While most local governments have participatory approaches to planning, the capacity to mobilize and manage resources is very limited.²³
 - **Sustainable Development.** In May 2017, Niger adopted its 2035 Development Vision in its *Strategy for Sustainable Development and Inclusive Growth*²⁴. The overall strategy seeks to address the main constraints to development, including national security, public administration, human capital (education and health), and population growth as well as economic growth, rural development, and private sector development. The Ministry of the Environment and Desertification Control (*Ministère de l'Environnement et de la Lutte Contre la Désertification*, MELCD) is responsible for developing national policies for the preservation and management of the environment and natural resources. This is done in close collaboration with several other ministries to support the preservation of the environment and fight against desertification. The MELCD is a member of the National Council for the

²² Niger NDC goals: (a) restoration of agricultural land: 1,030,000 ha; (b) assisted natural regeneration: 1,100,000 ha; (c) dune fixation: 550,000 ha; (d) development of natural forests: 2,220,000 ha; (e) hedges: 145,000 km; (f) gum/doumier plantations: 750,000 ha; (g) *Moringa oleifera* plantations: 125,000 ha; (h) herbaceous seeding: 304,500 ha; and (i) private forestry: 75,000 ha.

²³ Direction générale de la Décentralisation et de la Déconcentration, *Document-Cadre de Politique nationale de Décentralisation*, 2012

²⁴ Stratégie de Développement Durable et de Croissance Inclusive 2035, <http://www.plan.gouv.ne/sddci-2035.php>



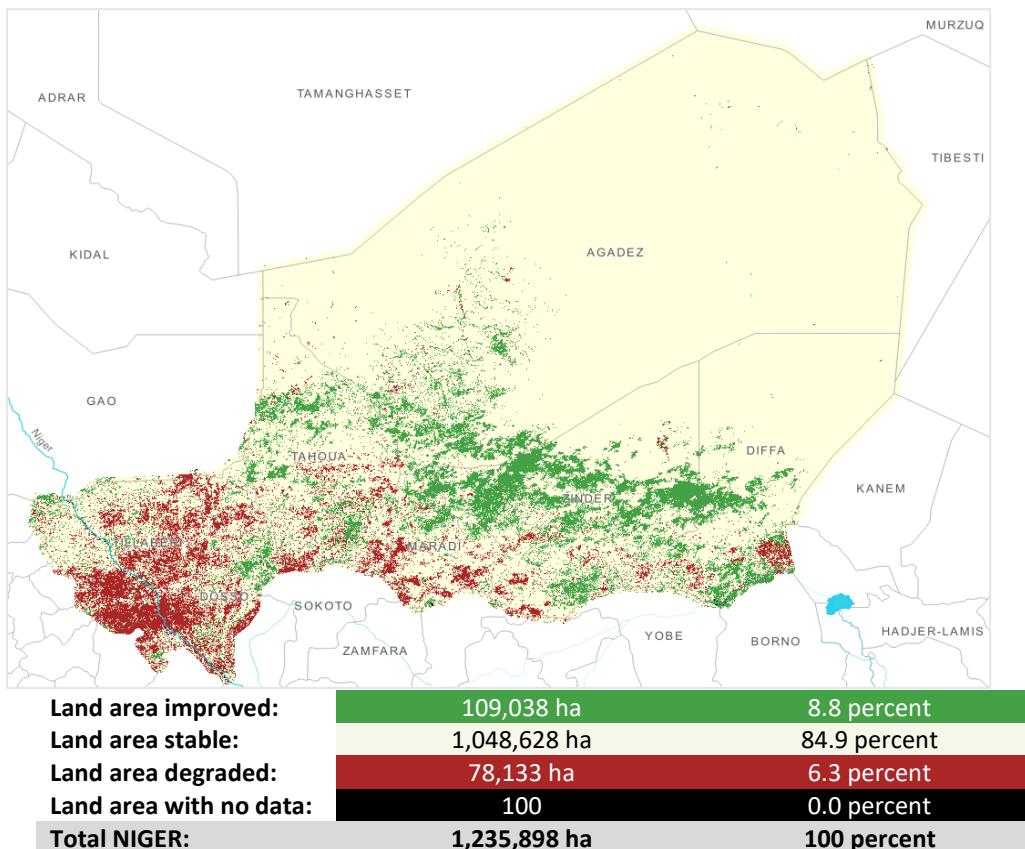
Environment and Sustainable Development (*Conseil national de l'environnement et du développement durable*, CNEDD) and holds and holds its vice presidency.²⁵

- **Strategic Framework for Sustainable Land Management 2015–2029.** Its objective is to prioritize, plan, and guide the implementation of current and future investments in sustainable landscape management (SLM). Its specific objectives are (a) mobilizing financial resources for SLM in Niger; (b) emphasizing sustainable management of ecosystems; (c) increasing forest production; and (d) setting up an SLM-dedicated monitoring and evaluation (M&E) system. The Government of Niger has the objective to restore 3.2 million ha of land by 2029, a commitment expressed through its NDC.
 - **NTFP Strategy.** With support from the World Bank, Niger developed and validated its strategy and action plan for the promotion of NTFPs in January 2016. The vision of the strategy for the promotion and development of NTFPs, by 2035, is to contribute to ensuring the socioeconomic well-being of rural populations through the rationalization of the exploitation of NTFPs. The immediate objective of the strategy is to assess NTFP potential; restore, support, and strengthen the productive and protective functions of these resources; and promote their sustainable use and rational exploitation while increasing their contribution to the household and national economy.
 - **National Action Plan for Land Policy 2021–25** which seeks to make rural land a powerful tool for the country's economic and social development through modernized and integrated land governance system responsible and effective. This ensures sustainable land management, equitable and non-conflictual access to land and renewable natural resources, and the securing of legitimate land, in particular those of vulnerable rural operators (women, youth, and people with disabilities).
 - **Niger Strategy for Fisheries and Aquaculture Development** promotes sustainable fishing with a view toward ensuring the conservation, management, and development of fishery resources, while respecting ecosystems and biodiversity, to better combat food insecurity and poverty.
22. **Since the early 1980s, in parallel to the implementation of these strategies and action plans, the Government of Niger and its development partners have invested more than US\$3 billion²⁶ in several projects to promote SLM and other activities to reduce poverty and vulnerability.** Most of these programs have promoted water harvesting and soil and water conservation measures, tree planting, and other measures to rehabilitate and restore landscapes. Water harvesting and soil and water conservation measures that are commonly promoted include improved planting pits (zai), half-moons, stone bunds, banquettes (embankments with trenches), small dikes, and water spreading dams. Vegetative measures promoted include tree nurseries and plantations, vegetative bands, windbreaks, areas protected for natural regeneration, and sand dune fixation.

Figure 1: Map of land degradation 2001-2015 (Source: trends.earth, 2016)

²⁵ Civil society organizations (CSOs) working in the field of environment are represented by the NGO Support for Grassroots Development Actions (SADEB) and more than a 100 NGOs and development associations gathered around the National Committee of Coordination of NGOs on Desertification.

²⁶ Niger CEA 2022 & World Bank and Impact analysis of Sustainable Land Management Programs in Niger, 2009



23. **Despite these large investments, SLM programs impacts on land management, agricultural production, poverty, and other outcomes are not well known.** Since the early 1980s, there has been a well-documented “re-greening” of much of southern Niger and many other parts of the West African Sahel. Although improved rainfall since the early 1980s is responsible for much of this recovery, there are large areas of Niger in which the re-greening exceeds what can be explained by changes in rainfall alone. Other factors, including SLM programs as well as changes in Government policies, are cited by some observers as important causes of improved land management. It is estimated that in the past 25 years, Nigerien efforts to combat desertification have resulted in the rehabilitation of over 10 million ha of bare land – or 2.6 percent of non-desert land area. Planted forests as a share of total forest area in Niger was over 12 percent of the total forest area in 2011–2014, the highest share in West Africa²⁷. However, rigorous evidence of the impacts of SLM programs on land management, poverty, and other outcomes is lacking. While around 85 percent of the total area of the country is stable, 8.8 percent has improved, and 6.3 percent has been degraded.
24. **Despite the impressive achievement in combating desertification and land degradation in general, Niger still has a long way to go before it achieves zero net land degradation in 2030.** While the country made significant commitments to promote SLM practices, the adoption rates of such practices remain low, and some key transformational changes are urgent. This suggests the need for the Government to: (1) have better knowledge of its natural resources and their state to better manage them (by undertaking an inventory, making operational the environmental information systems, bringing forest and pastoral lands

²⁷ Ephraim Nkonya et. al, Economics of land degradation in Niger, IFPRI, 2018



under management plans); and (2), provide incentives for the adoption of tree planting and protection and other SLM practices which have large off-farm benefits through the valorization and improvement of access to markets for NRM products, to benefit the communities and avoid further degradation. These transformational elements are central to the proposed project.

C. Relevance to Higher Level Objectives

25. **The proposed project is well aligned with the World Bank Group's twin goals of ending extreme poverty and boosting shared prosperity in a sustainable manner.** Project activities will promote poverty reduction, invest in diversifying local livelihoods, and improve climate resilience. The project will provide special support to the poorest and most vulnerable social categories, especially those who have been severely affected by the Covid-19 pandemic.
26. **The proposed project's objectives are fully aligned with the Niger Country Partnership Framework (CPF) 2018–2022 (report number 123736-NE) and the Niger Economic and Social Development Plan 2022–2026 (*Plan de Développement Economique et Social [PDES 2022–2026]*).** The proposed project is fully aligned with the focus areas 1 and 3 of the CPF by (1) increasing rural productivity and incomes to improve the productive capacity and market integration of farmers and pastoralists and to support agriculture diversification and (3) strengthening governance to foster citizen's engagement and promote important sectoral reforms that improve service delivery, expand economic opportunity, bolster economic growth, augment the resilience of the population to fragility and climate change, and mitigate climate change through reduced energy use. The project is also aligned with Niger's vision for 2035, as expressed through the Sustainable Development and Inclusive Growth Strategy (SCDDI),²⁸ as well as with Niger's PDES 2022–2026, which intends to "*strengthen the resilience of the economic and social development system.*" More specifically, the project supports Pillar 1 (Human Capital Development), and pillar 3 (Sustainable Management of the Environment and Climate Change Resilience) by increasing SLM and food security through coordinated and sustainable multisectoral investments.
27. **The project directly contributes to the "Supporting a Resilient Recovery: Western & Central Africa Region Priorities 2021–2025", the World Bank's Africa Climate Business Plan, and the World Bank's COVID-19 response as articulated in the World Bank's promotion of Green, Resilient and Inclusive Development (GRID).** In accordance with the CPF, the project targets rural areas with some of the highest poverty rates in the country. Furthermore, these areas are especially vulnerable to climate change, therefore contributing to the action areas 'creating climate-resilient landscapes' and 'promoting climate-smart agriculture' set out in the World Bank's Africa Climate Business Plan. The project similarly aligns with the World Bank Group's Climate Change Action Plan 2021–2025. The project is also aligned with the "Supporting a Resilient Recovery: Western & Central Africa Region Priorities 2021–2025" with the goals to boost climate resilience by helping countries to adapt and mitigate climate shocks through strengthening resilience in cities and rural areas. Finally, the project reinforces the World Bank's COVID-19 response, which recognizes that the crisis can be leveraged by countries to 'Rebuild Better' in a greener, more sustainable, and resilient way in accordance with the World Bank's GRID Development approach.²⁹ The position paper recognizes that landscape and watershed management, ecosystem restoration, sustainable

²⁸ Stratégie de Développement Durable et Croissance Inclusive-2035

²⁹ World Bank Group. 2020. *COVID-19 Crisis Response Approach Paper Crisis Response Approach Paper Saving Lives, Scaling-up Impact and Getting Back on Track.*



management of forests, and regenerative agriculture and food systems can create jobs quickly and generate long-term benefits such as reduced water scarcity, flood and drought mitigation, lower carbon emissions, and higher agricultural productivity and food security.

28. **The project is in line with the Government's *Prevention and Resilience Action Plan* which was prepared by the Inter-ministerial and Multi-agency Working Group in 2020 and the FY22 Risk and Resilience Assessment for Niger.** It will directly contribute to the priority measures to mitigate the factors of FCV through three out of the four PRA strategic objectives: (a) improve the integration of youth and women into the country's economic and social dynamics; (b) prevent and manage conflict and tension related to natural resource access and population growth; and (c) improve governance, with a focus on access to justice services and management of extractive resources.
29. **The project will support the World Bank Group Gender Strategy (FY16–23), particularly the strategic objectives related to economic opportunities and enhancing women's voice and agency.** The project aims to address gender disparities in access to economic opportunities, including by promoting the conditions for women's entrepreneurship, reducing skill gaps, and reducing gap in voice and agency via participation in decision-making structures both formal and informal.
30. **On a global scale, the project will also contribute to the overall Sustainable Development Goals (SDG) and support Niger towards its implementation.** It will notably contribute to SDG 12 "Responsible production and consumption to restore forest and land through improved soil and nutrient management practices and promote efficient and sustainable land use practices and avoid land degradation"; SDG 13 "Climate Action" to take urgent action to combat climate change, and SDG target 15 "Life on Land".

II. PROJECT DESCRIPTION

A. Project Development Objective

PDO Statement

31. The Project Development Objective (PDO) is to increase the adoption of climate smart³⁰ landscape restoration practices and improve access to income earning opportunities in targeted communes in Niger.

PDO Level Indicators

- *Land area under sustainable landscape management practices (CRI³¹, Hectare [Ha])*
- *Producer organizations with increased access to income opportunities (Number)*
- *Net greenhouse gas (GHG) emissions (CRI, Metric tons CO2/year)*

B. Project Design

32. **The design of the project is based on the nexus between natural resources degradation, climate change impacts, and social conflicts.** In this context, implementing the landscape restoration approach is required to face these challenges and break the current deadlock (box 2). This approach is recognized as an effective mitigation strategy by the Intergovernmental Panel on Climate Change due to its multiple adaptation and mitigation effects. It includes different horizontal and vertical entry points emphasizing the importance of

³⁰ Climate smart is defined as strategies/systems or practices implemented to adapt and build resilience to climate change; and reduce GHG emissions.

³¹ CRI = Corporate Results Indicator



interrelated strategies and agreements on a set of concrete objectives. Since communes' territories in Niger are linked to specific sociocultural-linguistic groups and ecosystems, the territory of the commune will be considered the landscape unit in this project. Table 1 presents how the landscape restoration approach will be applied at the commune level in alignment with the Communal Development Process. In addition, the project will apply the Land Degradation Neutrality approach through implementing measures around three concurrent objectives: (1) avoiding new degradation by maintaining existing healthy areas; (2) reducing existing degradation by implementing sustainable landscape restoration and land management practices; and (3) accelerating the restoration of degraded lands.

Table 1. Embedding the Landscape Restoration Approach in the Nigerien Communal Development Process

Key Steps of the Landscape Restoration Approach	Incremental Steps of the Project
Identification and characterization of landscape units	Selecting communes (based on specific criteria)
Establishment of a multisectoral partner group at the level of each landscape unit	Enhancing the planning and managerial capacities of communal councils and land communal commissions
Participatory preparation at the level of each landscape unit of Integrated Landscape Development Plans (ILDPs)	Supporting participatory and inclusive elaboration/ updating of Communal Development Plans (<i>Plan de Développement Communal</i> , PDCs) and annual investment plans
Joint implementation by public and private actors of the ILDPs' agreed activities	Assisting local stakeholders to design eligible investments (subprojects) aimed to restore landscapes, and improve livelihoods
M&E of the implementation of the ILDPs	Support a bottom-up and inclusive M&E system

33. **The project is designed around key resilience factors aiming to slow the deterioration of the conflict situation as recommended by the Niger Prevention and Resilience Allocation and the FY22 Risk and Resilience Assessment for Niger:** (a) involve grass roots Civil Society Organizations (CSOs); (b) increase the role of the private sector in rural areas; (c) include and consult with customary and religious authorities; and (d) develop intercommunal agreements over natural resources management. All these elements of project design have a great potential for peacebuilding in many parts of the conflict zones.

**Box 2. Landscape Restoration Approach**

Landscape restoration aims to reconcile economic, social, environmental and climate, concerns within a holistic framework, utilizing environmental improvements as drivers for socio-economic regeneration.³²

Key pillars of landscape restoration process are (a) *Participation*: involving local communities; (b) *Governance*: including controlling the land, funding, developing climate-resilient projects; and (c) *Sustainability*: empowerment and capacity building, addressing appropriate land interventions for the long-term, and assuring resilience to climate impacts.

Key steps of the landscape restoration approach include the following:

- Identification and characterization of landscape units.
- Establishment of a multisectoral partner group at the level of each landscape unit.
- Participatory preparation at the level of each landscape unit of *Integrated Landscape Development Plans* (ILDPs).
- Joint implementation by public and private actors of the ILDPs agreed activities.
- M&E of the implementation of the ILDPs.

Landscape restoration activities promoted by the project aim to: (i) **Improve degraded landscapes** by rebuilding ecological integrity; (ii) **Operate on a large scale** by implementing sub-projects on the ground; and (iii) **Enhance people's lives** by creating employment opportunities, building local capacity, incorporating local aspirations into a landscape vision, and reaffirming cultural identity.

The best lessons come from the Sahel and West Africa Program (SAWAP) in support of the Great Green Wall Initiative, which piloted the approach in the region. From 2012 to 2019, over 1.6 million ha were brought under sustainable land management, against an initial target of 1.3 million ha, benefitting more than 19 million people. Landscape restoration contributes to mitigation (as the restored land will act as a carbon sink and will reduce degradation and emissions from land practices) and adaptation, as improved land management will increase resilience to climate shocks by providing more water retention capacities, more organic matter to buffer dry periods, and so on.

34. **The project is also developed based on lessons learned from other projects and by seeking thematic and geographic complementarities with ongoing and upcoming projects.** In this regard, the project aims to consolidate and scale up the successful approaches to co-management of natural resources developed under the Community Action Project for Climate Resilience [CAPCR (P125669)]. It will also seek synergies with current World-Bank financed operations, mainly the Niger-Integrated Water Security Platforms Project [IWSP (P174414)], the Climate-smart Agriculture Support Project [PASEC (P153420)], the Regional Sahel Pastoralism Support Project II [PRAPS II (P147674)], the West Africa Food System Resilience Project [FSRP (P172769)], and the Community-based Recovery and Stabilization Project [PCRSS (P173830)]. This approach will allow the project to create a multiplier effect to slow down and help reverse the observed trends in deforestation, land degradation, and depletion of natural capital in Niger. See annex 2 for the complementarities in geography and approach between the projects.
35. **Addressing FCV will be a strategic priority of the project.** A range of activities will contribute to tackle the FCV drivers in Niger (see table 2).

Table 2. Overview of FCV Drivers and Risks Addressed by the Project

FCV Drivers	Proposed Key Project Activities
• Increased pressure on natural resources due to (a) unsustainable practices; (b) demographic pressure; and (c) climate change.	• Conflict management and climate-related issues embedded in all project activities.

³² Whitbread-Abrutat, P. "What is Landscape Restoration?" 2012, <https://futureterrains.org/what-is-landscape-restoration>



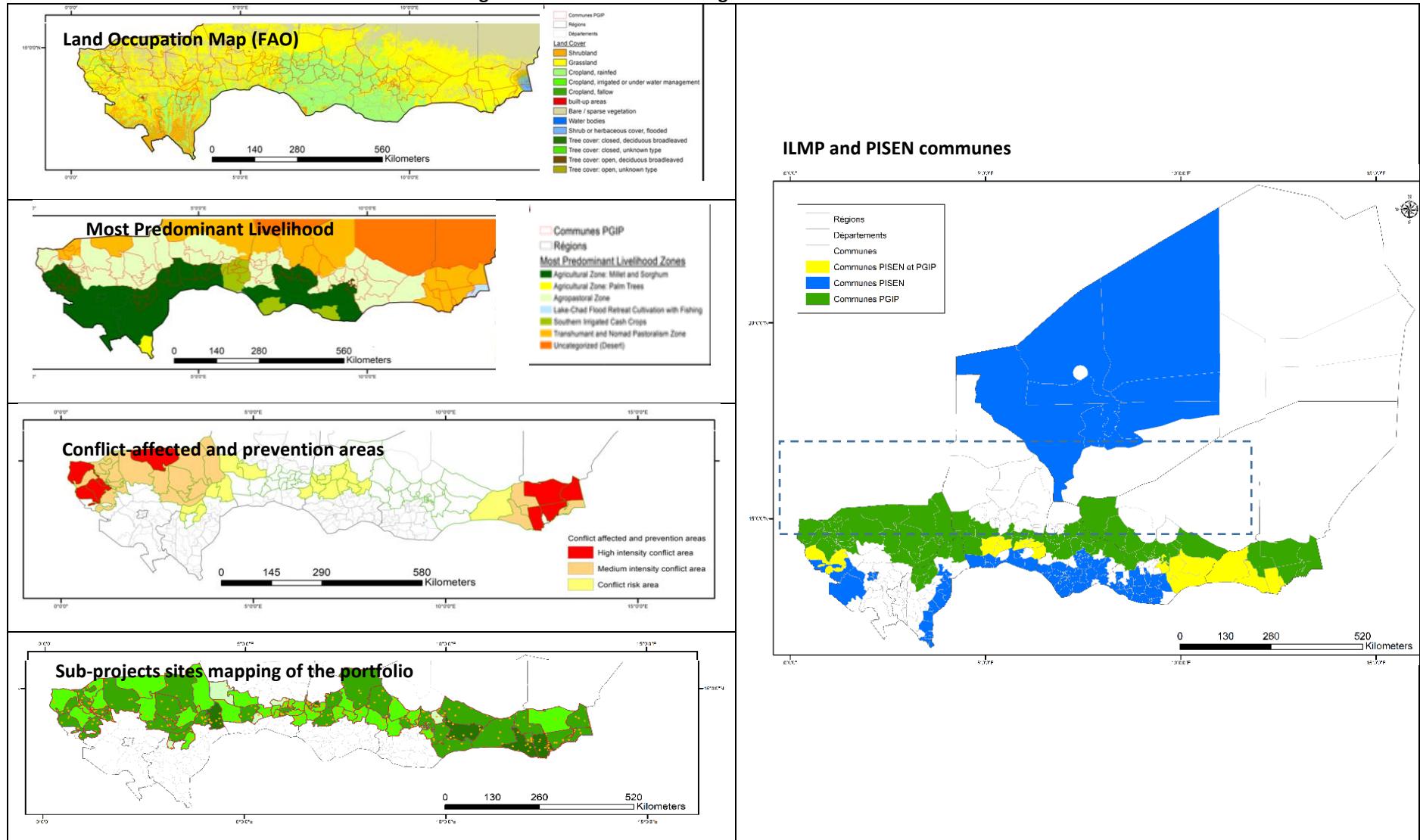
FCV Drivers	Proposed Key Project Activities
<ul style="list-style-type: none"> • Lack of landscape management and planning tools. • Lack of clear rules for accessing and managing natural resources in common land. • Weak capacity of local land management structures and conflict resolution mechanisms. • Insufficient decentralization and eroding trust between communities and local authorities. • Lack of inclusion and representation of different groups in local planning. • Increasing intercommunal and intracommunity conflict due to increased natural resource stress and competition. • Local land management structures and conflict resolution mechanisms are not effective in conciliating conflicts related to land and perceived as treating parties unfairly. • Local administration is seen as weak and corrupt, alongside limited civic participation, voice, and agency. 	<ul style="list-style-type: none"> • Hands-on learning, promoting dialogue and understanding between different landscape users and local authorities and encouraging women's participation and leadership in the process. • Participatory development of communal planning tools. • Land use charters. • Investments to increase productivity of natural assets, increase resilience to climate impacts, and create economic opportunities. • Local communities empowered to execute the identified investments, with the active support from local governments (communes). • Local committees (communal council and land commissions) enhanced to better represent stakeholders. • Capacity of local land management and conflict resolution mechanisms strengthened and linked to the project's Grievance Redress Mechanism (GRM) • National regulatory and policy framework strengthened to (a) improve intersectoral coordination and avoid conflicting overlaps between sectors related to landscape management and (b) enable the transfer of competences to communes on the management of natural resources. • Grievance redress system established across targeted communes with standardized, transparent, and accessible procedures.

36. **The project will preliminarily target 82 communes (out of a total of 266 communes) in the regions of Diffa, Dosso, Maradi, Tahoua, Tillabéri, and Zinder.³³** These communes have been selected based on criteria related to (a) the consolidation of the CAPCR activities; (b) the Niger Great Green Wall (GGW) intervention area; and (c) geographic and thematic complementarities with the World Bank's ongoing projects, mainly the IWSP, FRSP, PASEC, PRAPS, the PCRSS, and the FSRP. Based on the project implementation and security conditions, additional communes, including from other regions, may be added using the same criteria.
37. **Among the 82 targeted communes, 10 are under pressure with increasing security risk ('red zones') (see figure 1).** The project has in its target areas communes with high security risk. The implementation will begin in lower-risk communes while adjusting the approach of project implementation in higher-risk communes. For instance, the participatory approach will contribute to build a safe operating environment through the consent, approval, and cooperation of individuals and local communities, especially the most vulnerable (referred to as the 'acceptance approach'). In addition to coordination with local authorities, activities in project areas, including supervision, will be supported by a partner institution with representatives in any project location. Remote supervision through the Geo-Enabled Initiative for Monitoring and Supervision (GEMS) will be embedded in the project M&E framework, including a community monitoring mechanism to enhance transparency, accountability, and the voice of citizens. A security specialist embedded within the Project Management Unit (PMU) will enable the constant update of security risk information and the application of risk mitigation measures, to be reported monthly to the World Bank.

³³ Diffa (11), Dosso (5), Maradi (11), Tahoua (15), Tillaberí (23), and Zinder (17)



Figure 2: Characteristics of Targeted Communes





C. Project Components

38. **The project is structured around three interdependent components that help achieve its development objective.** Component 1 focuses on promoting knowledge creation and territorial planning for climate resilience. It will support (a) the first ever forest and pastoral areas national inventory to create knowledge and operationalize M&E information systems; (b) development of forests, pastoral lands, and fisheries management plans; (c) the integration of climate considerations in development and territorial planning in selected communes; and (d) the enabling environment for the implementation of the NDC and LDN. Component 2 focuses on promoting investments aiming on one hand to rehabilitate and restore landscapes to improve and reestablish their environmental services and on the other hand to strengthen livelihood resilience by diversifying economic assets and improving access to new markets for producers and/or producer organizations' products. Component 3 will support coordination, communication, and M&E of the project. A fourth Contingent Emergence Response Component (CERC) is added to facilitate response to a potential crisis as needed.

COMPONENT 1. Knowledge Creation and Territorial Planning for Climate Resilience (US\$20 million equivalent)

CP1.1: National forest and pastoral lands inventory (US\$8 million)

39. **The sources of data relating to forest and pastoral areas are divergent since Niger never carried out any exhaustive forest or pastoral lands inventory to date.** Because of this insufficiency, the country has difficulty in providing reliable statistics within the framework of international processes such as the United Nations Convention to Combat Desertification and United Nations Framework Convention on Climate Change. Therefore, it is urgent for Niger to prepare a national forest and pastoral areas inventory, which will contribute to the implementation and measurement of its NDC commitments related to forestry. The aim of this inventory is (a) to establish an overall situation of national forest and pastoral resources and (b) to provide reliable statistics and maps with more modern and less costly methods. The inventory will include restoration/afforestation maps, deforestation maps, soil maps, and biodiversity inventories. With support from the Food and Agriculture Organization (FAO), a methodological approach for the development of the forest and pastoral areas inventory has already been developed. It will serve as the basis for this activity. The subcomponent will also support the operationalization of existing national information systems, mainly the automated monitoring and evaluation system (*Système Automatisé de Suivi Evaluation*) on adaptation and mitigation under the MELCD, initially developed with support from the European Union but currently non-operational, and its evolution to an emissions monitoring, reporting, and verification (MRV) system (CP 1.4).
40. **Implementation of this sub-component.** The PMU will establish an agreement with the National Center for Ecological and Environmental Monitoring (*Centre national de surveillance écologique et environnementale*, CNSEE) to lead this activity in close collaboration with the Garba Mounkaïla Laboratory of the Abdou Moumouni University and the Environmental Biomonitoring laboratory of the Maradi University who developed a methodological approach for forest inventory in Niger in 2012. The PMU will, in coordination with these public institutions, hire a firm to develop the inventory. The PMU will also establish a technical committee dedicated to this activity composed of key national and regional institutions and co-chaired by the General Directorate of Water and Forests.

**CP1.2: Development of forest, pastoral areas, and fisheries management plans (US\$5 million)**

41. Forest (US\$2 million), pastoral areas (US\$2 million), and fisheries (US\$1 million) management plans are the main legal instruments guiding the management of these ecosystems. All forest, pastoral and fisheries areas in the targeted regions require new or updated management plans. These plans are key to ensuring the sustainable management and maintenance of these renewable resources and to achieving a balance between production, social, and environmental objectives. The project will support the development of these plans in targeted areas, considering the use rights of the local population. Contractual principles will be applied to allow local people to be involved in the sustainable management of these ecosystems and to benefit from the rational use of the goods and services provided. These management plans will be included in the national information systems to allow better monitoring and assessment of their implementation. The development and updating of proposed forest and pastoral area management plans will consider climate change projections to identify management activities such as planting native and drought-resistant trees, forest conservation, assisted natural regeneration, and agroforestry that would not only enhance adaptation and mitigation (by protecting forest and pastoral areas and ensuring sustainable management of their goods and services and by storing carbon) but also help reduce vulnerabilities of local communities. Fisheries management plans would inform climate-resilient fishing practices and the maintenance of fish stocks considering future climate impacts. Management plans to be developed by the project will be selected in complementarity with the Niger PRAPS 2 (P173197) locations. Synergy with this project will also be strengthened on the methodological approach to develop pastoral plans and related institutional management mechanisms. All management plans to be elaborated will be georeferenced and linked to the MRV system.
42. **Implementation of this sub-component.** The elaboration of forest, pastoral areas and fisheries management plans will be coordinated by the General Directorate of Water and Forests, with the Directorate of Pastoral Development under the Ministry of Livestock (*Ministère de l'Elevage, ME*). The PMU will establish an agreement with this Directorate and will publish three bids (one for each area: forest, pastoral areas and fisheries management) to select three specialized firms to: (a) work closely with key stakeholders to agree on the methodology to elaborate the plans; (b) elaborate the expected plans with the directorate and in close collaboration and consultation with all stakeholders; and (c) ensure the incorporation of developed plans in existing national information systems and the MRV. The General Directorate of Water and Forests will monitor the activities of the firms, validate their reports, authorize payments and report back to the PMU.

CP1.3: Climate informed territorial planning and development in targeted Communes (US\$5 million)

43. **The preparation of PDCs of the communes in Niger should be aligned with the 2022–2026 PDES.** In this respect, the project will support the updating of the PDCs of the targeted communes, to incorporate NDC commitments and climate change mitigation, and adaptation planning and ensure the involvement of local stakeholders, mainly women, in the process. Proposed activities will help decentralize NDC and develop local NDC implementation plans, including mapping investment opportunities which can drive policy frameworks to unlock available private and public finance and make it easier for the state and its partners to mobilize resources. Pro-poor participatory methodology will be enhanced to increase the access and consultation of all stakeholders including the poor and other vulnerable and marginalized groups (such as transhumant pastoralists) and their involvement in the decision-making process. The process will identify activities aimed at empowering women and girls and distinguish the greater vulnerability of women to the



impacts of climate change as well as the difference in the way they are affected in comparison to men and will therefore propose adaptation / mitigation activities that can be implemented by women.

44. **Implementation of this subcomponent.** The implementation of this activity will be coordinated by the General Directorate for Regional, Local and Communal Development (DGDRCL) which will sign an agreement with the PMU. The PMU will publish a call for tenders to recruit a partner institution (with strong representation at the local level) in each targeted region to support this process, in close collaboration with communes and deconcentrated line departments including communal councils and local land commissions, religious and traditional authorities, and villages chiefs. The DGDRCL will monitor the activities of the partner institutions, validate their reports, and authorize payments and report back to the PMU.

CP1.4: Enabling environment for Niger NDC and LDN implementation (US\$2 million)

45. A range of interrelated activities will be supported through this sub-component to enable the management of national NDC processes, support readiness preparation and finance mobilization for NDC and LDN implementation, and the strengthen monitoring systems for NDC and LDN reporting. The subcomponent will support (a) the improved functioning of the Niger NDC committee³⁴, and (b) the development of a national MRV system under the Directorate for the Strengthening of Climate Change Mitigation and Resilience to ensure the monitoring of the Niger NDC and LDN as part of the implementation of the *Paris Agreement*. Support to the NDC Committee will include the day-to-day operational costs and technical support to strengthen the capacity of its members. The NDC Committee will prepare proposals to mobilize climate financing, establish vulnerability indexes/reference threshold of GHG emissions reduction levels in the sectors of the NDC, and monitor progress of the country's NDC indicators. Support for the operationalization of the MRV system will include the financing of equipment, capacity building, and technical assistance.
46. **Implementation of this sub-component.** The PMU will establish an agreement with the Directorate for the Strengthening of Climate Change Mitigation and Resilience, to lead the implementation of NDC/LDN-related activities. For the development of the MRV system, the PMU will launch a call for tenders for a specialized firm that will support the conception, establishment, and operationalization of the system.

COMPONENT 2. Investments in Landscape Restoration and Community Resilience to Climate Change (US\$115 million equivalent)

47. **This component will finance investments aimed at restoring land and ecosystem services and improving livelihood and climate resilience.** The rationale is that conservation and restoration of land and the pursuant efforts to manage that land sustainably can increase soil fertility, fodder, water, and ecosystem services and contribute to climate change mitigation and adaptation through carbon sequestration in vegetation and soil, which in turn can increase land, resource, and livestock productivity and protect biodiversity. Landscape restoration will use environmental improvements as drivers for socioeconomic regeneration. It will enhance and diversify local livelihoods, improve food security, create climate-smart jobs, and increase resilience to the impact of climate change.

³⁴ The National Technical Committee responsible for coordinating the monitoring of the implementation of the Nationally Determined Contribution (NDC), under the Ministry of Environment, established in 2022.



48. Through this component, in parallel to the implementation of the sub-components below, the project will conduct the mass distribution of improved stoves to local population and MSMEs in the project area.

CP2.1: Restoring Landscapes and Ecosystem Services (US\$70 million)

49. **While protecting pastoral and forest landscapes is important, restoring them where they have been lost and degraded is also necessary.** Without those landscapes, soil, water, and the goods and services provided by forests and pastoral resources are lost or impaired. Restoring these landscapes in the fragile and vulnerable context of targeted areas is about much more than returning trees to the landscape. It is about meeting both development and environmental priorities and addressing climate impacts in a context that is primarily rural and predominantly low in terms of human development.
50. **Targeted investments will include measures aimed at improving carbon pools, preventing soil degradation, increasing the use of renewable energy sources, increasing carbon stock, and restoring lands, favoring biodiversity conservation and biodynamic agriculture (with high potential for mitigation co-benefits).**³⁵ Drought-resistant products will be developed and specific techniques (such as 'no tillage' techniques) will reduce water evaporation and contribute to climate adaptation. Beyond carbon mitigation, investments in landscape restoration, such as tree planting and reforestation, will build adaptive capacity against extreme weather by increasing water availability, supporting food security, and strengthening natural resistance against droughts, floods, wildfires, and other climate-induced natural disasters. Provisioning and regulating ecosystem services also improve public health by supplying vulnerable communities with clean air and water and fertile soil. Through proposed investments, landscape restoration methods will help conserve and enrich the soil while giving crops the nutrients they need to grow.
51. **This subcomponent seeks to enhance the provision of landscapes' environmental goods and services.** Thriving, dynamic landscapes are best placed to cope with climate change, not only by contributing to sequestration of carbon in soils and biomass, absorption of water through shelter belts of trees, and hedgerows restoration of the traditional agroecosystems and agrobiodiversity but also through wild habitats in the wider landscapes supporting threatened wild biodiversity. These measures will support the wide range of other ecosystem services provided by targeted landscapes, which have become fragile due to recent pressure, contributing to enhancing the ability of these landscapes to accommodate change. In all these activities, the project will safeguard the equal participation of women and men, as necessary, timing capacity-building, awareness-raising to ensure full participation of women. The outcome is expected to strengthen resilience to climate change risks, reduce river sedimentation and flood risks, and enable recovery of agricultural lands. Proposed investments will also help achieve commitments under Niger's NDC as presented in table 3.
52. **Through this subcomponent, the project is seeking to restore 205,000 ha and 11,000 km of hedge and pastoral transhumance tracks, through techniques that have been identified in the NDC.**³⁶ The selection

³⁵ As identified in the list of eligible mitigation activities of the multilateral development banks group.

³⁶ The project will capitalize the activities of the PRAPS II (P173197) aimed at physically delineating transhumance tracks and establishing local transhumance committees. Furthermore, a collaboration will be established with (i) the EU-funded PREDIP (Regional Dialogue and Investment Program for Pastoralism and Transhumance in the Sahel and the Coastal Countries of West Africa, aimed, among other things, at improving the management of information and knowledge in pastoralism and transhumance); and (ii) the Millennium Challenge Account/Niger, which has launched studies concerning the location of water points and markers of cattle transhumance corridors in the Dosso and Tillaberí regions.



of restoration sites will be based on criteria that include, among others, land tenure status, community commitment for sustainable management, whether the site meets technical requirements, vulnerability to climate risks, and the potential to increase carbon sinks. The techniques to be applied, and the targets under each technique, are shown in table 3.

Table 3. Targets under the NDC and Niger ILMP

	Target under NDC	Target under ILMP	Cost (US\$, millions)
Adaptation Measures			
Natural assisted regeneration	913,932 ha	100,000 ha	1.5
Dune-fixing (to reduce erosion)	10,053 ha	3,000 ha	1.5
Rehabilitation of degraded classified forests	10,000 ha	5,000 ha	3.5
Hedges	145,000 km	1,000 km	0.5
Multipurpose species plantations	750,000 ha	30,000 ha	10.0
'One village one forest' program ³⁷	12,500 ha	6,000 ha	10.0
Restoration of degraded pastoral, agricultural and silvo-pastoral lands	112,500 ha	50,000 ha	30.0
Development and securing of pastoral enclaves, grazing areas and rest areas (to reduce degradation)	455,848 ha	10,000 ha	6.0
Development and materialization of pastoral corridors (to reduce degradation)	279,702 km	10,000 km	6.0
Mitigation Measures			
Massive distribution of improved stoves ³⁸	1,000,000	70,000	1.0
Total cost			70.0

53. **Implementation of restoration activities will be through subprojects at the commune level and based on priorities identified in the PDCs.** Landscape and Ecosystem Restoration Subprojects will be developed in each commune, screened by the communal council, and submitted for evaluation by the PMU. Subprojects should include technical specifications for landscape restoration subprojects aiming to adapt/mitigate climate change issues and reduce vulnerability to droughts, preserve soil moisture, and protect water catchment. Details of the evaluation and selection process will be developed in the Project Implementation Manual (PIM). Communes will be awarded Landscape and Ecosystem Restoration Matching Grants for the implementation of subprojects. Based upon the subproject proposals, local service providers will be contracted by the PMU to assist the communes in implementing the Subprojects. Service providers will be selected using a transparent and inclusive process taking into due account demonstrable experience and institutional capacity in the targeted area of concern. Labor will be supplied by the local workforce to be hired from the project area with focus on vulnerable groups, women, and youth (community labor-intensive works program). During the first year of the project, subproject identification will be undertaken based on the existing communal annual investment plans and their validation will follow the same process described above.

³⁷ This community restoration program initiated in 2015 aims to intensify restoration, promote natural assisted regeneration and increase use of alternatives to firewood.

³⁸ Improved stoves are more efficient, requiring less biomass to produce the same amount of energy for cooking. It is estimated that biomass consumption can be reduced by half, leading to less GHG emissions.



54. **The project will seek synergies with and scale up the results and investments under other World Bank projects that have implemented landscape restoration activities.** Table 4 presents the total area of Niger landscapes restored with support from recently closed or ongoing World Bank projects and projections for new landscapes to be restored, including the project's contribution.

Table 4. Land Restoration under World Bank Projects

World Bank Project	Restored Hectares	Hectares to Be Restored
PRAPS 1 (147674)	600,000	
CAPCR (P125669)	53,000	
Niger Disaster Risk Management and Urban Development Project (P145268)	40,000	
PASEC (P153420)	100,000	
ILMP (P177043)		205,000
PRAPS 2 (P173197)		505,000
Niger-IWSP Project (P174414)		150,000
FRSP (P172769)		33,000
Community-Based Recovery and Stabilization Project for the Sahel (P173830)		357
	793,000	893,357

55. **Implementation of this subcomponent will be led by the General Directorate of Water and Forests** with technical support from the Niger National Network of Agricultural Chambers and a partner institution. The project will use the same implementation arrangements as under Restoration of Watershed Environments (CP1.2 of the Niger-IWSP Project) to ensure synergy and complementarity between the two projects' activities. Furthermore, activities will be closely coordinated with those under the Lake Chad Region Recovery and Development Project (PROLAC; P161706) and the FSRP (P172769) in the regions of Diffa, Tillabéri, and Zinder.

CP2.2: Improving Local Livelihoods Resilience (US\$45 million)

56. **This subcomponent aims to enable local producers, especially youths and women, to improve their livelihoods by becoming more competitive producers capable of meeting market demands while improving their resilience to climate change.** The subcomponent will provide Local Livelihoods Resilience Matching Grants for: (a) sustainable development of NTFPs; (b) sustainable development of artisanal fisheries products; (c) preservation of the cultural and non-tangible capital of local communities; and (d) establishing operational integrated community agro-silvo-pastoral farms (FACIs).
57. **The valorization and the promotion of NTFPs, fisheries, intangible capital and agro-silvo-pastoral products will help create green jobs and enable vulnerable communities to diversify their income and increase their capacities to cope with extreme weather shocks by increasing their resiliency capacities.** Poor rural populations in these areas are more exposed to climate change impacts with less resources to recover quickly and adapt. The proposed activities provide households a source of income generation and build their resilience capacities to respond to climate impacts and increase their economic power.
58. **This subcomponent will provide Local Livelihoods Resilience Matching Grants to fund, through a competitive process, Local Livelihoods Resilience Subprojects under 2.2., based on approved business plans.** Selection criteria for matching grants are defined in the PIM and include: (a) a clear economic rationale; (b) legal registration and identity of the implementing producer groups; and (c) demonstrated



benefits to target areas. The number and size of matching grants will be determined based on demand and potential and will range from US\$10,000 to US\$100,000. Eligible activities under the matching grants will include, but not be limited to: (a) consolidation of organizational, managerial, processing, and commercialization capacities of local organizations and associations and local producers; (b) purchase of equipment (such as tools and machines needed for the collection or processing of products and construction packaging centers, warehouses, and cold chain facilities); (c) rehabilitation of existing infrastructure and equipment; (d) advisory services regarding access to financial services, business management, market and marketing skills, quality and standard certification services, and so on; and (e) training in technical and / or managerial skills. Business plans should consider climate risks, and construction or rehabilitation of infrastructure should incorporate climate-resilient and energy-efficient measures where possible. A negative list of activities will also be developed. The project will also support the normative principles of productive alliances to facilitate access to markets for producer organizations. This includes the identification of private sector partners, buyers and off-takers and matching them with producer organizations and enterprises.

59. **Development and implementation of business plan activities will be supported by service providers hired by the PMU**, whose key responsibilities will include (a) implementing awareness-raising and outreach activities to build a pipeline of grantees; (b) providing technical assistance to applicants in the design of their subprojects and preparation of matching grant proposals; (c) supporting implementation of subprojects; and (d) monitoring and reporting on grants. The PIM provides further details on matching grants management and implementation.
60. **This subcomponent will take the following steps toward reducing barriers for women to improved access to income opportunities in NTFP, fisheries, intangible capital and agro-silvo-pastoral products:** (a) identify knowledge and skills gaps that prevent women-led associations from creating and developing profitable enterprises, and design outreach, training, and technical assistance to address them; and (b) promote the ability of women to compete for matching grants, prioritizing women and youth, including through the design of eligibility criteria to enable women participation and targeted outreach to increase awareness of grant opportunities and support for the development of proposals.

CP2.2.1: Sustainable development of Non-Timber Forest Products (NTFPs) (US\$20 million)

61. **NTFPs provide women and their families with means of subsistence, services, and jobs.** This component will enhance women's cultural heritage and artisanal skills in harvesting, processing, and marketing priority NTFPs. The value addition to these products will increase women's income by generating more profits from yield and commercialization. These activities are designed to support women's entrepreneurship and economic and social empowerment. Supporting the links of producer groups to NGOs and off-taker organizations will ensure these small businesses can be sustained beyond the life cycle of the project.
62. **Over the last decade, some priority NTFPs have received particular attention from the Government and some partners for their environmental and social benefits.** Ongoing projects focus on the development of Moringa, Honey, Gum Arabic, and Doum products. Based on an analysis of the viability of these products, this subcomponent will focus its support on seven NTFPs: Baobab (*Adansonia digitata*), Honey, Doum palm (*Hyphaene thebaica*), Balanites (*Balanites aegyptiaca*), the Boscia fruit (*Boscia Senegalensis*), Marula (*Sclerocarya birrea*), and Néré (*Parkia biglobosa*) (table 5). These NTFPs will also increase tree cover and contribute to reforestation and afforestation in the areas of production. The project will support activities that include: (a) organization; networking, and capacity building of actors involved in the seven identified



NTFPs; (b) creation of processing units for the development and processing of NTFPs; (c) creation of NTFP sales counters; and (d) labeling of products.

Table 5: Priority NTFPs

NTFPs	Geography	Use and Potential
Baobab (<i>Adansonia digitata</i>)	Department of Mirriah, in the commune of Mirriah, Torodi, Gazawa, Tessaoua, Aguié, baobab plantations in the Torodi area.	Local populations commonly produce baobab products and sell them in baobab stands. The leaves and fruit are both self-consumed and marketed. The fruit is consumed as-is or made into juice, and leaves converted into flour for use in sauces. An average of 500 bags are transported from Torodi to Niamey per week for 3 months, from August to October, the production period. Prices vary from CFAF 750 to CFAF 1,000 per 100 kg bag during the production period and from CFAF 6,000 to CFAF 7,000 in the dry season.
Honey (<i>Plantes mellifères</i>)	Departments of Magaria de Gaya, Kantché, Mirriah, Torodi.	Niger has more than 20 melliferous forest species with annual production varying between 10,000 and 12,000 liters. Cooperative and mutualist rural producer organizations, as well as small and medium enterprises, have been established for the production and marketing of honey, although the means of production remain traditional. There is a demand for the product in Nigeria.
Doum palm (<i>Hyphaene thebaica</i>)	Departments of Mayahi, Tessaoua, Aguié, Dakoro, Mirriah, Magaria, Filingué, D. Takaya, Goudoumarya, Mainé.	The project area has high potential for the doum palm, with about an existing 100,000 ha of doum palm in the area. Development of crafts (mats, baskets, ropes), and processing of the fruit into juice, flour and biscuits can be promoted.
Balanites (<i>Balanites aegyptiaca</i>)	Department of Aguié and the zone of Goulbin N'kaba in the Departments of Diffa and Mayahi	Balanites has high food, nutritional and economic value. The ripe fruit, flowers and young leaves can be consumed, and made into juice, oil and donuts. There are women's associations that focus on the transformation of the product.
Boscia fruit (<i>Boscia senegalensis</i>)	Zinder region	The fruit can be made into flour, porridge, cakes, donuts, biscuits, bread and mashed potatoes with recipes served in restaurants in Zinder. The NGO "Aridité Cida Kanka" of Zinder is interested in promoting knowledge of the species and of its fruits.
Marula (<i>Sclerocarya birrea</i>)	Departments of Tibiri, Agie, Gazaoua, and Dakoro	The seed almonds are rich in fat and protein with a subtle nutty flavor. They are an important source of energy. The fruits are commonly eaten fresh or used to prepare juices, jellies, etc. Marula oil, extracted from the seed kernel, is one of the best African oils for skin care. It is rich in vitamin E, antioxidants and oleic acid. The virtues of Marula oil are also highly valued by the cosmetics industry (skin care, soaps, make-up, etc.).
Néré (<i>Parkia biglobosa</i>)	Departments of Tibiri, Kantché and Magaria	This nourishing tree provides many high-quality nutrients and is therefore an important source in terms of quality food and nutrition. Néré flour provides all the amino acids essential to the body, iron and also vitamin C. Its seeds are boiled, fermented and ground (pounded) to obtain either small balls of dough or a powder (in this case they will be dried and then roasted) with strong odors



63. **Implementation of this subcomponent** will be led by the Directorate for the Promotion of the Green Economy and Value Chain Development, with technical support from the existing Farmer Houses, *Maisons du Paysan*, and other partner institutions.

CP2.2.2: Sustainable development of artisanal fisheries products (US\$15 million).

64. **The project will contribute to protecting aquatic ecosystems and increasing the productivity of water bodies and support the development of traditional fishing and aquaculture in ponds and artificial water reservoirs.** It will address the main constraints faced by the sector, which include: (a) invasive aquatic plants and low productivity of water bodies; (b) inadequate fishing infrastructures and equipment (small landing sites, fish farm inputs, storage); and (c) fish product processing. This includes financing climate smart infrastructure and equipment (such as coops, rainwater-fed ponds, greenhouses, ovens), inputs, trainings, and technical assistance. The project will support the normative principles of productive alliances to strengthen collaboration between the public and the private sector and facilitate the access of associated fishermen to markets. The technical capacity of producers will be built, including adapting to climate-induced impacts on fisheries, incorporating climate-resilient fishing and aquaculture practices, and using renewable energy and energy efficient measures in their productive activities. The activity will strengthen the participation of women in the fishing sub-sector, where they are responsible for activities downstream of fishing, such as fish processing and trading, essential for the profitability of this activity.
65. This sub-component will be implemented by the Directorate of Fisheries and Aquaculture, with technical support from other institutions.

CP2.2.3: Preservation of local cultural and intangible capital of local communities (US\$3 million)

66. **This sub-component will promote various agro-silvo-pastoral initiatives aimed at contributing to the safeguarding and revitalization of the intangible cultural heritage and the preservation of the identities of Nigerien populations.** This will concern the organization of three particularly important events:
- Based on the experience of the *Cure salée*, an event that has taken place since the end of the 1990s near the town of Ingall (in the Agadez Region),³⁹ the project will support each year the organization of the **Festival des Nomades** at the level of different localities in the area covered by the project: during this event, which will allow groups of livestock keepers (pastoralists and agro-pastoralists) to renew their bonds of friendship and collaboration, several initiatives will aim to raise awareness among producers about the issues of the practice of livestock farming in Niger and local and regional authorities about the constraints and challenges of pastoral production systems. During the Festival (generally held in the month of August), performances and contests by artists, singers and dancers, as well as camel and horse races will be organized and prizes will be awarded.
 - Based on the experience of the traditional celebration of **Hottungo** in the Dosso Region,⁴⁰ the project will support in several localities of its area of intervention the organization of an event which aims to celebrate each year (generally during the month of February) the return of animals (cows and small ruminants) from the long period of transhumance, and also to promote and maintain cultural links

³⁹ The Cure salée (litt. "The Salt Cure") is an event marking the summer migration of men and herds to regions well-endowed with mineralized waters, natron soils and meadows particularly rich in protein.

⁴⁰ In the Fulani language, the term "hottungo" means "going home". This is an event traditionally organized in Birni N'Gaouré by the Kawtal Waafakey Association.



between sedentary and nomadic communities in the same area and strengthen solidarity networks.⁴¹ During the *Hottungo*, which is a celebration of reunions and inter-community rejoicings, there will be performances by artists (dancers and singers), cultural competitions, in particular with the recitation of poems, tributes to breeders and to best animals, exhibitions of creation of works of art, with the awarding of prizes.

- In agricultural areas, inspired by the initiatives of FESTIMIL (International Millet Festival),⁴² the project will contribute to the annual organization (generally during the month of October) of a ***Regional Agricultural Festival*** at the level of the six regions of intervention. The Festival will notably allow exhibitions and sales of agro-food products, agricultural crops (millet, sorghum, fonio, rice, etc.) and gathering (non-timber forest products) from different localities and culinary competitions as well as discussion panels and exchanges on themes, including in relation to local tales, proverbs and sayings referring to agricultural and pastoral work. Prices will be awarded to the best farmers.
67. **Alongside the organization of these events, the project will support the development of educational tools to link traditional knowledge and technical know-how with formal and informal education to safeguard local practices and improve their intergenerational transmission.** The project will finance the preparation and production of posters, small informative brochures, small collections of popular accounts and proverbs. Deliverables will be disseminated through the project website and appropriate publications (illustrated by local artists).
68. The activities of this sub-component will be implemented by the Ministry of Culture, Tourism and Handicrafts (*Ministère de la Culture, du Tourisme et de l'Artisanat*, MCTA), and technical assistance will be provided by specialized national NGOs and associations.
- CP2.2.4: Integrated Community Agro-Silvo-Pastoral Farms (FACI) (US\$7 million)*
69. **The FACI is an innovative model of economic development in the regions of the GGW that has been deployed since 2016 by all GGW member countries.** The FACI is a community space that aims to strengthen the capacities of producer associations in agro-silvo-pastoral production to increase local incomes while increasing food production and therefore the food security and adaptation and resilience capacities of surrounding communities. The farms will integrate a variety of agro-silvo-pastoral and fisheries production systems (such as forest and pastoral management, beekeeping, market gardening, fish farming and small livestock, based on the potential of each product) as well as community stores. The beneficiaries of the FACI are farmers' associations, particularly women and young people structured in groups/associations.
70. **Two FACIs have been initiated in Niger to date.** The results of the evaluation of the two experimental FACIs in Niger showed the potential of the FACI to improve beneficiaries' incomes, but also the need to strengthen support and funding for FACIs to expand its impact. FACI design and implementation will additionally learn from successful experiences in Senegal, Burkina and Nigeria.

⁴¹ For example: through seasonal loans of dairy animals (cows and she-camels) or breeding stocks between households.

⁴² Event organized annually by the National Network of Chambers of Agriculture of Niger (RECA) in partnership with the Ministry of Agriculture and other sectoral ministries including Livestock; Environment and the Fight against Desertification; Hydraulics; Trade, Industry and Youth Entrepreneurship, Vocational Training, as well as the High Commission for the 3N Initiative "Nigerians Nourish Nigeriens" (HC3N)



71. **The project will consolidate and operationalize the one existing FACI within the project area and identify an additional six FACIs, one in each targeted region, and finance their operationalization.** This includes financing infrastructure (such as stables, coops, rainwater-fed ponds, greenhouses), equipment, inputs, training, human resources and technical assistance. Infrastructure and equipment financed should be climate-resilient and energy efficient. Criteria for selection of the location of the FACIs will be defined and shall include, among others, availability of communal land for the establishment of the FACI, availability of water sources, legally registered and organized producer associations, vulnerability of the population (women, youth, food security and climate vulnerability), sufficient market for local consumption of products.
72. **An important aspect of the FACI is women's participation in the decision-making committees, to increase the access of women to budgeting and voting rights for community initiatives.** As FACIs are sustainable beyond the project life cycle, women's participation will strengthen sustainability and the narrowing of the gender gap in voice and agency dimensions.
73. **Implementation of this sub-component.** The PMU will establish an agreement with the *National Great Green Wall Agency* to coordinate the activities under this sub-component.

COMPONENT 3. Project Coordination, Monitoring and Communication (US\$15 million equivalent)

74. **This component will facilitate the implementation of the Project through efficient management and monitoring, as well as environmental, social and conflict risk management.** The project will be implemented, supported, and coordinated by PMU which will be hosted in the MELCD and Regional Support Unit (RSU) in each of the targeted regions.

CP3.1: Project coordination and management (US\$12 million)

75. **This subcomponent will support project management and coordination activities to ensure that the project is in accordance with fiduciary procedures and environment and risk management requirements.** This component will finance the technical and operational costs of the PMU at the national level (housed at the MELCD) and six RSUs in each of the regions included in the project. Key activities will include (a) recruitment of technical and administrative personnel (including project coordinators and financial management [FM], procurement, environment, and social risk management specialists); (b) safeguards; (c) support of communication and stakeholder engagement; (d) fiduciary implementation; and (e) maintenance of the GRM. It will support other incremental operating costs, including financial audits and procurement of essential goods and office equipment, including information and communication technology needed to support project implementation. The subcomponent also includes the development and implementation of a project communication strategy and action plan and facilitation support for a collaborative approach to meet the results of the project.

CP3.2: Project monitoring and evaluation (M&E) (US\$2 million)

76. **This subcomponent will finance the M&E unit,** including: (a) meetings of the review/piloting committees; (b) implementation of the M&E framework, including preparation of a detailed M&E manual, which will be incorporated into the PIM, and development of indicator tracking sheets; (c) conceptualization, development and operationalization of the project M&E system; (d) planning and dissemination workshops and M&E capacity-building workshops; and (e) impact/beneficiary assessment and midterm review (MTR),



including undertaking an internal MTR assessment by the PMU and ensuring readiness for the Implementation Completion and Results Report.

CP3.3: Project communication and conflict management (US\$1 million)

77. **The project will support the formulation and implementation of a communication, and a conflict prevention and management strategy.** The aim is to improve dialogue and co-learning between stakeholders through integrated landscape management and establish a new social contract aimed at conflict reduction. In some of the project intervention areas, the security crisis has resulted in the deterioration of social cohesion and the erosion of trust between communities. The communication and conflict reduction strategy will focus on ancestral conflict management mechanisms, judicial conflict management mechanisms and alternative conflict resolution mechanisms. As such, this strategy will integrate local legitimacy (traditional, customary, and religious) as a basis for dialogue, negotiation, and mediation with a view to conflict prevention and social pacification.
78. **The communication and conflict management strategy will adopt the ‘do-no-harm’ concept** and will constitute the basis for the implementation of all project activities to avoid exposing people and the environment at additional risks due to the project. This strategy will strengthen the existing networks between national institutions and community organizations at the local level (including the private sector) to encourage the management and sharing of knowledge on key issues related to the sustainable management of landscapes and their associated livelihoods. These initiatives will make it possible to build a ‘community of practice’ aimed at guiding apolitical authorities, decision-makers, and representatives of local institutions on issues related to the sustainable development of landscapes.
79. To define and implement communication activities, the PMU will launch calls for tenders with a view to recruiting consulting firms specializing in communication and conflict management.

COMPONENT 4. Contingent Emergency Response

80. **Following any untoward, adverse natural event that causes a major natural disaster, the Government may request to reallocate project funds to this component to support response and reconstruction.** This component would allow the Government to request to re-categorize and reallocate financing from other project components to partially cover emergency response and recovery costs.

Budget Breakdown Per Component and Subcomponents

81. **The total cost of the project is US\$150 million including taxes (table 6).**

Table 3. Project Cost (US\$, millions)

Components / subcomponents		Cost (US\$, millions)
CP 1	Knowledge Creation and Territorial Planning for Climate Resilience	20
CP1.1	National Forest and Pastoral Lands Inventory	8
CP1.2	Forest, Pastoral Areas and Fisheries Management Plans	5
CP1.3	Climate Informed Territorial Planning and Development	5
CP1.4	Enabling Environment for Niger NDC and LDN implementation	2
CP2	Investments in Landscape Restoration and Community Resilience	115
CP2.1	Restoring Landscapes and Ecosystem Services	70



Components / subcomponents		Cost (US\$, millions)
CP2.2	Improving Local Livelihoods Resilience	45
CP2.2.1	<i>Sustainable development of Non-Timber Forest (NTFPs)</i>	20
CP2.2.2	<i>Sustainable development of fisheries products</i>	15
CP2.2.3	<i>Preservation of intangible capital</i>	3
CP2.2.4	<i>Community Integrated Agro-Silvo-Pastoral Farms (FACI)</i>	7
CP3	Project Coordination, Monitoring and Communication	15
CP3.1	Project Coordination and Management	12
CP3.2	Project Monitoring and Evaluation (M&E)	2
CP3.3	Project Communication and Conflict Management	1
Total		150

C. Project Beneficiaries

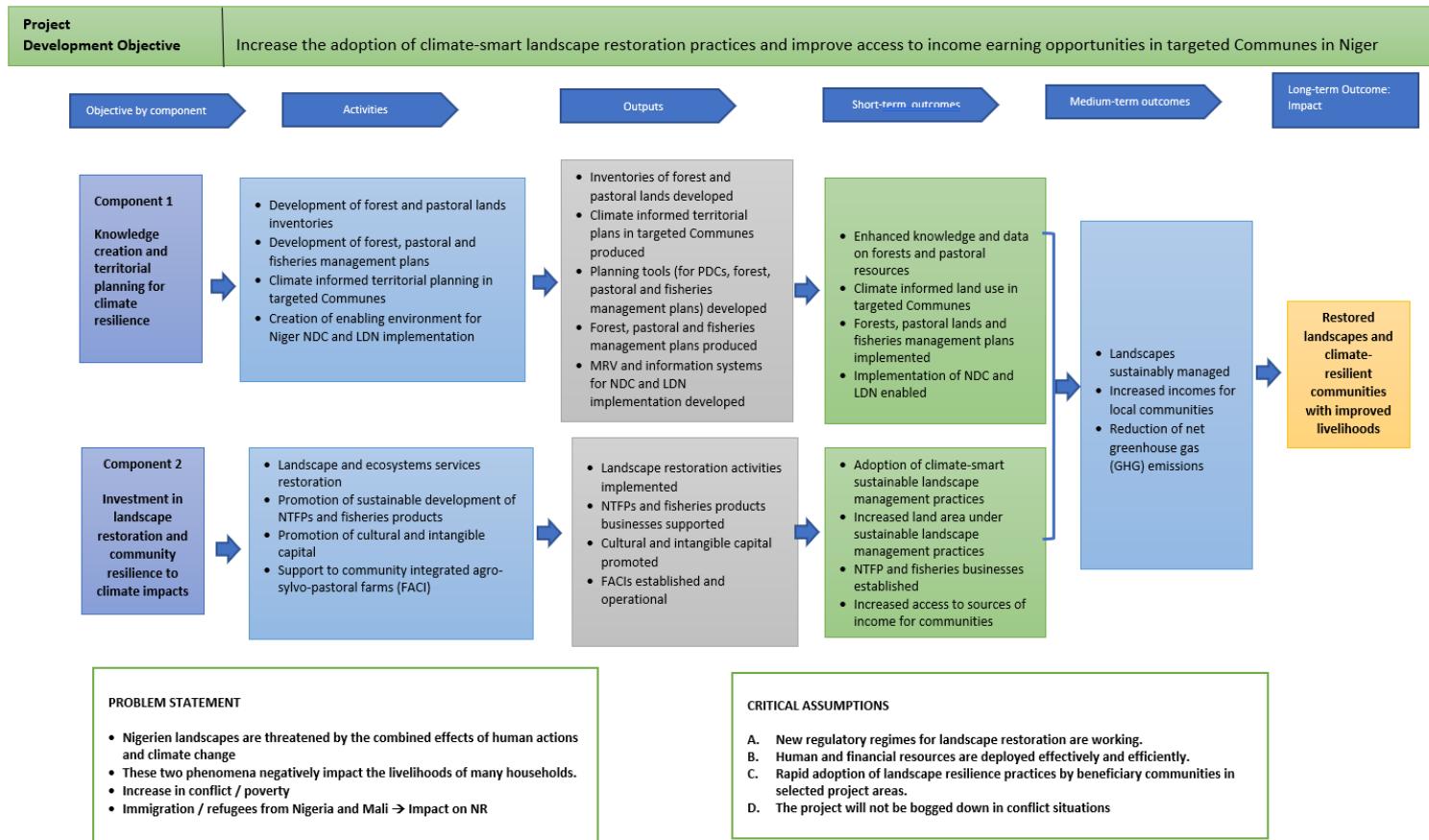
82. **The main project beneficiaries are the households and members of the targeted 82 communes in six regions Diffa, Dosso, Maradi, Tahoua, Tillabéri, and Zinder).** About 800,000 households (5.5 million people, half of which are women) are expected to benefit from project activities. They include rural communities; vulnerable populations (climate affected agricultural migrants, transhumant pastoralists, IDPs, young men and women, and elders); communes; traditional/customary authorities; producer organizations, Micro, Small and Medium Enterprises (MSME); private investors interested in sustainable NTFPs, civil society and community-based groups.
83. **The project will also directly benefit the national and subnational institutions involved in resources management,** through: (a) reinforced human resources, trainings, and knowledge sharing; (b) improved scientific and monitoring capacities; and (c) more effective management of forest, pastoral and fisheries areas. The project will provide local, national, and global benefits through the provisioning of public goods. It will generate climate mitigation and adaptation co-benefits such as carbon sequestration and improved resilience of local communities and coastal areas.

D. Results Chain

84. **The project's Theory of Change (figure 3) is built on the problem statement that Nigerien landscapes are threatened by the combined effects of human action and climate change, with a heavy impact on local livelihoods.** This exacerbates intra and inter-community conflicts (especially about access to and use of natural resources) under the pressure of IDPs and refugees. The project supports two major areas of change: (a) supporting knowledge, data and information creation for integrated management of agro-silvo-pastoral resources; and (b) supporting investments aimed at restoring landscapes and improving communities' resilience to the effects of climate change. Several short-term outcomes are expected, such as achieving the first forest and pastoral areas inventory, increased areas under sustainable management practices, increased access to sources of income and more efficient planning instruments, through the support to MRV, and the update of existing planning tools. On the other hand, though the implementation of climate-smart agro-silvo-pastoral practices, the restoration of degraded landscapes. The protection and sustainable development of their resources, key intermediate outcomes are also expected, such as increased climate-smart job opportunities for targeted beneficiaries (including marginal and vulnerable groups, women and youth), improved livelihoods, and reduction of greenhouse emissions. Effective implementation of project activities should result in restored and resilient landscapes.



Figure 3: Theory of Change



E. Rationale for World Bank Involvement and Role of Partners

85. **Land degradation is a major problem in Niger, affecting agricultural, forest, and grazing areas. Land degradation causes both on-site effects (for example, reduced productivity) and off-site problems (for example, sediment flows, which affect water availability downstream, and carbon emissions).** Farmers have a strong incentive to address on-site effects; however, insecure land tenure and weak access to credit and extension often act as a disincentive for them to do so. Moreover, the off-site effects are externalities from the perspective of the farmers, who have no incentive to address them without outside interventions. Therefore, using public sector funds to finance the project is crucial to addressing these problems.
86. **Climate change will be detrimental to Niger's development progress, but the World Bank is well-placed to work with partners on this issue.** The World Bank leads the Climate Change Working Group of the Sahel Alliance. In addition, the World Bank is developing a Country Climate Development Report for the G5 Sahel, which includes Niger and for which partners are interested to be further engaged with the World Bank on these issues.
87. **The World Bank brings nearly two decades of expertise on addressing resilient livelihoods and sustainable landscapes in the Sahel.** The project will benefit from the lessons learned from the TerrAfrica coalition platform established in 2005, particularly concerning spatial prioritization schemes for restoration



interventions, payment for environmental services, and guidelines for best gender practices in landscape management and from SAWAP (2008–2020) which aimed at halting desertification and land degradation in Niger and other Sahel countries.

F. Lessons Learned and Reflected in the Project Design

88. **The proposed project will directly build on lessons learned from other past and ongoing projects, mainly PASEC (P153420) and CAPCR (P125669).** The project will strengthen and scale up these project activities and will be aligned and complement other projects currently financed by the World Bank and other partners such us Niger-IWSP Project (P174414), Niger-FRSP (P172769), PCRSS (P173830), the Family Farming Development Program supported by the International Fund for Agricultural Development, the Project to Strengthen Resilience of Rural Communities to Food and Nutrition Insecurity in Niger with support from the African Development Bank, and the Rural Poles Project by the French Development Agency (*Agence Francaise de Développement*, AFD).
89. **Landscape restoration approaches have succeeded in Niger.** The experiences of the CAPCR, PASEC, and the other projects quoted show that restoration investments must be combined with deep consultations and participation of local communities to ensure ownership and sustainability. The proposed project will not only scale up these projects' experience in the use of delegated contract management but will also strengthen the contracts to improve staffing and incentive alignment and will support the PMU in its contract management with hands-on implementation support.
90. **Avoid duplication and seek complementarity with other projects.** By mapping all ongoing projects and those in the pipeline and organizing several meetings with other project leads and teams, the proposed project limits its interventions to not overlap with those in the existing or pipeline operations.
91. **The project will place a stronger focus on natural resources governance, which has been identified as the major underlying driver of landscape degradation.** In this regard, the project will involve COFOs at all levels (that is, grassroots, commune and district), and customary and religious authorities in all its steps. Project activities will also be synchronized and harmonized with the communal investments calendar and the communes' investment cycles (that is, the communal pluri-annual investment plans).
92. **Importance of participatory management plans.** One lesson learned from other projects is the importance of not rushing into investments without having proper natural resources management plans that have been consulted and agreed by all local stakeholders. This project has been designed to fund investments where participatory management plans are finalized while in parallel funding the preparation of management plans where they do not exist yet.
93. **Adapt project activities to the security environment.** Most projects currently under implementation in Niger have accumulated rich experience in operating in fragile environments.⁴³ One key lesson to be repeated in this project is the positive effect on local communities' support and concurrent reduction in security risk owing to the implementation of the developed conflict management strategy.
94. **Citizens' engagement in the proposed project builds on good practices in the Niger portfolio.** Proposed partner institutions hired to undertake rural mobilization, support the update of PDCs, forest management plans, and pastoral management plans, and develop investment projects and monitoring them requires

⁴³ The project will seek to manage its risk profile based on the Security Risk Assessment and Security Management Plan that has been prepared and will be regularly updated as the situation evolves.



full-time staff based locally in project areas to facilitate continuous interactions with communities. Based on the findings and the operational recommendations of the study on “Strengthening Citizen Engagement Capacities of Social Intermediaries in Niger and Mali⁴⁴”, the project will undertake social assessments of local, formal, informal, and traditional structures; their roles; and the local power dynamics within various groups of the population including vulnerable groups and those at risk of exclusion. Understanding the accountability structures within the targeted communities before engaging with relevant social intermediaries will be key both in terms of building community ownership of the project interventions as well as the sustainability of the project development impact. This entails integrating customary or traditional social structures and understanding the power dynamics within the community. Finally, the project will support communities access to information using various information and communication technology to implement citizen engagement activities and operationalize an effective grievance redress mechanism.

III. IMPLEMENTATION ARRANGEMENTS

A. Institutional and Implementation Arrangements

95. The proposed implementation arrangements are kept simple and are elaborated based on a comparative analysis of those under on-going projects. Detailed institutional arrangements are in annex 1.
96. **The implementing agency for the project is the MELCD**, which will ensure oversight for overall project activities. Day-to-day implementation of the project's activities will be carried out through a PMU directly attached to the General Secretary of the ministry. The PMU will implement the project and will be responsible for all aspects of the project, including managerial, coordination, planning, fiduciary, supervision, review, quality control, monitoring and evaluation, and dissemination functions.
97. **At the national level, a Project Steering Committee (*Comité de Pilotage, COPIL*)** chaired by the Secretary General of the MELCD and comprising key stakeholders working on natural resources management and climate change, is the body for oversight and validation of project activities.
98. **A Multisectoral Technical Committee (MTC)**, comprising members of the PMU and a focal point at the level of the ministerial departments of the MELCD, the Ministry of Planning (*Ministère du Plan, MP*), the Ministry of Territorial Management and Community Development (*Ministère de l'Aménagement du Territoire et du Développement Communautaire, MTACD*), the ME, the MCTA, as well the Permanent Secretariat of the Rural Code, will provide technical advisory services and support the PMU in implementation of the project. The **PMU**, under the General Secretary of the MELCD, will be responsible for overall project management and coordination, as well as the M&E of project activities.
99. **At the regional level, RSUs** will be established in each of the six regions covered by the project, housed under the Regional Directorate of MELCD. RSUs will coordinate with other government directorates, the decentralized technical services and municipal (communal) councils on project implementation. Partner institutions will support the RSUs and participating communes in the design and implementation of subprojects. In addition, the Regional Directors of the Environment will ensure the supervision of project activities at the regional level.

⁴⁴ Strengthening citizen engagement capacities of social intermediaries in Mali & Niger, World Bank, Najat Yamouri, July 2019

**B. Results Monitoring and Evaluation Arrangements**

100. **The overall project M&E will be under the responsibility of the M&E officer/specialist of the PMU, who will be supported in this task by a technical assistance firm and the Directorate of Studies and of Programs (DEP) of the MELCD.** The PMU will coordinate with its decentralized staff/M&E focal persons and partner institutions on M&E activities. Under the guidance of the M&E officer, the PMU and the DEP of MELCD will track the implementation of activities and collect data on the project indicators. The PMU will prepare periodic reports on implementation progress and results. These reports will be shared with the World Bank during implementation support and supervision missions. Additionally, the reports should support project implementation and management by ensuring that decision-making and corrective measures by either the World Bank or the PMU are evidence based.
101. **The M&E system of the project will comprise both project implementation tracking/performance and end-of-project assessment or completion evaluation to establish progress toward the achievement of the PDO to support the overall outcome rating or efficacy.** Building on the systems of other projects (IWSP, CAPCR, and Agricultural and Livestock Transformation Project [PIMELAN]) systems, the project M&E system will be publicly accessible in terms of communicating results to project stakeholders on the dedicated project website. To meet the challenge of remote monitoring in crisis and conflict situations, remote supervision tools through GEMS will be embedded in the project's M&E system. These tools will also be used to create awareness among local communities by involving them in data collection and interpretation and dissemination of results.
102. **M&E processes will take place in a participatory manner with inputs from beneficiaries and stakeholders to enable adaptive and results-oriented project management from project design through implementation and closure.** In this regard, a project M&E system will be established comprising an M&E manual and an M&E information system will be established and made operational. The project M&E information system will consist of tracking and reporting templates, which will help meet the challenge of remote monitoring of project activities in crisis and conflict situations by leveraging the power of mobile data collection tools (such as Kobo Collect Toolbox) to create a portfolio of high-frequency surveys. Local M&E focal persons will be equipped with smartphones and trained to fill in pre-coded weekly questionnaires about the progress of the works, well-being of beneficiaries, and perceptions of communities. Data will then be uploaded to a secured server for remote access and analysis. The design and development of these tools will benefit from the tools developed under ongoing Niger projects and will be supported by the GEMS initiative.

C. Sustainability

103. **Sustainability is a core element of the project, especially as the project focuses on landscape restoration and fosters a sound management of natural resources in the long-term.** Based on the lessons learned from various initiatives in the previous decade on landscape management and restoration, the project was designed using the following approaches to increase sustainability:
 - **Alignment with national procedures.** The project's approaches and processes are adapted to follow national procedures; it pays attention to respecting the competences of each decentralized authority and its involvement, in particular the local governments. The project institutional arrangements are compliant with the current legal framework. For example, the project management strategy will be built on the national system for conflict resolution and local and traditional customs.



- **Investing in governance and inclusive dialogue.** The project will make a significant effort to ensure that investments are designed and selected after going through an inclusive consultation process. The expected outputs of the project are as much the actual investments as the processes by which those investment decisions are taken, especially as the inclusive dialogue set up by the project is sustainable and can be replicated after the lifetime of the project.
- **Combining governance and investments.** While improved governance is the key output sought by the project, former experiences have shown that governance structures need to be used in practice to become an agreed and effective decision-making instrument. Thus, the existing platforms will be reinforced to decide on actual investments for this project but also on other investment allocations from the Communal budget. By testing and using the inclusive decision-making approach with actual investments, it increases the chances that those governance processes will remain active after the end of the project.
- **Private sector mobilization.** Facilitating the development of sustainable businesses is a key objective of CP2.2.1, which provides for co-financing from the private sector. The project will provide technical and investment support to businesses to address business constraints and unlock and enable private financing. It will also facilitate linkages between incipient businesses with private sector companies, which could lead to increased sustainable private finance (crowding in) in the longer term.
- **Using local knowledge for technical relevance.** Considering the difficult environment and the quick changes observed by the communities, the project will avoid providing external technical solutions but instead will build on local knowledge and encourage knowledge sharing between the communes from various climatic zones. Thus, most of the plants or technical solutions used in the project will be chosen by the communities, using species that are particularly resistant to disease and droughts, with good self-regenerating capacities and little replanting requirements, hence increasing sustainability.
- **Local empowerment as the basis for sustainability.** The project aims at empowering local institutions and private actors, and train them with more inclusive governance arrangements and climate-friendly strategic orientations. The actors adopting those approaches will benefit more from the project and will acquire experience and benefits from this new governance of natural resources. It is therefore expected that they would be able to replicate those fundamental principles after the end of the project, and especially with other partners or other financing sources.

IV. PROJECT APPRAISAL SUMMARY

A. Technical, Economic and Financial Analysis

104. **Land degradation is expensive both: (a) at the individual farmer/pastoralist level in terms of loss of productivity and income; and (b) at the national level in terms of its impact on agricultural GDP.** A recent IFPRI study found that the annual total economic value of land degradation in Niger was 2015 US\$3.535 billion or 19 percent of the 2015 purchasing power parity GDP. Land degradation in the grasslands and woodlands accounts for more than 95 percent of total cost of land degradation due to Land Use and Land Cover Change (LUCC). This poses a big concern given that grasslands and woodlands play a key role in livestock feeding systems and that the livestock sector is critical in household nutrition and a leading sector in the Nigerien economy⁴⁵. The activities proposed by the project focus on landscape and ecosystem

⁴⁵ Fostering transformation and growth in Niger's agricultural sector, IFPRI, Fleur Wouterse and Ousmane Badiane (eds.), 2018



restoration and related livelihoods of the rural population. The majority of the measurable or estimated benefits will be delivered under Component 2 of the project. The interventions for restoration of the landscape, ecosystem and people livelihood are estimated to generate a conservative⁴⁶ economic Net Present Value (NPV) of US\$156.7 million, Internal Rate of Return (IRR) 17 percent and a benefit cost ratio at 1.8 during 20 years of the project life⁴⁷ (Table 7). Several benefits could not be estimated in monetary terms (expected improvement in soil and ecosystem quality and resilience in the areas under the sustainable land and forests management plans, full value of intangible ecosystem services provided by the restored landscapes), thus this result underestimates the real benefits expected from the project. NPV is sensitive to changes in discount rates and not sensitive to changes in prices.

105. **In addition to the benefits mentioned above, the project generates global benefits in terms of the reduced greenhouse gas (GHG) emissions.** The EX-ACT model estimated the net GHG emission reductions at about 10.9 million tCO₂ over a 6-year period, or 1.8 K million CO₂ per year. The economic value of emissions reductions is calculated based on the World Bank (2017) guidance, which suggests a shadow price of carbon of US\$42/tCO₂ (low scenario) and US\$82/tCO₂ (high scenario) for 2022, with an annual increase of 2.25 percent. Inclusion of carbon benefits in a global Cost-Benefit Analysis (CBA) generates an NPV ranging from US\$807 million (low social cost of carbon) to US\$2,198 million (high social cost of carbon) for the base analysis.

Table 7. Results of Economic and Financial Analysis (NPV, 20 years, US\$)

		Discount rate	
		6%	10%
EA results, No carbon benefits	NPV, US\$ m	156.7	48.5
	B/C ratio	1.8	1.4
	IRR, %	17%	15%
EA results, Carbon benefits, low SPC prices	NPV, US\$	1,153.9	806.8
	B/C ratio	9.4	7.7
	IRR, %	>100%	>100%
EA results, Carbon benefits, high SPC prices	NPV, US\$	2,198.0	1,562.2
	B/C ratio	17.0	13.9
	IRR, %	>100%	>100%

B. Fiduciary

(i) Financial Management

106. **A new PMU will be created within the MELCD to provide the technical and the fiduciary functions of the proposed project.** The MELCD has no recent direct experience in implementing World Bank funded projects but seems to be familiar with other donors' FM procedures. Those donors include the United Nations Convention to Combat Desertification, the United Nations Development Program, the United Nations Environment Program, the food and Agriculture Organization, the African Development Bank, and the European Union.

⁴⁶ Lowest estimates for the fisheries, FACI and NTFP incremental income, prices and outputs

⁴⁷ At a discount rate of 6 percent



107. In line with the guidelines as stated in the FM Manual for WB IPF Operations that became effective on March 1, 2010, and was last revised on February 10, 2017, an FM assessment was conducted within the MELCD. The objectives of the assessment were to determine whether the implementing agency has adequate FM arrangements to ensure that: (a) project funds will be used for purposes intended in an efficient and economical way; (b) the project's financial reports will be prepared in an accurate, reliable, and timely manner; (c) the project's assets will be safeguarded; and (d) the project is subjected to a satisfactory auditing process. The review of the existing FM systems included budgeting, staffing, financial accounting, financial reporting, funds flow and disbursements and internal and external audit arrangements.
108. The FM assessment concluded that the MELCD has in place basic FM arrangements and a good track record in implementing other donor funded projects. However, the MELCD had to establish a dedicated FM organization to implement the donor funded project activities. This is due to the internal control weaknesses of the national system in accounting, budget execution, internal and external audits as well as unfamiliarity with donors' FM procedures. The remark applies to the entire public sector, including other ministries that implement World Bank-financed projects. The review of the external audit reports received, revealed that the other donor projects' financial statements were certified with an unqualified opinion and no specific internal control issues were identified.
109. The overall FM residual risk of the proposed project is deemed Substantial given: (a) the high insecurity of the areas in which the project's activity will be implemented; and (b) the important number of small financial transactions to be carried out with beneficiaries based in the countryside, under Component 2. To mitigate the fiduciary risk to the extent acceptable to the World Bank, the FM action plan described in table 8 below will need to be implemented.

Table 8: FM action plan

	Action	Due By	Responsible Entity
1.	Recruit one FM specialist based on ToRs satisfactory to the World Bank.	By effectiveness	MELCD
2.	Recruit a primary accountant based on ToRs satisfactory to the World Bank.	By effectiveness	MELCD
3.	Open a Designated Account (DA) in a commercial bank acceptable to the World Bank.	Within one month after effectiveness	MELCD
4.	Recruit for each RSU one accounting assistant based on ToRs satisfactory to the World Bank.	Within three months after effectiveness	MELCD
5.	Acquire a computerized accounting information system for the management of the proposed project, with specifications acceptable to the World Bank.	Within three months after effectiveness	MELCD
6.	Deploy the computerized accounting information acquired in each RSU	Within three months after effectiveness	MELCD
7.	Recruit an internal auditor with qualifications and experience satisfactory to the World Bank to carry out internal audit activities at central and regional level	By effectiveness	MELCD
8.	Recruit an external auditor with ToRs acceptable to the World Bank.	Within six months after effectiveness	MELCD



(ii) Procurement

110. **Procurement Regulations.** Procurement activities for the proposed project will be carried out in accordance with the World Bank's "Procurement Regulations for IPF Borrowers" dated November 2020 under the "New Procurement Framework", and the "Guidelines on Preventing and Combating Fraud and Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants", dated July 1, 2016, and other provisions stipulated in the Financing Agreements using the Standard Procurement Documents accompanying the Procurement Regulations.
111. **All goods, works, and non-consulting services will be procured in accordance with requirements set forth or referred to in Section VI.** Approved Selection Methods: Goods, Works and Non-Consulting Services of the 'Procurement Regulations' and consulting services will be procured in accordance with the requirements set forth or referred to in Section VII. Approved Selection Methods: Consulting Services of the 'Procurement Regulations', the Project Procurement Strategy for Development, and the Procurement Plan that will be submitted to the World Bank for approval. The Procurement Plan shall include for each contract: (a) a brief description of the activities/contracts; (b) selection methods to be applied; (c) cost estimates; (d) time schedules; (e) the World Bank's review requirements; and (f) any other relevant procurement information. The Procurement Plan covering the first 18 months of the project implementation was agreed before negotiations. Any update of the Procurement Plan will be submitted for the World Bank's approval. The Borrower shall use the World Bank's online procurement planning and tracking tool – the Systematic Tracking of Exchanges in Procurement (STEP) – to prepare, clear, and update its Procurement Plans and conduct all procurement transactions.
112. **All procuring entities, bidders, and service providers (suppliers, contractors, and consultants) shall observe the highest standard of ethics during the procurement and execution of contracts financed under the project,** in accordance with paragraph 3.32 and Annex IV of the Procurement Regulations. When procurement is done in the national market, as agreed in the Procurement Plan, the country's own procurement procedures may be used with the requirements set forth or referred to in paragraphs 5.3–5.6 related to National Procurement Procedures. For all works contracts, procurements that apply Standard Procurement Documents will adopt World Bank provisions related to environmental, social, health, and safety risks and impacts, including codes of conduct that prohibit sexual exploitation and abuse and sexual harassment (SEA/SH).
113. **Procurement responsibilities.** The PMU will be responsible for the coordination and quality control of all procurement-related activities funded by the project.
114. **Project Procurement Strategy for Development (PPSD).** The Borrower has prepared a PPSD discussed with and agreed upon by the World Bank. The PPSD describes how procurement activities will support project operations for the achievement of the project's development objective. This includes an analysis of the project's context and the consequent selection of procurement methods and approaches commensurate with the amounts and complexity of the contracts to be awarded under the project.
115. **Procurement capacity assessment.** As part of project preparation, a procurement assessment of the MELCD, the implementing agency, was conducted, in accordance with the World Bank Procurement Risk Assessment and Management System (PRAMS). The last World Bank funded project managed by the MELCD dated from 1990s. The assessment revealed that the staff is not skilled in World Bank procurement procedures. This staff is not selected based on their skills, but it is assigned to a department by administrative decision. There is a lack of procedures manual even for national procedures. However, the



agency team relies on the decrees and orders governing procurement to conduct its activities. As a result of the assessment, it is recommended to create a dedicated PMU which will be staffed with competent procurement personnel and to prepare a manual of procurement as part of the Project Implementation Manual.

116. **Systematic Tracking of Exchanges in Procurement (STEP).** The project will be implemented using STEP, a planning and tracking system, in accordance with clause 5.9 of the Procurement Regulations. Procurement Plans, their updates, and requests for prior review will be sent to the World Bank for clearance through STEP. Procurement activities not requiring World Bank prior review will be recorded in STEP as well.
117. **Overall procurement risk is considered Substantial, but after implementation of the proposed mitigation measures, the risk will be Moderate.** Proposed mitigation measures include (a) recruiting an experienced procurement specialist familiar with World Bank procurement procedures and policies; (b) recruiting a competent Procurement Assistant to support the Procurement Specialist in the requests of quotations procedures, the filing and the following-up of the procurement records; (c) training in the World Bank Procurement Regulations staff involved in procurement; (d) developing a manual of procurement procedures as part of the PIM to clarify roles for each staff involved in the procurement process, define the maximum delay for each procurement stage (specifically with regard to review and approval systems and the signing of contracts), and define measures to fast-track procurement; (e) developing contract management plans for prior-review contracts; and (f) improving the filing system to ensure compliance with the World Bank procurement filing manual.

C. Legal Operational Policies

	Triggered?
Projects on International Waterways OP 7.50	No
Projects in Disputed Areas OP 7.60	No

D. Environmental and Social

118. **The proposed environmental risk classification is Moderate as potential negative impacts which are likely to be generated by project activities can be mitigated by a range of measures identified in Environmental and Social Framework (ESF) instruments.** Most project activities are expected to have positive impacts on the environmental ecosystem. The categories of subprojects under Component 2 are expected to positively benefit the environment and local livelihoods. The main environmental and social issues relate to: (a) soil erosion from earthworks and runoff; (b) worker and community health and safety; and (c) nuisances related to atmospheric and noise emissions; (d) impacts on water quality and quantity and aquatic ecology; (e) health (injuries, STIs/HIV/AIDS, COVID-19) and safety (accidents, vehicular traffic, etc.) of workers and communities associated with the activities; and (f) possible impacts on biodiversity (flora and fauna) if located near or in a protected area, and so on. These negative impacts could spread throughout the degraded areas covered by the GGW program, within a context of climate change and security concerns.
119. **The project's social risk is rated Moderate,** because of limited potential impacts related to land acquisition and economic displacement, and the risk of exclusion or discrimination for project benefits. Project-related activities could negatively affect current patterns of access to and use of natural resources (land, water,



grazing and fishing areas and forests), exacerbate conflicts and raise tension within and between communities. Conflicts between farmers and pastoralists (on sensitive issues such as the encroachment of agricultural lands on grazing areas and the disruption of the seasonal herd transhumance routes) have exacerbated in recent years by climate change, shrinking resources, breakdown of local leaderships, and poor environmental governance. However, the participatory and inclusive approach to engaging with local level stakeholders is designed to reduce the risk of exclusion and discrimination in the project context. Security risks are present in the project areas of intervention and may have an impact on implementation and supervision of activities. The presence of IDPs fleeing from insecurity constitutes another pressure on natural resources, contributing to exacerbating conflicts. Some specific areas covered by the project maybe unlikely to be accessible for supervision during implementation and therefore third-party monitoring may be needed for the implementation of agreed social and environmental risk mitigation measures and actions. The SEA/SH risk was screened to be substantial, using the World Bank SEA/SH Screening Tool for Major Civil Work. Some project activities that target women from vulnerable and rural communities may exacerbate existing unequal social and economic power dynamics and place them at greater risk of sexual exploitation and sexual abuse. The project will be implemented in remote and hard-to-access areas, which present greater challenges for monitoring and supervision and therefore a higher risk of potential abuse and under-reporting of problems, include for female project staff and community laborers who may be subjected to sexual harassment. The complex institutional arrangements and the multiple institutional stakeholders involved in project implementation are additional risks, particularly when key project actors lack expertise and experience in the design and implementation of adequate prevention and response SEA/SH strategies.

120. **The proposed project will be required to meet the Environmental and Social Standards (ESS) to manage risks and impacts and improve environmental and social performance through a risk and outcomes-based approach.** Both from the environmental and social point of view, the proposed program is expected to have a positive impact on selected landscapes, by strengthening sustainable management of their resources, and on all members of local communities, especially the poorest and most vulnerable ones, building their capacity to manage natural resources and supporting the development of more sustainable livelihoods. The program approach is participatory, all eligible sub-projects will be initiated and partly implemented by eligible beneficiaries. CSOs, including producers' organizations (including women and youth associations) will benefit directly from a variety of investments aimed at diversifying local livelihoods, creating new economic opportunities and growth, and strengthening their technical and management capacities.

Overview of the Relevance of the Environmental and Social Standards for the Project

The following are the ESS that apply to the activities being considered:

121. **ESS1: Assessment and Management of Environmental and Social Risks and Impacts.** The Borrower has prepared and disclosed (on April 28, 2022 on the World Bank and Borrower's websites⁴⁸) an Environmental and Social Management Framework (ESMF). As information and preliminary designs become available, the Borrower will prepare Specific Environmental Social Impact Assessments (ESIAs) for each subproject and site-specific Environmental and Social Management Plans (ESMPs), including specific SEA/SH Risk Mitigation and Response Action Plans. Primary stakeholders of activities are agriculturalist, agro-pastoralists, pastoralists, fishermen, including women and youth (who will particularly benefit from community labor-intensive works program). Will also benefit from project activities stakeholders involved in the Non-timber Forest Product (NPTF) sector, such as collectors; producers, wholesalers, transformers, retailers, NPTFs

⁴⁸ On the National Office of Environmental Evaluation website, www.bnee.ne



market-oriented producer groups, Producers Organizations (PO) (including women associations). Individual entrepreneurs and existing micro-small and medium enterprises (MSMEs) will also benefit from project activities. Finally, other stakeholders include members of civil society organizations (CSOs), and local traditional, customary, and religious leaders. The implementation of a Conflict Reduction Strategy will emphasize the engagement of all actors and the strengthening of their capacities.

122. **ESS2: Labor and Working Conditions.** This standard is relevant because project activities are expected to have some environmental / social risks and impacts related to labor and working conditions. Following an assessment of the labor requirements and types of employees engaged in the project, the Borrower has prepared and disclosed (on April 29, 2022 on the Borrower's website, and May 15, 2022 on the World Bank website) Labor Management Procedures (LMP) to address key issues, such as working conditions and the management of worker relationships, protecting the workforce, non-discrimination, minimum age of work, measures to prevent forced labor and child labor, occupational health and safety requirements, as well as relevant guidance for the employment of youth through the project's job placement activities. Project workers include (a) direct workers for the PMU, all staff (civil servants or consultants); (b) indirect workers (contractors and subcontractors); and (c) community workers.
123. **LMP includes a workers' grievance mechanism that is SEA/SH sensitive, based on national laws and regulations and the provisions of ESS2.** The LMP also includes a code of conduct to guide workers involved in project activities and highlights the prohibition of SEA/SH and sanctions in case of misconduct. The ESMF has also assessed related Occupational Health and Safety (OHS) risks/impacts and identified all mitigation measures to be incorporated into labor management procedures and contractors labor management plans. It addresses potential hazards to workers, provision of preventive and protective measures, training of projects workers and maintenance of training records, documentation and reporting of occupational accidents, diseases and incidents, emergency prevention and remedies for injuries, disability and disease.
124. **ESS3: Resource Efficiency and Pollution Prevention and Management.** This standard is relevant: the project may generate waste and air, water, and land pollution and consume finite resources that may threaten people, ecosystem services and the environment at the local level. Pollutants may be released to air, water and land due to routine, non-routine, and accidental circumstances. Fisheries activities will take place in ponds, which are not connected to any international waterway. However, ecosystem restoration activities and related micro projects are not expected to generate significant environment and social impacts. Project activities will not include procurement or use of any agro-chemical product. The ESMF has assessed all these risks/impacts and identified mitigation measures. The cumulative impact will be identified as part of the screening process for the sub-projects and the ESAs/ESMPs to be prepared during project implementation, will include a range of mitigation measures to minimize and manage those risks and impacts. The Borrower will avoid activities releasing pollutants or, when avoidance is not feasible, will adopt measures to minimize and then mitigate these risks to ensure that pollutants have no or minimal impact according to measures specified in national law or the WBG's Environmental Health and Safety Guidelines (EHSGS). The generation of waste will be minimized and the reuse, recycling and recover of waste will be encouraged. The project has undertaken GHG assessment and will support the country to develop capacities on GHG assessment under its subcomponent 1.1.2.
125. **ESS4: Community Health and Safety.** The ESMF prepared by the Borrower has assessed all these risks/impacts of the project on the health and safety of the affected communities (particularly their most vulnerable members) during the project life cycle and has proposed different mitigation solutions. ESAs/ESMPs will be prepared during project implementation. All COVID-19 requirements will be shared



with contractors and monitored at local level to ensure workers and communities safety. The ESMF also describes SEA/SH-related risks (mainly because of laborers working on infrastructure refurbishment and having close contact with female beneficiaries). Due to the presence of armed groups in some of the geographical areas to be covered by the project, a preliminary security assessment was prepared by Borrower, to identify potential security related risks in the project context. A Security Risk Management Plan (SMP) will be prepared based on the results of the Security Risk Assessment (SRA) which has already been prepared, to specify how to manage, and what kind of mitigation measures are necessary to protect against risks posed by intensifying levels of conflict and violence in project areas. Finally, the SMP will describe how and by whom security will be managed and delivered; the resources required; how the PMU will deploy in insecure conditions; and the behavior that is expected of security personnel if armed forces, police, or gendarmerie are involved in any project-related activities. Presence of refugees and IDPs in the project areas may pose a risk to the project in terms of increased pressure for resources, and lack of opportunities. The project will have transparent hiring criteria in place, for instance to enable IDP/refugee population to also benefit from temporary work opportunities. A clear communication strategy will also be developed to share information about the project at the local levels in an understandable manner. The LMP, including code of conduct (embedding GBV requirements), will form part of procurement documentation for construction contractors and adherence to this shall form part of the contractual obligations. Contractors will be required to certify that all staff engaged on the project, incl. subcontractors, have completed training on safety/conduct prior to work commencement.

126. **ESS5: Land Acquisition, Restrictions on Land Use and Involuntary Resettlement.** Some of the activities may require or cause land acquisition, restrictions on land use and involuntary resettlement. In addition, temporary economic displacement (loss of land, assets, or access to assets and resources leading to loss of income sources or other means of livelihood) cannot be excluded during project implementation. However, feasible alternative project designs will be considered to avoid or minimize land acquisition or restrictions on land use, especially where this would result in physical or economic displacement, while balancing environmental, social, and financial costs and benefits, and paying particular attention to gender impacts and impacts on the poor and vulnerable. A Resettlement Policy Framework (RPF) was prepared and disclosed (on April 28, 2022 on Borrower's website) by the Borrower. The RPF provides necessary guidance for preparing, if necessary, subsequent site-specific resettlement action plans (RAPs), which after approval by the World Bank will be published in-country and on the World Bank's external website and will be implemented prior to the start of civil works. The RPF outlines the principles and procedures for involuntary resettlement and/or compensation of project-affected people, and establishes standards for identifying, assessing and mitigating negative impacts of project supported activities.
127. **ESS6: Biodiversity Conservation and Sustainable Management of Living Natural Resources.** This standard, which aims, among others, to protect and conserve biodiversity and habitats, is relevant. On the one hand, landscape restoration activities promoted by the project will restore and return functionality to critical habitat, reintroduce species and increase genetic diversity to ensure that positive links between a restored, healthy and biodiverse landscape and other sectors of interest (especially those relating to human development) are well articulated to assure decisionmakers of the positive social return on investment provided by restoring biodiversity as part of the overall landscape restoration process. On the other hand, some work will have some risks and negative environmental impacts, namely those related construction, rehabilitation of quays and fishing ports, which are likely to disrupt the soil structure at the sites concerned), soil compaction (because of the movements of vehicles, trucks and machinery), soil pollution (linked to the solid and liquid waste), noise pollution (linked to the use of earthmoving machinery, such as bulldozers,



trucks, mechanical shovels, graders), air pollution (dust and exhaust from vehicles, trucks and machinery), water pollution, selective destruction of plant cover and disruption of photosynthesis. In line with the ESMF principles, ESAs will be prepared during implementation to identify risks and impacts as well as several adequate measures that will be applied to promote biodiversity and prevent, mitigate or eliminate potential risks before the start of the work.

128. **ESS8: Cultural heritage.** The standard, which aims to protect cultural heritage from the adverse impacts of project activities and support its preservation, is relevant. While the ESMF includes already find chances procedures, ESAs (to be prepared during implementation) will assess potential risks and negative impacts of project activities on cultural heritage. If deemed appropriate, a Cultural Heritage Management Plan will be prepared, which will include mitigation measures (for instance, relocating or modifying the physical footprint of the project; conservation and rehabilitation in situ; relocation of cultural heritage; documentation; strengthening the capacity of national and subnational institutions responsible for managing cultural heritage affected by the project; establishment of a monitoring system to track the progress and efficacy of these activities; establishment of an implementation schedule and required budget for the identified mitigation measures; and cataloguing of finds). As part of the culture heritage assessment, the Borrower will carry out meaningful consultations by identifying, in accordance with ESS10, stakeholders that are relevant for the cultural heritage that is known to exist or is likely to be encountered during the project life cycle.
129. **ESS10: Stakeholder Engagement and Information Disclosure.** The Borrower has prepared and disclosed (on April 28, 2022 on Borrower's website and May 17, 2022 on World Bank website) a Stakeholder Engagement Plan (SEP). The SEP is consistent with the requirements of ESS10 and proportional to the nature and scale of the project and associated risks and impacts. The SEP also identifies vulnerable groups, outlines the characteristics and interests of identified stakeholder groups and timing and methods of engagement throughout the project lifecycle. The SEP includes a project level SEA/SH-sensitive Grievance Mechanism (GM), that assures safe and confidential documentation, response and management of SEA/SH complaints and targeted and regular involvement of women and other groups at-risk in stakeholder engagement. Awareness raising activities on project-related risks of SEA/SH and mitigation strategies is included in the SEP and targeted communities and project workers. If major changes occur in the scope of activities during implementation, a revised SEP is required and should be publicly disclosed. Primary stakeholders of activities are agriculturalist, agropastoral, pastoralists, fishermen, including women and youth (who will particularly benefit from community labor-intensive works program). Stakeholders involved in the Non-timber Forest Product (NPTF) sector, such as collectors; producers, wholesalers, transformers, retailers, NPTFs market-oriented producer groups, Producers Organizations (PO) (including women associations) will also benefit from project activities. Individual entrepreneurs and existing micro-small and medium enterprises (MSMEs) will be additional beneficiaries of project activities. Finally, other stakeholders include members of civil society organizations (CSOs), and local traditional, customary, and religious leaders. The implementation of the conflict reduction strategy emphasizes the engagement of all actors and the strengthening of their capacities.
130. **The Borrower has prepared, with the support of the World Bank, an Environmental and Social Commitment Plan (ESCP),** disclosed on August 11, 2022, setting out the necessary actions to ensure that the project complies with the ESSs. The ESCP identifies the material measures and actions that are required as well as their timeframe and dates of completion and defines the responsibilities of different institutional partners.



Gender

131. **The project will support actions to close the gender gaps identified in the gap analysis.** Female participation in project design and implementation as well as access to project benefits is prioritized in all project components. Separate (women-only) consultations during the planning phase will allow women to express themselves more freely. More specifically, the project will promote women's entrepreneurship and women's access to formal work environments to reduce the gap in women's full participation in economic activities and income generation, by supporting women-led business and providing them financial and technical support and registration of their businesses. To address such constraints and increase income-earning opportunities for women, the project will put in place the following actions (under Component 2): (a) women-focused awareness raising and outreach activities on market/investment/jobs opportunities; (b) targeted financial and technical support assistance packages to women entrepreneurs (MSMEs), women-led groups (CSOs) and female producers which will provide both hard and soft skills trainings such as business plan development, mentorship, network support for market access, leadership trainings and so on; (c) options for childcare support while female beneficiaries are attending trainings; and (d) forms of positive discrimination in screening process and eligibility criteria for matching grants and co-financing grants benefitting women entrepreneurs (MSMEs), women-led groups) and female producers. The Results Framework includes a dedicated gender indicator on women's economic empowerment, while other indicators will disaggregate results by gender where possible. Providing financial and technical support to women led organization/enterprises, including grants for NTFPs, skills trainings and business development services is crucial for supporting (potential) entrepreneurs and generating more and better jobs. Two indicators to monitor the closing of the gender gap in women's access to financial inclusion and access to better jobs have been included in the Results Framework: "Percentage of women-led organizations receiving financial grants and technical support" (end target: 50%) and "Number of women-led business supported with registration of their businesses" (end target: 20). In addition, the project will adopt several measures and mechanisms to support women's active participation more broadly, including: selection of service providers with proven capacity in working with women; separate sessions with women to ascertain their opinions and needs; access to childcare during training hours; preferential access for women to appropriate activities on a demand-driven basis, etc.

Citizen Engagement

132. **The project integrates citizen engagement (CE) approaches through various mechanisms aiming at and empowering local communities to enhance their voice and participation throughout the implementation and monitoring of activities.** By implementing CE activities such as consultations, community monitoring and grievance redress mechanisms along with a gender equity approach, the project will tackle climate change and landscape restoration strategies through participation that will be built on the mapping of community-based organizations, traditional organizations, village committees, farmer organizations or cooperatives, women groups and associations as well as CSOs and development-oriented NGOs. This mapping exercise will allow for the identification of the active social intermediaries that will help to effectively mobilize communities focusing on mainly women and youth as key active development actors. Raising awareness around youth and women's critical role through their direct participation in the development and implementation of land use plans and PDCs will allow to identify the problems that affect them, including those that trigger conflicts; in a participatory approach guide them through a process to take the appropriate collective decisions to address the identified issues; and implement interventions to resolve the problems with the support of local and customary authorities.



133. **The project will integrate three citizen engagement mechanisms:** (a) community consultations, participatory needs assessments, and participatory planning through the landscape approach; (b) multi-level arrangements for registering and addressing grievances and complaints; and (c) a community monitoring mechanism that will be embedded at the local level and associated to remote-supervision tools through GEMS. These mechanisms will help build transparent two-way communication channels between the Government and citizens, provide channels for citizens' feedback and effective participation in project implementation and supervision, and strengthen social inclusion while strengthening development impact and promoting sustainable development results. Access to information on the project interventions will be an important feature allowing community members, authorities, and other relevant stakeholders to be informed on project interventions throughout the project implementation. The beneficiary feedback loop will be closed through integrating suggested necessary corrective measures into the project interventions and maintaining an effective GRM. The Results Framework includes an indicator on addressing grievances that are registered and addressed through the project GRM.
134. **The Borrower has prepared a Stakeholder Engagement Plan.** Stakeholders targeted under the project include smallholder farmers, men and women's associations involved in the production of targeted forests and fishery products, pastoralists, private foresters, communal and village bodies representatives, decentralized agriculture and forest services and private investors/entrepreneurs among others. It also targets vulnerable groups such as IDPs, young men and women, transhumant pastoralists, agricultural migrants, elders and traditional/customary authorities. The landscape approach facilitates community members' participation through identifying issues that affect them and in making decisions regarding interventions that address these problems with support from local governments.

V. GRIEVANCE REDRESS SERVICES

135. **The project will establish a project specific GRM accessible to beneficiaries in all targeted communes that will be designed to collect, review and address stakeholders' complaints and grievances within a specific timeframe.** Local level grievance redress committees will include both female and male participants. The GRM will have multiple uptake locations and methods (verbally, through an intermediary, in writing and by telephone), to ensure accessibility for all stakeholders to report concerns or complaints if they feel affected by any of the sub-project's interventions. It will include specific procedures to address SEA/SI related complaints with multiple accessible entry points, referral to GBV service providers and confidential, survivor centered complaint management protocols
136. **Communities and individuals who believe that they are adversely affected by a World Bank (WB) supported project may submit complaints to existing project-level grievance redress mechanisms or the WB's Grievance Redress Service (GRS).** The GRS ensures that complaints received are promptly reviewed to address project-related concerns. Project affected communities and individuals may submit their complaint to the WB's independent Inspection Panel which determines whether harm occurred, or could occur, as a result of WB non-compliance with its policies and procedures. Complaints may be submitted at any time after concerns have been brought directly to the World Bank's attention, and Bank Management has been given an opportunity to respond. For information on how to submit complaints to the World Bank's corporate Grievance Redress Service (GRS), please visit <http://www.worldbank.org/en/projects-operations/products-and-services/grievance-redress-service>. For information on how to submit complaints to the World Bank Inspection Panel, please visit www.inspectionpanel.org.



VI. KEY RISKS

137. **The project's overall risk rating is Substantial.**
138. **Political and Governance risk is Substantial.** The political and security context in the sub-region influences the orientations of the Government, particularly in the choice of interventions and resource allocations. Thus, the project could suffer from shortcomings of the public structures that intervene in the areas of interventions targeted by the project for lack of means. There is also the risk of interference by elites during the targeting of the area of intervention and beneficiaries. To overcome these potential obstacles, the entire process must be clearly defined from the outset and assigned to a neutral technical committee to produce unbiased and objective work. This mitigation measure was taken, and project preparation was led by a multi-sectorial technical committee.
139. **Macroeconomic risk is Substantial.** The COVID-19 crisis is inflicting significant negative economic impacts, leading to a plummeting growth rate from 5.8 percent in 2019 to 1.0 percent in 2020. The pandemic works through external channels such as reduced regional and global demand, lower-than-planned foreign direct investment, plummeting commodity prices and tighter financing conditions in regional markets. In addition, the Ukraine crisis exacerbates the shortage of food supply and insecurity to the region. Domestically, prevention and mitigation measures impose significant disruptions and increase unemployment. The combined effect of these external and domestic shocks will adversely affect output, exert significant pressure on inflation, and strain public finances needed to support mitigation measures, including coping mechanisms for firms and individuals and support to the health system. These represent immediate project risks to finance compensation for project-affected people. The Government may request an exception to be able to finance compensation out of project proceeds as a short-term mitigation measure.
140. **Institutional Capacity for Implementation and Sustainability risks is Substantial.** The MELCD has limited experience implementing a World Bank project, despite having implemented components of World Bank projects. Specific attention has been paid during project preparation to capacity assessment and design relevant mitigation measures to implement once the project is effective. There is also a degree of uncertainty regarding full ownership of the project by the client during implementation due to a lack of human, material, and financial means. Therefore, it is important to accompany the client from the outset in strengthening its capacities and the transfer of skills.
141. **Fiduciary risk is Substantial.** The overall fiduciary environment is characterized by significant weaknesses in the integrity of FM and procurement systems. There is an ongoing risk of fraud and corruption that could potentially affect compliance with World Bank fiduciary policies. Specific training will be delivered by the World Bank to the PMU team members to raise awareness of best practices related to FM and procurement.
142. **Stakeholders' risk is Substantial.** The proposed project approach requires the collaboration between different levels of government (central, regional, local), and several stakeholders using the same land, water, and forest resources (fishermen, pastoralists, farmers, gatherers etc.). Given the tense political context, history of incomplete decentralization, conflicts around natural resource utilization and the increasing fragility of the targeted areas, exogenous risks could still materialize. The proposed project will develop and implement an inclusive conflict communication strategy and conduct participatory



consultations and planning as part of the development, updating, and implementation of PDCs. Mechanisms will be put in place to collect and provide feed-back and information on project processes from a variety of sources. The approach would increase joint ownership of project activities.

143. **The SEA/SH risk is Substantial.** GBV is highly prevalent, and it is estimated that 38.5 percent of women nationwide have experienced physical and/or sexual intimate partner violence at some point in their lives. Conflict, militarization, and insecurity in some areas of the country have further exacerbated preexisting risks of GBV in multiple ways: the collapse of social safety nets and protective relationships, the growing challenges associated to accessing life-saving services leaving survivors isolated and unable to seek care, the weakened rule of law and state presence failing to provide protection, the widening of levels and severity of gender inequality, and different manifestations of GBV, from intimate partner violence to sexual exploitation of women and girls. Gender and GBV Specialists from the technical support firm to the PMU will help to address and prevent this issue during project implementation, through communication and training on SEA/SH and GVB to the benefit of the PMU team members as well as stakeholders involved in the project.
144. **Other (Security risk) is rated Substantial.** The project will be intervening in areas under pressure through localized small-scale investments and interventions in natural resource management through local operators and high intensity public works. However, the country's security situation is constantly evolving and heightened security risks in these areas may negatively affect the implementation of the project and the achievement of the intended outcomes and results. A deterioration of the security situation may also impact the capacity to deploy technical staff in regions. A Security Management Specialist embedded within the PMU will help update security information and propose appropriate mitigation measures. The project's phased approach allows for some flexibility and adaptability in selecting the project communes as the security situation evolves.

**VII. RESULTS FRAMEWORK AND MONITORING****Results Framework****COUNTRY: Niger****Niger Integrated Landscape Management Project****Project Development Objectives(s)**

To increase the adoption of climate smart landscape restoration practices and improve access to income earning opportunities in targeted communes in Niger.

Project Development Objective Indicators

Indicator Name	PBC	Baseline	Intermediate Targets					End Target
			1	2	3	4	5	
Adoption of landscape restoration practices and improved access to income earning opportunities								
Land area under sustainable landscape management practices (CRI, Hectare(Ha))		0.00	10,000.00	50,000.00	100,000.00	150,000.00	200,000.00	205,000.00
Producer organizations with increased access to income earning opportunities (Number)		0.00	10.00	50.00	300.00	400.00	500.00	600.00
Net greenhouse gas (GHG) emissions (CRI, Metric tons/year)		0.00	500,000.00	2,000,000.00	2,500,000.00	3,000,000.00	2,000,000.00	950,000.00



Intermediate Results Indicators by Components

Indicator Name	PBC	Baseline	Intermediate Targets					End Target
			1	2	3	4	5	
Knowledge Creation and Territorial Planning for Climate Resilience								
Area brought under management plans (Hectare(Ha))	0.00	0.00	50,000.00	100,000.00	250,000.00	300,000.00	350,000.00	
Forest and pastoral areas inventory developed (Text)	Methodology defined	Firm recruited	Material and equipment acquired	40% of inventory completed	100% of inventory completed	100% of inventory completed	100% of inventory completed	
Communal Development Plans (PDC) developed (Number)	0.00	10.00	50.00	82.00	82.00	82.00	82.00	
MRV system operational (Text)	No MRV system in place	MRV system concept adopted	Existing information systems operational	Equipment for MRV system acquired	Information from existing information systems integrated into MRV system	MRV system operational	MRV system operational	
Investments in Landscape Restoration and Community Resilience to Climate Change								
Land users adopting sustainable land management practices (Number)	0.00	10,000.00	400,000.00	800,000.00	1,200,000.00	1,500,000.00	1,650,000.00	
Business plans supported by the project (NTFPs and fisheries) (Number)	0.00	0.00	10.00	80.00	150.00	200.00	250.00	
Women-led organizations receiving financial grants and technical support (Percentage)	0.00	0.00	10.00	20.00	30.00	45.00	50.00	
Number of women-led business supported with registration of their businesses (Number)	0.00	0.00	0.00	5.00	10.00	15.00	20.00	



Indicator Name	PBC	Baseline	Intermediate Targets					End Target
			1	2	3	4	5	
FACIs created and operational (Text)	No FACIs initiated	Sites identified and Faci development plans elaborated	Beneficiaries receiving capacity building and initial investments made	FACIs equipped	FACIs operational	FACIs operational	FACIs operational	FACIs operational
Project Coordination, Monitoring and Communication								
Communication tools developed and disseminated (Number)	0.00	5.00	20.00	40.00	80.00	100.00	150.00	
Grievances registered and addressed within the project GRM timeframe (Percentage)	0.00	40.00	60.00	80.00	80.00	100.00	100.00	

Monitoring & Evaluation Plan: PDO Indicators

Indicator Name	Definition/Description	Frequency	Datasource	Methodology for Data Collection	Responsibility for Data Collection
Land area under sustainable landscape management practices	The indicator measures, in hectares, the land area for which new and/or improved sustainable landscape management practices have been introduced. Land is the terrestrial biologically productive system comprising soil, vegetation,	Annual	Field reports	Review of field reports	PMU



	and the associated ecological and hydrological processes; Adoption refers to change of practice or change in the use of a technology promoted or introduced by the project; Sustainable landscape management (SLM) practices refers to a combination of at least two technologies and approaches to increase land quality and restore degraded lands for example, agronomic, vegetative, structural, and management measures that, applied as a combination, increase the connectivity between protected areas, forest land, rangeland, and agriculture land.				
Producer organizations with increased access to income earning opportunities	Producer organizations implementing activities for the sustainable development of non-timber forest products (NTFP) and fisheries products, and the implementation of FACI.	Annual	Field reports	Review of field reports	PMU
Net greenhouse gas (GHG) emissions	Project net greenhouse gas (GHG) emissions are	Annual	GHG accounting	Review of GHG accounting reports	PMU



	calculated as an annual average of the difference between project gross (absolute) emissions aggregated over the economic lifetime of the project and the emissions of a baseline (counterfactual) scenario aggregated over the same time horizon. They are reported in metric tons of carbon dioxide equivalent per year.		reports - measuring GHG reductions resulting from land restoration activities under the project		
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Monitoring & Evaluation Plan: Intermediate Results Indicators

Indicator Name	Definition/Description	Frequency	Datasource	Methodology for Data Collection	Responsibility for Data Collection
Area brought under management plans	Area brought under forest, pastoral and fisheries management plans	Annual	Management plans	Review of management plans	PMU
Forest and pastoral areas inventory developed	Progress of development of forest and pastoral areas inventory	Annual	Monitoring reports	Review of monitoring reports	PMU
Communal Development Plans (PDC) developed	Number of PDCs developed or updated under the project	Annual	PDCs and monitoring reports	Review of PDCs and monitoring reports	PMU
MRV system operational	Progress of development of MRV system	Annual	Monitoring reports	Review of monitoring reports	PMU



Land users adopting sustainable land management practices	Members of target communes who are applying restoration techniques under the project (see PDO indicator 1)	Annual	Project implementation reports	Review of project implementation reports	PMU
Business plans supported by the project (NTFPs and fisheries)	Business plans approved with signed matching grant agreements	Annual	Matching grant reports	Review of matching grant reports	PMU
Women-led organizations receiving financial grants and technical support	Percentage of women's associations benefitting from matching grants and technical support under the project	Annual	Matching grant reports	Review of matching grant reports	PMU
Number of women-led business supported with registration of their businesses	Women-led businesses formally registered under the project	Annual	Business registration documents	Review of business registration documents	PMU
FACIs created and operational	FACIs operational as a result of the project	Annual	FACI monitoring reports	Review of FACI monitoring reports	PMU
Communication tools developed and disseminated	Measures communication and knowledge exchange under the project	Annual	Communications work plan and products	Review of communications work plan and products	PMU
Grievances registered and addressed within the project GRM timeframe	Measures effectiveness of the GRM	Annual	GRM reports	Review of GRM reports	PMU



The World Bank

Niger Integrated Landscape Management Project (P177043)

**ANNEX 1: Implementation Arrangements and Support Plan**

COUNTRY: Niger
Niger Integrated Landscape Management Project

A. Institutional Context

1. **The project will be steered by the Project Steering Committee (COPIL), to be created before project effectiveness.** COPIL will be chaired by the Secretary General of the MELCD and will comprise different stakeholders. It will meet twice a year and whenever deemed necessary by the Chair, provide strategic guidance and oversight; and approve the project's annual work plans and budgets, Procurement Plan, and progress reports. According to the agenda, occasional participants will be invited to attend meetings. It will provide validation of the updated versions of the PIM, annual work plans, budgets, and progress reports and will ensure that the project adheres to national strategies and policies and the requirements for government programs. The costs of the committee meetings will be covered by the project (Component 3).
2. **A Multisectoral Technical Committee (MTC) will provide technical advisory services and support the PMU in the implementation of the project, ensuring the adherence of each stakeholder to project activities and facilitating the regular exchange of information.** The MTC will comprise members of the PMU and a focal point at the level of the ministerial departments of the MELCD, the Ministry of Planning (MP), the Ministry of Territorial Management and Community Development (MTACD), the Ministry of Livestock (ME), the Ministry of Tourism and Culture as well the Permanent Secretariat of the Rural Code. It will meet each trimester and, if necessary, representatives of other institutions—including regional institutions—may be invited to participate in the work of this committee. The Multi-sector Committee will act as a multisectoral technical ‘think tank’ and advisory body aimed at fostering concrete cooperation between the project team and different technical departments.

B. Implementation Arrangements

3. The project is designed in line with a decentralized approach empowering communes in implementation and using, as much as possible, the existing government structures at the national, subnational, and local levels to build in-country capacity and reduce the risk of limited absorption. Several activities will be implemented through governmental or nongovernmental institutions at the central and local levels, whereby the PMU will primarily monitor and provide guidance to project implementation and ensure quality control and fiduciary management. The communication and conflict reduction strategy will be applied upstream (preparation of activities), during (implementation of activities) and after (M&E) the implementation of activities. Figure 1.1 shows the project's institutional arrangements and table 1.1 details the project's institutional roles and responsibilities by sub-component.



Figure 1.1. Institutional Arrangements

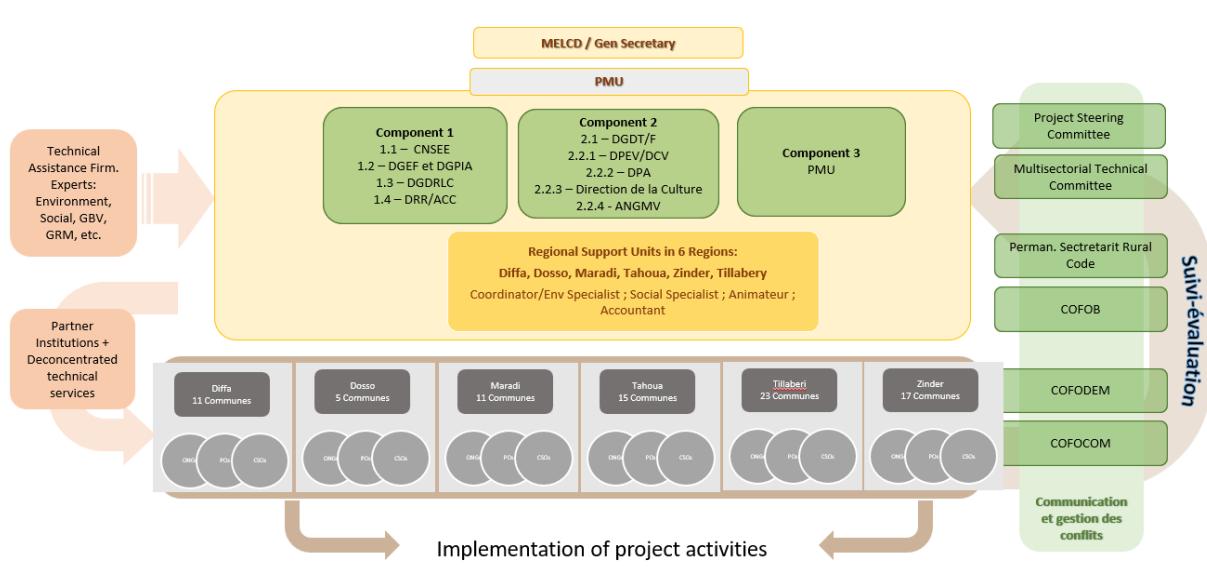


Table 1.1: Project Institutional Roles and Responsibilities by Sub-component

Components	Subcomponents	Lead Institution	Other Institutions	Responsibilities
CP1. Knowledge creation and territorial planning for climate resilience	1.1 National Forest and pastoral lands inventory	National Center for Ecological and Environmental Monitoring (CNSEE)	<ul style="list-style-type: none"> • Niamey and Maradi universities • Directorate for the Sustainable Management of Land and Forests, DEP/MELCD, DGDRCL, Permanent Secretary of the Rural Code, General Directorate of Production and Animal Industries, DEP and DS (ME) 	<ul style="list-style-type: none"> • Elaboration of the inventory methodology • Completion of forest and pastoral land inventories • Operationalization of environmental information systems
	1.2 Forest, silvo-pastoral, and fisheries management plans	General Directorate of Water and Forests / General Directorate of Production and Animal Industries of the Ministry of Livestock	<ul style="list-style-type: none"> • Permanent Secretary of the Rural Code • Municipal (communal) councils 	Conception and development of management plans
	1.3 Climate Informed Territorial Planning and	General Directorate of Regional, Local and Communal	<ul style="list-style-type: none"> • Local community organizations • Decentralized technical services 	<ul style="list-style-type: none"> • Development of climate resilient PDCs • Identification of subprojects



	Development	Development	<ul style="list-style-type: none"> Municipal (communal) councils 	
	1.4 Enabling environment for Niger NDC and LDN implementation	Directorate for the Strengthening of Climate Change Mitigation and Resilience	<ul style="list-style-type: none"> National Council of the Environment for Sustainable Development (CNEDD) DEP and DS (MELCD), DGDT/F, Ministries of Agriculture, Livestock and Energy 	Development of MRV system
CP2. Investments in Landscape Restoration and Community Resilience				
	2.1 Restoring Landscapes and Ecosystem Services	General Directorate for the Sustainable Management of Land and Forests	<ul style="list-style-type: none"> Municipal councils Decentralized departments Local authorities COFOs DEP (Envt) 	
2.2 Improving Local Livelihoods Resilience				
	2.2.1 Sustainable development of NTFPs	Directorate for the Promotion of Green Economy and Value Chain Development	<ul style="list-style-type: none"> Community organizations Municipal (communal) councils DGDT/F DEP and DS (MELCD) 	Development of NTFP value chains
	2.2.2 Sustainable development of Fisheries products	Directorate of Fisheries and Aquaculture	<ul style="list-style-type: none"> Community organizations Municipal (communal) councils DEP/MELCD 	Rehabilitation of reservoirs and development of artisanal fishery products
	2.2.3 Protection of intangible capital	Ministry of Culture, Tourism and Crafts	<ul style="list-style-type: none"> University depts CELHTO 	Protection and valorization of intangible capital
	2.2.4 FACIs	National GGW Agency	<ul style="list-style-type: none"> Community organizations Municipal (communal) councils DPA DEP/MELCD Ministries of Agriculture, ME 	Establishing and operationalization of FACIs
CP3: Project coordination, monitoring and communication	3.1: Coordination and project Management	PMU	Lead implementing agencies	Undertaking all project administrative activities (such as budgeting and planning, procurement and FM, annual audits, and social and environmental risks management)
	3.2 Monitoring	PMU	<ul style="list-style-type: none"> DEP/MELCD 	Undertaking all M&E



	<i>and Evaluation</i>		• Ministry of Planning • Communications Directorate of MELCD • Permanent Secretary of the Rural Code	activities
	3.3 <i>Communication and conflict management</i>	PMU		

4. A Memorandum of Understanding will be signed with the different national institutions involved in the different activities, no later than three months after project effectiveness. Firm contracts will be established with partners for the implementation of specific project activities.

Project Management Unit

5. The PMU will be responsible for overall project management and coordination, as well as the M&E of project activities, including through delegating execution to contracting partner institutions such as NGOs, national agencies, private/local contractors, and United Nations agencies, and so on. Specifically, the PMU would (a) carry out procurement procedures as needed at the national level; (b) manage the project's special accounts; (c) manage the M&E system at the national level, including environmental and social risks management; (d) prepare consolidated annual work programs and budgets; (e) coordinate and consolidate procurement and FM reporting; and (f) coordinate and consolidate periodic progress reports on project activities.
6. The PMU will comprise the following experts:
 - (a) A project coordinator in charge of (i) coordinating and supervising all the activities of the project, by strengthening concertation and collaboration with the different state and non-state institutional actors and other on-going projects and (ii) managing the project, by organizing regular technical meetings with the different institutions involved in the implementation of the project (including ministerial departments and consulting and public work firms), and so on. The coordinator will report directly to the General Secretary of MELCD.
 - (b) A procurement specialist in charge of all project procurement operations; preparing the Procurement Plan and updating it periodically, preparing progress reports on all the contracts concluded, and so on.
 - (c) An administrative and financial specialist in charge of ensuring the FM of the project, preparing unaudited interim financial reports and project financial statements, coordinating the preparation of all tender documents, and so on.
 - (d) An M&E specialist in charge of supervising the implementation of project activities, organizing and supervising the process of preparing the work plan, coordinating the design and implementation of the project M&E system and ensuring its effectiveness, ensuring the monitoring of the collection and analysis of all information concerning the activities of the project. This expert profile will also involve confirmed skill on GEMS that will be embedded in the project M&E framework.
 - (e) A specialist responsible for the coordination of environmental and social aspects, including GBV and security risk.
7. The PMU will also hire a primary accountant and an assistant accountant, a procurement assistant, and internal and external auditors hired based on ToRs agreed upon with the World Bank. Additional experts will be mobilized by the technical support firm as needed. A focal point to oversee environmental and social development aspects will be nominated by each institution responsible for the implementation of the project activities.

***Regional Support Units***

8. At the regional level, an **RSU** will be created in each targeted region to strengthen field implementation capacity and institutional coordination. Hosted by the regional directorates of MELCD, the RSU will comprise four key staff, hired based on TORs agreed upon with the World Bank. Additional experts will be mobilized at request by the technical support firm, including GBV, Gender and FCV experts.
 - **A coordinator/environmental specialist** (in charge of managing regional project activities and environmental safeguard instruments and monitoring)
 - **A social specialist** (in charge of dealing with community development, GBV, SEA, SH, and grievance management).
 - **A stakeholder engagement specialist** (in charge of supervising and assisting all administrative aspects related conventions with local communities and subproject investments by eligible promoters)
 - **An accountant**
9. The RSU will hold periodic meetings with the regional and communal entities including COFOs to (a) review annual work plans and budgets, including results and progress reports; (b) evaluate progress achieved with respect to expected outcomes and specific objectives; and (c) facilitate execution of the project by coordinating activities and mobilizing appropriate specialists and partners.

Technical Support

10. **A technical assistance firm** will provide necessary support to the PMU in areas related to procurement, technical, fiduciary, and environmental and social risk activities, including support to the design and implementation of a participatory and inclusive M&E system, communication and knowledge sharing, preparation of TOR of consultants for safeguard instruments or technical activities, and reporting.
11. **Partner institutions** will be responsible for supporting the PMU/RSU and participating communes in the design and implementation of community micro-projects. These institutions, to be identified and hired by the PMU on a competitive basis, will provide technical coordination and support for the preparation and implementation of community micro-projects in close collaboration with CSOs, private sector, and commune representatives including COFOs, religious authorities, and villages headers. Other activities include (a) mobilizing all stakeholders; (b) supporting the elaboration of PDCs and other planning tools; (c) developing annual programs; and (d) gathering essential data for the M&E of project-related activities and subprojects implementation.

Financial Management

12. In line with the guidelines as stated in the FM Manual for World Bank IPF Operations that became effective on March 1, 2010, and was last revised on February 10, 2017, an FM assessment was conducted within the MELCD. The objectives of the assessment were to determine whether the implementing agency has adequate FM arrangements to ensure that: (a) project funds will be used for purposes intended in an efficient and economical way; (b) the project's financial reports will be prepared in an accurate, reliable, and timely manner; (c) the project's assets will be safeguarded; and (d) the project is subjected to a satisfactory auditing process. The review of the FM existing systems included budgeting, staffing, financial accounting, financial reporting, funds flow and disbursements and internal and external audit arrangements.



13. It was agreed that a new PMU will be created within the MELCD to provide the technical and the fiduciary functions of the proposed project. The MELCD has no recent direct experience in implementing World Bank funded projects but seems to be familiar with other donors' FM procedures. Those donors include the United Nations Convention to Combat Desertification, the United Nations Development Program, the United Nations Environment Program, the food and Agriculture Organization, the African Development Bank, and the European Union.
14. **The FM assessment concluded that the MELCD has in place basic FM arrangements and a good track record in implementing other donor funded projects.** However, the MELCD had to establish a dedicated FM organization to implement the donor funded project activities. This is due to the internal control weaknesses of the national system in accounting, budget execution, internal and external audits as well as unfamiliarity with donors FM procedures. The remark applies to the entire public sector, including other ministries that implement World Bank-financed projects. The review of the external audit reports received, revealed that the other donor's project's financial statements were certified with an unqualified opinion and no specific internal control issues were identified. However, the first audits reports of three ongoing projects are due in June 2021. The overall FM residual risk of the proposed project is deemed Substantial given: (a) the high insecurity of the areas in which the project's activity will be implemented; and (b) the important number of small financial transactions to be carried out with beneficiaries based in the countryside, under the Component 2.

Table 1.2: Project Risk and Mitigation measures

Risk	Risk rating	Risk Mitigating Measures Incorporated into Project Design	Risk after mitigation measures
Country level Progress has been made in reform of the country's PFM over the years, however these reform efforts are yet to address weaknesses in the effectiveness of internal audit, accounting, reporting, external scrutiny and audits.	H	Use of World Bank FM procedures supported. Use of a ring-fenced financing mechanism.	S
Entity level The implementing entity to manage the project not yet set up (hence with capacity to be built) in addition the design of the project with multiple implementing entities might jeopardize the project activities coordination and implementation	H	The government requested a Project Preparation Advance to help ensure project readiness for implementation. This includes the setup of a PMU staffed with seasoned fiduciary team and equipped with a sound internal control system.	S
Project level The project will be implemented in remote and high security volatility areas that may limit the supervision capacity on the project activities and expose them to terrorist attacks and theft of the project funds.	H	A Third-party monitoring mechanism will be included in the project design as well as a Geo Enabling Monitoring System (GEMS) mapping of the subprojects.	S
INHERENT RISK	H		S
Budgeting Inaccurate budget figures due to unreliable forecast and databases.	S	The budget process will mainly rely on a sharp definition of project activities during preparation The standardized FM manual will be	M



Risk	Risk rating	Risk Mitigating Measures Incorporated into Project Design	Risk after mitigation measures
In addition, the project might experience delay in budget preparation		tailored to the project specificities and include provision of clear timeline and responsibilities for budget preparation and monitoring.	
Accounting The PMU is not yet operational and lack an accounting system hence the project may experience delays in the treatment of financial information and in submissions of Financial Statements (interim and annual)	S	An FM officer and an accountant at central level and accounting assistants at regional level will be recruited under ToRs acceptable to the World Bank. In addition, an accounting software will be installed at the PMU to fulfill the accounting and reporting needs for the activities under its responsibility	M
Internal Controls / Internal audit Absence of a procedure manual specific to the project might hamper the project implementation and coordination Supervision of project activities in region may be a challenge due to volatile security in some remote areas and complaint raised by beneficiaries may not be adequately captured and addressed Matching grants and another financial transaction to beneficiaries may be diverted and not benefit to selected eligible	H	The project manual of procedures has been elaborated and includes a clear description on the internal control environment including description of the project activities, fiduciary procedures and role and responsibilities of each actor in the project activity control process. The project design will consider including a GEMS mapping of subprojects and a Grievance Redress Mechanism (GRM) which set up and implementation and monitoring which is detailed in the PIM. The matching grant mechanism will be described in a specific manual with selection criteria, amount and payment modalities, control over payments described in the manual	S
Funds Flow As there is not yet a dedicated account for the project there is a risk that the project funds are diverted and used for non-project eligible purposes Payments for matching grants may be diverted, paid to wrong beneficiaries and/or not paid on time resulting in and complaint	H	One (1) Designated Account will be opened in a stable commercial bank acceptable to the World Bank and managed by the PMU. Payment for matching grants will be done either through a financial institution or using mobile banking channel following procedures deemed acceptable to the World Bank.	S



Risk	Risk rating	Risk Mitigating Measures Incorporated into Project Design	Risk after mitigation measures
Financial Reporting Delays on the submission of acceptable Interim Financial Reports (IFRs) and annual project financial statements as the PMU staff and its accounting software are not yet in place	S	The Project Preparation Advance will serve to prepare to equip the PMU with seasoned staff and appropriate accounting software that will be customized and deployed to ensure timely recording of financial information as well as timely production of quarterly and annual financial statements.	M
Auditing The project account might not be audited as no auditor has been recruited to audit the project funds.	S	An external auditor will be recruited according to ToRs acceptable to the World Bank to conduct external audit of the project on a yearly basis; the report will be furnished to the World Bank within six months of the end of the fiscal year	S
CONTROL RISK	H		S
Overall FM risk	H		S

15. To mitigate the fiduciary risk to the extent acceptable to the World Bank, the FM action plan described in table 1.3 below will need to be implemented.

Table 1.3. FM action plan

	Action	Due By	Responsible Entity
1.	Recruit one FM specialist based on ToRs satisfactory to the WBG.	By effectiveness	MELCD
2.	Recruit a senior accountant based on ToRs satisfactory to the WBG.	By effectiveness	MELCD
3.	Open a DA in a commercial bank acceptable to the WBG	Within one month after effectiveness	MELCD
4.	Recruit for each RSU one accounting assistant based on ToRs satisfactory to the WBG.	Within three months after effectiveness	MELCD
5.	Acquire a computerized accounting information system for the management of the proposed project, with specifications acceptable to the WB.	Within three months after effectiveness	MELCD
6.	Deploy the computerized accounting information acquired in each RSU	Within three months after effectiveness	MELCD
7.	Recruit an internal auditor with qualifications and experience satisfactory to the WB to carry out internal audit activities at central and regional level	Within three months after effectiveness	MELCD
8.	Recruit an external auditor with ToRs acceptable to the WB.	Within six months after effectiveness	MELCD

*Planning and Budgeting Arrangements*

16. **The PMU, in close collaboration with all involved implementing partners and technical units, will prepare annual work plans and budgets for implementing project activities considering the project objectives.** The annual work plan and budgets will be approved by the Steering Committee and submitted to the World Bank for no-objection not later than November 30 of each year proceeding the year the work plan will be implemented. The budgetary discussions will begin at least six months before the fiscal year of implementation and will consider the procurement plan as the starting point. Once the budget is approved, the budget execution will be monitored through the automated accounting software to serve as a basis for a budget execution monthly follow-up, based on variance analysis report comparing planned with actual expenditures that will be part of the quarterly unaudited IFR.

Accounting arrangements

17. **FM manual.** The PIM detailing administrative, procurement, FM, safeguards, and M&E procedures and arrangements for the project has been adopted by the MELCD in form and substance satisfactory to the WB.
18. **Accounting staff.** The project FM team will be comprised of: One FM specialist and one primary accountant at central level and one assistant accountant for each region. The FM specialist and the senior accountant will be recruited before the project effectiveness date. The regional assistant accountants will be recruited, within three months after the project effectiveness date. The FM team will be recruited based on ToRs satisfactory to the World Bank.
19. **Accounting information systems.** A computerized FM system will be acquired and installed within three months after the project effectiveness date. The accounting software to be procured will include the following modules to be integrated: budgeting, general accounting, cost accounting, reporting, M&E, fixed assets management, preparation of withdrawal applications, and tracking of disbursements by donors. The accounting software will be deployed in each of the six regions.
20. **Accounting standards.** The PMU will use SYSCOHADA accounting standards which are commonly used among the West African Francophone countries. The chart of accounts should be prepared to reflect various project components to facilitate the preparation of relevant monthly, quarterly, semiannual, and annual financial statements. The annual financial statements will be prepared in accordance with SYSCOHADA accounting standards and relevant International Public Sector Accounting Standards using a computerized accounting system.

Internal Control and Internal Auditing

21. **Manuals.** FM procedures are detailed in the PIM that has been adopted. The FM procedures will cover at least the following aspects: institutional arrangements, budget and budgetary control, disbursement procedures and banking arrangements, receipt of goods and payment of invoices, internal control procedures, accounting system and transaction records, reporting requirements, and audit arrangements. The FM procedures will also include guidance for handling project funds by any relevant entity involved in the project activities' implementation, as well as annexes with template forms and reports such as asset control form and register; budget formats; monthly, quarterly, and semiannual reports; annual financial statements; and so on. In addition, the project will have adopted the matching grant manual, which provides detailed descriptions on procedures for preparation, approval, and implementation of matching grant as well as eligibility criteria.



22. **Internal audit functions.** At the central level, a qualified and experienced internal auditor will be recruited with ToRs acceptable to the World Bank and will provide support to the PMU as well as the six regions. The internal auditor will be recruited within three months after the project effectiveness date.
23. **The project internal auditor will advise on the adequacy of project systems of internal controls and will conduct reviews of the implementation of project's activities.** The role of project internal auditor will also include following up on implementation of appropriate actions to improve effectiveness of risk management, control, and governance processes at all levels and training of project's staff. The internal auditor will be trained on risk-based audit. Additional trainings will be recommended as part of continuing professional education. The Project Steering Committee is expected to have a fiduciary oversight function.

Funds Flow and Disbursement Arrangements

24. **The proposed operation is estimated at US\$150.0 million equivalent to be allocated to the Borrower in the form of an IDA credit.** Proceeds of the financing will be used by the project for payments of eligible expenditures as defined in the Financing Agreement and further detailed in the annual work plans and budgets and Procurement Plans. Disbursement arrangements have been designed in consultation with the Recipient after considering the assessment of the implementing agency's FM capacities and anticipated cash flow needs of the operation.

Table 1.4. Project Disbursement Table

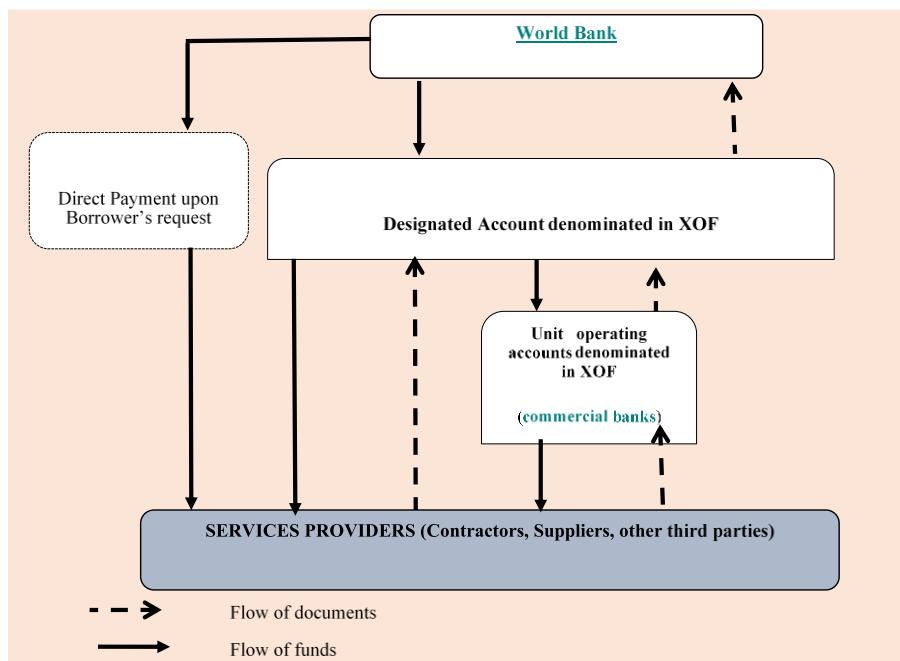
Category	Amount of the Financing Allocated (expressed in EUR)	Percentage of Expenditures to be Financed (inclusive of Taxes)
(1) Goods, works, non-consulting services, consulting services, Operating Costs and Training for the Project	39,550,000	100%
(2) LER Matching Grants	62,500,000	100%
(3) LLR Matching Grants	40,390,000	100%
(4) Emergency Expenditures under Part 4 of the Project	0	
(5) Refund of Preparation Advance	1,860,000	Amount payable pursuant to Section 2.07 (a) of the General Conditions 100% from the Credit proceeds
TOTAL AMOUNT	144,300,000	



25. **Disbursement arrangements.** The disbursement methods that would be used under this project will be based on the Disbursement Guidelines for IPF, dated February 2017. As a result, all World Bank disbursement methods will apply: (a) direct payments to a third party for works, goods, and services upon the Recipient's request; (b) special commitments and letters of credit; (c) reimbursements for expenditures incurred under the project; and (d) advances. Further details about disbursements to the project will be included in the disbursement procedures described in the Disbursement and Financial Information Letter (DFIL) and the administrative, financial, and accounting procedures manual. As the implementing agency of the project, the PMU will maintain the project DA and the regional functional bank accounts managed by the six regions. If ineligible expenditures are found to have been made from the project's accounts (DAs and regional bank accounts), the Borrower will be obligated to refund the same. If the DA remains inactive for more than six months, the Borrower may be requested to refund to IDA amounts advanced to the DA. IDA will have the right, as reflected in the Financing Agreement, to suspend disbursement of the funds if reporting requirements are not complied with.

26. **Banking arrangements for DA.** The MELCD, through its PMU will open one segregated DA denominated in West African CFA franc in a commercial bank on terms and conditions acceptable to the WB. The project's DA will function under the co-signature of the project coordinator and the FM specialist.

Figure 1.2. Funds Flow– Future Financing



27. **Flow of funds arrangements.** Funds flow arrangements for the project (through the DA) and regional bank accounts are as follows:

- IDA will make an initial advance disbursement into the project DA in CFA francs upon receiving a withdrawal application from the Borrower. From the implementing entity's DA, funds transfer will be made to the beneficiaries and the regional accounts (see Figure 1.1 below).
- Replenishment of funds from IDA to the DA and from the PMU to the six regional bank accounts will be made upon evidence of satisfactory utilization of the advance, reflected in statement of



expenditures (SOEs) and/or on full documentation for payments above SOEs thresholds. Replenishment applications would be required to be submitted regularly on a monthly basis. Further details about disbursements to the project are included in the disbursement procedures described in the DFIL and the PIM.

Financial Reporting Arrangements

28. **IFRs.** In line with the World Bank's FM guidelines, the PMU will be required to prepare and submit quarterly unaudited IFRs to account for activities funded under this project. The IFRs should provide enough pertinent information for a reader to establish whether (a) funds disbursed to projects are being used for the purpose intended; (b) project implementation is on track; and (c) budgeted costs will not be exceeded. The IFRs will include the following (a) an introductory narrative discussion of project developments and progress during the period, to provide context to (or other explanations of) financial information reported; (b) a Sources and Uses of funds Statement, both cumulatively and for the period covered by the report, showing separately funds provided; (c) a statement of the use of funds by components, cumulatively and for the period covered by the report; (d) the DA reconciliation, including bank statements and general ledger of the bank accounts; (e) the disbursement forecasts of the upcoming six months; and (f) an explanation of variances between the actual and planned. The FM manual will cover the IFR preparation procedure. The formats and contents of the IFRs have been agreed on between the WB and the MELCD at negotiation.
29. **Annual financial reporting.** In compliance with International Accounting Standards and World Bank requirements, the PMU will produce annual financial statements. These include (a) a balance sheet that shows assets and liabilities; (b) a statement of sources and uses of funds showing all the sources of project funds and expenditures analyzed by project component and/or category; (c) a list of material assets acquired or procured to date with project funds; (d) notes related to significant accounting policies and accounting standards adopted by management and underlying the preparation of financial statements; and (e) a management assertion that project funds have been disbursed for the intended purposes as specified in the relevant financing agreements.
30. **Audit arrangements.** In line with World Bank's policy, the PMU is required to submit annual project financial statements audited in accordance with international standards on auditing (ISA), by an independent external auditor appointed based on ToRs acceptable to the World Bank. The external auditor will express an opinion on the project financial statements in compliance with ISA. In addition to the audit report, the external auditor will prepare a Management Letter containing the auditor's assessment of the internal controls, accounting system and compliance with financial covenants in the financing agreement, suggestions for improvement, and management's response to the auditor's management letter. The audit reports shall be submitted to the World Bank within six months after the end of each financial year.
31. **Implementation Support and Supervision Plan.** The World Bank's FM implementation support will be consistent with a risk-based approach and will involve collaboration with the World Bank's task team. The supervision intensity will be based initially on the Project Appraisal Document (PAD) FM risk rating and subsequently on the updated FM risk rating during implementation. On-site review will cover all aspects of FM, including internal control systems, the overall fiduciary control environment, and tracing transactions from the bidding process to disbursements as well as Statement of Expense (SOE) review. Additional supervision activities will include desk review of periodic IFRs, quarterly internal audit reports, audited annual financial statements and management letters as well as timely follow up of issues that arise, and updating the



FM rating in the ISR and the FM system. The World Bank task team will provide support in monitoring the timely implementation of the action plan.

Table 1.5. Implementation Support Plan

FM activity	Frequency
Desk reviews	
IFR review	Quarterly
Audit report review of the program	Annually
Review of other relevant information such as interim internal control systems reports	Continuous as they become available
On-site visits	
Review of overall operation of the FM system	Semi-annually (implementation support mission)
Monitoring of actions taken on issues highlighted in audit reports, auditors' management letters, internal audit, and other reports	As needed, but at least during each implementation support mission
Transaction reviews (if needed)	As needed
Capacity-building support	
FM training sessions by WBG FM team	During implementation and as needed

32. **Supervision Plan.** Based on the risk rating of the project and the current FM arrangements, it is expected that in the first year of implementation, there will be four quarterly on-site visits to ascertain adequacy of systems and supplemented by desk reviews of IFRs and audit reports. The FM supervision mission's objectives will include ensuring that adequate FM systems are maintained for the project throughout project life. In adopting a risk-based approach to FM supervision, the key risk areas of focus will include assessing the accuracy and reasonableness of budgets, their predictability and budget execution, compliance with payment and fund disbursement arrangements, and the ability of the systems to generate reliable financial reports.

Procurement

33. **Institutional and Implementation Arrangements for Procurement.** It was agreed during the project preparation that the implementing agency for the project will be the MELCD, which will have overall oversight of project activities. Day-to-day implementation of the project's activities will be carried out through a PMU directly attached to the General Secretary of the Ministry. The PMU will implement the project and will be responsible of all aspects of the project, including managerial, coordination, planning, supervision, review, quality control, evaluation, and dissemination functions.
34. **Procurement Capacity Assessment.** Procurement assessment was done for the implementing agency by WB procurement specialist during preparation, in accordance with the WBG Procurement Risk Assessment and Management System (PRAMS). Based on this assessment, the procurement risk factor is Substantial. The residual risk will be Moderate after implementing the agreed mitigation action plan summarized in Table 1.6.

Table 1.6. Procurement Mitigation Measures

Implementing agency	Procurement mitigation measure	By when
MELCD - PMU	<ul style="list-style-type: none"> Recruit a procurement specialist and a procurement assistant dedicated to the project on competitive selection basis 	By effectiveness
	<ul style="list-style-type: none"> Advertise at the national level even for small works using requests for quotations (open approach of the market) Set up third-party supervision and monitoring system Provide military escorts to supervision missions 	Throughout project implementation



	<ul style="list-style-type: none">• Develop contract management plans for prior review contracts	Throughout project implementation
	<ul style="list-style-type: none">• Train project staff on the new framework (online and/or in person) and STEP, which will be used to manage all contract transactions and related documents	Throughout project implementation
	<ul style="list-style-type: none">• Set up a filing system at the PMU level to ensure compliance with the WB procurement filing requirements• Ensure timely archiving of all procurement documents and complaints in STEP• Provide a dedicated room for physical archiving	Throughout project implementation

35. Project Procurement Strategy for Development and Procurement Plan. As part of the preparation of the project, the Borrower has prepared the PPSD which describes how procurement activities support project operations for the achievement of project development objectives and deliver Value for Money (VfM). As part of the implementation of the project, contracts of several kinds will be awarded. Most of the contracts will be in the form of consultancy services. Some of the activities will be carried out in the form of works contracts and others of supplies. The number of known contracts at the current stage is 296 divided into works contracts, supply and equipment contracts and consultancy contracts. The assessment found highest risks for procurements of goods and works, and lowest for consultancies, which constitutes most procurements of the project. Selection methods will follow the standard thresholds applied for Niger. The strategy recommends that attention is paid to the grouping of markets to maximize the number of bidders and to ensure implementation efficiency.

36. Procurement information and documentation—filing and database. Procurement information will be recorded and reported as follows:

- (a) Complete procurement documentation for each contract, including bidding documents, advertisements, bids received, bid evaluations, letters of acceptance, contract agreements, securities, and related correspondence will be maintained at the level of respective ministries in an orderly manner, readily available for audit.
- (b) Contract award information will be promptly recorded and contract rosters, as agreed, will be maintained.
- (c) Comprehensive quarterly reports will be prepared indicating (a) revised cost estimates, where applicable, for each contract; (b) status of ongoing procurement, including a comparison of originally planned and actual dates of the procurement actions, preparation of bidding documents, advertising, bidding, evaluation, contract award, and completion time for each contract; and (c) updated Procurement Plans, including revised dates, where applicable, for all procurement actions.

37. General Procurement Notice, Specific Procurement Notices, Requests for Expression of Interest, and results of the evaluation and contracts award should be published in accordance with advertising provisions in the Procurement Regulations. For request for bids and request for proposals that involve international bidders/consultants, the contract awards shall be published in the UN Development Business in line with the provisions of the Procurement Regulations.

38. Training, workshops, study tours, and conferences. Training (including training materials and support), workshops, and conference attendance (based on individual needs as well as group requirements), and on-the-job training will be carried out based on an approved annual training and workshop/conference plan that will identify the general framework of training activities for the year. A detailed plan and ToRs providing the nature of training/workshop, number of trainees/participants, duration, staff months, timing, and estimated



cost will be submitted to IDA for review and approval before initiating the process. The appropriate methods of selection will be derived from the detailed schedule. After the training, each beneficiary will be requested to submit a brief report indicating what skills have been acquired and how these skills will contribute to enhance his/her performance and contribute to the attainment of the PDO. Reports by the trainees, including completion certificate/diploma upon completion of training, shall be provided to the project coordinator, will be kept as parts of the records, and will be shared with the World Bank if required.

39. **Procurement Manual.** Procurement arrangements, roles and responsibilities, methods, and requirements for carrying out procurement have been elaborated in the Procurement Manual, which is a section of the PIM. The context of fragility and the capacity constraints in the country will be considered, and simplified procurement arrangements will be designed accordingly.
40. **Implementing entity.** The procurement activities for the project will be executed by the PMU set out within the MELCD. The PMU will carry out the following activities:
 - (a) Manage overall procurement activities and ensure compliance with the procurement process described in the relevant manuals.
 - (b) Ensure compliance of bidding documents, draft requests for proposals, evaluation reports, and contracts with WB procedures.
 - (c) Prepare and update the Procurement Plan.
 - (d) Monitor the implementation of procurement activities.
 - (e) Develop procurement reports.
 - (f) Seek and obtain approval of internal designated entities and then of IDA on procurement documents, as required.
41. The **PMU** will conduct all processes of all procurement and will support the following activities: (a) preparation of ToRs and technical specifications; (b) preparation of the requests of proposals and the bidding documents; (c) preparation of evaluation reports and contracts in line with World Bank procedures; and (d) setting up of procurement commission activities and all related meetings. It will also be responsible for the coordination and quality control of all procurement-related activities funded by the project. Regional Support Units (RSUs) will consolidate regional level work plans, budgets and progress reports for the PMU, but they will not be authorized to carry out procurement activities.
42. **Procurement procedures.** When approaching the national market, the country's own procurement procedures may be used with the requirements set forth or referred to in paragraphs 5.3–5.6 related to National Procurement Procedures and subject to certain requirements for national open competitive procurement. Other national procurement arrangements (other than national open competitive procurement) that may be applied by the Borrower (such as limited/restricted competitive bidding, request for quotations, shopping, local bidding, and direct contracting) shall be consistent with World Bank core procurement principles and ensure that World Bank Anti-Corruption Guidelines and Sanctions Framework and contractual remedies set out in the World Bank Legal Agreement apply.
43. **Operating costs** financed by the project are incremental expenses, incurred by PMU as approved by the World Bank, for project implementation, management, and M&E, including utilities; office space rental; office supplies; bank charges; vehicle operation, maintenance, and insurance; maintenance of equipment and buildings; communication costs; travel and supervision costs (that is, transport, accommodation, and per diem); and salaries of contract and temporary staff. These expenses related to operating costs will be



procured using the procedures specified in the project manual for administrative, financial, accounting, and procurement procedures, accepted and approved by the World Bank.

44. **Frequency of procurement supervision.** In addition to the prior review supervision which will be carried out by the World Bank, semiannual supervision missions are recommended. Annual World Bank procurement post review will be conducted by the World Bank procurement specialist. The sample size will be based on the procurement risk rating for the implementing agencies in each country. The prior review procurements will be reviewed and cleared in STEP by the World Bank procurement specialist.
45. **Procurement prior review.** The procurement risk is rated Substantial. Table 1.7. summarizes the procurement prior review for Substantial risk. These prior review thresholds can evolve according to the variation in procurement risk during the life of the project.

Table 1.7. Procurement Prior Review Thresholds (US\$, millions) for Substantial Risk

Works	10.0
Goods, information technology, and non-consulting services	2.0
Consulting firms	1.0
Individual consultants	0.3

46. **Contract management and administration.** For all prior review contracts, contract management plans (in line with the provisions of the Procurement Regulations Annex XI) will be developed during contract creation and completed at the time contracts are signed.

Implementation Support Plan

47. Implementation support missions will be carried out twice a year during the life of the project by the World Bank and MELCD, with the participation of development partners. An MTR will be carried out to assess the project progress, achievement of the key indicators, risks and mitigation measures, and relevance of activities. The MELCD will undertake an independent evaluation at the midterm and a completion report at closing. Implementation support funds for the World Bank team are, and will continue to be, provided by IDA.
48. The main areas of focus and skills requirements for implementation support to be provided by or through the World Bank are summarized in table 1.7.

Table 1.8. Main Areas of Focus and Skills Requirements for Implementation Support

Time	Focus
First 12 months	<ul style="list-style-type: none">• Initiating critical procurements• Strengthening M&E and reporting systems• Strengthening FM systems• Gender mainstreaming• Landscape-related investments• Spatial planning and coordination with stakeholders• Communication and outreach• GRM
From 13 to 84 months	<ul style="list-style-type: none">• Continuing critical procurements• Maintaining M&E and reporting systems



Time	Focus
	<ul style="list-style-type: none">● Continuing coordination with stakeholders● Gender● FM and procurement● Safeguards and GRM● Landscape-related investments● Systematic training programs● Communication, knowledge generation, and dissemination● GRM● Project reporting



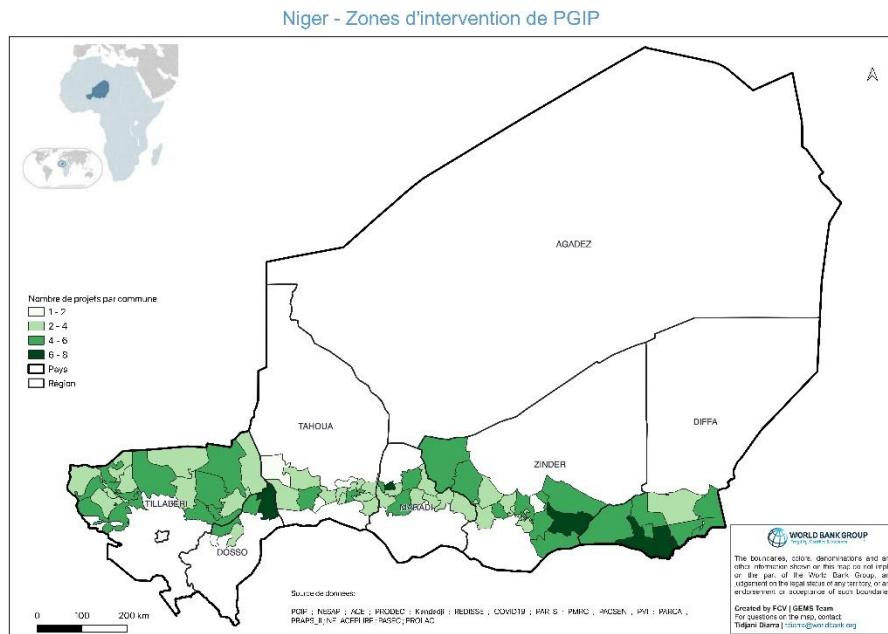
ANNEX 2: Synergies with other World Bank Projects

PROJECT	EXECUTING AGENCY (IN NIGER)	MAIN THEMES, PROJECT ENVELOPE & CLOSING	SYNERGIES WITH THE PROPOSED PROJECT
Community Action Project for Climate Resilience (CAPCR) (P125669)	MP	Environment and natural resource management, climate resilience strengthening. US\$63M, closed May 2021	Geography: 33 common communes Institutions: MELCD was one of the implementing agencies of CAPCR Approach: ILMP will deepen at the village level the resilience-building measures initiated in the 33 communes
Climate Smart Agriculture Support Project (PASEC) (P153420)	Ministry of Agriculture	Agriculture; climate-smart agricultural practices; innovative land restoration practices. IDA US\$111M, closing Dec 2022	Geography: Five common regions (Dosso, Maradi, Tahoua, Tillabéri, and Zinder) – 60 communes Approach: PASEC also builds on PDCs to support climate-smart practices and promote enterprises - those focused on agriculture. ILMP will use the same matching grant mechanism to promote other key natural resource products (NTFPs and fisheries). The projects will pool managerial capacities and coordinate at the regional and communal level to ensure coordination.
Agricultural and Livestock Transformation Project (PIMELAN) (P164509)	ME	Improving the quality of agriculture support services and policies; increasing investments in agricultural production, processing, and market access. IDA US\$134.9, closing Dec 2025	Geography: Four common regions (Diffa, Tillabéri, Tahoua, Zinder) Approach: Focuses on livestock and agriculture value chains, including fisheries and aquaculture. Support services for fisheries established under PIMELAN will be leveraged in the ILMP.
Niger Integrated Water Security Platform Project (Niger-IWSP Project) (PISEN) (P174414)	Ministry of Water and Sanitation, Ministry of Agriculture, ME, MELCD, Niger Water Asset Holding Company, Cabinet of the Prime Minister	Management of Niger's water resources, improving water supply, sanitation and irrigation service delivery. IDA US\$400M, closing Dec 2028	Geography: 15 common communes Institutions: MELCD is implementing a subcomponent of PISEN. Approach: PISEN similarly promotes watershed restoration at the commune level. ILMP will complement ongoing activities in the 15 communes, sharing technical expertise and managerial capacities.
West Africa Food System Resilience Program (FSRP) (P172769)	Ministry of Agriculture	Strengthening food security through integrated landscape management. IDA US\$60M (Niger), closing Dec 2026	Geography: Four common regions (Tillabéri, Tahoua, Diffa, Zinder), 32 communes Approach: Integrated landscape management approaches are taken to restore landscapes and support small-scale producers. ILMP will build on the capacity and networks created under FSRP.



Regional Sahel Pastoralism Support Project II (PRAPS II) (P73197)	Ministry of Livestock	Animal health improvement and veterinary medicine control; sustainable landscape management; livestock value chain improvement IDA \$60M (Niger), closing Dec 2027	Geography: Five common regions (Dosso, Maradi, Tahoua, Tillabéri, and Zinder) Approach: Focuses on pastoralism management in purely pastoral regions, while ILMP supports restoration in these areas and extending to the surrounding landscape
Community-Based Recovery and Stabilization Project for the Sahel (PCRSS – 3F) (P173830)	Cabinet of the Prime Minister	Resilient and inclusive recovery of conflict-affected communities; transitional support toward stabilization and territorial development of communities IDA \$100M (Niger), closing Dec 2026	Geography: Two common regions (Dosso, Tillabéri) Approach: PCRSS delivers services and rehabilitates small infrastructure at the community level. ILMP will leverage existing services and infrastructure in the implementation of restoration and value chain activities.

Figure 2.1. Map Showing the Number of WB Projects Operating in each Commune of ILMP

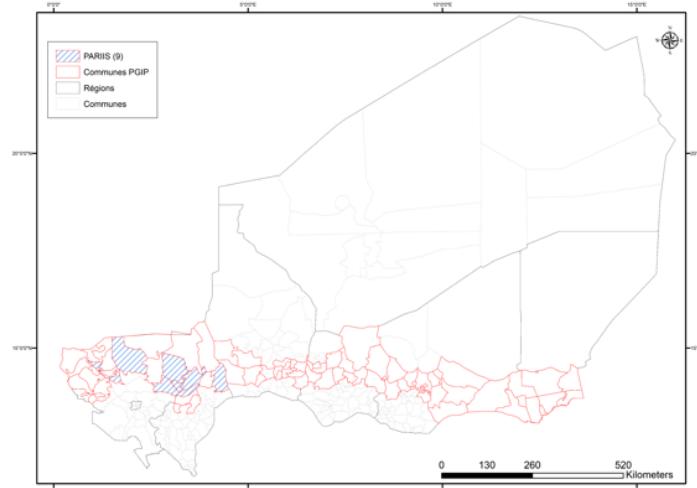
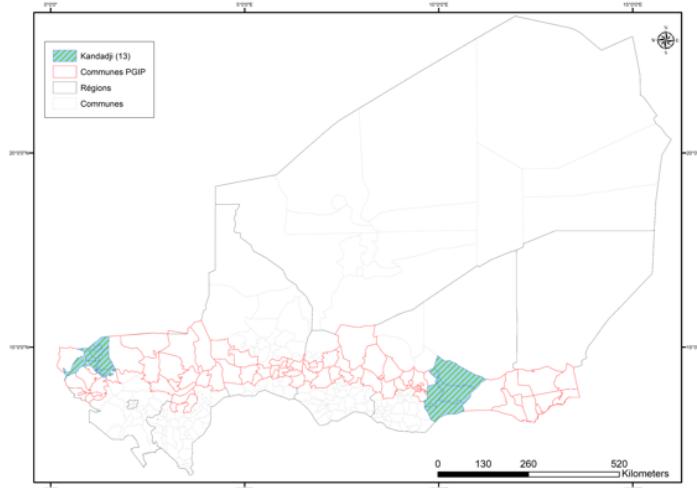
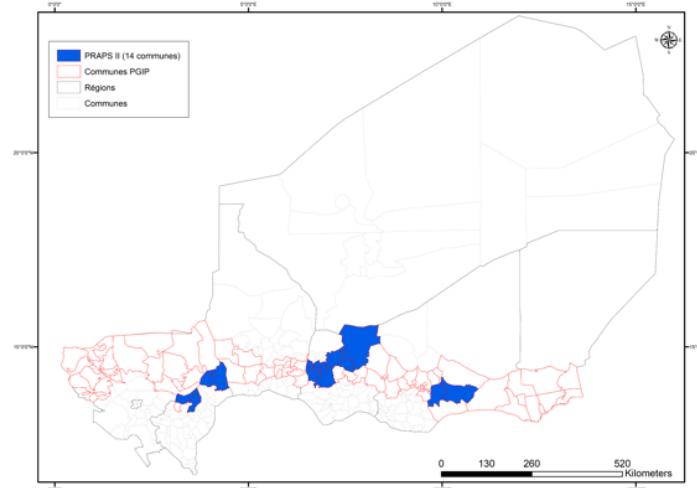
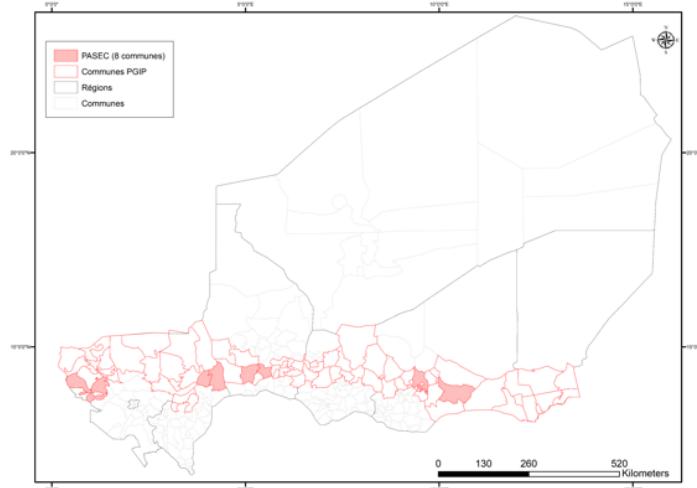




The World Bank

Niger Integrated Landscape Management Project (P177043)

Figure 2.2. Projects Operating in the ILMP Communes





ANNEX 3: Economic and Financial Analysis

Summary of project benefits

1. Main project benefits covered by the economic analysis will be delivered by Component 2 of the project. The analysis evaluates the additional net benefits provided by the project compared to the “without project” situation. These include:
 - Sub-component 2.1 Restoring Landscapes and Ecosystem Services (US\$70 million):
Measures aimed at improving carbon pools, preventing soil degradation, increasing the use of renewable energy sources, increasing carbon stock, sustainably managing forests and restoring lands and important ecosystem services, favoring biodiversity conservation and biodynamic agriculture (with high potential for mitigation co-benefits). **Benefits** include reduced land degradation, soil erosion and desertification; improved quality and volume of important ecosystem services such as carbon sequestration, biodiversity conservation, protection of water resources and wildlife habitat; and increasing the resilience and livelihood opportunities of the targeted communes. This will lead to strengthened resilience to climate change risks, reduced river sedimentation and flood risks and ultimately to the recovery of agricultural lands (see Table 3 Targets under the NDC and ILMP by adaptation measure, main text).
 - Sub-component 2.2: Improving Local Livelihoods Resilience (US\$45 million):
 - 2.2.1. *Sustainable development of Non-Timber Forest (NTFPs) (US\$20 million)*. In this component sub-projects, women's cultural heritage and artisanal skills in harvesting and handling products will be supported by the project, for the following priority products: Honey, Baobab (*Adansonia digitata*), Palmier Doum (*Hyphaene thebaica*), Boscia (*Boscia Senegalensis*), Balanites (*Balanites aegyptiaca*), Marula (*Sclerocarya birrea*), and Néré (*Parkia biglobosa*) (through subprojects). **Measurable benefits** include both economic and environmental benefits – increased income resulting from sales and incremental prices increase for selected NTFPs, soil improvement and other ecosystem benefits resulting from application of agroforestry and sustainable land management techniques.
 - 2.2.2. *Sustainable Development of Fisheries products (US\$15 million)*. Project support will be provided through the normative principles of productive alliances with the aim to strengthen collaboration between the public and the private sector and facilitate the access of associated artisanal fishermen to markets, support to fish processing, trading, etc. **Benefits** will be assessed as incremental increase in income for fisheries communities.
 - 2.2.4. *Community Integrated Agro-Silvo-Pastoral Farms (FACI) (US\$7 million)*. FACI is a community space intended to strengthen the capacities of farmer associations in agro-silvo-pastoral productions for their socioeconomic development and to increase local incomes, while increasing food production and hence food security for the surrounding communities. The concept integrates a variety of agro-silvo-pastoral production systems (forestry and pastoral management, beekeeping, market gardening, fish farming, and small livestock) as well as community shops. **Measurable benefits** include income increase for the targeted beneficiaries, based on the evaluation of five FACI implemented under NRMCC project, improved soil quality and productivity.
2. Interventions under Component 1 will also result in many other benefits that might not be possible to assess at ex-ante but will increase resilience of the ecosystem/landscapes and community to climate change,



improve ecosystem quality and value of the services, including soil quality and nutrition, water efficiency and climate change mitigation via significant carbon sequestration during project life and beyond. Considering significant contribution of agriculture, forestry and fisheries - almost 40 percent in Niger GDP in 2020⁴⁹, sustainable forest, pastoral lands and fisheries management plans in a long run will lead to enhanced livelihood opportunities in the areas covered by these plans. Moreover, by updating of the PDCs of the targeted communes, to incorporate NDC commitments and climate change mitigation, and adaptation planning the project will unlock the flow of public and private finance and overall resources mobilization.

3. Other benefits not covered by the economic analysis include long-term, indirect intangible benefits (such as improved knowledge as a result of the provided technical assistance/capacity building).

Project Beneficiaries and Area under Economic Analysis

4. The main project beneficiaries are the households and members of the targeted 82 Communes in 6 regions (Diffa, Dosso, Maradi, Tahoua, Tillabéri, and Zinder regions). About 800,000 households (5.5 million people, half of which are women) are expected to benefit from project activities. They include rural communities; vulnerable populations (climate impacted agricultural migrants, transhumant pastoralists, internally displaced persons, young men and women, and elders); communes; traditional/customary authorities, producer organizations, MSMEs, private investors interested in sustainable NTFPs, civil society and community-based groups.

Methodology and Approach

5. A benefit-cost analysis will allow assessing the economic efficiency of selected interventions that deliver measurable benefits. In addition, sensitivity analysis was conducted for the main parameters including discount rate (the discount rate applied rates of 6 percent and 10 percent⁵⁰) and a time horizon of 20 years, to account for the project's long-term benefits. While the project generates a wide range of benefits, only some of them - mostly the tangible ones – could be estimated in monetary terms: assessment of the ecosystem services resulting from land restoration interventions, by type of interventions (Table 3.1); benefits from sale and valorization of NTFPs and fisheries products as incremental revenue due to the improved value chain, assessment of the incremental income increases for the beneficiaries participating in FACI model, and emission reduction/carbon sequestration benefits. Other benefits are discussed in a qualitative analysis.
6. Input data will include results of existing studies, investments in natural resources management and resilience projects implemented in the country, such as GGW, CAPRC, and a vast amount of information, studies, and data provided by government agencies.

Main Assumptions and assessment

7. **Restoring Landscapes and Ecosystem Services.** The project will target restoration of about 205,000 ha and 11,000 km of hedge and pastoral corridors through the activities in coordination and with contribution to the NDC goals in the country. List of potential investments, area, assumptions on potential EIRR/benefit cost ratio, and costs is defined in Table 3.1.

⁴⁹ Agriculture, forestry, and fishing, value added (annual percent growth) - Niger (worldbank.org)

⁵⁰ Technical Note on Discounting Costs and Benefits in Economic Analysis of World Bank Projects



8. Considering these assumptions, with a 6 percent discount rate and modest assumptions for the benefits flow, the *component NPV will be US\$56.5 million, EIRR at 17 percent, and BCR at 1.9*. These results are compatible with the results of other World Bank projects that have implemented landscape restoration activities: Regional Sahel Pastoralism Support Project PRAPS 1 (P147674) results for Niger as NPV US\$43.8 million and EIRR 21.7 percent (discount rate 12 percent), Community Action Project for Climate Resilience Project NPV US\$5.9 million and EIRR at 14.20 percent (discount rate 10 percent).

Table 3.1. Targets under the NDC and ILMP by adaptation measure, return and assumptions

	Target under NDC	Target under ILMP	Assumptions, source	Cost (US\$ million)
Adaptation measures				
Natural regeneration	913,932 ha	100,000 ha	Social Return on Investment ratio of 6:1 by year three (end of the project) in the target communities. The study calculated that the project would generate a ratio of 17:1 four years after project closure and 43:1 - 10 years after project closure ⁵¹ . For the project conservative b/c will be accepted as 17:1	1.5
Fixing live dunes	10,053 ha	3,000 ha	The three options currently in place in the field (fixation without protection, fixation with a two-year protection and fixation with a three-year protection) are financially and economically profitable. The net present value (NPV) of dune fixation is positive compared to the business-as-usual scenario and the internal rate of return (IRR) is much higher than the capital opportunity rate. ⁵² EIRR varies between 11-38% (8-year project, discount rate 10%). For the project IRR will be accepted as conservative value 11%.	1.5
Rehabilitation of degraded classified forests	10,000 ha	5,000 ha	The assessment conducted by ELD (2014. Sidibé, Y, et al.) further demonstrated that value of the net benefits as a result of agroforestry and reforestation interventions in Kelka forest, Mopti region in Mali is estimated at US\$89.6 per hectare; this value was applied to estimate net ecosystem benefits flow resulting from restoration investments. The accounted benefits include increased firewood production, increased nitrogen fixation, increased soil moisture, enhanced shallow aquifer recharge, and enhanced availability of animal fodder. Considering this value, Mali ILM project estimated positive NPV for these interventions as US\$18.4 million and IRR 4%.	3.5
Hedges/firebreakers	145,000 km	1,000 km	The study "Economic efficiency and targeting of the African Great Green Wall" (2021. Mirzabaev A., et al.) evaluated the	0.5
Multipurpose species	750,000 ha	30,000 ha		10.0

⁵¹ FMNR practicing farmers were only marginally better off than non-practicing neighbors in good rainfall years but were up to 5-fold better off in drought years. A 2010 study conducted (Senegal) found a significant increase in grain yields under FMNR compared to traditional (no tree cover, no inputs) land management practices – 767 Kg/ha compared to 296 Kg/ha. A 2013 Social Return on Investment report (World Vision Ghana) calculated that, after including discounting factors, investment of funds, staff and technical input generated a Social Return on Investment ratio of 6:1 by year three (end of the project) in the target communities. The study calculated that the project would generate a ratio of 17:1 four years after project closure and 43:1 - 10 years after project closure. <https://sustainabledevelopment.un.org/partnership/?p=30735>

⁵² Research has shown that it is possible to restore the ecological potential of the dunes after a year of fixation and deferred grazing. In addition to slowing down the progress of the dune frontlines, the measures put in place protect socioeconomic infrastructures such as roads, water points, basins, rangelands and crop fields against silting. The introduction of anti-erosive wicker works allows a gradual return of small wildlife. The production of fodder biomass and plant diversity have also improved https://www.eld-initiative.org/fileadmin/Regreening_Africa_publications/Niger_dunes_Factsheet_ELD_ReGreening_Africa_EN_2020.pdf.



plantations			economic costs and benefits of future land restoration projects under this program. The study applied different scenarios which accounted for both market-priced and non-market benefits from restored ecosystems and consider the heterogeneity of local decision-making contexts in terms of investment planning horizons, discount rates, and the time needed for the restored ecosystems to start yielding their benefits in full. The results show that every US dollar invested into land restoration yields on average US\$1.2 under the base scenario, ranging from US\$1.1 to US\$4.4 across the scenarios. Average value is applied in the economic analysis (1.2:1).	
"One village one forest" program	12,500 ha	6,000 ha		10.0
Restoration of degraded pastoral, agriculture and silviculture lands	112,500 ha	50,000 ha		30.0
Development and securing of pastoral enclaves, grazing areas and rest areas	455,848 ha	10,000 ha		6.0
Development and materialization of pastoral corridors	279,702 km	10,000 km		
Mitigation Measures				
Massive distribution of improved stoves	1,000,000	70,000	Various studies in West Africa refer to the range of the benefit cost ratio when using wood, charcoal or LPG improved stoves. The private BCRs for all three stoves are usually below 1 due to costs associated with acquiring, installing, and using an ICS. However, economic BCR is higher (social and environmental benefits, mainly due to reduction of pollution/GHG emissions) and varies between 1.86-18.61 ⁵³	1.0
Total cost				65.0

Sustainable development of Non-Timber Forest Products (NTFPs)

9. The NTFP sector remains largely underexploited in view of their great potential. The project will focus on supporting production and value chain development for the following NTFPs: Honey, Baobab (*Adansonia digitata*), Palmier Doum (*Hyphaene thebaica*), Boscia (*Boscia senegalensis*) and Balanites (*Balanites aegyptiaca*), Marula (*Sclerocarya birrea*), and Néré (*Parkia biglobosa*).
10. NTFP and their value chains play key role by providing important socio-economic services to poorest communities, especially women and children. The main actors in the fruit value chain of *Ziziphus mauritiana* and *Balanites aegyptiaca* are essentially women of all age groups. The hard kernels of the chain were mainly collectors who played both the role of fruit processors and local product sellers. The trees of these two species are most commonly found in community forest ecosystems. Consequently, their logging is unregulated due to unrestricted access to the trees. Very little investment was required along the chain, resulting in the net margins greater than 50 percent for both species⁵⁴. Research conducted by M. Abasse and T. Rabiou (2002) finds that marketing of *Ziziphus mauritiana* concerned fresh fruit (68.8 percent) and fruit processed into biscuits (82.14 percent), and that of *Balanites aegyptiaca* involved fruit (38.5 percent) and oil extracted from seeds (38.7 percent). The net margin was estimated at 71.71 percent ± 21.59 percent for the first species and 50.31 percent ± 47.99 percent for the second. The income was mainly used for the needs of farmers'

⁵³ 2020. Costs and Benefits Analysis of Clean and Improved Cooking Solutions in Ghana. Voice for Change Partnership https://snv.org/assets/explore/download/costs_and_benefits_analysis_of_clean_and_improved_cooking_solutions_in_ghana_compressed.pdf

⁵⁴ Moussa, M., Abasse, T., Rabiou, H., Aboubacar, M., & Mahamane, L. (2020). Analysis of the Fruit Value Chain of Two Priority Food Woody Species of Central Southern Niger, West Africa. Open Journal of Forestry, 10, 277-292. <https://doi.org/10.4236/ojf.2020.103018>



households. This study reveals an important potential and opportunity for job creation and improved food and nutritional status of the vulnerable strata of rural communities in Niger. Improving the links between the various actors will establish a more sustainable promotion of the fruits of these two species.

11. While the detailed ex-ante economic analysis is difficult to undertake due to absence of detailed information about NTFP subprojects, markets, beneficiaries at this stage, applying results of the studies mentioned above under conservative assumptions would allow to estimate that this subcomponent will generate positive NPV of US\$728,349 and IRR 6 percent (under discount rate 10 percent).

Sustainable development of fisheries products

12. The project will focus its support on traditional fishing from water reservoirs and community ponds and address the main constraints faced by the sector, which often include: (a) inadequate fishing infrastructures (small landing sites) and water bodies; (b) fry production; (c) fish feed production; and (d) fish products transport.
13. Due to lack of data about the beneficiaries and production outputs, NPV assessment based on the results of the Mali LRRP economic analysis (see table 3.2 below). Under BCR at 8.5, the NPV of the fisheries interventions is estimated at US\$90 million.

Table 3.2. Community fisheries CBA (adopted from Mali LRRP)

No changes in production	NPV, US\$ million	IRR, %	B/C
low incremental price, fresh fish (FCFA 740/kg) and processed (FCFA 625/kg)	90.2	92	8.5
high incremental price, fresh fish (FCFA 917/kg) and processed (FCFA 1750/kg)	178.2	158	15.6
Annual increase in production by 2.5% (only project incremental production increase)			
low incremental price, fresh fish (FCFA 740/kg) and processed (FCFA 625/kg)	105.1	94	10.2
high incremental price, fresh fish (FCFA 917/kg) and processed (FCFA 1750/kg)	205.5	160	18.7

Integrated community agro-silvo-pastoral farms (FACI)

14. The FACI concept integrates a variety of agro-silvo-pastoral production systems (forestry and pastoral management, beekeeping, market gardening, fish farming, small livestock) as well as community shops, which allow the creation of income for vulnerable populations. Sustainable land management practices and the use of renewable energies are the key foundation of the FACI. These initiatives contribute to increasing local incomes, improving food and nutritional security for beneficiaries, and reducing migration of young people to urban centers. The assessment of the implementation and the impacts of twenty-six (26) FACIs located in six countries (Mali, Chad, Niger, Mauritania, Burkina Faso and Nigeria), have proven the relevance and efficiency of this mechanism in accelerating and sustaining endogenous development processes, reducing poverty, food insecurity and malnutrition as well as empowering women and encouraging young people to return to the land. In addition to the net and direct income to the populations, fixed and seasonal jobs are also generated.



15. Analysis of the existing FACI in Nara, Nioro and Banamba circles⁵⁵ in Mali was extrapolated to estimate ex ante feasibility of the six FACIs to be established by the project. Results of the assessment are summarized in table 3.3 (the benefit flow will start during third year after project start).

Table 3.3. Estimated NPV, IRR and B/C ratio, 6 FACI

Discount rate	6%	10%
component cost, US\$	7,000,000	
Project NPV, US\$	9,320,945	4,437,012
IRR	19%	19%
BC ratio	2.5	1.8

16. Considering a discount rate of 6 percent, the NPV for this subcomponent is estimated at US\$9.3 million, BCR at 2.5 and IRR at 19 percent.

Project level NPV

17. In conclusion, the activities proposed by the project are estimated to generate a conservative⁵⁶ economic NPV value of US\$156.7 million, IRR 17 percent and a benefit costs ratio at 1.8, under discount rate 1.8 (Table 3.4). Several benefits could not be estimated in monetary terms (e.g., added value of all NTPs to be targeted by the project, full value of intangible ecosystem services provided by the restored landscapes, including benefit flow in a long run resulted from the sustainable landscapes management and resilience of the ecosystem and livelihoods), thus this result underestimates the real benefits expected from the project. NPV is sensitive to changes in discount rates and not sensitive to changes in prices.
18. In addition to the benefits mentioned above, the project generates global benefits in terms of the reduced greenhouse gas (GHG) emissions. The EX-ACT model estimated the net GHG emission reductions at about 10.9 million tCO₂ over a 6-year period, or 1.8 K million CO₂ per year. The economic value of emissions reductions is calculated based on the World Bank (2017) guidance, which suggests a shadow price of carbon of US\$42/tCO₂ (low scenario) and US\$82/tCO₂ (high scenario) for 2022, with an annual increase of 2.25 percent. Inclusion of carbon benefits in a global CBA generates an NPV ranging from US\$ 807 million (low social cost of carbon) to US\$ 2,198 million (high, social cost of carbon) for the base analysis.

Table 3.4. Results of Economic and Financial Analysis (NPV, 20 years, US\$)

		Discount rate	
		6%	10%
EA results, No carbon benefits	NPV, US\$	156,670,197	48,470,209
	B/C ratio	1.8	1.4
	IRR, %	17%	15%
EA results, Carbon benefits, low SPC prices	NPV, US\$	1,153,928,768	806,793,682
	B/C ratio	9.4	7.7
	IRR, %	>100%	>100%
EA results, Carbon benefits, high SPC prices	NPV, US\$	2,197,974,888	1,562,158,741
	B/C ratio	17.0	13.9
	IRR, %	>100%	>100%

⁵⁵ Cisse, Y. L'étude de la viabilite economique des activites generatrices de revenus (AGR) dans les communes d'intervention du projet de gestion des ressources naturelles et changements climatiques (PGRNCC) au Mali.

⁵⁶ Lowest estimates for the fisheries, FACI and NTFP incremental income, prices and outputs



19. **With and Without (counterfactual) project scenario.** Land degradation is expensive both at a) at the individual farmer/pastoral level in terms of loss of productivity and income and b) at the national level in terms of its impact on agricultural GDP. Recent IFPRI study found that the annual total economic value of degradation in Niger was 2015 US\$3.535 billion or 19 percent of the 2015 purchasing power parity gross domestic product. Land degradation in the grasslands and woodlands accounts for more than 95 percent of total cost of land degradation due to LUCC. This poses a big concern given that grasslands and woodlands play key role in livestock feeding systems and that livestock sector play a key role in household nutrition and is a leading sector in the Nigerien economy⁵⁷.

Rationale for public sector financing

20. Public sector financing is justified because of the expected positive externalities. The proposed project will generate a wide range of important environmental benefits from protecting against soil and water erosion, promoting carbon sequestration, and providing habitat for plant and animal species. The project will develop the improved technical models to promote multifunction landscape restoration and management (including forests and pastoral landscapes), will potentially lead to restoration of cultural landscapes. The multiuse-orientated forest and pastoral management approach will also help balance the public and private benefits. This will improve the prospects for peace and sustainability and address the need to improve the quality and ecological functions of degraded lands, and the need to provide farmers with income generation, including long-term value-chain for important NTFPs.

⁵⁷ 2018. Fostering transformation and growth in Niger's agricultural sector 35Fleur Wouterse and Ousmane Badiane (eds.) Fostering transformation and growth in Niger's agricultural sector. IFPRI.

**ANNEX 4: GHG Assessment**

1. Niger is currently one of the world's most vulnerable countries and with low readiness to adapt to climate change, the NDGAIN-Index (2019) shows that the country is ranking at bottom seven (number 176 out of 182 countries). Climate vulnerability is compounded by the Sahel region's high dependence on rain-fed agriculture and its natural resources to support food security and livelihoods, rapid population growth, and chronic humanitarian crises due to recurrent drought, flooding, food insecurity, epidemics, and violent conflict. Agricultural production is primarily subsistence-based and rainfed, which makes smallholders particularly vulnerable to the impacts of climate change. The country's economy relies heavily on the agropastoral sector, which contributes 38 percent to the country's GDP over 80 percent of the population to food security and livelihood improvement.
2. Land degradation is seriously impacting the livelihoods of millions of communities in Niger. In 2019, it costed the equivalent of 5 percent of the country's GDP, and in 2016 it estimated to impact over 6 percent of Niger's overall territory.⁵⁸ The combined pressure of unsustainable land management practices, growing insecurity in Tillabéri and Dosso region, demographic changes, and migration, as well as climate change and variability is causing severe environmental and economic damages in the country. The project has therefore a strong resilience building objective, with investments that align with the priorities stated in the revised National Determined Contribution (2021). The project's activities aim to restore highly degraded landscapes, improve livelihoods, food security and key ecosystems for biodiversity. Carbon sequestration and emission reductions is generated as a co-benefit by most of the project activities, as a result of restored landscapes and sustainable land management practices, which will lead to improved soil quality and fertility, among other benefits.
3. This analysis presents an ex-ante assessment of the net emissions reduction calculations for the Landscape Restoration and Resilience project with the use of the EX-ACT tool.⁵⁹ Carbon stock estimation changes was done based on Intergovernmental Panel on Climate Change Tier 1 default values. For the calculation of the net carbon balance, the lifetime of the project was applied, totaling a 5-year period.

Summary of Results

4. The project activities will focus on multiple investments to improve sustainable landscape management, ecosystem restoration, including rehabilitation of key sensitive areas in degraded landscapes, with the aim to improve rural living conditions for targeted communities in 82 communes. Based on current data available, the project activities will lead to at least net emissions reduction of 10.9 million tCO2eq during the project's lifetime (see table 4.2). Activities that provide highest emission reductions are landscape restoration of highly degraded areas, which is estimated to contribute to 9.49 million tCO2eq, whereas reforestation activities will also help sequester 1.37 million tCO2eq.

Description of project activities contributing to carbon sequestration

5. The project aims to restore 205,000 ha that will help reduce land degradation. The techniques were selected in alignment with the country's NDC, see table 4.1 below. The project will also support massive distribution of improved stoves to support renewable energy and decrease the dependency of wood as primary source of

⁵⁸ Country Environmental Analysis (forthcoming), World Bank, 2022

⁵⁹ The World Bank applies the Ex-Ante Carbon-balance Tool (EX-ACT) developed by the FAO in 2010, to assess a project's net carbon balance.



energy in households, as up to 94 percent of households in the country still rely on wood as primary source of energy⁶⁰. Rural households in Sub-Saharan Africa consume around 1,745 kg of wood per year⁶¹. With the improved stoves, depending on the technology, it is estimated that wood consumption can be reduced by half, leading to less GHG emissions to the atmosphere. Further, the amount of toxic smoke produced can be reduced and health risks to the families in households minimized⁶².

Table 4.1. Integrated Landscape Management practices supported by the project

	Target	Cost (US\$ million)
Natural regeneration (ha)	100,000	1.5
Dune-fixing (ha)	3,000	1.5
Rehabilitation of degraded classified forests (ha)	5,000	3.5
Multipurpose species plantations (ha)	30,000	10
“One village one forest” program(ha)	6,000	10
Restoration of degraded pastoral, agricultural and silvo-pastoral lands(ha)	50,000	30
Development and securing of pastoral enclaves, grazing areas and rest areas(ha)	10,000	6
Massive distribution of improved stoves	70,000	1
Agro-silvo-pastoral systems (ha)	180	7

Data excluded from the analysis

6. The project will support other activities such as valorization and the promotion of NTFPs, fisheries and intangible capital products. However, specific details and activity data are currently not available to be included in this ex-ante assessment. With the inclusion of these additional data, GHG emissions are likely to be generated linked with e.g., the purchase of equipment (such as tools and machines needed for the collection or processing of products; and construction packaging centers, warehouses, cold chain facilities; rehabilitation of existing infrastructure and equipment, construction of landing sites, fry production for fisheries, small landing sites, and water bodies, fish feed production, products transport. However, the proposed activities provide households a source of income generation and build their resilience capacities to respond to climate impacts and increment their economic power in the long term.

⁶⁰ Mijitaba MM, FJ Jing. 2013. Fuelwood consumption in Niger: A review. International Journal of Research Studies in Management 2(2): 67-76.

⁶¹ World Bank Group. 2014. Clean and Improved Cooking in Sub-Saharan Africa: A Landscape Report. World Bank, Washington, DC. © World Bank. <https://openknowledge.worldbank.org/handle/10986/22521> License: CC BY 3.0 IG

⁶² UN Climate Technology Centre & Network: Improved cookstoves. <https://www.ctc-n.org/technologies/improved-cook-stoves>



Results

7. The assessment consists of the net balance of tCO2eq emitted or sequestered GHG because of project implementation compared to the 'baseline' and 'without-project' scenario. Carbon stock changes and GHG emissions are estimated per unit of land, expressed in tCO2eq per hectare and year.
8. The difference between the without and with-project scenarios results in a total carbon balance of -10,945,818 tCO2eq carbon sequestration during the project implementation period. Without the project-scenario, the gross carbon balance results in GHG emissions, with a total of 1,809,290 million tCO2-e, related to continued land degradation in the targeted areas. The main components leading to carbon sequestration are the landscape restoration of highly degraded areas and reforestation activities.

Table 4.2. Net Emissions in tCO2eq up to the project's lifetime

Components of the project	Gross fluxes		
	Without	With	Balance
All GHG in tCO2eq			
Land use changes			
Afforestation	0	-1,370,147	-1,370,147
Other LUC	0	-3,884	-3,884
Agriculture			
Perennial	0	-4,201	-4,201
Grassland & Livestock			
Grassland		-38,500	-38,500
Degradation & Management			
Forest degradation	1,664,372	-7,828,485	-9,492,856
Inputs & Investments			
	144,919	108,689	-36,230
Total	1,809,290	-9,136,528	-10,945,818
per hectare	8.9	-44.7	-53.6
Per hectare per year	1.8	-8.9	-10.7