GEF-8 PROJECT IDENTIFICATION FORM (PIF)

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General Project Information

Project Title	
Sustainable Natural Resource and Livelihood Project – North (SNRLP-North)	
Region	GEF Project ID
Africa	12295
Country(ies)	Type of Project
Sudan	FSP
GEF Agency(ies):	GEF Agency ID
IFAD	2000005910
Executing Partner	Executing Partner Type
National organization (tbd)	Government
GEF Focal Area (s)	Submission Date
Multi Focal Area	3/3/2026
Project Sector (CCM Only)	
AFOLU	
Taxonomy	
Focal Areas, Biodiversity, Climate Change, Land Degradation, Strengthen institutional capacity and decision-making, Influencing models, Beneficiaries, Stakeholders, Local Communities, Private Sector, Civil Society, Gender Mainstreaming, Gender Equality, Gender results areas, Knowledge Generation, Capacity, Knowledge and Research, Knowledge Exchange, Learning	
Type of Trust Fund	Project Duration (Months)
GET	72
GEF Project Grant: (a)	GEF Project Non-Grant: (b)
7,341,339.00	0.00
Agency Fee(s) Grant: (c)	Agency Fee(s) Non-Grant (d)
697,427.00	0.00
Total GEF Financing: (a+b+c+d)	Total Co-financing
8,038,766.00	30,000,000.00
PPG Amount: (e)	PPG Agency Fee(s): (f)
200,000.00	19,000.00
PPG total amount: (e+f)	Total GEF Resources: (a+b+c+d+e+f)
219,000.00	8,257,766.00
Project Tags	

CBIT: No NGI: No SGP: No Innovation: No Competitive Window: No

Project Summary

Provide a brief summary description of the project, including: (i) what is the problem and issues to be addressed? (ii) what are the project objectives, and if the project is intended to be transformative, how will this be achieved? iii), how will this be achieved (approach to deliver on objectives), and (iv) what are the GEBs and/or adaptation benefits, and other key expected results. The purpose of the summary is to provide a short, coherent summary for readers. The explanation and justification of the project should be in section B "project description".(max. 250 words, approximately 1/2 page)

Sudan's arid and semi-arid zones - particularly River Nile State and Northern State - face acute land degradation, desertification, biodiversity loss, and increasing climate variability, including recurrent droughts and floods. These challenges are exacerbated by weak institutional coordination, limited land degradation monitoring systems, insecure resource governance, and high poverty levels. Agro-pastoral communities - especially women and youth - experience declining productivity, food insecurity, and rising risks of conflict and displacement due to heavy reliance on degraded natural resources.

SNRLP-North aims to improve sustainable agropastoral landscape management while promoting climate-resilient livelihoods and biodiversity conservation. The project is explicitly **transformational** in two respects: (i) it shifts from reactive crisis response to **anticipatory drought management,** strengthening early warning, planning, and preparedness systems; and (ii) it advances **integrated landscape restoration,** combining ecological rehabilitation with inclusive livelihood development.

The project comprises three components:

1. Strengthening technical, institutional and policy environment for drought management and sustainable natural resource management in Sudan – strengthening institutional coordination, and harmonizing policies;

2. Supporting rehabilitation of degraded production landscapes and gender-inclusive community livelihoods – restoring degraded land through nature-based solutions, promoting climate-smart agro-pastoral systems, improving water management, and diversifying livelihoods.

3. Monitoring and Evaluation, and knowledge management – deploying GIS-based systems and adaptive knowledge management.

Key results include rehabilitation of 20,000 ha, improved management of 8,000 ha, mitigation of 3.06 million tCO_2e, strengthened drought governance, and enhanced livelihoods for 8,000 beneficiaries (that is, 3,200 women, and 4,800 men - youth will constitute 2,400), contributing to resilient ecosystems and reduced pressure on natural resources.

Indicative Project Overview

Project Objective

To improve the sustainable management of agropastoral landscapes, promote climate-resilient livelihoods and biodiversity conservation in targeted localities of River Nile and Northern States of Sudan

Project Components

1: Strengthening technical, institutional and policy environment for droughts and sustainable management of natural resources in Sudan

Component Type	Trust Fund

Technical Assistance	GET
GEF Project Financing ($)	Co-financing ($)
500,000.00	5,916,550.00

Outcome:

1.1: Strengthened technical, institutional and policy environment enhances drought management and effective implementation of best practices in the management of natural resources in Sudan

Output:

1.1.1: Operational institutional coordination framework and capacity development package for the High Council for Environment and Natural Resources (HCENR) on biodiversity, land degradation, and climate-smart agriculture, including conflict-sensitive natural resource governance protocols.

1.1.2: Six (6) revised, harmonized, and officially endorsed policies and legal frameworks for sustainable natural resource management, incorporating gender-responsive provisions and implementation guidelines.

1.1.3: Biodiversity mainstreaming guidelines and toolkits for State Ministries of Production and Economic Resources, Animal Wealth, and relevant federal ministries (Agriculture and Irrigation; Animal Resources).

1.1.4: Certified cohort of 3,000 trained stakeholders (disaggregated by gender and youth) with standardized training curricula, training materials, and capacity assessment reports on drought management and gender-responsive, conflict-sensitive natural resource governance.

1.1.5: Operational multi-stakeholder land degradation monitoring system, including protocols, data collection tools, community monitoring structures, and integrated reporting platform.

1.1.6: Technical capacity development package for HCENR and State Ministries, including training modules, user manuals, and functional GIS and web-based cropland mapping and land restoration tracking tools.

2: Supporting rehabilitation of degraded production landscapes and gender inclusive community livelihoods.

Component Type	Trust Fund
Investment	GET
GEF Project Financing ($)	Co-financing ($)
6,191,751.00	21,493,090.00

Outcome:

2.1: Productive capacity of degraded production landscapes in priority localities in River Nile and Northern States rehabilitated

2.2: Agropastoral systems in priority localities in River Nile and Northern States strengthened through effective and gender responsive investments, applied research and extension services

Output:

2.1.1: 100 formally endorsed community-based natural resource management (CBNRM) and land-use plans for priority localities in River Nile and Northern States.

2.1.2: 20,000 hectares of restored and rehabilitated degraded landscapes under nature-based and drought-resilient management systems, with documented improvements in ecosystem services, biodiversity, and climate resilience.

2.1.3: 8,000 hectares of production landscapes under validated climate-smart and integrated agro-sylvo-pastoral production systems, benefiting 6,000 households (disaggregated by gender and youth).

2.1.4: Eight (8) operational, women-managed nursery enterprises producing native and multi-purpose tree and grass species, including business plans and production systems.

2.2.1: Functional climate-smart and solar-powered water management and irrigation infrastructure (including hafirs, contour bunds, and check dams), with established operation and maintenance systems, community management structures, and access to alternative energy solutions.

2.2.2: Six (6) validated drought-resilient crop and fodder varieties, with established seed and fodder supply systems reaching 2,000 smallholder farmers and 2,000 livestock keepers (disaggregated by gender and youth), in collaboration with the Agriculture Research Center.

2.2.3: Operational extension service delivery system reaching 4,000 crop and livestock producers, including standardized training packages, demonstration sites, and advisory service tools for climate-smart and integrated agro-sylvo-pastoral practices.

M&E

Component Type	Trust Fund
Technical Assistance	GET
GEF Project Financing ($)	Co-financing ($)
300,000.00	1,161,787.00

Outcome:

3.1: Knowledge management through participatory monitoring and evaluation enhance learning and adoption of best practices

Output:

3.1.1: Gender-inclusive knowledge product portfolio (including briefs, manuals, case studies, and learning reports) and documented lessons learned, disseminated to 8,000 beneficiaries, with records of inter-community exchange and peer learning outcomes on sustainable practices and natural resource conflict resolution.

3.1.2: At least four (4) gender- and youth-inclusive communication tools (e.g., radio programs, visual materials, digital content, and outreach packages) disseminated through regional information-sharing platforms.

3.1.3: Operational GIS-based Monitoring and Evaluation (M&E) system, including spatial database, data collection protocols, analytical dashboards, and reporting tools.

3.1.4: Approved and operational contingency and business continuity plan, including periodic update reports and risk management protocols.

Component Balances

Project Components	GEF Project Financing ($)	Co-financing ($)
1: Strengthening technical, institutional and policy environment for droughts and sustainable management of natural resources in Sudan	500,000.00	5,916,550.00
2: Supporting rehabilitation of degraded production landscapes and gender inclusive community livelihoods.	6,191,751.00	21,493,090.00
M&E	300,000.00	1,161,787.00

Subtotal	**6,991,751.00**	**28,571,427.00**
Project Management Cost	349,588.00	1,428,573.00
Total Project Cost ($)	**7,341,339.00**	**30,000,000.00**

Please provide justification

PROJECT OUTLINE

A. PROJECT RATIONALE

Briefly describe the current situation: the global environmental problems and/or climate vulnerabilities that the project will address, the key elements of the system, and underlying drivers of environmental change in the project context, such as population growth, economic development, climate change, sociocultural and political factors, including conflicts, or technological changes. Describe the objective of the project, and the justification for it. (Approximately 3-5 pages) see guidance here

Sudan, with an area of 1.886 million km^2, lies at the crossroads of Sub-Saharan Africa and the Middle East. It shares its border with the Central African Republic, Chad, Egypt, Eritrea, Ethiopia, Libya, and South Sudan.

The country is predominantly rural country (66% rural) with low human development and high poverty. [2][1] With a Human Development Index value of **0.511,[3][2] and** multidimensional poverty estimated at 53.4%,[4][3] the greater share of Sudan's working-age population is unable to economically support itself in a predictable, reliable manner.[5][4] Extreme poverty (share of the population living with less than US$ 3 a day) increased since the outbreak of the on-going armed conflict from 23 percent in 2022 to 59 percent in 2024 with substantial variations across states.

The agriculture sector (including crops, livestock and forestry) contributes roughly one-third of GDP and is the main livelihood for more than two-thirds of the population.[6][5] Oil and other natural resources have periodically driven growth, but structural problems, weak institutions and conflict have limited broad-based development.[7][6] Poverty and inequality are persistent, with rural areas and traditional rain-fed farmers and agro-pastoralists especially affected.[8][7]

Two-thirds of Sudan's area is classified as drylands and many ecosystems considered fragile.[9][8] Land cover is dominated by bare soil and rock (≈51%), with agricultural land around 13% and tree/herbaceous vegetation 36%. Rangelands are

central to pastoral and agro-pastoral livelihoods, supplying about 73% of national livestock feed. Forests, covering nearly 22 million ha and diverse vegetation, soils, and water resources represent major ecological assets for the country.[10][9]

Mean annual temperatures vary between 26°C and 32°C across the country. The northern part is almost desert and semi desert with average annual temperatures around 30°C and average annual rainfall about 150 mm/year. The central area is semi-desert to savannah with average annual temperatures that are around 27°C, and rainfall averaging to about 200 mm/year. Ecologically, the country is divided into five vegetation zones according to rainfall patterns from North to South. These are: i) desert: (0-75 millimeters of precipitation) ii) semi-desert: (75-300 mm) iii) low rainfall savannah on clay and sand: (300-800 mm); iv) high rainfall savannah (800 -1500 mm); and v) mountain vegetation: (300-1000 mm).[11][10]

Environmental and natural resources context

Overall, environmental degradation is severe – the country is among Africa's most seriously affected countries by desertification; the desert boundary has shifted southward over decades, contributing to what is described as a 'historical desertification disaster'.[12] Extensive conversion of natural vegetation to mechanized agriculture, especially along livestock migration routes, has degraded grazing lands, increased farmer-herder disputes, threatened biodiversity, and reduced ecosystem services.[13] Weak, fragmented environmental governance, institutionalized poverty, population growth, urbanization, and uncontrolled economic activities exacerbate land degradation and resource depletion.[14] These aspects are distilled in the following sections focused on land degradation, climate change and biodiversity national contexts.

Land degradation national context: Sudan is one of Africa's countries most severely affected by **land degradation and desertification**, with the problem now described as a 'historical desertification disaster.' Land degradation spans most of the country's 92% drylands, especially the arid and semi-arid belts between 10 - 18°N that traverse Sudan east–west.[15] where roughly 76% of Sudan's population lives. National assessments indicate around 23% of Sudan's land is degraded, with 14% moderately and 1% strongly degraded.[16] Additionally, remote-sensing studies show severe decline in vegetation cover, extensive deforestation around urban centres, and strong increases in severely degraded land classes over the last 3 to 4 decades.[17]

Land degradation in Sudan results from interacting human pressures and climatic stress, as briefly described below:

- **Overgrazing and concentration of livestock** around permanent water points and settlements are degrading ~30 million ha (about 47% of degraded land).[18]
- **Deforestation and fuelwood/charcoal production**, along with shrub uprooting, are major causes of forest loss and desertification; 8.8 million ha of forest (about 11%) were lost between 1990 and 2005.[19] From 2000 to 2020 the forest and woodland loss rate has been approximately 175000 ha/year[20].
- **Expansion of rain-fed and mechanized agriculture** into marginal and forest lands, deep ploughing and poor soil fertility management lead to erosion, nutrient depletion and declining productivity, well documented in rain-fed zones.[21]
- **Recurrent drought and climate change** intensify soil and vegetation degradation, especially in western Sudan and the Blue Nile Region, where drought frequency and severity have increased.[22]

Climate change and drought national context: Sudan is widely characterized as one of the **most climate-vulnerable countries** in Africa, due to its arid/semi-arid climate, dependence on rainfed agriculture, widespread poverty, and weak institutions.[23] Around 94% of the country lies in arid and semi-arid zones, where desertification, rainfall variability, and environmental degradation already drive poverty, displacement, and

conflict.[24] Annual temperatures have risen since the 1960s and have already exceeded the 1.5°C Paris threshold in Sudan, with projections of further significant warming.[25]

High resolution projections for Sudan's major cities indicate increasing temperatures and decreasing rainfall through mid and late 21st century, especially under high emissions scenarios, raising risks of heatwaves, droughts, wildfires, and water stress (Mohamed et al., 2024).[26] In the Nile Basin more broadly, rainfall has already fallen by ~19%, with further reductions and southward shifts of agro climatic zones expected.[27] In many arid and semi-arid zones, severe droughts persisted into the 2000s and 2010s, even as some regions experienced wetter conditions and vegetation recovery.[28]

In terms of drivers and future outlook, drought in Sudan arises from interactions between **natural climate variability** (including ENSO and Atlantic multi-decadal oscillations) and **anthropogenic factors** such as climate change due to GHG emissions, deforestation, overgrazing, expansion of marginal cultivation, and over-extraction of groundwater.[29] Regional climate projections for East Africa suggest that, by late 21st century, **drought area, duration, frequency, and intensity are likely to increase in Sudan**, especially under high-emissions scenarios, in line with a "dry-gets-drier" pattern.[30] This implies continued pressure on water resources, agriculture, and rural livelihoods, with heightened need for drought-resilient farming systems, diversified livelihoods, and integrated water and land management.[31]

The socioeconomic implications of climate change and droughts in Sudan are astronomical for a country that is already facing other socioeconomic threats, including political fragility and armed conflict. Repeated drought episodes have caused pronounced drops in sorghum yields in major agricultural regions.[32] Economy-wide modeling indicates that climate-driven yield shocks - dominated by drought and rainfall variability - could reduce Sudan's cumulative GDP by over **US$100 billion** between 2018 and 2050 relative to a no-climate-change baseline.[33] In terms of adaptation, Sudan is the 6th most vulnerable country thus, it has both a great need for investment and innovations to improve readiness and a great urgency for action.[34][11]

Biodiversity national context: Sudan spans deserts in the north through semi-desert, Sahel and savanna woodlands to mountain forests and the Nile system, creating substantial ecosystem and species diversity despite arid conditions. About 90% of the country is classified as desert or semi-desert, with desertification actively expanding under climate change.[35] Forests and rangelands still cover a large area but are declining; forest area was estimated at 18.36 million ha in 2020 and many dry-forest species show poor regeneration.[36] Savanna woodlands (e.g., Nuara, Abu-Gaddaf) and mountain forests in the Blue Nile region host important tree assemblages, including Acacia spp. and Boswellia papyrifera, but overall tree richness and diversity are low to moderate and declining compared with similar regions.[37] Inland waters are relatively species-rich: at least 132 freshwater fish species have been recorded from rivers, lakes, and wetlands, with the White Nile being particularly diverse.[38]

Sudan's forests grow in a range of habitats, with vegetation varying according to rainfall and soil type. It is estimated that there are about 533 tree species in the Sudan, 25 of which are exotics. Also, there are about 184 shrub species in the Sudan of which 33 are exotics. In the semi desert areas, there are sandy soils with grass and shrubs interspersed with trees. Acacia tortilis and Maerua crassifolia grow in the eastern clay plains, and Acacia mellifera and Commiphora africana in the sandy soil of the west. Savannah grasslands occur at transition zones between semi desert and forests, where rainfall is too marginal for some tree species. Typical vegetation consists of trees, shrubs, herbs and grasses.[39]

With regards to wildlife, the number of many species has either declined or disappeared from many of their former habitats. The populations of the red fronted gazelle, dama gazelle, barbary sheep, nubian ibex and lion have declined to critical levels, and the number of endangered species is increasing such as black-backed jackal, wild dog, greater kudu, great bustard and leopard.[40]

Key drivers of biodiversity loss in Sudan include the following:

- Desertification and climate change: Expansion of desert and semi-desert, vegetation die-back, altered hydrology, loss of plant diversity; climate change interacts with land-use and overexploitation to degrade ecosystems and agriculture.[41]
- Land-use change and agricultural expansion: Clearing of natural vegetation, deforestation, habitat fragmentation, declining forest and savanna diversity; loss of habitat heterogeneity and fish habitats due to dams, flow modification and basin development.[42]
- Civil war, political instability & insecurity: >60 years of conflict have directly and indirectly driven habitat degradation, overexploitation, loss of governance and management capacity of natural resources, and halted research, pushing many species toward extinction thresholds.[43] Recent wars further threaten biodiversity and institutions.[44]
- Overgrazing and unsustainable rangeland use: Heavy browsing pressure around water points reduces tree density and natural regeneration; unplanned use of unreserved forests and rangelands leads to deforestation and land degradation.[45]
- Overexploitation, illegal hunting and fishing: Hunting is the leading threat for the endangered Nubian ibex (Capra nubiana), with additional pressures from habitat loss, mining, and agriculture. Inland fisheries face overexploitation, illegal gear, and unsustainable practices.[46]

- Deforestation and fuelwood extraction: Forests and dry woodlands are cleared for fuel, building materials, and agriculture; several tree species show poor regeneration, and dryland forests are under “unprecedented threats” from deforestation and forest fires.[47] It is also noted that energy use in Sudan is dominated by biomass (nearly 78% of the energy balance), despite significant renewable (especially solar) potential.[48]

Addressing the drivers to ensure more sustainable biodiversity conservation faces important challenges. These include: i) arid land context and ecological fragility (desert and semi-desert plant communities in Sudan show clear signs of long-term degradation from combined climate and human pressures);[49] ii) conflict, governance and institutional weakness (prolonged civil wars, current conflicts, and political instability undermine protected area management, enforcement of wildlife laws, and long-term planning);[50] iii) high dependence on natural resources and poverty;[51] and iv) knowledge and monitoring gaps - Knowledge gaps are especially acute for dryland and mountain forests, many of which are in conflict-affected regions such as Blue Nile, South Kordofan, and Darfur.[52]

Socio-environmental linkages and conflict

Livelihoods and the economy are tightly coupled to the natural resource base, creating strong feedbacks between environmental degradation and poverty.[53] Competition over degrading land and scarce water, intensified by climate change, population pressures, and poorly regulated land tenure - has contributed to conflicts, notably in Darfur and other vulnerable areas.[54]

Sudan’s ongoing conflict has significantly exacerbated pressures on natural resources and institutional systems. While the project target areas in River Nile and Northern States are not active conflict zones, they are indirectly affected through large inflows of internally displaced persons and livestock, disruption of trade routes, and increased demand for land, water, and biomass resources.

These dynamics intensify land degradation through overgrazing, deforestation, and unsustainable water use, while also increasing the risk of localized conflicts between farmers and pastoralists. At the same time, institutional capacity is weakened by resource constraints, disrupted service delivery, and reduced extension support, affecting the implementation of sustainable land management practices.

From a feasibility perspective, the project will incorporate conflict-sensitive design features, including flexible implementation modalities, community-based approaches, and contingency planning. Its focus on relatively stable

regions, combined with adaptive management, participatory monitoring, and strengthening of local governance systems, enhances its capacity to operate effectively despite a volatile national context.

The project area is impacted indirectly by the on-going armed conflict but it is not an active conflict area. The main impacts of the conflict are the displacement of people fleeing armed clashes in the villages and towns in Western Sudan (approximately 377,392 persons); large influx of livestock as trade routes between western and eastern Sudan have changed and now pass through the Northern part of Sudan; increased pressure on natural resources leading to overgrazing and tree cutting which further exacerbates desertification; frequent power shutdowns because of the drone attacks on electrical power supply stations and this reduces the operation of the irrigation pumps that are powered by the electricity grid; high cost of fuel, agricultural inputs and food. Food insecurity in the project area is due to yields reaching 20% of the yield that could be obtained using Improved Production Technology, high costs of production and limited access to agricultural extension services, as well as disadvantageous sharecropping arrangement where the sharecroppers pay 50% of the production to the landowner.

To illustrate the impacts of the conflict that broke out in April 2023 between the Sudan Armed Forces (SAF) and the Rapid Support Forces (RSF) on people's perception of shocks, the feedback survey of the IFAD funded Sustainable Natural Resources and Livelihoods Programme revealed that the frequency of shocks that households are exposed to has increased from 2 shocks/ year in 2020 to 10-12 times per year meaning that the households perceive constant external pressure from the compounded effects of climate change and conflict situation[56]. Households reported that the shocks suffered are the worst that ever happened to them. The main manifestations of the conflict are high cost of inputs and food, as well as displacement and loss of assets. As a result of the conflict, the fuel prices were multiplied by 10 over the past year and it is rationed and scarcely available; the costs of agricultural inputs have also increased as a result of depreciation of the Sudanese pound and shortage of input supply which led to trebling of the cost of cultivation of staple crops; WFP estimates that the cost of the food basket rose by 237% since the conflict broke out and this coincides with many people losing their livelihoods as a result of the damage and displacement caused by the conflict.

Conflict-sensitive assessment and integration during PPG phase: During the PPG phase, SNRLP-North will undertake a comprehensive conflict-sensitive assessment to analyze drivers of conflict, resource-use dynamics, stakeholder power relations, and risks affecting land, water, and pastoral mobility systems. The assessment will apply a 'do no harm' framework and conflict sensitivity tools, building on existing analyses by the HCENR and partners. Findings will directly inform project design by: (a) tailoring capacity-building activities to include conflict resolution, inclusive natural resource governance, and negotiation skills for local institutions; (b) strengthening multi-stakeholder collaboration platforms that include traditional leaders, pastoralist groups, women, youth, and displaced populations; and (c) embedding safeguards to ensure equitable access to resources and benefits, with specific provisions for internally displaced persons (IDPs), including targeting mechanisms, grievance redress systems, and social inclusion measures.

Engagement with Indigenous Peoples and FPIC commitments: During PIF preparation, consultations with local communities—including pastoralist and agro-pastoral groups with distinct cultural identities—highlighted the importance of secure access to land and water, recognition of customary governance systems, and the integration of traditional knowledge in land restoration and drought management. While no formal Free, Prior, and Informed Consent (FPIC) processes were finalized at PIF stage, the project confirms that FPIC will be systematically undertaken during the PPG phase in line with acceptable best practices in community engagement.

The project will ensure that Indigenous Peoples and local communities are fully engaged through culturally appropriate consultation processes, and that their governance systems, capacity-building needs, and traditional and local knowledge are integrated across project components. This includes embedding customary institutions in community-based natural resource management (CBNRM), co-designing restoration and livelihood interventions, and incorporating indigenous knowledge into monitoring, early warning, and adaptive management systems to enhance sustainability and local ownership.

Policies increasingly acknowledge the need for climate adaptation, sustainable land management, and improved resource governance, but implementation has been constrained by instability, limited capacity, and financing gaps. Emerging work on nature-based and community-driven solutions highlights pathways to link environmental recovery, resilience, and more inclusive local development.

Future scenarios: Based on observed trends and drivers, three plausible futures emerge:

- Scenario 1: business-as-usual degradation: Climate warming intensifies, rainfall becomes more erratic, and institutional fragility persists. Land degradation expands, biodiversity continues to decline, and agro-pastoral livelihoods collapse further. Competition over scarce water and grazing fuels conflict and displacement. GDP losses accumulate, and drought shocks repeatedly erase development gains, and cause high food insecurity rates.

- Scenario 2: Fragmented Recovery: Isolated restoration and humanitarian interventions occur, but without systemic coordination. Some landscapes recover temporarily during wetter years, yet gains are reversed during drought cycles. Communities remain vulnerable due to weak governance, limited livelihood diversification, and poor monitoring.

- Scenario 3: Resilient Transition (Project-Supported Pathway): Integrated drought governance, restored landscapes, investment in climate resilient technologies and diversified livelihoods create reinforcing feedback loops. Communities adopt sustainable and integrated land and water management practices, ecosystems regain functionality that is systematically monitored, and national institutions use real-time data for anticipatory action. While climate extremes persist, adaptive capacity rises, reducing vulnerability and conflict risks.

These narratives draw on plausible interactions between climate variability, land use, institutional capacity, and livelihoods in Sudan

Gender and youth inclusion concerns: Sudan's population is heavily youth-skewed: about 60% are under 25, yet young people are less likely to participate in the labor force and to be employed than adults.[57] Decades of civil war, displacement and state fragility have eroded services and disproportionately harmed rural populations, and within them, women and IDPs.[58] Gender inequalities remain deeply embedded in livelihood systems. Women are disproportionately affected by land degradation and climate shocks but have limited decision-making power over land, natural resources, and income-generating activities. Without targeted gender-responsive and youth-inclusive design measures, restoration and climate adaptation investments may unintentionally reinforce elite capture of and resources, exclude women-headed households and displace youth, and exacerbate local tensions.

Sudan's social structure is strongly patriarchal, shaped by conservative religious and tribal norms and codified in personal status and labor laws that restrict women's autonomy in work, mobility, and family life.[59] Women are socially constructed as caregivers while men are seen as breadwinners, which limits women's public participation and reinforces discriminatory practices (e.g., needing husband's permission to work, constrained divorce rights).[60] Long-running conflicts (Darfur, South Kordofan, Blue Nile) have exposed women and girls to extensive sexual and gender-based violence, used as a tool of war, with survivors often facing stigma, exclusion, and lack of justice and services. Current conflict further heightens risks of rape, intimate partner violence, child marriage, Female Genital Mutilation and other abuses.[61]

Women and youth face systematic labor-market disadvantage. Women's labor-force participation is low, and concentrated in agriculture (about 60% of women's jobs, largely subsistence) and vulnerable employment, with limited access to assets, credit, markets and decent work.[62] Social norms, heavy unpaid care work, and discriminatory laws and workplace practices lead many women to exit the labor force early.[63] Youth unemployment is high, particularly in cities, where rural–urban migrants and displaced youth compete over scarce jobs and rely on social connections (wasta).[64] Women entrepreneurs encounter barriers related to finance, networks, state support and social perceptions of 'appropriate' work, but some succeed through family support, adaptation to norms, and participation in economic activities.[65]

Women and youth are over-represented among the poor and displaced, with limited access to basic services, land and financial resources.[66] Conflict and economic crisis have driven substantial internal displacement and international migration; lack of jobs and low wages are primary drivers, and youth constitute a large share of migrants. Despite cultural constraints, more young women are using migration to pursue economic projects and support others, while remittances mainly benefit households rather than national development.[67]

Target States of the project

The Northern State: With a population estimated at 936,255 people, the State sits on 348,765 km^2. Northern State is part of Sudan's arid and semi-arid zones, characterized by highly vulnerable, deteriorating ecosystems driven by desertification, recurrent droughts, and land degradation affecting soils, rangelands, and forests.[68] Forest cover in Northern State is very limited (around 20,507 ha, one of the lowest in Sudan), and key perennial vegetation such as date palms often occupy land ambiguously classified between agriculture and forest.[69]

Within Northern State, livelihoods center on smallholder irrigation along the Nile, date palm cultivation, livestock rearing, petty trade, and labor migration. Groundwater-based agribusinesses introduce new employment opportunities but also accelerate land concentration and may strain aquifers.[70]

Date palms, though increasingly commodified, remain intergenerational assets tied to family memory, social status, and inheritance; their loss in fires or displacement is experienced as both economic and cultural rupture.[71]

Household data from Merowe show relatively large families (median household size 6 persons), high marriage rates, and extended-family living arrangements; over 30% of women lived with extended relatives, reflecting strong kinship networks.[72] Despite such social capital, economic precariousness is indicated by limited formal employment, weak insurance coverage, and high exposure to conflict and displacement.[73]

Northern State's development is constrained by weak infrastructure, especially outside major centers such as Merowe and Dongola. Nationally, low electrification and heavy reliance on biomass remain characteristic, though Sudan has significant solar potential that could be harnessed to support rural electrification and irrigation.[74] Attempts to address environmental and developmental problems - through climate adaptation plans, desertification control regulations, and agricultural investment strategies - have had limited impact due to political instability, inconsistent economic policies, and weak administrative and implementation capacity.[75] The result is a persistent gap between ambitious plans (dams, irrigated 'green' corridors, renewable energy expansion) and the everyday realities of rural households confronting sand encroachment, water shortages, precarious incomes, and health risks.[76]

The River Nile State: River Nile State lies in northern Sudan along the main Nile and Atbara rivers, covering about 122,000–124,000 km² with roughly 1.0–1.25 million inhabitants distributed across six localities including Ad-Damer (capital), Atbara, Shendi, Berber and Abu Hamed. Around 90% of the population lives in settled areas directly along the Nile, making it a strongly river-dependent society.[77] Economic activity is dominated by irrigated and rain-fed agriculture, livestock, trade, small businesses and a growing mining and industrial sector (notably cement).[78]

The climate is semi-desert to arid, with very hot summers (mean ~47°C) and cool winters (~8°C). Annual rainfall is highly limited and decreases northward, from ~150 mm in the south to about 25 mm in the north.[79] This combination of low rainfall, high temperatures and low relief makes the state highly dependent on Nile water and vulnerable to both floods and water scarcity.[80]

Major floods occurred in August 2022 and September 2023, disrupting communities, roads and agriculture.[81]

Agriculture is a core livelihood. Key crops include broad beans, soybeans, fruits and vegetables.[82] Irrigation schemes pump Nile water to riverine fields; the Elzeidab pump scheme illustrates how a large share of water is

allocated to agriculture, but productivity and water-use efficiency remain low due to weak management institutions, limited tenant training, and low awareness of water-saving practices.[83] Improving irrigation water productivity is a strategic challenge for the state and Sudan more broadly, where agriculture accounts for about one-third of national GDP and most cultivated land is rain-fed. Riverbank erosion and accretion along towns such as Berber are significant, reshaping agricultural land and exposing communities and infrastructure to natural hazards.[84]

Residents of River Nile State perceive clear signs of climate change, particularly rising temperatures and altered rainfall patterns, consistent with broader evidence of warming and rainfall variability in Sudan.[85] Riverbank erosion and accretion in Berber and nearby towns generate continuous land loss and reshaping of riparian zones, affecting settlement safety, arable land and progress toward several Sustainable Development Goals.[86]

Key Barriers

Environmental degradation and associated drivers are triggered by both anthropogenic and natural factors. To address these challenges, Sudan is constrained by the following important barriers:

1. ***Institutional fragmentation, limited technical capacity and weak governance:*** Environmental, agricultural, and water sectors operate in silos, limiting coordinated drought and land management. Long-standing political instability and conflict have eroded institutional capacity, disrupted service delivery, and weakened enforcement of environmental regulations. Additionally, environmental governance is weak, inter-sectoral coordination is limited, and technical capacity in spatial planning, monitoring, and community-based land degradation monitoring systems is insufficient. Furthermore, weak local governance structures and limited coordination among community institutions, line ministries, and traditional authorities constrain collective action across production landscapes. On the gender front, it is recalled that women frequently shoulder the primary responsibility for water, fuelwood and food production, yet their representation in natural resource governance committees remains limited constraining equitable decision-making and sustainable landscape management. Insecure land tenure, unclear resource-use rights, exploitative sharecopping arrangements, and unresolved farmer–pastoralist conflicts further discourage long-term investments in land rehabilitation and reduce community ownership of restoration efforts. Extension services are weak or absent in many rural areas, and knowledge transfer mechanisms are fragmented, resulting in low adoption of improved production systems and continued reliance on unsustainable practices that accelerate land degradation.

   Although national policies increasingly recognize climate adaptation and sustainable land management, implementation has been severely constrained by limited financing, and lack of integrated data systems. The country has significant gaps in GIS, spatial planning, drought monitoring, and biodiversity assessment. Without reliable data and analytical tools, planning remains reactive and poorly targeted. Similarly, while national policies and strategies often include women's empowerment and youth employment objectives, their implementation is often hindered by lack of funds and capacities for effective outreach at local level.

2. ***Poverty and high dependence on natural resources*:** Rural communities rely heavily on forests, rangelands, and marginal agriculture for survival. Immediate livelihood needs often override long-term sustainability considerations, driving overexploitation. Women and youth face structural barriers to land, finance, and markets, constraining their ability to adopt sustainable practices or participate in emerging green value chains. Overexploitation is amplified by the inherent vulnerability of arid and semi-arid ecosystems. Increasing drought frequency and rising temperatures amplify degradation and reduce the effectiveness of isolated restoration efforts.

3. *Limited community-level capacity and enabling institutional mechanisms to restore degraded production landscapes and scale gender-inclusive livelihood systems*: there is a significant financing gap at national level but also for community-led landscape rehabilitation and livelihood diversification. Local land and water governance and conflict resolution institutions are weak. Smallholder farmers, pastoralists, and women's producer groups lack access to affordable credit, start-up capital, and market linkages needed to invest in restoration activities and value-added enterprises. Existing financial institutions are poorly adapted to serve rural populations, while women face additional barriers due to limited asset ownership, restrictive social norms, and exclusion from formal financial systems. This prevents scaling of nature-positive livelihoods and undermines economic incentives for

restoration. Local communities - particularly women and youth have limited technical capacity and access to climate-smart and land restoration practices, including sustainable land management, agroecology, assisted natural regeneration, and water harvesting.

Together, these barriers prevent the transition from fragmented, short-term rehabilitation efforts toward integrated, landscape-scale restoration linked to sustainable and gender-responsive livelihood systems - limiting both environmental and socio-economic impacts in Sudan's fragile production landscapes.

Without project intervention, the baseline trajectory points toward continued degradation of rangelands and forests, declining agricultural productivity, increasing biodiversity loss, and escalating climate vulnerability.

In comparison, the advantages the project will bring include direct targeting of root drivers (unsustainable land use in form of overgrazing/encroachment of livestock on cropland or vice versa/deforestation/degradation of agricultural land, weak governance, lack of data) rather than symptoms, embedding gender and youth economic inclusion to reduce future pressure on ecosystems, use of geospatial M&E to institutionalize evidence-based decision-making, and alignment with national land degradation, biodiversity and climate strategies. Thus, its sustainability will be ensured through institutionalizing drought frameworks, building national technical capacity, restoring natural resources that underpin local livelihoods, and creating livelihood incentives that reinforce sustainable land management.

Even under adverse future climate scenarios, restored ecosystems, diversified livelihoods, and strengthened institutions provide structural resilience, allowing communities in River Nile and Northern states to absorb shocks rather than collapse under them. In short, the project does not merely mitigate impacts — it reshapes the underlying system, making it far more likely that gains will persist despite worsening climate pressures.

How the project changes the baseline: To change the baseline scenario, the project fundamentally alters Sudan's development trajectory in three critical ways:

- From reactive to anticipatory drought management: Currently, drought responses are largely crisis-driven and humanitarian in nature. The project introduces forward-looking drought governance systems, community-based land degradation monitoring systems, and coordinated institutional frameworks that enable proactive planning, risk reduction, and preparedness. This reduces economic losses, protects livelihoods, and limits emergency expenditures.

- From degradation to regeneration of degraded production landscapes: Under the baseline, forests, rangelands, and soils continue to deteriorate. The project reverses this trend by rehabilitating degraded landscapes and restoring ecosystem services such as soil fertility, water regulation, and biodiversity habitat. Productive landscapes become ecological assets that support sustainable agriculture and pastoralism rather than sources of vulnerability.

- From resource dependence to resilient livelihoods: Baseline livelihoods are heavily dependent on extractive use of natural resources (fuelwood, overgrazing, marginal cultivation). The project diversifies income sources, promotes climate-resilient practices, and embeds gender-inclusive economic opportunities. This reduces pressure on ecosystems while increasing household income stability and adaptive capacity.

- From fragmented management to a coherent institutional framework for the management of natural resources: the project will build the capacity of the HCENR to coordinate with relevant stakeholders matters related to biodiversity, land degradation and climate smart agriculture; as well as strengthen existing legal frameworks and mobilize stakeholders for their enforcement. The project will also train government officials and community organizations on the governance and management of natural resources in a conflict sensitive manner. Communities will also be supported with the management of their natural resources through establishment of grassroots organizations in charge of planning and implementing investments that promote biodiversity, land restoration and climate smart agriculture. The community organizations will be capacitated and their collaboration strengthened with relevant Government agencies including HCENR and state Ministry of Production and Economic Resources.

In combination, these shifts move Sudan away from a downward spiral of degradation and poverty toward a reinforcing cycle of ecological recovery, institutional strengthening, and resilient local development.

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B. PROJECT DESCRIPTION

Project description

This section asks for a theory of change as part of a joined-up description of the project as a whole. The project description is expected to cover the key elements of good project design in an integrated way. It is also expected to meet the GEF's policy requirements on gender, stakeholders, private sector, and knowledge management and learning (see section D). This section should be a narrative that reads like a joined-up story and not independent elements that answer the guiding questions contained in the PIF guidance document. (Approximately 3-5 pages) see guidance here

Description of the project's theory of change: SNRLP-North is being proposed to be implemented in a context characterised by escalating drought impacts and environmental degradation that are undermining ecosystem

integrity, food security, and rural livelihoods, particularly in arid and semi-arid regions. This manifests through severe land degradation, desertification, biodiversity loss, declining agricultural productivity, and heightened poverty, displacement, and conflict over natural resources. These outcomes emerge from interacting climate stressors and human pressures, including overgrazing, deforestation, and expansion of marginal agriculture, weak governance, and limited monitoring capacity. Top level impacts include increased food insecurity and rural poverty, loss of ecosystem services and biodiversity, heightened climate vulnerability and conflict over land and water, and reduced national economic resilience.

Thus, at the core of the problems is that Sudan is experiencing entrenched environmental degradation and increasing climate variability, with recurrent drought reducing soil fertility, vegetation cover, and water availability. Weak institutional capacity, fragmented policies, limited data systems, and heavy rural dependence on natural resources exacerbate these challenges. Women and youth are disproportionately affected due to structural inequalities in access to assets, markets and relevant decision-making processes. Adding to these challenges, even though the River Nile and the Northern states are not active zones for the on-going armed conflict in Sudan, the two states are housing IDPs from other parts of the country adding to pressure on resources in a national context generally marked by a war economy.

Within this context of fragility and vulnerability, immediate problems manifest in ecological decline, institutional and policy weaknesses, socioeconomic challenges. Ecological decline emerges in terms of degraded rangelands, forests, and croplands, declining vegetation cover and soil fertility. Institutional and policy weaknesses emerge in terms of fragmented drought and environmental governance, and weak community-based land degradation monitoring systems. Socioeconomic challenges emerge in terms of low adaptive capacity of agro-pastoral communities, migration of active population in search of better socioeconomic opportunities elsewhere and conflicts over scarce resources.

In this context, with the objective to improve the sustainable management of agropastoral landscapes and promote climate-resilient livelihoods and biodiversity conservation in targeted localities of River Nile and Northern States of Sudan, SNRLP-North is being proposed to ensure: i) functional national systems for anticipatory drought management and sustainable natural resource governance; ii) recovered ecosystem services, increased household resilience, and reduced pressure on natural resources; iii) continuous learning, accountability, and long-term sustainability; iv) contingency and business continuity planning with periodical reviews used to address the uncertainty surrounding the on-going conflict in Sudan. The project is conceived with the following assumptions:

- Government commitment to environmental reforms and institutional coordination will continue;
- Communities are willing to adopt sustainable practices once viable alternatives are available;
- Data systems are operational and linked to decision-making;
- The project area does not become an active zone for armed conflict.

With the aforementioned assumptions, SNRLP-North has been structured around three components that constitute proposed strategic pathways of change:

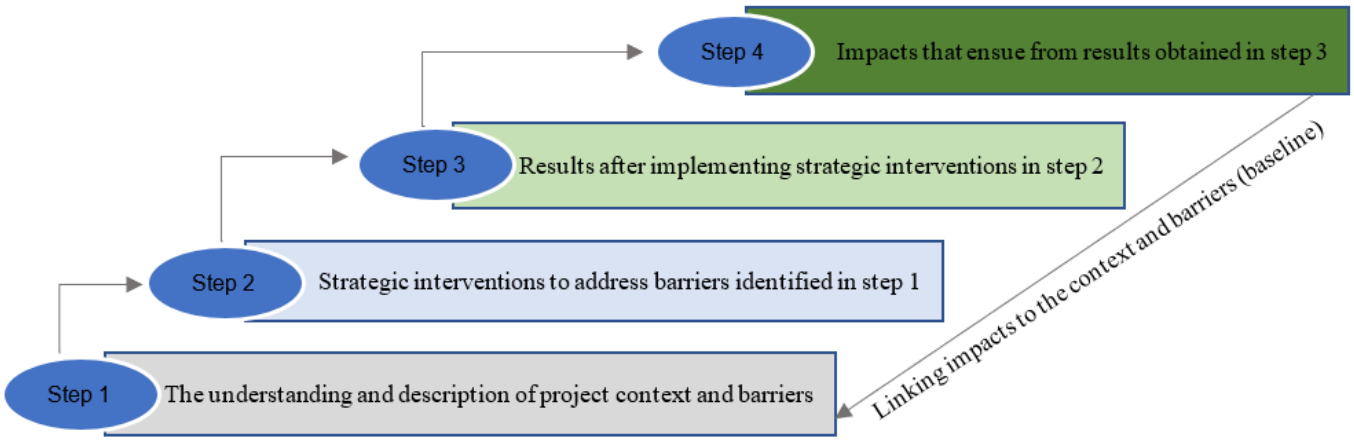
- Component 1 will focus on systems enabling environment – that is, establishing coordinated national/sub-national drought governance frameworks; revising and align policy for sustainable land, drought risk management, and biodiversity conservation; and strengthening institutional capacity in planning, risk assessment, and data analytics, ensuring a strong gender and social inclusion lens, as well as applying a conflict sensitive approach to management of land and water.

- Component 2 will focus on landscape rehabilitation and livelihoods – that is deploying nature-based restoration (soil/water conservation, assisted regeneration); promoting climate-smart agriculture and sustainable grazing; and ensuring that women and youth, are specifically targeted and supported. This

component will aim to reduce the pressure of large influx of livestock on grazing lands and water sources to reduce disputes between farmers and livestock-keepers.

- Component 3 will focus on monitoring, evaluation and learning – that is designing and operationalizing integrated M&E; enabling adaptive management feedback loops; and updating business continuity plans in the event the on-going conflict directly affects the project area.

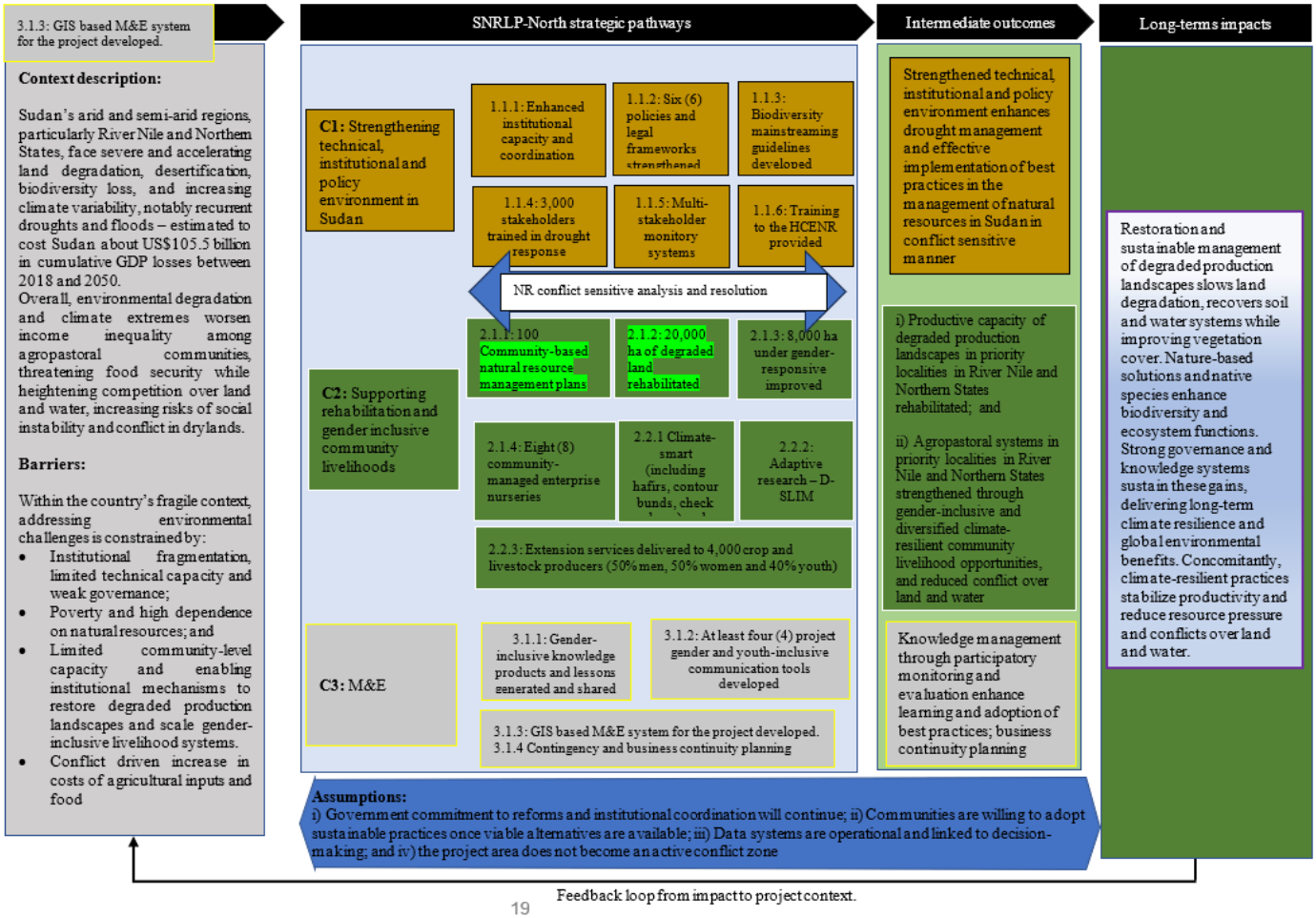
Beyond an enabling policy and institutional environment, land rehabilitation and climate-resilient livelihoods opportunities for local communities in the two priority States, a core feature of this theory of change (to be fully developed at PPG) is adaptive feedback through: i) an M&E system that will provide data to refine governance and restoration strategies; ii) communities who will provide local feedback that informs policy adjustments; iii) gender and youth outcomes that will inform iterative design of livelihood interventions; iv) contingency and business continuity planning that will inform adaptive management of the project. This learning loop fosters continuous improvement, aligning interventions with real-world dynamics rather than static assumptions. Building on the description above, the graph below illustrates a conceptual framing of the theory of change with proposed pathways:



Graph of the proposed project pathway for change to address barriers

This described theory of change explicitly articulates how Sudan's drought governance and degraded landscapes can shift toward resilience through a sequence of outputs generating measurable outcomes supported by evidence-based assumptions and robust M&E, enabling long-term transformation rather than isolated outputs. The figure below presents the Theory of Change.

Diagram of the Theory of Change at PIF stage



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Through its three

The logic embedded in the theory of change is underpinned by strategic pathways for scaling up and sustainability, post project financing and national scaling mechanisms – These elements collectively enable transition from pilot interventions to nationally owned, programmatic scaling pathways. These pathways are outlined below:

Strategic pathways for scaling and sustainability: To track scaling and long-term impact, SNRLP-North will incorporate indicators at output, outcome, and system levels, including:

- Institutional scaling: Number of national and state policies, strategies, or investment plans integrating project-supported approaches (e.g., drought-smart land management, CBNRM).
- Geographic scaling: Hectares of land under sustainable management beyond direct project sites; number of additional localities adopting validated models.
- Adoption rates: Percentage of farmers/pastoralists (disaggregated by gender and youth) adopting climate-resilient practices after project support.
- Capacity and systems: Number of institutions operationalizing GIS-based monitoring and drought early warning systems.
- Financial leverage: Volume of public and private financing mobilized for replication of project interventions.
- Knowledge uptake: Number of policies, programmes, or projects informed by project-generated knowledge products.

Post-project financing pathways: Sustainability will be supported through diversified financing mechanisms:

- Public finance integration: Mainstreaming into national and state budgets through the High Council for Environment and Natural Resources and sector ministries.
- Climate finance: Leveraging Green Climate Fund, Adaptation Fund, and Global Environment Facility follow-on investments.
- Private sector engagement: Blended finance for solar irrigation, agroforestry value chains, and input supply systems.
- Microfinance: Partnerships with Sudan Microfinance Development Company to expand access to credit for smallholders and women-led enterprises.
- Development partner alignment: Co-financing and scale-up through IFAD, FAO, and WFP programmes.

National scaling mechanisms:

- Policy institutionalization: Embedding project approaches into national frameworks (NDC, NBSAP, land degradation neutrality targets).
- Extension system integration: Scaling through state extension services, farmer field schools, and pastoral advisory systems.
- Multi-stakeholder platforms: Strengthening coordination mechanisms led by HCENR for cross-sector replication.
- Digital and data systems: National roll-out of GIS-based M&E and land degradation monitoring systems.
- Knowledge and learning: Structured dissemination, south–south exchange, and integration into national training curricula.

These elements collectively enable transition from pilot interventions to nationally owned, programmatic scaling pathways.

Through its three components (described below) the project adopts an integrated GEF-8 approach that simultaneously addresses - linking drought governance, biodiversity conservation, land restoration, and inclusive livelihoods within one coherent system- as follows:

- **Systemic drivers** (weak drought governance, fragmented institutions, limited technical capacity);
- **Landscape-level degradation** (declining soil fertility, rangeland deterioration, deforestation);
- **Socioeconomic vulnerability** (poverty, lack of livelihood diversification, gender inequities);
- Compounding factor in the form of the on-going conflict.

Component description

Component 1: strengthening technical, institutional and policy environment for drought management and sustainable natural resource management in Sudan

This component will strengthen the enabling environment for integrated drought management and sustainable natural resource management (NRM) by reinforcing institutional coordination, policy coherence, technical capacities, and community preparedness systems at national, state, and local levels. It directly supports Outcome 1.1 by enhancing Sudan's ability to plan for, respond to, and manage climate-induced shocks while mainstreaming biodiversity conservation and gender equality into agro-pastoral development pathways. The component targets key government institutions, producer groups, traditional authorities, and vulnerable communities in River Nile and Northern States, establishing foundations for scalable, climate-resilient and

socially inclusive landscape management, using a conflict sensitive approach to management of natural resources.

The component will be delivered through a combination of national and state-level institutional strengthening, policy advisory services, participatory capacity building, and community-based systems development. Implementation will be led by relevant government counterparts (including HCENR and sector ministries), supported by technical assistance providers and experienced local partners. Key mechanisms include multi-stakeholder coordination platforms, policy working groups, training-of-trainers approaches, demonstration activities, and integration of climate information into local planning processes. Conflict-sensitive and gender-responsive approaches will guide engagement and facilitate the participation of women and youth, while adaptive management will ensure responsiveness to Sudan's evolving climate and institutional context.

Outcome 1.1: Strengthened technical, institutional and policy environment enhances drought management and effective implementation of best practices in the governance and management of natural resources in Sudan.

Outcome 1.1 will strengthen Sudan's technical, institutional, and policy frameworks to improve drought preparedness and promote sustainable natural resource management. It will enhance coordination among key institutions, align sector policies, build stakeholder capacity, and integrate biodiversity and gender considerations into planning and implementation. By linking climate information systems with community action and strengthening governance structures, the outcome will enable more effective, inclusive, and climate-resilient management of agro-pastoral landscapes in the targeted states. To achieve this outcome, the project will deliver the following five outputs:

- Output 1.1.1: Operational institutional coordination framework and capacity development package for the High Council for Environment and Natural Resources (HCENR) on biodiversity, land degradation, and climate-smart agriculture, including conflict-sensitive natural resource governance protocols: This output will strengthen HCENR's technical and coordination role on biodiversity conservation, land degradation neutrality, and climate adaptation through targeted capacity building, operational tools, and inter-sectoral coordination mechanisms. Support will focus on improving planning, monitoring, and multi-stakeholder engagement across federal and state levels. Conflict sensitive approaches will be applied in the management of natural resources.

- Output 1.1.2: Six (6) revised, harmonized, and officially endorsed policies and legal frameworks for sustainable natural resource management, incorporating gender-responsive provisions and implementation guidelines. Key sectoral policies and regulatory frameworks (e.g., land, water, agriculture, rangelands, forestry, and environment) will be reviewed and aligned to promote integrated landscape management, climate resilience, and biodiversity outcomes, with explicit gender inclusion provisions to address structural inequalities in access to resources and decision-making.

- Output 1.1.3: Biodiversity mainstreaming guidelines and toolkits for State Ministries of Production and Economic Resources, Animal Wealth, and relevant federal ministries (Agriculture and Irrigation; Animal Resources): Practical biodiversity mainstreaming guidelines will be developed for State Ministries of Production and Economic Resources, Animal Wealth and the Federal Ministry of Agriculture and Irrigation, enabling integration of ecosystem considerations into agricultural planning, extension services, and investment decisions.

- Output 1.1.4: Certified cohort of 3,000 trained stakeholders (disaggregated by gender and youth) with standardized training curricula, training materials, and capacity assessment reports on drought management and gender-responsive, conflict-sensitive natural resource governance: The 3,000 stakeholders will include government officials from HCENR , state council members, state Ministries for Production and Economic Resources, traditional leaders, youth, women and men producers, and persons with disabilities) – these will be trained in drought response and management, and gender-responsive integrated natural resource governance and management - ensuring a 40% women, 60% men and 30% youth representation. Training will emphasize

practical application of climate-smart and nature-based solutions and will be delivered ensuring accessibility to the target groups' specific needs and will apply a conflict sensitivity lens.

- Output 1.1.5: Operational multi-stakeholder land degradation monitoring system, including protocols, data collection tools, community monitoring structures, and integrated reporting platform: - to enable communities to systematically observe, record, and respond to changes in land condition. The systems will integrate participatory tools, simple field indicators (vegetation cover, soil erosion, grazing pressure, water availability), and mobile-based data collection to support timely decision-making. Community members, extension agents, and local institutions will be trained to generate and use locally relevant land health information for adaptive land and grazing management. The output will strengthen early detection of degradation risks, promote locally led restoration actions, and enhance resilience by embedding monitoring capacities within community structures, ensuring sustainability beyond the project lifecycle in Sudan.

- Output 1.1.6: Technical capacity development package for HCENR and State Ministries, including training modules, user manuals, and functional GIS and web-based cropland mapping and land restoration tracking tools: This output will strengthen HCENR's technical capacity for spatial planning, strengthening local natural resources governance and tenure, and to monitor, analyze, and report on biodiversity status, land degradation, potential hotspots of disputes over land and water, and ecosystem restoration outcomes through the use of web-based tracking and spatial monitoring tools. Training will cover data collection, GIS-enabled analysis, use of national and global platforms (e.g. land degradation and biodiversity monitoring systems, cropland mapping), and application of results for inclusive planning, gender/youth disaggregated reporting, and policy decision-making.

Component 2: supporting rehabilitation of degraded production landscapes and gender-inclusive community livelihoods

This component aims to restore degraded agro-pastoral landscapes while strengthening gender-inclusive, climate-resilient livelihood systems in priority localities of River Nile and Northern States. It integrates nature-based solutions with improved production practices, community-led land management, and diversified livelihood opportunities to enhance ecosystem services, biodiversity conservation, and household resilience to climate variability. Special emphasis is placed on women and youth as agents of change in sustainable land management and agropastoral value chains.

Component 2 will be delivered through a combination of: i) **Community-driven implementation**, using participatory planning and CBNRM approaches; ii) **Farmer field schools and demonstration plots** for hands-on learning and peer exchange using approaches that facilitate participation of women and youth; iii) **Partnerships with national institutions**, including the Agricultural Research Center and state extension services; iv) p**erformance-based community grants** to support restoration, nurseries, and livelihood enterprises; v) t**argeted capacity building** for women and youth, including technical training, entrepreneurship support, and leadership development complemented by awareness raising and gender sensitization; and vi) N**GO and local service provider engagement** for facilitation, safeguards implementation, training on resolution of disputes over natural resources and monitoring.

Together, these mechanisms will ensure scalable, locally owned restoration and livelihood solutions that deliver lasting environmental and socio-economic benefits in Sudan's northern agro-pastoral landscapes.

Component 2 has two outcomes, each with associated outputs as detailed below:

Outcome 2.1: Productive capacity of degraded production landscapes rehabilitated in priority localities

This outcome focuses on restoring ecosystem functionality and improving sustainable land-use practices through participatory planning, landscape rehabilitation, and climate-resilient production systems. To achieve this outcome, the project will deliver the following four outputs:

- **Output 2.1.1:** 100 formally endorsed community-based natural resource management (CBNRM) and land-use plans for priority localities in River Nile and Northern States**:** A total of 100 participatory CBNRM plans will be

developed and endorsed in priority localities. These plans will guide sustainable land use, grazing management, restoration priorities, and resource governance, ensuring inclusive decision-making and alignment with local development priorities.

- **Output 2.1.2:** 20,000 hectares of restored and rehabilitated degraded landscapes under nature-based and drought-resilient management systems, with documented improvements in ecosystem services, biodiversity, and climate resilience**:** Approximately 20,000 hectares of degraded production landscapes will be restored using nature-based solutions such as assisted natural regeneration, reseeding, erosion control, and water harvesting structures. These interventions will enhance soil fertility, biodiversity, and ecosystem services while strengthening climate resilience, and reducing conflict over water and land.

- **Output 2.1.3:** 8,000 hectares of production landscapes under validated climate-smart and integrated agro-sylvo-pastoral production systems, benefiting 6,000 households (disaggregated by gender and youth)**:** About 8,000 hectares will be brought under locally adaptable and culturally acceptable climate-smart production systems, including agroforestry, conservation agriculture, and integrated crop–livestock systems. These practices will benefit 6,000 people (50% women, 50% men, and 40% youth), improving productivity, food security, and adaptive capacity.

- **Output 2.1.4:** Eight (8) operational, women-managed nursery enterprises producing native and multi-purpose tree and grass species, including business plans and production systems**:** Eight nurseries run by women groups for native and multi-purpose tree and grass species will be established to supply restoration and agroforestry activities while creating local green enterprises, with strong participation of women and youth.

Outcome 2.2: agropastoral systems strengthened through gender-inclusive and diversified climate-resilient services

This outcome enhances livelihood resilience through improved water access, climate-adaptive technologies, applied research, and strengthened extension services. To achieve this outcome, the project will deliver the following three outputs:

- **Output 2.2.1:** Functional climate-smart and solar-powered water management and irrigation infrastructure (including hafirs, contour bunds, and check dams), with established operation and maintenance systems, community management structures, and access to alternative energy solutions**: Under this output, the project will support** climate-smart infrastructure, including hafirs, contour bunds, check dams, and solar-powered irrigation systems. These will be implemented to improve water security and agricultural productivity using clean energy. Youth-focused training will support operation and maintenance of solar systems, promoting local technical capacity and employment. Communities will be trained on effective water management and management of disputes over land and water.

- **Output 2.2.2:** Six (6) validated drought-resilient crop and fodder varieties, with established seed and fodder supply systems reaching 2,000 smallholder farmers and 2,000 livestock keepers (disaggregated by gender and youth), in collaboration with the Agriculture Research Center**: The 2,000 small-scale farmers and 2,000 small-scale livestock keepers will comprise 40% women, 60% men and 30% youth. The output will focus on at three (3) grass/fodder species and three (3) crop varieties to develop an agro-silvo-pastoral model that will be piloted to improve sustainable rangeland management and sustainable agro-pastoralism in a production system that integrates crop production to achieve multiple socioeconomic and environmental benefits - including enhancing soil fertility status, water conservation, erosion control, and groundwater recharge while combating impacts of droughts and reducing the vulnerability of socioecological systems.**

- **Output 2.2.3:** Operational extension service delivery system reaching 4,000 crop and livestock producers, including standardized training packages, demonstration sites, and advisory service tools for climate-smart and integrated agro-sylvo-pastoral practices**:** Targeted extension services will reach 4,000 crop and livestock producers (40% women, 60% men, 30% youth), providing training on climate-smart agriculture, improved fodder production, animal health, drought-tolerant crops, agroforestry, and integrated crop–livestock systems.

Component 3: monitoring, evaluation, and knowledge management

This component will establish an integrated, participatory Monitoring, Evaluation, and Knowledge Management (ME&KM) system to support adaptive management, strengthen accountability, and promote learning across targeted agropastoral landscapes in River Nile and Northern States. The component will ensure systematic tracking of project results, facilitate evidence-based decision-making, and enable the documentation and dissemination of lessons and best practices to accelerate adoption of climate-resilient livelihoods and biodiversity-friendly land management practices. Given the uncertainty of the conflict in Sudan, the component will also include contingency and business continuity planning and periodical reviews of these plans.

Central to this component is a participatory approach that actively engages local communities—particularly women and youth alongside government institutions and implementing partners in monitoring progress, validating results, and co-generating knowledge. The ME&KM system will be aligned with GEF requirements and national frameworks, integrating spatial, socio-economic, and environmental data to assess landscape restoration outcomes and livelihood impacts.

Component 3 will be implemented through a combination of: i) participatory monitoring and evaluation involving community groups, local authorities, and technical services; ii) partnerships with national institutions and NGOs for knowledge documentation and dissemination; iii) digital platforms and GIS tools for spatial monitoring and reporting; iv) community exchange visits and learning events; v) integration with existing regional information-sharing networks and extension services; and vi) technical backstopping by the Project Management Unit (PMU) and specialized consultants; vii) contingency and business continuity planning by the PMU with periodical reviews. .

Together, these mechanisms will ensure that monitoring, learning, and knowledge sharing are embedded throughout project implementation, enabling continuous improvement and scaling of successful approaches.

Component 3 has one outcome with four outputs. These are detailed below:

Outcome 3.1: Knowledge management through participatory monitoring and evaluation enhances learning and adoption of best practices.

To achieve this outcome, the project will deliver the following three outputs:

- Output 3.1.1: Gender-inclusive knowledge product portfolio (including briefs, manuals, case studies, and learning reports) and documented lessons learned, disseminated to 8,000 beneficiaries, with records of inter-community exchange and peer learning outcomes on sustainable practices and natural resource conflict resolution. The 8,000 target beneficiaries will be reached through targeted dissemination and facilitated inter-community exchange visits to strengthen peer learning and adoption of sustainable practices: The project will document good practices, lessons learned, and locally adapted solutions related to sustainable land management, climate-resilient agriculture, biodiversity conservation, women and youth empowerment and livelihood diversification. These will be translated into user-friendly, gender-responsive knowledge products (e.g., briefs, guides, videos, and case studies) and disseminated to at least 8,000 beneficiaries, ensuring outreach to the project different target groups. Structured inter-community exchange visits will be facilitated to enable peer-to-peer learning, showcase successful interventions, and accelerate uptake of proven approaches across project landscapes.

- Output 3.1.2: **At least four (4) gender- and youth-inclusive communication tools (e.g., radio programs, visual materials, digital content, and outreach packages) disseminated through regional information-sharing platforms**: A minimum of four communication tools such as community radio programs, visual learning materials, digital content, and participatory storytelling products will be developed with strong gender and youth perspectives. These tools will be disseminated through existing regional platforms, government networks, and partner channels to increase project visibility, strengthen stakeholder engagement, and promote behavior change toward sustainable resource management.

- Output 3.1.3: **Operational GIS-based Monitoring and Evaluation (M&E) system, including spatial database, data collection protocols, analytical dashboards, and reporting tools**: Under this output, the project will develop GIS-based M&E system for its implementation. A GIS-enabled M&E system will be established to support spatial tracking of land restoration, biodiversity outcomes, and livelihood interventions. The system will

integrate remote sensing, field data, and socio-economic indicators to monitor landscape changes, identify hotspots of vulnerability and success, and inform adaptive management. Capacity building will be provided to national and local stakeholders to ensure sustainable operation and use of the system beyond the project lifetime.

- Output 3.1.4: **Approved and operational contingency and business continuity plan, including periodic update reports and risk management protocols**: The project adaptive management will be reinforced by the development of a contingency and business continuity plan that will be developed by the PMU and periodically reviewed by the HCENR and the National Project Steering Committee that provides project oversight.

Stakeholder engagement

To deliver, the project will be implemented with support from different stakeholders at national and State-levels. These will include the following:

- ***State Ministries of Agriculture and Animal Resources*** will provide technical leadership in crop and livestock systems, extension, and producer support. Despite capacity constraints, they are central to scaling climate-smart practices and biodiversity mainstreaming. The project will strengthen their institutional capacity, improving service delivery and policy uptake.

- ***Council of Animal Resources*** leads livestock sector engagement, addressing grazing management, veterinary services, and pastoral mobility. Project support will improve fodder systems, animal health, and conflict-sensitive resource management, reducing pressure on ecosystems while enhancing pastoral livelihoods.

- ***High Council of Environment and Natural Resources (HCENR)*** will coordinate climate, biodiversity, and land degradation actions. The project will enhance HCENR's monitoring and policy functions, positioning it as a national hub for integrated NRM and climate adaptation.

- ***International Organizations (such as FAO, WFP and Mercy Corps)*** will contribute technical expertise, delivery capacity, and co-financing. Coordination mechanisms minimize duplication and align humanitarian and development efforts toward sustainable outcomes.

- ***Private Sector*** actors will support value chains, technology adoption, and job creation. The project is known to incentivize responsible investment aligned with community priorities and environmental safeguards.

- ***Farmers and Pastoralist Organizations*** are core implementers at community level, leading restoration, livelihood diversification, and peer learning. They will ensure local ownership, equitable benefit sharing, and sustainability of interventions. The project will work to support their inclusive governance by strengthening awareness and capacities of members and boards.

- ***Sudan Microfinance Development Company*** **(SMDC) is a national apex institution established to support and develop the microfinance sector in Sudan. It provides wholesale financing, technical assistance, training, and capacity building to microfinance institutions and grassroots organizations, with the aim of expanding financial inclusion, supporting pro-poor policies, and contributing to poverty alleviation and sustainable economic development**. The project will work with SMDC to facilitate access to finance to the smallholder farmers and livestock keepers.

Together, these stakeholders ensure that environmental and adaptation benefits are institutionalized, economically viable, and socially inclusive, thereby creating durable co-benefits such as improved food security, reduced conflict over resources, women's economic empowerment, and strengthened local governance.

Without GEF financing, interventions in Sudan's River Nile and Northern States would remain fragmented, humanitarian-oriented, and short term, with limited integration of biodiversity, land

degradation neutrality, and application of conflict sensitive approach to land and water management. GEF resources will enable the project to move beyond basic livelihood support toward integrated landscape restoration, biodiversity mainstreaming, and institutional reform. Through Components 1 and 2, the project will generate global environmental benefits by restoring degraded agro-pastoral landscapes, reducing land degradation drivers, conserving biodiversity within production systems, and strengthening climate-resilient livelihoods. Component 3 will ensure these outcomes are measured and institutionalized. GEF support will also enable policy harmonization, community-based land degradation monitoring systems, and gender-responsive capacity building that would otherwise not be financed through national budgets, creating adaptation benefits through improved drought preparedness and ecosystem resilience.

As a transformational-focused project, it will apply a landscape-based, gender-inclusive model that links policy reform (Component 1), on-the-ground restoration and livelihoods (Component 2), and learning systems (Component 3). This integrated approach will be transformational in Sudan's fragile context. Scaling will be achieved through: (a) embedding biodiversity and climate resilience into sectoral policies and extension systems; (b) strengthening HCENR and State Ministries to replicate approaches across additional localities; (c) using farmer and pastoralist organizations as replication hubs; and (d) leveraging partnerships with financial institutions and private sector actors to expand climate-smart investments. Demonstration sites, community exchanges, and knowledge products will support horizontal scaling, while policy integration enables vertical scaling nationally.

The project will strengthen national and state-level policy coherence by reviewing and harmonizing six key frameworks related to land, agriculture, livestock, water, and environment, ensuring alignment with biodiversity conservation, climate adaptation, and gender inclusion objectives. HCENR's coordination role will be reinforced, enabling cross-sector planning and monitoring. Biodiversity mainstreaming guidelines for production ministries will institutionalize ecosystem considerations in agricultural investments. These reforms will improve alignment between climate, environment, and development policies, reducing fragmentation and creating a durable enabling environment for sustainable natural resource management.

Under component 3, the project will establish a structured monitoring, evaluation, and knowledge management system. The project will generate knowledge through participatory monitoring, restoration performance data, climate information services, and livelihood outcomes. Gender-disaggregated lessons learned are documented and disseminated to at least 8,000 beneficiaries. Community exchange visits, learning platforms, and policy dialogues facilitate peer-to-peer learning. Results are synthesized into practical knowledge products for government and communities, ensuring lessons inform future programming and national strategies while supporting replication by development partners.

Institutional arrangements. The project will be executed by the HCENR. The HCENR will host the Project Management Unit and will provide office space for the full duration of the project, as its in-kind contribution. HCENR role will cover: a) establish and chair the National Project Steering Committee (NPSC), and the chairperson will be the Secretary General of HCENR. The NPSC membership will include representatives from the Ministry of Finance, Ministry of Agriculture and Irrigation, Ministry of Animal Resources, Representative of Government of the Northern and River Nile States, Agricultural Research Corporation, Forest National Corporation, representatives of NGOs/CBOs, the private sector, etc. The NPSC will play an oversight role and facilitate inter-ministerial coordination, provide policy guidance and supervise the project performance. Specifically, the NPSC will review, validate and approve the project's annual work plans, budgets and procurement plans, progress/supervision/evaluation/final reports, as well as supervise the implementation by the project of the audit recommendations.

A PMU will be established with key experts (National Project Coordinator, Finance and Administrative Officer, M&E expert). These experts will be Sudanese nationals recruited competitively creating a light PMU to be hosted in the HCENR. The PMU will be accountable directly to the Secretary General of HCENR. The

PMU will serve as Secretary of the NPSC. The PMU staff will be contracted by HCENR for the duration of the project. The PMU will be responsible for the day-to-day implementation of the project activities.

Two State-level Project Coordination Units (SPCU) in the Northern State and River Nile State will be established. The 2 SPCUs will be composed of a team leader and M&E officer. The staff of the SPCU will be seconded by State Governments. The SPCUs will be responsible for the day-to-day implementation of the project activities at the state level and in the targeted localities, including work planning, activity monitoring and reporting, stakeholder engagement, and adaptive management. It will also strengthen state-level ownership and institutional capacity. The SPCUs will reduce operational bottlenecks, improve supervision of field activities, and enhance accountability, particularly given the fragility in the security context in Sudan.

The SPCUs will be assisted by a State Technical Committee (STC) to support and facilitate technical implementation of the project and the STC will be chaired by the State HCENR. The STC will include members from relevant state institutions such as the Environment Council, State Ministry of Production and Economic Resources, State Ministry of Animal Resources, State Ministry of Finance, Agriculture Research Corporation, Forest National Corporation, NGOs, farmers and pastoralists' organizations. The STC will be responsible for resolving and providing guidance on technical issues, setting priorities in line with the project objectives, reviewing the state annual work plan and budget, resolving conflicts and supervising site-level activities to ensure local level coordination, partnerships and ownership.

GEF additionality: global environmental, socioeconomic and adaptation benefits

Through its integrated components, outcomes, and outputs, SNRLP-North will generate global environmental benefits, climate adaptation benefits, and associated socioeconomic co-benefits that would not accrue under a business-as-usual scenario in Sudan without GEF financing. In the current context, national resources and partner interventions are largely focused on short-term humanitarian assistance, basic service delivery, and isolated livelihood support, with limited capacity to address the structural drivers of land degradation, biodiversity loss, and climate vulnerability in a coordinated and sustainable manner.

Under component 1, the project will deliver on an enabling environment for long-term global environmental benefits. GEF additionality under component 1 lies in strengthening the upstream institutional, policy, and technical foundations required to sustain global environmental benefits at scale. Without GEF support, Sudan would lack the resources to systematically harmonize sectoral policies, mainstream biodiversity into productive sectors, establish functional community-based land degradation monitoring systems, and build institutional capacity for integrated natural resource management.

By strengthening the coordinating role of the High Council for Environment and Natural Resources (HCENR), aligning six key policies and legal frameworks, and introducing biodiversity mainstreaming guidelines for agriculture and production sectors, the project will embed land degradation neutrality, biodiversity conservation, and climate adaptation objectives into national and state systems. Training of 3,000 stakeholders and the introduction of community-based climate information services will enhance anticipatory capacity and reduce maladaptive responses to droughts and floods. These systemic reforms will generate long-term global environmental benefits by reducing land degradation drivers, improving ecosystem governance, and enabling climate-resilient landscape management well beyond the project lifetime - outcomes that would not be financed or sustained through domestic budgets alone.

Under component 2, the project will deliver on direct environmental and adaptation benefits at landscape scale. Component 2 will deliver direct, measurable global environmental benefits through the rehabilitation of degraded agro-pastoral landscapes and the conservation of biodiversity within productive systems. GEF financing will enable the adoption of nature-based and climate-resilient solutions such as assisted natural regeneration, rangeland rehabilitation, agroforestry, soil and water conservation, and integrated crop–livestock systems. This will be across approximately 20,000 ha of degraded land.

Without GEF support, restoration efforts would remain small-scale, fragmented, and disconnected from biodiversity and climate adaptation goals. By coupling restoration with gender-inclusive livelihood diversification, climate-smart water systems, adaptive research, and strengthened extension services, the project will enhance ecosystem functionality while improving food security, incomes, and resilience for women, men, and youth. These interventions will reduce pressure on natural ecosystems, enhance carbon sequestration, improve water regulation, and strengthen adaptive capacity to climate variability—producing global environmental and adaptation benefits that exceed local development gains.

Under component 3, the project will deliver on sustaining and scaling benefits through knowledge and learning. GEF additionality under component 3 will ensure that environmental and adaptation benefits are systematically measured, learned from, and scaled. The establishment of a participatory, GIS-based monitoring and evaluation system will enable spatial tracking of land restoration, biodiversity outcomes, and livelihood impacts—capabilities that would otherwise not exist. Gender-inclusive knowledge products, community exchange visits, and communication tools ensure that successful approaches are internalized by communities, institutions, and partners.

By embedding learning and adaptive management into national and local systems, the project transforms site-level successes into replicable models, enabling horizontal scaling across Sudan's dryland landscapes and vertical scaling through policy and institutional uptake. This ensures that global environmental benefits are durable, evidence-based, and transferable, rather than isolated project outcomes.

In sum, taken together, the three components shift Sudan's response to land degradation and climate risk from short-term coping toward integrated, ecosystem-based, and gender-responsive transformation of agro-pastoral landscapes. GEF financing is catalytic in linking policy reform, institutional strengthening, landscape restoration, livelihood resilience, and knowledge systems into a coherent program that generates sustained global environmental and adaptation benefits, outcomes that would not materialize under a business-as-usual development or humanitarian approach.

Coordination and Cooperation with Ongoing Initiatives and Project.

Does the GEF Agency expect to play an execution role on this project?

If so, please describe that role here. Also, please add a short explanation to describe cooperation with ongoing initiatives and projects, including potential for co-location and/or sharing of expertise/staffing

The design of SNRLP-North considers the existing investments and on-going projects, both GEF and non-GEF. Notably:

· Accelerating Sustainable and Clean Energy and Digital Access Transformation in Sudan – this is a $76.3 million World Bank-funded project (2025-2029) that aims to improve energy and digital access for select communities in Sudan. The project will utilize Results Based Financing (RBF) mechanism to enable private companies to provide solar energy and digital connectivity solutions needed by farmers, agri-businesses, schools, clinics, SMEs, telecom infrastructure, and households in areas supported through the three ongoing operations in Sudan.

· Sudan - Enhancing Community Resilience Project – this is a $150 million World Bank-funded project (2024-2028) that aims to improve access to basic services and food security of select communities in the Republic of the Sudan. This project has two components. 1) The first component, Community Led Basic Service Delivery (UNICEF), will finance goods, works, consulting and non-consulting services, training, and operating and indirect costs. 2) The second component, Improving Food Security (WFP), will finance works, goods, matching grants, consulting and non-consulting services, training, and operating costs.

· Sudan, National Child Project under the GEF Africa Mini-grid Programme: Funded by the GEF with UNDP as the Implementing Agency (2022-2026), this is a $2.6million project to support access to clean energy by increasing the financial viability and promoting scaled-up commercial investment in low-carbon mini-grids in Sudan, with a focus on cost-reduction levers and innovative business models.
· Sudan's Capacity Building Initiative for Transparency Project: Funded by the GEF with UNDP as the Implementing Agency (2022-2025), this has been a $1.2million project to enhance Sudan's human and institutional capacities for climate transparency in line with Paris Agreement requirements, including improved systems for measurement, reporting and verification (MRV) and strengthened climate data and reporting coordination.
· Sustainable Natural Resource and Livelihood Adaptive Programme (SNRLAP): Funded by the GEF with IFAD as the Implementing Agency (2021-2026), this is a $2million project to strengthen the resilience of local communities to climate change in the Butana, Sennar, and Kordofan regions through improved sustainable natural resource management, climate-adaptive planning, and enhanced livelihoods.
· Landscape Approach to Riverine Forest Restoration, Biodiversity Conservation and Livelihood Improvement: Funded by the GEF with FAO as the Implementing Agency (2022-2026), this is a $2.6million project to restore and maintain critical ecosystem services of globally significant riverine forest landscapes along the River Nile in Sudan, benefiting biodiversity and improving livelihoods through integrated management.
· Resilience of Pastoral and Farming Communities to Climate Change in North Darfur: Funded by the GEF with FAO as the Implementing Agency (2022-2025), this has been a $2.4million project to reduce the vulnerability of pastoral and farming communities along migratory routes in North Darfur to climate change and to improve social protection, food security, and nutrition by strengthening resilience through sustainable practices.
· Sudan Emergency Wheat Production Project, Phase II (SEWPP II) is a large-scale, resilience building agricultural intervention designed to boost domestic wheat production and strengthen food security in Sudan amid conflict and global supply shocks. Implemented by the World Food Programme (WFP) and financed primarily by the African Development Bank (AfDB), the project supports smallholder farmers through the provision of certified wheat seeds, fertilizers, agricultural machinery, and technical assistance. Phase II builds on earlier results to increase wheat yields, reduce import dependence, and enhance the resilience of farming systems across key wheat-producing states, including Gezira, Northern, and River Nile.

Thus, SNRLP-North project will be fully designed to complement and coordinate closely with ongoing Food and Agriculture Organization (FAO) and World Food Programme (WFP) initiatives by building synergies across landscape restoration, climate resilience, and food security interventions, while addressing geographic and thematic gaps.

· Coordination with FAO initiatives: SNRLP-North will align technically with FAO's landscape restoration and pastoral resilience projects by adopting compatible approaches to ecosystem restoration, sustainable rangeland management, and climate-resilient livelihoods. Knowledge exchange will be facilitated on riverine forest restoration, assisted natural regeneration, and biodiversity conservation practices developed under FAO programmes. In pastoral systems, coordination will focus on harmonizing grazing management, drought-resilient fodder systems, and conflict-sensitive mobility strategies. Joint learning platforms, cross-project exchange visits, and shared monitoring methodologies (including GIS-based systems) will ensure consistency and scalability of best practices across regions, including linkages between Darfur and northern agropastoral systems.
· Coordination with WFP initiatives: With WFP's resilience and food security programmes, SNRLP-North will ensure operational complementarity by linking landscape restoration with food security and livelihood stabilization interventions. Community-based planning mechanisms and targeting approaches developed under WFP's resilience programmes will be leveraged to enhance efficiency and avoid duplication. Synergies with the Sudan Emergency Wheat Production Project (SEWPP II) will focus on improving productivity through climate-smart practices, sustainable land and water management, and enhanced input use efficiency.

Coordination will be operationalized through joint planning forums, data and knowledge sharing, geographic targeting alignment, and integration of humanitarian-development-peace nexus approaches to ensure coherent, conflict-sensitive, and scalable impacts.

It is reiterated that SNRLP-North will build on a portfolio of complementary GEF and non-GEF investments in Sudan that address climate resilience, sustainable natural resource management, energy access, and food security, while strategically addressing gaps in agropastoral landscapes of River Nile and Northern States. The project is conceived as a catalytic intervention that builds on existing operational platforms, leverages technical expertise, and promotes co-location where feasible to enhance efficiency, coherence, and impact in River Nile and Northern States. Overall, the project aligns with Sudan's national priorities and commitments under the UNCCD, CBD, and UNFCCC, serving as a catalytic investment for integrated resilience, biodiversity conservation, and sustainable livelihoods in northern Sudan.

SNRLP-North will closely coordinate with World Bank–funded operations on clean energy, digital access, and community resilience. The Accelerating Sustainable and Clean Energy and Digital Access Transformation Project provides an enabling platform for renewable energy and digital solutions in rural areas. The project expands solar energy and digital connectivity in rural areas, which SNRLP-North will leverage to support climate-resilient agriculture, water management, and value-added livelihood activities - demonstrating effective community-led service delivery and food security interventions in fragile contexts; SNRLP-North will build on these lessons by integrating participatory planning, social inclusion, and resilience-oriented livelihoods into landscape restoration efforts. SNRLP-North will align livelihood and landscape restoration interventions with areas benefiting from solar energy and connectivity, enabling productive uses of energy for irrigation, agro-processing, cold storage, and market access. Opportunities for co-location and information sharing with private service providers supported through results-based financing will be explored to reduce transaction costs and enhance sustainability. Technical exchanges on digital tools for extension services and monitoring will also be promoted.

Coordination with the Sudan Enhancing Community Resilience Project will focus on harmonizing community-based planning, targeting, and implementation mechanisms. Where geographic overlap exists, SNRLP-North will leverage community structures, facilitation teams, and service delivery platforms established by UNICEF and WFP to support integrated restoration and livelihood activities. Lessons from humanitarian-development coordination, beneficiary targeting, and food security interventions will inform SNRLP-North's gender-inclusive and conflict-sensitive approaches.

GEF-funded initiatives offer important opportunities for technical collaboration and knowledge sharing. The Africa Mini-grid Programme National Child Project provides expertise on low-carbon energy solutions and innovative business models, which SNRLP-North will draw upon to support energy-enabled livelihood activities in agropastoral landscapes. Coordination with the Capacity Building Initiative for Transparency (CBIT) will enable alignment of monitoring indicators, data collection protocols, and reporting systems, with potential sharing of M&E and climate data specialists to strengthen institutional capacities. In sum, the Africa Mini-grid Programme National Child Project informs low-carbon, energy-enabled livelihood models, while the CBIT strengthens national systems for climate data, monitoring, and reporting. SNRLP-North will align its participatory M&E framework with these systems to enhance evidence-based decision-making.

SNRLP-North will build directly on the experience of the SNRLAP by adapting tested approaches to climate-adaptive planning, community-based natural resource management, and livelihood diversification. Opportunities for sharing technical staff, training materials, and participatory planning tools will be explored to accelerate implementation and reduce duplication.

Close collaboration is also envisaged with FAO-implemented landscape and pastoral resilience projects. The Riverine Forest Restoration project informs integrated landscape management along the Nile, while the North Darfur pastoral resilience project offers insights into managing climate risks in pastoral systems and migratory corridors. SNRLP-North will extend these approaches to new ecological and institutional contexts. The Riverine Forest Restoration project offers a platform for joint learning on landscape governance, ecosystem restoration techniques, and biodiversity monitoring along the River Nile. The North Darfur pastoral resilience project provides valuable expertise on rangeland management, migratory corridors, and conflict-sensitive programming. Exchange visits, joint technical missions, and shared use of GIS and environmental monitoring expertise will be pursued.

Core Indicators

Indicator 3 Area of land and ecosystems under restoration

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
20000	0	0	0

Indicator 3.1 Area of degraded agricultural lands under restoration

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

Indicator 3.2 Area of forest and forest land under restoration

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
20,000.00			

Indicator 3.3 Area of natural grass and woodland under restoration

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

Indicator 3.4 Area of wetlands (including estuaries, mangroves) under restoration

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

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

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
8000	0	0	0

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

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
8,000.00			

Indicator 4.2 Area of landscapes under third-party certification incorporating biodiversity considerations

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

Type/Name of Third Party Certification

Indicator 4.3 Area of landscapes under sustainable land management in production systems

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

Indicator 4.4 Area of High Conservation Value or other forest loss avoided

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

Indicator 4.5 Terrestrial OECMs supported

Name of the OECMs	WDPA-ID	Total Ha (Expected at PIF)	Total Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)

Documents (Document(s) that justifies the HCVF)

Title

Indicator 6 Greenhouse Gas Emissions Mitigated

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO_2e (direct)	3063142	0	0	0
Expected metric tons of CO_2e (indirect)	0	0	0	0

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

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO_2e (direct)	3,063,142			
Expected metric tons of CO_2e (indirect)				
Anticipated start year of accounting	2027			
Duration of accounting	30			

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

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO_2e (direct)				
Expected metric tons of CO_2e (indirect)				
Anticipated start year of accounting				
Duration of accounting				

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

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

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

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

Indicator 11 People benefiting from GEF-financed investments

	Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
Female	3,200			
Male	4,800			
Total	**8,000**	**0**	0	**0**

Explain the methodological approach and underlying logic to justify target levels for Core and Sub-Indicators (max. 250 words, approximately 1/2 page)

- 20,000 ha to be brought under land and ecosystems under restoration is based on the relative cost of envisaged interventions and community contribution to land restoration-related activities. The estimation has been informed by expertise advice in the country. This will be confirmed after additional consultations with more experts at PPG.

- 8,000 ha of landscapes to be brought under improved practices is based on the estimated number of beneficiaries, and household size in the target States.

- 3,063,142 metric tons of CO2e is based on the model output, estimated using the Nationally Determined Contribution Expert Tool (NEXT), under high activity clay soils, sandy soils and annual crop land use and gain and losses approach scenarios. The tool has been developed by FAO. The estimated amount of carbon mitigation potential of the project is based on the project restoration activities on 20,000 ha and improved practices on 8,000 ha, as noted above under points 1 and 2, respectively – over a period of 30 years (see NEXT output in Annex D.1 on p.40).

- 8,000 persons (3,200 women, and 4,800 men) corresponding to 8 000 households reflects the estimated number of beneficiaries of the project based on cost per beneficiary for similar projects supervised by IFAD in Sudan which come to about $1,000/ beneficiary household.

Key Risks

	Rating	Explanation of risk and mitigation measures
CONTEXT		

Climate	Substantial	Sudan is highly exposed to recurrent droughts, floods, and rising temperatures, which may undermine restoration outcomes and livelihood productivity. Mitigation: The project will adopt climate-resilient landscape approaches, including drought-tolerant species, diversified livelihood portfolios, water harvesting, and adaptive grazing management. Climate risk screening will guide site selection, and contingency planning will be embedded in community action plans. Land degradation information will be linked to local decision-making to enhance preparedness. The project will also promote - efficient irrigation systems to address dry spells and climate variability; and will also promote applied research on drought resilient crop varieties for food and fodder to reduce climate vulnerability.
Environmental and Social	Substantial	Risks include land-use conflicts, exclusion of vulnerable groups (women, youth, IDPs, persons with disabilities), and potential maladaptation if interventions are not context-appropriate. Mitigation: Environmental and Social Management Frameworks (ESMF) and Gender Action Plans will guide implementation. Participatory land-use planning and Free, Prior and Informed Consent (FPIC) will be applied where relevant. Targeted measures and approaches will ensure women, youth, and marginalized groups benefit equitably, supported by grievance redress mechanisms. In addition, the project will promote efficient management of water and fertilizers to mitigate any polluting effect from agricultural activities; and will conduct awareness programs for farmers on sustainable agricultural practices.
Political and Governance	High	Ongoing political instability and armed conflict may disrupt implementation and restrict field access in case the on-going conflict intensifies and the project area is directly affected. Weak local governance structures may limit coordination. Mitigation: Implementation will prioritize relatively stable areas, use decentralized delivery modalities, and partner with experienced local NGOs and community institutions. Adaptive management, flexible workplans, and conflict-sensitive approaches will be applied, with continuous context monitoring and business continuity planning. The project will also support HCENR and State Ministries of Production and Economic Resources to develop contingency plans for rapid response to natural or political disasters. In the event the project area is directly affected by the conflict, activities will be paused and eventually the project will be restructured in case the situation does not improve.
INNOVATION		
Institutional and Policy	Substantial	Limited policy coherence across land, agriculture, water, and pastoral sectors may constrain integrated landscape approaches. Mitigation: The project will support inter-ministerial coordination platforms and align interventions with existing national strategies. Capacity building for local authorities will strengthen institutional ownership and sustainability. Moreover, the project will carry out periodical reviews to update project work plans based on new risk assessments.
Technological	Moderate	Adoption of climate-smart practices and restoration techniques may be slow due to limited technical familiarity. Mitigation: Demonstration plots, farmer field schools, peer learning, and tailored extension services will promote

		uptake. Technologies will be low-cost, locally appropriate, and co-designed with communities.
Financial and Business Model	Substantial	Weak rural finance systems and limited market access may undermine livelihood sustainability. Mitigation: The project will facilitate savings and credit groups, link producers to value chains, and promote diversified income sources. Partnerships with microfinance institutions and private-sector actors will be explored, alongside grant-based catalytic support for women-led enterprises.
EXECUTION		
Capacity	High	Implementing partners and local institutions may have limited technical and operational capacity, especially in fragile areas. Mitigation: Dedicated capacity-building plans, embedded technical assistance, and phased implementation will strengthen delivery. Experienced Government such as federal Ministry of Agriculture and Irrigation, UN/IFAD-accredited partners and NGOs will provide implementation support. The project management will need to contain operating costs by carefully managing stock of equipment needed for project operation, vehicles' operation and maintenance, etc.
Fiduciary	High	Fiduciary risks arise from limited financial management capacity at the states level, weaknesses in internal control systems, and the geographically dispersed and conflict affected operating environment, which constrains effective supervision, monitoring, and timely financial reporting. In addition, Sudan is consistently ranked among the most corrupt nations globally, with a 2024 score of 15/100 and a rank of 170th-175th out of 180 countries on Transparency International's Corruption Perceptions Index. To mitigate these risks, the project will apply IFAD and GEF financial management and procurement procedures in accordance with the Financing Agreement, including maintenance of adequate internal controls, segregation of duties, and regular reconciliation of project accounts. The PMU will prepare and update the Business Continuity Plan, which will include establishing a backup and electronic filing system to prevent the loss of information. Cash payments would be minimized, and Sudan banking system now uses digital transactions which make it easier to make payments even to small vendors. Internal audit function will be put in place and can either be performed by the auditors seconded by the Ministry of Finance or an audit firm. Annual external audits will be conducted by the National Audit Chamber, with timely submission of audit reports and systematic follow-up of recommendations. Financial management capacity will be strengthened through targeted training and ongoing coaching of national and state-level staff. Procurement oversight and periodic reviews will be undertaken to ensure compliance, and third-party monitoring arrangements may be used in areas where access is limited due to insecurity. Timely preparation and submission of Interim Financial Reports (IFRs) will further support transparency and fiduciary assurance.

Stakeholder	Moderate	Limited community buy-in or elite capture could affect participation and benefit-sharing. Mitigation: Strong stakeholder engagement plans, transparent beneficiary selection, community governance mechanisms, and participatory monitoring will promote ownership and accountability.
Other	High	Disputes between farmers and livestock keepers and competition over land and water due to large influx of livestock trekking from western to eastern part of the country, could disrupt project activities. Mitigation: Conflict-sensitive programming, inclusive land-use planning, demarcation of grazing areas, investment in water infrastructure, dialogue platforms between farmers and livestock keepers, and support to traditional mediation mechanisms will be integrated into project design as mitigation measures.
Overall Risk Rating	High	The overall residual risk remains High due to Sudan's fragile context, climate vulnerability, and governance challenges. However, the project incorporates robust mitigation measures, adaptive management, and strong community-centered approaches to enhance resilience, safeguard inclusivity, and maximize the likelihood of achieving environmental and livelihood outcomes. It is expected that the risk level would gradually reduce during project implementation if the security situation is stabilized, institutional coordination improves, and climate adaptation measures perform as designed. The project will apply a dynamic risk management approach through regular risk reviews, strengthened monitoring and evaluation systems, and active stakeholder feedback mechanisms (including GRM), enabling timely corrective actions. Continued engagement with local authorities, community structures, and development partners will be critical to sustain implementation momentum and ensure long-term sustainability of project benefits.

C. ALIGNMENT WITH GEF-8 PROGRAMMING STRATEGIES AND COUNTRY/REGIONAL PRIORITIES

Describe how the proposed interventions are aligned with GEF- 8 programming strategies and country and regional priorities, including how these country strategies and plans relate to the multilateral environmental agreements.

Confirm if any country policies that might contradict with intended outcomes of the project have been identified, and how the project will address this.

For projects aiming to generate biodiversity benefits (regardless of what the source of the resources is - i.e., BD, CC or LD), please identify which of the 23 targets of the Kunming-Montreal Global Biodiversity Framework the project contributes to and explain how. (max. 500 words, approximately 1 page)

In alignment with GEF-8 programming strategies, **SNRLP-North is a strong integrated landscape project. It is designed to: i) d**eliver **multiple global environmental benefits simultaneously** (biodiversity, land degradation, adaptation); ii) operate at **scale** with systemic institutional change; iii) translates **global frameworks (KMGBF, UNCCD, UNFCCC)** into practical, locally owned action; and iv) demonstrate how **agropastoral systems in fragile drylands** can become engines of resilience rather than drivers of degradation.

Under GEF-8, the Biodiversity focal area prioritizes mainstreaming biodiversity across productive landscapes, community-based natural resource management, ecosystem restoration using nature-based solutions, capacity

building and enabling policy environments, and contribution to KMGBF implementation. Outputs 1.1.1 to 1.1.3 directly support biodiversity mainstreaming in agriculture and natural resource governance – thereby responding to the GEF-8 emphasis on systemic, institutional transformation, rather than isolated site-level actions. Additionally, restoration of 20,000 ha using native species and NbS, agroforestry and integrated crop–livestock systems that enhance habitat connectivity, and community nurseries for native and multipurpose species interventions contribute directly to in-situ biodiversity conservation outside protected areas, a core GEF-8 biodiversity strategy.

GEF-8 Land Degradation focuses on scaling up SLM, restoration of degraded lands, integrated landscape approaches, and alignment with UNCCD Land Degradation Neutrality (LDN). Outputs 2.1.2 and 2.1.3 are aligned with GEF-8 LD interventions (restoration of degraded rangelands and croplands using drought-resilient, locally adapted techniques, and improved production systems that reduce soil erosion, enhance soil organic carbon, and stabilize productivity). Through output 2.1.1 community-based NRM plans anchor restoration in local governance, ensuring long-term land stewardship. Additionally, outputs 1.1.2 and 1.1.6 strengthen policy coherence and monitoring tools needed for LDN reporting, and tracking land degradation and restoration outcomes. **SNRLP-North will** contribute to UNCCD Strategic Objectives 1 and 2 (improving land condition and livelihoods).

GEF-8 Climate Change focal area attaches importance to scaling up ecosystem-based adaptation, strengthening climate-resilient livelihoods, and institutional capacity for adaptation planning. **SNRLP-North** Outputs 1.1.4 and 1.1.5 enhance adaptive capacity through large-scale training on drought risk management, and community-based land degradation monitoring systems - directly supporting anticipatory adaptation, a core GEF-8 principle. Also, outputs 2.1.2, 2.1.3, and 2.2.1 to 2.2.3 integrate NbS for climate resilience, climate-smart agriculture, and solar-powered water systems reducing climate vulnerability and emissions. The project will contribute to strengthening adaptive capacity consistent with Article 7 of the Paris Agreement.

Contribution to Kunming–Montreal Global Biodiversity Framework (KMGBF): SNRLP-North has been designed to contribute to the implementation of KMGBF targets – as demonstrated in the table below.

The SNRLP-North contributes to the following KMGBF Targets:

Target	SNRLP-North contribution
• Target 1 – Spatial planning and integrated land use.	• Community-based NRM plans (Output 2.1.1) integrate biodiversity into local land-use decisions, reducing ecosystem conversion.
• Target 2 – Ecosystem restoration	• Restoration of 20,000 ha of degraded lands using NbS (Output 2.1.2) directly advances large-scale ecosystem restoration goals
• Target 3 – Effective conservation in productive landscapes.	• Agroforestry, integrated systems, and restored rangelands function as other effective area-based conservation measures (OECMs) outside protected areas.
• Target 7 – Reducing pollution and land degradation impacts.	• Sustainable land and water management practices reduce soil degradation, sedimentation, and agrochemical pressures.
• Target 8 – Climate change and biodiversity.	• Ecosystem-based adaptation and climate-resilient production systems enhance biodiversity's resilience to climate stress.
• Target 10 – Sustainable management of agriculture and livestock.	• Outputs 2.1.3 and 2.2.3 directly support sustainable, biodiversity-friendly agropastoral systems.
• Target 13 – Access and benefit sharing at community level.	• Community nurseries and livelihood diversification ensure local communities benefit from biodiversity-based value chains.
• Target 20 – Capacity building and knowledge.	• Outputs 1.1.4, 3.1.1, and 3.1.2 strengthen institutional, technical, and community capacity for biodiversity management.
• Target 22 – Gender equality.	• Explicit gender targets across all components ensure women's participation, leadership, and benefit-sharing in biodiversity and land management.
• Target 23 – Participation of Indigenous Peoples and local communities.	• Community-led planning, restoration, and livelihood activities place local actors at the center of biodiversity stewardship.

SNRLP-North is fully aligned with Sudan's national priorities on drought resilience, sustainable land and water management, food security, climate adaptation, and biodiversity conservation. The project contributes to Sudan's commitments under the **UNCCD, CBD,** and **UNFCCC**, supports implementation of national strategies related to natural resource management and climate resilience, and reinforces the shift from reactive drought response to proactive, risk-informed planning. By integrating institutional strengthening, landscape rehabilitation, inclusive livelihoods, and participatory monitoring, SNRLP-North serves as a catalytic investment that connects sectoral initiatives into a coherent, scalable framework for sustainable development in northern Sudan. Notable national priorities are in the following:

- Sudan's National Biodiversity Strategy and Action Plan 2025-2030 (2025)
- Sudan Nationally Determined Contributions (2022)
- Sudan's Land Degradation Neutrality Targets (2018)
- National Environmental Policy (2001): Provides strategic guidance on biodiversity conservation, desertification control, water protection, and integration of environmental concerns into development planning.
- National Comprehensive Strategy (NCS) 1992–2002: Mainstreams climate considerations and sustainable resource management across sectors.
- Draft National Water Policy (2006): Addresses integrated water resources management relevant to ecosystems and biodiversity.

- Rangelands Regulation and Forage Resources Development Act (2015): Supports the protection of rangelands and biodiversity-rich ecosystems.
- Agricultural and Livestock Producers' Organizations Act (2011): Has implications for land use, agriculture, and biodiversity management.
- Gezira Scheme Act: Regulates a major agricultural area with biodiversity implications
- Sudan's Nationally Determined Contribution (NDC1, 2022): Outlines climate commitments with direct relevance to biodiversity, forestry, and land management
- Sudan's National Communication to UNFCCC (NC3, 2022): National reporting framework on climate impacts, mitigation, and adaptation
- REDD+ Readiness and Forest Management Frameworks (2015): Includes land-use planning, forest governance, and biodiversity-oriented mitigation strategies.
- National Biodiversity Strategy and Action Plan (NBSAP): Includes biodiversity conservation frameworks, ecosystem protection plans, and genetic resource management
- National Biosafety Act (2010): Regulates genetically modified organisms, protecting biodiversity.
- Wildlife, Forest, Marine and Coastal Management Frameworks: Seen through national reporting on CBD implementation, covering freshwater, marine, wildlife, and plant biodiversity governance.
- Combating Desertification Law (2009): Targets land degradation and desertification—key drivers of biodiversity loss.
- National Agricultural Fertilizers Act (2010): Regulates agrochemical use with direct implications for soil and ecosystem health.
- Water Law: Governs use and protection of water resources vital for biodiversity.

Relevant global and regional initiatives: SNRLP-North is strongly aligned with global and regional environmental frameworks, particularly the UN Decade on Ecosystem Restoration and the Great Green Wall Initiative, through its integrated approach to land restoration, biodiversity conservation, and climate resilience. The project contributes directly to the UN Decade's objectives by restoring approximately 20,000 ha of degraded landscapes using nature-based solutions, promoting assisted natural regeneration, and strengthening ecosystem services in arid and semi-arid zones. Its focus on community-driven restoration, sustainable land management, and livelihood diversification aligns with the Great Green Wall's vision of resilient landscapes and improved livelihoods across the Sahel-Sahara region.

At the regional level, the project supports coordinated action on desertification and drought resilience, reinforcing transboundary learning and scalable restoration models applicable to dryland ecosystems.

Regarding the Rio Conventions, SNRLP-North will enhance Sudan's reporting capacity and performance under the United Nations Convention to Combat Desertification, Convention on Biological Diversity, and United Nations Framework Convention on Climate Change. Specifically, it contributes to Land Degradation Neutrality (LDN) targets, biodiversity conservation and ecosystem restoration commitments under the Kunming-Montreal Global Biodiversity Framework, and climate mitigation and adaptation goals outlined in Sudan's NDC. The project's GIS-based monitoring system and integrated data platforms will strengthen national systems for data collection, reporting, and verification, enabling more robust, evidence-based reporting across all three conventions.

SNRLP-North will actively engage with regional platforms to enhance learning, harmonization, and scaling of dryland resilience approaches. Collaboration with the Intergovernmental Authority on Development Drought Resilience

Platform will enable alignment with regional drought risk management frameworks, early warning systems, and policy coordination mechanisms. Through IGAD, the project can contribute to and benefit from regional analytics, climate information services, and cross-border dialogue on pastoral mobility, resource governance, and conflict-sensitive approaches.

Engagement with AFR100 will support alignment with Africa-wide restoration targets and provide access to technical assistance, financing partnerships, and monitoring frameworks for landscape restoration. This will facilitate benchmarking of restoration outcomes and mobilization of additional investments.

Regional knowledge exchange with similar GEF/IFAD-supported dryland initiatives in the Sahel and Eastern Africa will add significant value by enabling cross-country learning on integrated landscape management, anticipatory drought action, and community-based natural resource management. Structured exchange mechanisms - such as study tours, joint learning events, and communities of practice will allow adaptation of proven models (e.g., farmer-managed natural regeneration, climate-smart rangeland management, and blended finance for value chains).

These engagements will strengthen technical quality, promote policy coherence, and accelerate scaling by embedding SNRLP-North within broader regional resilience and restoration agendas.

D. POLICY REQUIREMENTS

Gender Equality and Women's Empowerment:

We confirm that gender dimensions relevant to the project have been addressed as per GEF Policy and are clearly articulated in the Project Description (Section B).

Yes

Stakeholder Engagement

We confirm that key stakeholders were consulted during PIF development as required per GEF policy, their relevant roles to project outcomes and plan to develop a Stakeholder Engagement Plan before CEO endorsement has been clearly articulated in the Project Description (Section B).

Yes

Were the following stakeholders consulted during project identification phase:

Indigenous Peoples and Local Communities: Yes

Civil Society Organizations: Yes

Private Sector: Yes

Provide a brief summary and list of names and dates of consultations

The project has benefitted from inputs from various stakeholders during consultations.

The stakeholder consultations took place in October and November 2024. The project has benefitted from inputs from various stakeholders such as Government institutions, private sector, financing institutions, community organizations and development partners. The consultations revealed that there are more than 520 producers' organizations with membership varying from 200 to 800 members, women and youth representing up to 30% and 60% of the membership respectively. The producers' organizations suffer from poor advisory services and lack finance and access to remunerative markets. The public services are severely under-funded

and more so since the conflict outbreak. Main challenges identified were droughts, floods, land degradation, and high production costs. The project will address these challenges by investing in land restoration, climate smart agriculture and strengthening the enforcement of the environmental legislation pertaining to biodiversity and land conservation. The consultations also revealed that women have generally limited participation in crop production and are more involved in livestock and off-farm activities; and youth have limited decent job opportunities and are more involved in the gold mining activities. The project addresses these points by investing in both crops and livestock production and productivity increasing practices that are environmentally sustainable and climate sensitive. More remunerative crop and livestock production could also provide a decent employment opportunity to youth and an alternative to hazardous conditions of gold mining. The presence of producers' organizations and private sector provide assurances that remunerative climate smart agricultural practices can be replicated and scaled up thanks to the strengthening of producers' organizations and partnership with agro-dealers and off-takers from the private sector.

The tribal profile is highly diverse in the project area. It is characterized by dominant tribes alongside minority and migrant groups from Western Sudan. A more detailed stakeholder consultation will be conducted at design stage using key informant interviews and focus group discussions covering representatives from the diverse tribal groups along livelihoods and land ownership patterns. The focus group discussions will be disaggregated by gender and age to cover women, men and youth.

It is important to note that the consultation missions covered the two priority States with two sub-teams carrying out the mission activities and meetings simultaneously on the same dates. These are listed in the table below:

Stakeholder category	Name	Dates met
Northern State		
Government institution	Ministry of Agriculture and Economic Recourse (All General Directorates); High Council for Livestock; Agricultural research; Eldaba and Marawei localities Executive Officers, and the Agriculture and Livestock departments at localities' level.	29/10/2024 to 03/11/2024
Privet sector	Azhari Mubark Project (AMP) is an example of private sector that could collaborate with the project. AMP project located in the southern site of Northern state in an area of 22,500 feddan	03/11/2024
Financing Institutions	Azhari Mubark Project (AMP) is an example of private sector that could collaborate with the project. AMP project located in the southern site of Northern state in an area of 22,500 feddan	30/10/2024 to 03/11/2024
Development Partners	FAO; WFP; UNDP; and MERCY Corps	02/11/2024
River Nile State		
Government institutions	Ministry of Agriculture. Irrigation and forests. (All General Directorates); Ministry of Livestock and Rangeland; Hodeiba Agricultural research Station; Barbar and Abu Hamad localities' Executives Officers; and Agriculture and Livestock departments at the localities' level.	29/10/2024 to 03/11/2024
Financing institutions	Agricultural Bank of Sudan in Attbara; Farmers commercial Bank in Eldammar; Sudanese Microfinance Rural Development Company (SMRDC); and Saving and Credit Bank (Barbar).	03/11/2024
Development Partners	FAO; JICA and UNDP	02/11/2024
Community Organizations	Korgoos Cooperative (Abu Hamad); Women Artisans Union (Barbar); and Nagazo Producer Association (Barbar).	01/11/2024

Stakeholder consultations for the SNRLP-North project were undertaken through a combination of national and state-level technical meetings, bilateral discussions, and community-level participatory assessments in River Nile and Northern States. These consultations engaged key government institutions, including the

HCENR and sector ministries, alongside local authorities, traditional leaders, producer organizations, women's groups, youth representatives, and civil society organizations. Insights from these engagements informed the identification of priority constraints, including weak coordination, limited access to climate-resilient technologies, and gaps in community-based natural resource governance.

Local communities played a central role in shaping the project's design, particularly through participatory planning processes that highlighted the need for integrated land restoration, water management, and diversified livelihoods. Civil society organizations and NGOs contributed to the design of community facilitation approaches, safeguards, and conflict-sensitive mechanisms, ensuring inclusivity and social cohesion. The private sector, particularly actors in input supply, renewable energy (e.g., solar irrigation), and value chains - was consulted to identify opportunities for market-based solutions and sustainable service delivery for socio-economic well-being of local communities. During PPG, consultations will continue with the private sector to deepen and concretize areas of collaboration on the project.

Throughout implementation, stakeholders will be engaged via multi-stakeholder platforms, community-based natural resource management structures, public-private partnerships, and participatory monitoring systems, ensuring continuous feedback, adaptive management, and long-term sustainability.

(Please upload to the portal documents tab any stakeholder engagement plan or assessments that have been done during the PIF development phase.)

Private Sector

Will there be private sector engagement in the project?

Yes

And if so, has its role been described and justified in the section B project description?

Yes

Environmental and Social Safeguard (ESS) Risks

We confirm that we have provided indicative information regarding Environmental and Social risks associated with the proposed project or program and any measures to address such risks and impacts (this information should be presented in Annex D).

Yes

Overall Project/Program Risk Classification

PIF	CEO Endorsement/Approval	MTR	TE
High or Substantial			

E. OTHER REQUIREMENTS

Knowledge management

We confirm that an approach to Knowledge Management and Learning has been clearly described in the Project Description (Section B)

Yes

ANNEX A: FINANCING TABLES

GEF Financing Table

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

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Programming of Funds	Grant / Non-Grant	GEF Project Grant($)	Agency Fee($)	Total GEF Financing ($)
IFAD	GET	Sudan	Biodiversity	BD STAR Allocation: BD-1	Grant	2,106,890.00	200,155.00	2,307,045.00
IFAD	GET	Sudan	Climate Change	CC STAR Allocation: CCM-1-4	Grant	1,778,045.00	168,914.00	1,946,959.00
IFAD	GET	Sudan	Land Degradation	LD STAR Allocation: LD-1	Grant	1,728,202.00	164,179.00	1,892,381.00
IFAD	GET	Sudan	Land Degradation	LD STAR Allocation: LD-3	Grant	1,728,202.00	164,179.00	1,892,381.00
Total GEF Resources ($)						**7,341,339.00**	**697,427.00**	**8,038,766.00**

Project Preparation Grant (PPG)

Is Project Preparation Grant requested?

true

PPG Amount ($)

200000

PPG Agency Fee ($)

19000

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Programming of Funds	Grant / Non-Grant	PPG($)	Agency Fee($)	Total PPG Funding($)
IFAD	GET	Sudan	Biodiversity	BD STAR Allocation: BD-1	Grant	57,398.00	5,453.00	62,851.00
IFAD	GET	Sudan	Climate Change	CC STAR Allocation: CCM-1-4	Grant	48,439.00	4,602.00	53,041.00
IFAD	GET	Sudan	Land Degradation	LD STAR Allocation: LD-1	Grant	94,163.00	8,945.00	103,108.00

Total PPG Amount ($)		**200,000.00**	**19,000.00**	**219,000.00**

Please provide justification

Sources of Funds for Country Star Allocation

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Sources of Funds	Total($)
IFAD	GET	Sudan	Biodiversity	BD STAR Allocation	2,369,896.00
IFAD	GET	Sudan	Climate Change	CC STAR Allocation	2,000,000.00
IFAD	GET	Sudan	Land Degradation	LD STAR Allocation	3,887,870.00
Total GEF Resources					**8,257,766.00**

Indicative Focal Area Elements

Programming Directions	Trust Fund	GEF Project Financing($)	Co-financing($)
BD-1-1	GET	2,106,890.00	9700790
CCM-1-4	GET	1,778,045.00	6895266
LD-1	GET	1,728,202.00	6701972
LD-3	GET	1,728,202.00	6701972
Total Project Cost		**7,341,339.00**	**30,000,000.00**

Indicative Co-financing

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount($)
Recipient Country Government	Ministry of Finance and Northern and River Nile States	In-kind	Recurrent expenditures	7000000
GEF Agency	FAO	In-kind	Investment mobilized	7000000
Donor Agency	WFP	In-kind	Investment mobilized	10000000

Others	Sudan Microfinance Development Company	In-kind	Recurrent expenditures	6000000
Total Co-financing				**30,000,000.00**

Describe how any "Investment Mobilized" was identified

The cofinancing was identified based on the following considerations:

- The project field delivery will largely rely on Government staff from HCENR and the state ministries of agriculture and animal resources. In addition, the two state Governments finance activities related to seed broadcasting and fireline opening in the rangelands as well as afforestation in riverine forests. These activities will be complemented by SNRLP North which will expand the target areas covered and strengthen the role of local communities in stewardship of natural resources.
- The project entitled Strengthening the livelihoods resilience of pastoral and agropastoral communities in Sudan implemented by FAO in the project area aims improve the resilience of communities to conflict and climate shocks by improving sustainable natural resource management, livestock production and health, access to water and rangelands, and climate-informed services. The project also adopts a community led implementation approach to natural resources management. The SNRLP North will capitalize on the experience of the project, replicate successful practices and expand their geographical coverage.
- The project entitled Sudan Emergency Wheat Production Project, Phase II implemented by WFP, s to boost domestic wheat production and strengthen food security in Sudan amid ongoing conflict, economic shocks, and supply disruption. The project supports smallholder farmers through the provision of quality wheat seeds, fertilizers, agricultural inputs, and technical assistance, while promoting climate-smart and cost-effective production practices. Wheat is an important crop in the irrigated farming system in the project area. The SNRLP North will complement the project and focus on rain-fed farming promoting conservation agriculture, agroforestry and integrated crop-livestock systems.
- The Sudan Microfinance Development Company (SMDC) serves as the apex microfinance organization in Sudan and provides wholesale financing to the Microfinance Institutions. The SMDC has an active portfolio in the project area financing agricultural and livestock production, as well as purchase and installation of solar pumps for irrigation. The SNRLP North project will leverage the SMDC resources to enable farmers to finance the climate smart and cost effective agricultural practices introduced by the project.

ANNEX B: ENDORSEMENTS

GEF Agency(ies) Certification

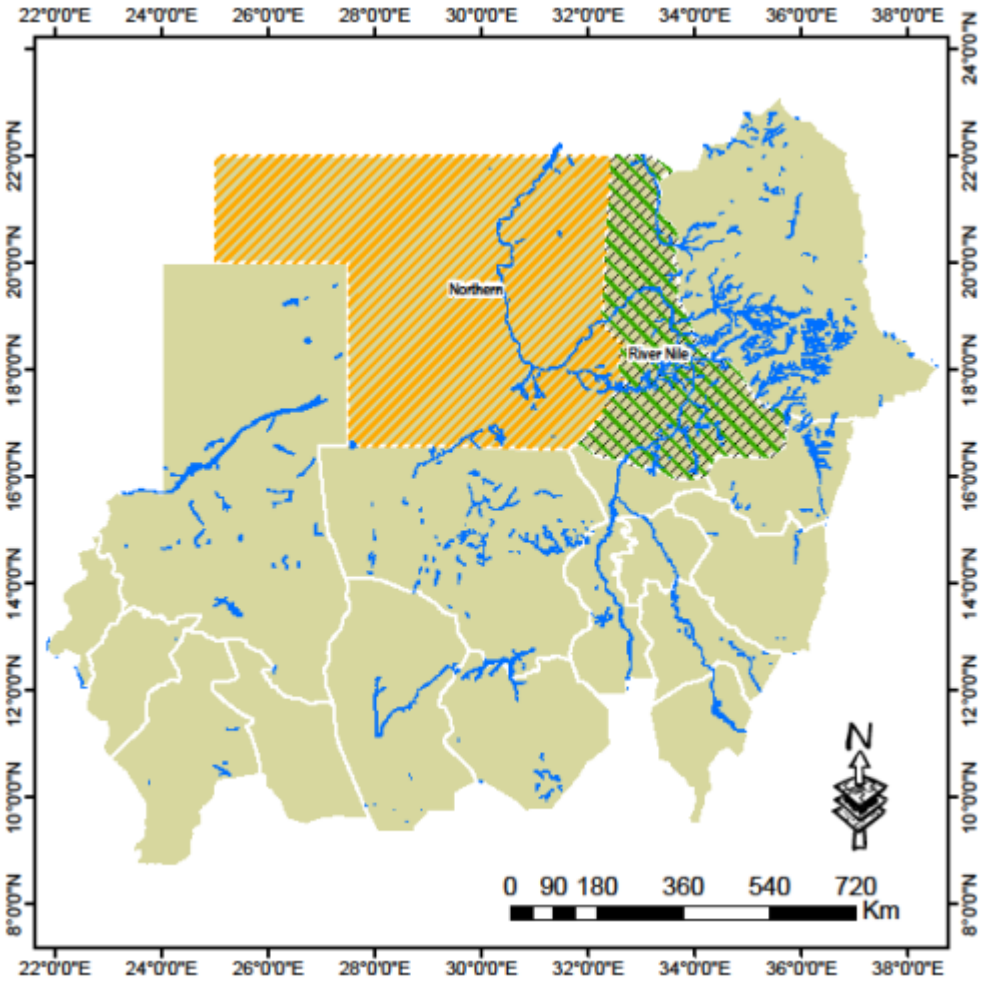
GEF Agency Type	Name	Date	Project Contact Person	Phone	Email
GEF Agency Coordinator	Pierre Yves Guedez, Climate and Environment Funds Lead (AF, GEF, GCF)	3/2/2026			p.guedez@ifad.org
GEF Agency Coordinator	Paola Palestini, GEF Technical Lead	3/2/2026			p.palestini@ifad.org
Project Coordinator	Rasha Omar	3/2/2026			r.omar@ifad.org

Record of Endorsement of GEF Operational Focal Point (s) on Behalf of the Government(s):

Name	Position	Ministry	Date (MM/DD/YYYY)
Suliman Elboni Suliman	Secretary General	The Higher Council for Environment and Natural Resources	3/11/2026

ANNEX C: PROJECT LOCATION

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



ANNEX D: ENVIRONMENTAL AND SOCIAL SAFEGUARDS SCREEN AND RATING

(PIF level) Attach agency safeguard screen form including rating of risk types and overall risk rating.

Title
Sudan SECAP ESC Screening_2 March 2026

ANNEX E: RIO MARKERS

Climate Change Mitigation	Climate Change Adaptation	Biodiversity	Land Degradation
Significant Objective 1	Significant Objective 1	Significant Objective 1	Principal Objective 2

ANNEX F: TAXONOMY WORKSHEET

Level 1	Level 2	Level 3	Level 4
Influencing Models	• Strengthen institutional capacity/decision-making		
Stakeholders	• Beneficiaries, Local communities, Private sector, Civil society Type of engagement: • Knowledge and learning, Stakeholder engagement		
Capacity, Knowledge and Research	• Capacity development, Knowledge generation and exchange, Learning		
Gender Equality	• Gender mainstreaming, Gender results areas		
Focal Area/Theme	• Biodiversity, Land degradation, Climate Change		