**Final Report** 

Engagement of Private Sector in REDD+ Processes in Sudan

**Final Report** 



**Client** Forests National Corporation – Sudan REDD+ Project

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# List of Abbreviations

ADB	African Development Bank
CDM	Clean Development Mechanism
CSO	Civil Society Organization
CSR	Corporate Social Responsibility
ESMF	Environmental and Social Management Framework
FAO	Food and Agriculture Organization
FCPF	Forest Carbon Partnership Facility
FIB	Faisal Islamic Bank
FLR	Forest and Landscape Restoration
GRM	Grievance Redress Mechanism
IT	Information Technology
NFP	National Forest Policy
NGO	Non-Governmental Organization
NWFP	Non-Wood Forest Product
PMU	Project Management Unit
PPP	Private-Public Partnerships
REDD+	Reducing Emissions from Deforestation and Forest Degradation
SDG	Sudanese Pounds
SESA	Strategic Environmental and Social Assessment
SME	Small and Medium sized Enterprises
SSDB	Savings Social Development Bank
TMC	Transitional Military Council

# **Executive Summary**

#### The Republic of Sudan (RoS), though blessed with substantial natural resources, is facing deforestation and degradation of natural ecosystems; pastures, forests, grasslands, etc...

Sudan is intensifying efforts to reduce emissions from deforestation and forest degradation, conserve and enhance forest carbon stocks, and sustainably managing its forest areas through the *Reduced Emissions from Deforestation and forest Degradation* (REDD+) program. Through the Forests National Corporation (FNC), Sudan has produced its Readiness Preparation Plan (R-PP) and is in the process of finalizing its Readiness Package.

UNIQUE Forestry and Land Use was contracted to develop a private sector engagement strategy for the REDD+ program.

The private sector, ranging from small family enterprises to international agribusiness conglomerates, has been identified as a key stakeholder group for REDD+ in Sudan. These actors have substantive impact on land use, land use change and deforestation, through their supply chain and funding decisions. Specifically, the private sector can contribute to REDD+ in three key areas:

- Innovation (e.g. development and deployment of new technologies and business modes)
- Investment (e.g. financing activities that reduce emissions)
- Implementation (e.g. on-the-ground testing and replication of agricultural and forestry business models and land-based activities).

A comprehensive strategy enables the private sector to smoothly engage in emission reduction programs in Sudan and in the region at large. A public-private dialogue related to REDD+ is crucial to identify private sector investment barriers and incentives.

To identify relevant stakeholders for REDD+ interventions in Sudan UNIQUE has:

- Analyzed the barriers facing the private sector in investing in activities to reduce deforestation and promote reforestation
- Outlined potential roles for the private sector in realizing REDD+ objectives
- Identified successful REDD+ activities and interventions for scaling-up
- Elaborated incentives and suggestions for implementing REDD+ activities

The suggested process is based on literature review, spatial analysis of land use and deforestation in Sudan, extensive consultations with stakeholders from the private sector, public sector, civil society and the financial sector. Questionnaires, interviews, focus group discussions and a multi-stakeholder workshop were used to collect the needed data.

The focus states for the study are Sennar, North Kordofan, White Nile, Blue Nile, Gedarif and Khartoum.

#### **Consultations Key Findings**

The private sector is convinced with a key role it can in mitigating climate change and REDD+ program in particular.

Consultations revealed that the Forest and Renewable Natural Resources Act, Mining Act, Investment Law, New Forest Policy, Action Plan for Agriculture, Companies Act, *Zakat*, Tax Law,

Rangelands and Fodder Law and the Pasture and Natural Resources Regulation are most relevant to the private sector as due to forest use and management. Stakeholders have also identified major challenges associated with the aforementioned laws and cited specific disincentives for their engagement in REDD+ program these include:

- Variations in regional forest management laws
- Lack of enforcement of formal forest and land management rules
- Ineffectiveness of laws
- An overall lack of awareness of what laws are in place, which take precedence, and how these regulations are to be followed.
- Specific investment barriers include the lack of a unified land use and tenure maps at the state level
- Redundancies and unclear responsibilities among the agriculture, forestry, rangelands and planning departments
- Contradictory regional and sectoral policies
- Uncertainty
- Lack of clarity and information on credit policies

For almost all consulted actors, access to finance is a critical challenging barrier for successful REDD+ investments. Underlining reasons are:

- Complicated bureaucratic application procedures
- Lack of collateral
- Liquidity issues
- Sanctions
- High interest rates compared to the risk adjusted returns that can be achieved in the sector.

In addition to these factors, other issues were raised including:

- Lack of research and development
- Unclear land tenure
- Export barriers.

There appears to be very limited financing available for forestry.

To overcome these barriers to REDD+ investments, companies showed their interest in receiving technical advice and support to develop and implement REDD+ business models. As part of the consultations, they have been informed that capacity building for the private sector is included in the following phase of the project.

Based upon analysis of the deforestation drivers and strategy options to address those, a number of REDD+ activities have been identified for different private actors. Table (1)

#### Table (1): Relevance of Small and Medium Enterprises to REDD<sup>+</sup> Activities

Activities	SMEs	Medium Large Businesses
Climate smart agriculture and livestock	Most relevant to provide services and technologies to support production	Improving their own practices play an important role in supporting their sup- pliers to adopt CSA practices

Activities	SMEs	Medium Large Businesses
Tree-based Farming systems	Can be supported to increase produc- tion and productivity	Play a crucial role as off-taker and pro- cessor for tree-based products, partic- ularly Gum Arabic
Reduction of Fuel wood Use	Play a crucial role in producing and dis- tributing cook stoves and other tech- nologies	Less relevant, primarily as a corporate social responsibility activity
Supply Chain Efficiency	In the supply chain provide both tech- nologies that reduce losses and as di- rectly involved actors	Big companies can invest in their sup- ply chain in order to improve reliability of supply

#### **Private Sector Engagement Strategy**

Considering the needs, interests and capacities of the consulted public, private, civil society and financial sectors, a four-pronged engagement strategy is proposed to enable RoS to stimulate private sector investments in emission reduction activities. Table (2)

#### Table (2) Private Sector Engagement Strategic Options

Category	Strategic Options	Details Components
	Offer below-market in- terest rates, reduce lending fees, or other attractive financing op- tions	Reduce financing costs of REDD+ activities (subsidies and low interest rates ought to particularly benefit smallholder farmers and livestock owners
Financial Incentives	Flexible collateral op- tions as guarantees	E.g. Using off-taker purchase agreements as collaterals in case of no pay back; partial guarantees protecting finan- cial institutions against 25-50% losses
	Investment accelera- tion	Supporting lending institutions and borrowers to meet fi- nancing requirements (e.g. preparation of business plans and improving accounting/reporting practices)

Category	Strategic Options	Details Components
	Favorable loan repay- ment terms	Provide long grace or loan tenor periods, particularly for forestry related investments and projects in nature re- serves
	Capacity building for private sector (produc- ers and companies)	Awareness building (knowledge) and training for compa- nies in improving practices (or scaling-up and 'marketing' existing REDD+ activities, making 'green' investments, and accessing targeted financing; support with technology transfer
Non-financial Incentives	Capacity building for fi- nancial sector	Provide training to banks and creditors on developing green financing lines, linking to international funding sources and developing M&E requirements (and ensuring companies' follow-through)
	Favorable tax calcula- tions	Grantee tax exemptions (or more favorable rates) to com- panies implementing projects or investing in REDD+ prac- tices
	Infrastructure	Improved conditions within supply chains of key sectors, particularly those supporting the Gum Arabic processing e.g. through improved public infrastructure, to makes sup- ply chains less costly
Enabling	Clarifying laws and reg- ulations	Streamlining investment approval and licensing process between federal and state levels, and various depart- ments; Organize policy workshops; improving channels of communication.
Enabling Environment	Formalizing M&E and Grievance Redress Mechanism (GRM) re- quirements	Providing M&E support (e.g. through e.g. Safeguards Unit or shouldering the costs of external M&E teams), including the use of GRM, to comply with environmental and social reporting requirements and to access international fi- nance
	Effective law enforce- ment	Ensure recognition and enforcement of existing laws to create a level playing field for the private sector
Public Private Partner- ships	Engagement with emerging and potential private sector REDD+ champions	Engagement with Kenana, CTC Group, DAL Group, Haggar Group, Africorp, and others to ease access to finance and up scaling of the ongoing and planned, bankable, forest smart investments
	Phased and structured investment program	Consolidate individual projects and companies into a larger large investment platform to achieve scale and access climate finance through:
		<ul> <li>Phase (I): Investment accelerator (supporting businesses to become investment ready)</li> <li>Phase (II): Access climate finance TA to scale investment accelerator (help access concessional sources of financing that accept the risk associated with innovative REDD+ investments</li> <li>Phase(III): Develop investment vehicles together with financial partners such as funds, green credit line or</li> </ul>

Category	Strategic Options	Details Components
		green bonds to finance the successful and more ma- ture companies from the investment accelerator (commercial sources of financing are used to scale REDD+)

In this context, the public sector can act as a facilitator; clarifying the legal and policy framework for REDD+, enabling capacity development and supporting 'REDD+ champions' in accessing finance. The private sector plays the role of investor, innovator and implementer of emissions reduction activities, creating strategic and long-lasting partnerships with civil society and financial intermediaries.

In this document:

Chapter (1) Introduces REDD+ in the context of Sudan

**Chapter (2)** Presents the overall project methodology, approach, focus areas and themes, and the consultation tools used

**Chapter (3)** Summarizes the key findings from consultations, constituents of the private sector in Sudan, the policy framework and its limitations, trends among various actors, and the challenges and barriers facing the undertake of REDD+ activities

**Chapter (4)** Presents the recommended private sector engagement strategy, and sources of financing, requirements to qualify for international funds and improved agricultural practices

Chapter (5) for private sector REDD+ in Sudan

## 1 Introduction

## 1.1 Background

Sudan has a substantial natural resource base including agricultural land, forests, water, non-oil minerals and petroleum. Deforestation in Sudan has led to deterioration of vast areas of pastures, forests, grasslands, and other components of the natural ecosystems. The most for commercial and extensive agricultural land use, over-extraction of valuable trees from natural forests, weak institutional protection, conversion of tree based crops into intensive agricultural schemes, tree removal for petroleum oil sector development and illegal commercial logging for brick making, fuelwood and charcoal making (Eco Act UK, Etifor & Lavola 2018). According to Food and Agriculture Organization (FAO) review, at least 10 million people are negatively affected by deforestation in Sudan (FAO 2006).

Small, family enterprises, global agribusinesses and private sector actors play a critical role in the agricultural and forestry sectors, including as due to natural resource management and protection.

Specifically, the private sector can contribute to Reduced Emissions from Deforestation and forest Degradation (REDD+) in three key areas: innovation, investment and implementation.

One of the key attributes of the private sector is the deployment of new technologies and innovations. These actors test new agricultural and forestry business models, introducing innovation to the sector and enabling transformation towards sustainable land use. The private sector is also crucial for investment; public funds are frequently scarce, with many competing priorities. If directed correctly, private sector investment can allow the public sector to multiply its investments. Finally, farmers and businesses are the actors who actually implement a large portion of land use decision-making. Some private sector actors in Sudan are currently involved in corporate social responsibility (CSR) activities, such as greening and landscaping of their own locations, investing in social amenities around their enterprises in these areas, assisting in environmental sensitization and awareness raising in communities, and abiding by the directives of the set percentage of the area allocated for planting trees. (Hassan and Tag 2018).

**Globally, direct private sector involvement in REDD+ to date has been generally limited.** The private sector is related largely to zero deforestation supply chains and voluntary carbon markets, and related activities such as certification initiatives, commodity roundtables and moratoria, all of which can potentially help reduce deforestation and forest degradation. However, through their investment, supply-chain decisions and public policy, private sector actors have substantive impact on land use, land use change and deforestation. In order to address deforestation through REDD+ and other policy frameworks, it is crucial to engage the private sector through policy and governance mechanisms that can change their behavior. The greatest potential investment is that of the individual farmers and medium and large scale commercial entities in agricultural production and value addition for the domestic and export markets.

Agro-industry and non-oil mineral extraction (including a wide range of medium and long term industrial activities) have been identified by the African Development Bank as key sectors in the diversification of the economy (ADB 2016). Both inevitably cause, or have the potential to cause, large scale deforestation, the effects of which will need to be compensated by a change

in activities in the land use sectors. Therefore, the demand for REDD+ activities and their potential for success are significant.

In Sudan, small and medium enterprises account for the majority of business activities in agriculture, manufacturing, trade and finance, in addition to companies involved in the construction industry, transport and professional services. The private sector is diverse, including a traditional base of actors in agriculture, and an increasing number of firms in the tertiary sector. Many of these businesses are family owned. **Close attention has to be paid to creating an environment conducive to private sector investment vis-à-vis timely and cost effective business processes, appropriate regulatory oversight of business activity, and improved arrangements for private sector access to land for agricultural and industrial use.** Private sector can potentially have a largely positive role within the context of socio-economic and environmental benefits of REDD+ strategies/programs, however if not properly managed, their impacts could be negative, where the private sector growth and expansion would at the expense of forest resources.

## 1.2 Objectives of the Report

The Republic of Sudan has received a grant through the Forest Carbon Partnership Program of the World Bank to support the preparation and implementation of its National REDD+ Program. The grant will contribute to laying the foundations needed for more sustainable management of its land and forest, and will enable Sudan to benefit from possible future systems of international funding of ecosystem services for REDD+.

Support under the REDD+ Readiness Fund includes:

(i) Developing a national reference scenario for REDD+

(ii) Adopting a national socially and environmentally sound REDD+ strategy that would reduce emissions and conserve biodiversity at the same time, enhance the livelihoods of forest-dependent peoples and other forest dwellers

(iii) Setting up an implementation management framework for the effective and efficient implementation of REDD+

(iv) Designing and implementing accurate measurements, monitoring and verification systems to enable countries to report on emissions from deforestation and forest degradation.

In order to contribute to these broad objectives, **the Republic of Sudan has contracted UNIQUE forestry and land use to develop a private sector engagement strategy for the REDD+ program**. The private sector can play a key and catalytic role in REDD+ if properly engaged on the right time. A comprehensive strategy enables the private sector to engage in emission reduction programs in Sudan and in the region at large. With improved communication channels between sectors and governance levels, it would possible for the private sector to support the public sector in by strengthening the policy sphere. To this end, careful analysis of trends and roles of the private sector will enable its early involvement, consultation and engagement as a key stakeholder group in the REDD+ process in Sudan.

#### **Project Objectives and Scope**

The expected outcomes of the consultation and participatory process are as follows:

- Identify relevant stakeholders for REDD+ interventions in Sudan, i.e. the most driving or affected by the forest and land use sector, and those interested and have capacity to engage in REDD+ activities
- Understand barriers facing the private sector in investing in activities to reduce deforestation and promote reforestation
- Outline the potential roles of the private sector in realizing REDD+ objectives
- Identify successful REDD+ activities and interventions
- Identify challenges and incentives for implementing REDD+ activities

## 1.3 Current Status

To date, UNIQUE has conducted a literature review, a spatial analysis of land use and deforestation, and consultations with stakeholders from the private sector, public sector, and civil society.

Consultations were conducted based upon a consultation plan developed in March 2019, outlining consultation structures and processes at national and local levels. The plan was then used to encourage the stakeholder and private sector engagement in six "deforestation hotspots" in Sudan.

The methodology and the specific steps of the consultation and participation process are as follows:

- 1) Define the expected outcomes of the consultation and participation process
- 2) Design a consultation plan
  - Specify plan components and the time frame for each
  - Develop consultation instruments
- 3) Engagement of stakeholders:
  - Communicate with the stakeholders directly or via established channels/networks
  - Enlist support from Project Management Unit (PMU)/World Bank in accessing stakeholders
  - Ensure that stakeholders have sufficient capacity and opportunity to fully engage fully and effectively in consultations
  - Conduct the consultations
- 4) Analyze the process and disseminate results through reports, workshop and knowledge materials.
- 5) Receive feedbacks and/or validations

This report summarizes the findings from the consultations, many of which were entertained during the stakeholder validation workshop held in Khartoum on December 18, 2019. Based upon the received feedback of the workshop, the findings have been revised and included in the final report delivered to the REDD+ Sudan Project.

# 2 Methodology

## 2.1 Project Approach

The project approach ensured an inclusive and coherent process, mindful of the different land uses and sectors present in the project states, and embedded it into the broader context of economic, social and environmental challenges and inter-sectoral linkages in Sudan.

The following work flow (Table. 1) was developed to conduct the assignment according to the aforementioned objectives. During implementation, many of the following activities overlapped and extended across the different project stages to form an iterative process.

Prepare Inception Report		
Kick-off call with national consultant Collect relevant policies, strategies, and c		
	ments required for analysis	

Assessment of Sudan's Private Sector				
Analyze policies, laws and regu-	Identification of gaps and recom-			
lations governing the role of the	mendations of policies, laws and	Define 'Private Sector' in		
private sector in relevant sec-	regulations for forestry, agricultural,	the Sudanese context		
tors	and oil, gas, and mining sectors			

N	r

Stakeholder Mapping of REDD+ Relevant Private Sector Actors in Sudan		
Prepare questionnaires, list of	Spatial mapping of private sector actors	Multi-stakeholder work-
interviews, and other tools	and activities	shop

#### $\downarrow$

Prioritization of Actors and Activities for REDD+ Engagement		
Assessment of the potential roles of private sector entities in REDD+ readiness objectives	Identification of successful pri- vate sector interventions	Elaboration of private sector engagement framework

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Elaboration and Dissemination of Private Sector Engagement Framework		
Knowledge sharing	Final Report	Develop policy brief/info note

#### Table 1: Project methodology

#### **Target Areas**

The National Forestry Expert has paid a visit to the deforestation hotspots in six states to identify and engage private stakeholders, with remote support from the international experts. Specific states of interest are: Sennar, North Kordofan, White Nile, Blue Nile, Gedarif and Khartoum (Figure 1). These six states are directly linked with the outcomes of the 2018 drivers of deforestation study conducted by the Consultants Hassan & Tag. With the exception of Blue Nile, which is located on the border with South Sudan, all project states feature extensive and growing areas of cropland and some shrubland, with minimal tree cover areas remaining. The states



facing the greatest level of threat from subsistence agriculture include Blue Nile, Gedaref, White Nile and Sennar.

#### Figure 1: Land Use and Land Cover Map of Sudan

Source: UNIQUE, based on consultations led by the national consultant

The () same cluster of states is being analyzed by the Strategic Environmental and Social Assessment for Sudan (SESA) to ensure that environmental and social issues and risks had been addressed at an early stage in the process of formulating REDD+ strategies. The results of these studies have identified Blue Nile, Sennar and Gedarif as target states for the emissions reduction program. In addition, most of these states are part of the Gum Arabic belt and host a majority of related private sector supply chains. Khartoum, where most line ministries, employers' federations, industries and headquarters of relevant private companies are located, is another crucial target state for this study.

## 2.2 Focus Areas and Stakeholders

Stakeholders were broadly classified into three groups; private sector, public sector, and civil society. (Annex ).

In addition to this broad classification, the consulting team has also carefully considered priority sectors for consultation. Sectors with the greatest impact on land use and ability to reduce deforestation or contribute to reforestation were prioritized; including agriculture, livestock, forest products, mining, oil and gas, and finance. Non-wood forest products (NWFPs) in Sudan are diverse and have substantial impact on land use, livelihoods and at the national economy. Therefore, within agriculture, non-wood forest products, such as Gum Arabic, were included and prioritized. Other NWFPs potentially contribute to REDD+ in Sudan inlude:

- Bee-honey and wax
- Medicinal plants such as Senna and Garad pods
- Leaves and bark derivatives such as tanning materials;
- Fruits, nuts and seeds such as *Gonglais*, *Goddeim*, *Aradaib*, Desert Dates, *Dom*, *Dolaib* and *Nabag*.

#### 2.3 Consultations through interviews, focus group discussion and questionnaires

## 2.3 Consultation Tools: Interviews, Focus Group Discussion and Questionnaires

The team developed a consultation plan comprised of meetings, interviews, a focus group discussion, administration of questionnaires, publicity messages and a multi-stakeholder workshop across regional and national levels. Stakeholders were engaged through direct communications by the national consultant, and by established channels and networks, with the support of PMU.

Consultations were designed reference the following questions:

- What are the priority sectors?
- Who are the relevant stakeholders for REDD+ interventions in Sudan?
- What barriers facing the private sector actors engaged in deforestation and reforestation activities?
- What are potential roles for the private sector in relation to REDD+ objectives?
- What interventions preferred and likely would be a success among the actors?
- What are the challenges and incentives for implementing REDD+ activities?

Private sector stakeholders were chosen based on their link with deforestation and forest and land degradation across Sudan. Including those driving deforestation and degradation, or the ones stand to benefit from forestry related activities.

Individuals, groups, institutions and technical practitioners have varying concerns and views on forests and REDD+. Therefore, the consultations involved many stakeholder groups, including

the private sector, financial sector, business associations, technical experts, bureaucrats and politicians from government, national level CSOs, and academic and research institutions.

The following list of issues formed the basis of the one-on-one interactions (interviews and questionnaires):

#### Table 3: Issues that stakeholders were consulted on during interviews

Initially, forty days within May -July 2019, had been allocated for the consultation process depending on the availability of various stakeholders. However, due to the ongoing political negotiations and creation of the Sovereignty Council of Sudan, the process was disrupted midway thence resumed mid-October. Many interviews had to be repeated or rescheduled, to take into account institutional changes relevant for private sector involvement in REDD.

## 2.4 Consultation Challenges

The consulting team addressed the identified stakeholders of the request for information and provided an explanation of the REDD+ program me and the rationale for reaching out to the private sector.

The process was meant to sensitize the private sector to the program and how they can be in-

- Nature of business (size, ownership, commodities etc.)
- Access to markets
- Environmental impacts of business
- Supply chain and sourcing
- Environmental concessions, subsidies and incentives
- Gum Arabic and other NWFPs
- Access to finance
- Environmental payments
- Policy environment
- Business/enabling environment
- Land tenure
- Investment barriers
- Corporate Social Responsibility
- Innovations and new technology

#### volved.

Depending on the stakeholders' availability and interest, information was sought obtained via a questionnaire, guided interviews, a focus group, or a multi-stakeholder workshop. Questionnaires were tailored depending on whether the stakeholder relates to the private sector, public sector, civil society, or the finance sector. In some cases it was necessary to remind the stakeholders to provide the requested information.

Significant challenges were experienced by the, especially the national one

in conducting the consultations. The political situation disrupted many planned meetings and in general made the consultations a least priority for stakeholders. Some consulted ministries were restructured, and their functions were transferred to others **(entities).** This implied a reidentification of stakeholders after the political situation improved, and traveling again to some particular states.

A multi-stakeholder workshop was held on December 18th, 2019 (Annex )

# 3. Consultations Key Findings

## 2.5 Overview

The key findings from the consultation are structured as follows:

- A summary of REDD+ activities
- A comprehensive definition of the private sector in the context of REDD+ in Sudan
- The policy/legal framework for business and investment in Sudan (i.e. relevant to forest management, land use and tenure, agriculture, tax and finance)
- Observed trends in land use activities according to the private sector, public sector, civil society and financial institutions
- A summary of the private sector challenges and barriers to REDD+ investment

## 2.6 REDD+ in Sudan

#### 2.6.1 REDD+ Activities

A REDD+ engagement strategy was developed as regards incentives, systemic policy changes and private sector support suitable for the national context. Given that commercial agriculture is the largest driver of deforestation in Sudan, it is important to improve the agricultural practices as key for sustaining the productivity of agricultural lands in Sudan, and can direct contributions which in turn contributes directly to REDD+ outcomes. The sector can incorporate tenets of a climate smart agriculture, tree-based farming systems and soil, land and water management practices. Although this falls outside the scope of this report, some recommendations for how small, medium and large-scale agricultural actors can secure land productivity and contribute to REDD+ outcomes in Sudan through improved practices (FAO 2013, FAO 2004, and FAO 2020). Individual practices may be applied at any scale by agricultural actors; from the individual farm to the national level. Based on the strong perceived profit motivation of agricultural actors, and the proven results of these practices, adoption of such methods will contribute to the overall REDD+ agenda. It will require explicit efforts to expand access to basic inputs, such as improved seeds <del>and</del> fertilizers, technology, finance, along with improved access to domestic and international markets.

#### **Climate Smart Agriculture (CSA)**

CSA is a broad approach, encompassing a wide range of apt policies and improved agricultural practices targeting sustainable agricultural productivity, food security and incomes, enable climate change adaptation and resilience, and greenhouse gas emissions reduction. **The CSA approach encourages <del>the use of</del> climate risk and vulnerability assessments and a landscape wide approach to inform land management decisions**. Forest Landscape Restoration, watershed restoration, rangeland rehabilitation, energy smart food production are some of the many examples of CSA. CSA involves soils, water, animals and plants for production of goods to meet the continuously changing human needs, while and ensuring sustainability of the resources.

#### **Tree-based Farming Systems (TBFS)**

Tree-based agriculture, (i.e incorporating planting, cultivation, conservation and controlled harvesting of trees within a farming system, has proven to alleviate poverty and reduce degradation in of drylands worldwide. **Practices include treating catchment areas with vegetative cover, silvopastoral systems and agroforestry.** Farmer-managed natural regeneration (FMNR) is another low-cost land restoration technique with high success potential in Sudan, whereby farmers protect and manage the natural regeneration of trees and shrubs in their fields. Benefits of tree-based practices are sustainable agricultural production, control of soil erosion, selfemployment, secured drinking water, fuelwood for cooking, fodder for livestock and biomass for production of compost fertilizers.

#### **Reduction of Fuelwood Use**

Fuelwood is a major source of energy in the country, used directly or as charcoal and other energy sources. Any measures that reduce demand for fuelwood can indirectly reduce pressure on forests. Improved cook stoves or efficient charcoal kilns are one important strategy. Another involves substituting fuelwood with gas. Besides environmental benefits, these strategies can also provide public health benefits by exposing households to less harmful smoke from fuelwood burning.

#### **Supply Chain Efficiency**

While many REDD+ activities focus on direct impacts on land use, such as agriculture, forestry, livestock, and mining, the supply chains associated with these sectors are also closely linked to emissions and deforestation. Food waste and other losses of products are common in supply chains resulting in miss loss of economic benefits, and inefficient use of land resources and consequently deforestation. Supply chains investments include measures to use renewable energy, improve refrigeration and cold chains, and employ safe handling practices (Table 1)

	SMEs	Large Big Businesses
Climate smart agriculture and livestock	Most relevant for to provide services and technologies to support produc- tion	In addition to improving their own prac- tices, have an important role to play in supporting their suppliers to adopt CSA practices.
Tree-based farm- ing systems	Can be supported to increase produc- tion and productivity	Play a crucial role as off-taker and pro- cessor for tree-based products, particu- larly Gum Arabic
Reduction of fuel- wood use	Play a crucial role in producing and distributing cook stoves and other technologies	Less relevant, primarily as a corporate social responsibility activity
Supply chain efficiency	In the supply chain provide both tech- nologies that reduce losses, as well as being actors directly involved	Can invest in their supply chain to im- prove reliability of supply

#### Table 1: Relevance of REDD+ activities to SMEs and Large Businesses

#### 2.6.2 Best Practice Examples of Incentives for Private Sector Engagement

#### **Public Environmental Funds**

Under the Brazil Amazon Fund, projects that reduce deforestation are eligible to receive grantbased financing if they meet certain criteria and operate in the Fund's target areas. These include projects that support the management of public forests and protected areas, or environmental control and monitoring, among other types of support.

#### **Green Bond Debt Financing**

The IFC has a USD 152 million Forests Bond, designed to protect forests and deepen carbon credit markets. One of its beneficiaries is the Kasigau Corridor REDD Project in Kenya (managed under the UN climate change mitigation mechanism and implemented by Wildlife Works, a company that helps local landowners monetize their forest and biodiversity assets). The IFC Bond gives investors a choice between cash or carbon-credit coupons linked to the project, generated from avoided deforestation and issued under the Verified Carbon Standard. The Fund further supports training and employment for women in the region, contributes to educational infrastructure and has established a partnership for rainwater harvesting and storage.

#### **Banks Green Financing Program Development**

There are some Sudanese banks with lending programs for land use and energy sectors. There is high interest among them for capacity building to streamline these programs and make good investments with minimal risk.

The Latin American Development Bank (CAF) has a Forest Program, which aims to fund forest conservation through countries' green economy initiatives and has financial supports from private enterprises and governments. CAF has developed a partial risk guarantee mechanism, offering coverage of risks taken by private equity impact funds engaged in the Regional Initiative 20x20, based on certifications adopted for the various projects, the initiative and CAF due diligence procedures.

In Morocco, the Credit Agricole du Maroc (CAM), together with the government, has created the finance company, Tamwil El Fellah. It gives smallholders, cooperatives and small and medium enterprises (SMEs) who are generally excluded from traditional financing (due to lack of collateral) access to finance to produce NWFPs in a sustainable and controlled way. A guarantee fund partially covers the risk (third party goods hypothecation), and contract renewal is subject to payment of overdue credits, profitability, resource sustainability and good governance.

#### **Establishment of Credit Lines for Investment Projects**

The Inter-American Development Bank (IDB) approved a conditional credit line for investment projects (CCLIP) and a first program under this credit line, in order to increase the productivity of the agricultural sector, enable rural financial inclusion and increase environmental sustainability and climate resilience in Mexico. National implementation partners are promoting technological innovation projects that have positive impacts on productivity and environmental sustainability, and help facilitate access to finance for the country's small and medium production units. The new *National Financial of Agricultural, Rural, Forestry and Fisheries Development* (FND) line of credit is financed for the management of counterparty risks of rural financial intermediaries, to support the financing of investments in the agricultural and rural sector. This risk management instrument helps solve the general problem of financing small and medium-sized productive units with difficulties in providing enough guarantees.

#### **Tax Incentives**

Since 2014, India has amended its tax transfer mechanism to promote forest stewardship, transferring taxes to its 29 states according to various indicators (e.g. respective population, area, income, forest cover).

#### Payments for Ecosystem or Environmental Services (PES)

Since 2007, Vietnam has established a successful system of PES, whereby hydropower facilities, water companies and tourism business contribute part of their revenue to the Vietnam Forest Sector Development Fund, which collects about USD 80 million each year for districtlevel efforts in sustainable forest management.

Source: FAO 2017, IFC 2016, FAO 2016, IDB 2019

## 2.7 Private Sector Context of REDD+ in Sudan

Based on consultations and literature review, REDD+ relevant business activities in agriculture, manufacturing, trade, finance, construction, transport, and professional services are run by SMEs, as well as by a few large, multi-sector conglomerates. The formal private sector consists largely of small firms, structured as private limited companies (60%) and sole proprietorships (37%) spread over a wide range of sectors. Most of these businesses are family owned (ADB 2016).

Looking at the businesses consulted, the private sector is diverse, and shows an increasing trend of diversification and consolidation between subsistence and commercialization modes of production. There is a traditional base of actors in agriculture, and an increasing number of firms that supply the tertiary sector. A small number of big conglomerates operate in trade, industrial processing and agriculture. The growth of a large industrial complex and in telecommunications is also noted. At the same time, informal business activities have expanded in the

various urban centers of the country and now constitute a large segment of private sector activities.

Prior to the implementation of the National Forest Policy (NFP), the private sector's involvement in the country's forest sector was restricted to small-size sawmills, carpentry workshops and gum orchards. These activities have now branched out further into traditional forestry with a continued emphasis stress on planting, collection and processing of Gum Arabic. According to Sudan's Readiness Preparation Proposal, since the creation of the NFP, private sector partnership in forestry has widened to include, among others:

- Sugar schemes such as Kenana, Assalaya, W. Sennar, Guneid, and N. Halfa who established irrigated plantations
- Gandil, is active in tree planting for gum production
- Many small holder farmers in: Kordofan Gezira, Rahad Scheme, Jebel Marra, etc... have established irrigated plantations
- Mechanized scheme owners in Gadaref are now involved in boundary tree planting around the schemes for gum production and environmental rehabilitation

Table (2) summarizes some of the major businesses consulted, with indications on and their size of operations to supplement the understand<del>ing</del> of private sector in Sudan, as relevant for the project

Name	Sector	Description	REDD+ Relevance
Mahgoub & Sons	Agriculture and trading	Big scale company working in rain-fed agriculture. Main crops are sesame and sorghum for export pur- poses. It works in Gadaref as well as Sennar states	Put great emphasis on supporting and empowering smallholder farmers and pastoralists. Among few com- panies involved in PPP discussions, and have, in the pipe- line, a large cotton planting project in north Kordofan
Muawia El- berier Group	Agriculture and Industry	One of the biggest industrial groups in Sudan. For the past few years they have expanded in agricul- tural production, specifically in Sennar and Gadaref states and started to expand in fodder production	Has a strong philanthropy function, but the focus is not specifically for operational areas. The company is doing a lot of financing of smallholder farmers via contract farming
Sudanese Com- pany for Min- eral Resources	Mining of sev- eral minerals including gold and others	Private company where government has majority of shares	Heavily involved in a big initiative targeting supply of drinking water to the Port of Sudan and surrounding ru- ral areas. Their plan is to raise USD 400 Million to solve water problem. They are also involved in environmental activities related to mining operations and health condi- tion of workers.
Ariab Mining Company	Gold Mining	The main activity is gold mining. One of the oldest companies in eastern Sudan	No data available on their social interventions
Elnifidi Group	Transportation Agriculture and Livestock Sectors	Main good transportation company in the whole East African region. Has the largest export facility in poultry exports via their subsidiary	Has separate philanthropy arm in a form of a Founda- tion. They have recently signed a loan agreement with AfDB worth USD 65 Million to invest in agriculture and livestock sectors
Haggar Group	Agriculture, Energy and ICT	Conglomerate with multiple ventures in agriculture and energy; they strive to achieve a zero environ- mental footprint throughout the life cycle of busi- ness activities	Observer organization to the GCF and currently develop- ing proposal for the Private Sector Facility of the GCF. Has attempted to implement a REDD+ project back to 2014 with FNC
Africorp (ACI)	Agricultural and Forest products	Working in the field of exporting agricultural and forestry products and animal products from Sudan, to all over the world	ACI is specializing in supplying Organic Agri-food Prod- ucts. Owning certificates from BCS, the fair-trade certifi- cate in hibiscus, sesame seeds, Senna pods/leaves, Gum

Name	Sector	Description	REDD+ Relevance
			Arabic (Hashab and Talha), Gum karaya, and Gum Oliba- num.
DAL Group	Agricultural Products- <del>&amp;</del> Services	Producers of alfalfa, corn (for animal feed) and, local wheat (for pasta); are in the process of testing a number of other crops for future diversification	One of the biggest corporate businesses in Sudan with strong interest in sustainability and environment activi- ties. Has previous links with GCF. They received a loan from AfDB worth USD 75 Million for agriculture and food industry investments.
ARAAK Group	Food Industry	Sole agent of PEPSI company and have wheat flour mills & packaging in addition to recycling business	One of the giants of food industry in Sudan and have strong philanthropy arm. Their interest in Gum Arabic put them as potential investor in REDD+ related projects
Saeed Group	Food & Agri- culture	Food, mining and agriculture businesses	Very active in creating partnerships and innovation. They have strong links to WFP, AfDB and UNICEF.
CTC Group	CTC Agro- chemicals CTC Farms CTC Engineer- ing	Leading agricultural inputs provider in Sudan. Pro- ducers of high quality fresh produce and crops for the local and export markets. Work on improving agricultural practices and developing relevant know- how to aid the local agricultural industry	Has a strong CSR arm. Very active with community pro- jects and member of UN Global Compact local network in Sudan with Haggar and DAL Groups. Has strong links to technology transfer and capacity building in agricul- tural sector. Owns seven advanced technology transfer centers
Yagoub Group (SAY)	Agricultural, livil & Indus- trial Construc- tion, Trading, Retail Industry, Manufactur- ing, and Ser- vices Sectors	Multi-sector conglomerate with a number of subsidiaries : - Afritec - Darfood - Trans Africa - Al-Nakheel	The Group Founder, Mr. Salih Abdelrahman Yagoub, is a pioneer of the business society and a pillar in the com- munity-based approach. Has strong CSR/philanthropy arm. Active in public private dialogue with very strong connections to WFP and UNICEF in Sudan. Main Gum Ar- abic exporter and processor in the country via their sub- sidy Afritec
Kenana Sugar Company (KSC)	Agriculture (Sugar Cane)	Production of sugar and processed dairy products and cattle feed; provides consulting and engineering services to the agro industrial sector	Strategic plan focuses on expansion of KSCs business by following a diversification strategy focusing on related businesses; transformation of related by-products into

Name	Sector	Description	REDD+ Relevance
	and Animal production		revenue streams; maximization of KSCs core business through operational development programs; and contin- uously identify and capture opportunities.
			Other projects in various stages of development include ethanol, floriculture, yeast, industrial alcohol and paper. Research has led to the commercial production of crops such as sunflower seeds, sesame seeds, sorghum, maize and peanuts
Nile petroleum Company Ltd	Energy / Oil industry	Exclusive agent in the Sudan for Fuchs Oils	Active in community projects and environmental initia- tives. Started working on a project which is considered clean energy product development (Nile Ultra) in addi- tion of production and distribution of LPG. The main dis- tributor of LPG all over Sudan and has the potential to be key supplier to remote areas
Elitigahat Group (Multiple Direction)	Livestock breeding and exportation and fodder production	The biggest company in Sudan specialized in export- ing livestock	Support smallholder producers and have strategic part- nerships with private and public sectors
Elnasr Industrial Trading Limited	Provider of nu- tritional pro- ducts	The first factory in Sudan to develop the Sudanese crops like Hibiscus, Tamarind, Baobab, Gum Arabic, Sudanese Dates, Spices, Sesame and Groundnut Oil	Developing modern packs of non-wood forestry prod- ucts for export market and have facilities in North Kor- dofan

## 2.8 Framework Policy for Private Sector Involvement in REDD+

A comprehensive detailed policy and a literature review relevant to private sector involvement in REDD+ processes have been conducted by Carbon Clear, Etifor and Lavola in 2018, as part of the Strategic Environmental and Social Assessment (SESA). The SESA report was used as an informational or contextual base for the policy analysis based on consultations conducted with the various stakeholders. Generally, consultations revealed significant differences in responses of the various public, private and civil society actors. This refers to a high level of uncertainty of actors' understanding of the legislative and policy framework governing the natural resource sector and investment, as well as variable opinions in relation to how well policies are accepted and enforced about policies acceptance and enforcement.

The section below represents authors' analysis of this review, as well as the answers provided by stakeholders in consultations.

#### **Forest Management**

The federal Forest and Renewable Natural Resources Act (2002) – the most relevant forest governance policy for Sudan – has national reach. Regional variations in forest management may exist due to local regulations issued by individual states' natural resources protection agencies. However, 11 out of 15 public sector actors consulted agreed that enforcement of formal forest and land management rules, under this Act and others, is not always effective, which will needs to be considered to develop a strategy for REDD+. In this context, the role of norms and informal governance systems become even more important, and it was agreed by most stakeholders consulted that such arrangements are effective in forest conservation.

In the case of mining activities, the Act stipulates the use of a compensation mechanism when mining activities encroach into forest land. However, implementation of this mechanism is ineffective, as it is inconsistent with the mining investment law itself.

#### Land Use and Tenure

Stakeholders indicated that there is no unified land use and tenure map or plan at the state level, for agriculture, forestry, rangelands and planning departments. Contradictory regional and sectoral policies also exist, resulting in land disputes and an uncertainty hindering business investments and potential forest rehabilitation activities by the private sector. At the same time, the relatively small numbers of businesses that do operate operating in these areas are often left free to expand their activities haphazardly at the detriment of natural resources. One example raised is the Sabina Agricultural Project, which is currently spread over 265 000 feddans.

Laws are also in place to manage grazing and pastures. Under the Rangelands and Fodder law of 1998 and the Pasture and Natural Resources Regulation of 2015, there are a grazing line boundaries around forests and other protected areas, with fines imposed on contraventions. However, such laws are not strictly enforced, and as pastoralists usually enter forest areas, leading to and eventually loss of vegetation.

Additionally, it was found that the Taungya system<sup>1</sup> is applied in and around the Nabag forest in South Kordofan and in areas around White Nile state. One study found that roughly 10% of Taungya is practiced by forest guards (Departmental), whereas the remaining 90% is practiced by local farmers. Through Taungya practices, results showed a reduction and saving of the initial plantation establishment costs (i.e. up to 40 man-days/ha/season, which roughly amounts to 17 man-days/feddan/season.

#### Agriculture and Irrigation

Current agricultural regulations allow unplanned expansion of mechanized agriculture, which has a negative impact on forests and pastoral lands and results resulting in farmer- pastoralist conflicts. The major forestry relevant regulation in this sector is the 10% tree belt rule in rainfed agricultural projects, and 5% tree belt rule in irrigated projects. While the law is in place, the majority of business consulted reported abidance of this rule, however three public sector stakeholders stated that the rule is not enforced.

#### **Investment Relevant Policies**

The Investment Act was deemed by 16 out of 24 private stakeholders and some public sectors highly important. Regarding the role the Ministry of Investment can take on in the con- text of REDD+, it emerged that they are unable to provide support to the private sector in redirecting agricultural expansion into non-forested areas. The reason stated was that there is a shortage of unused, fertile and conflict-free land, with lands most suitable for agriculture already being in the hands of large scale farmers and companies.

Currently, regulation of foreign investments, as well as approvals and planning of domestic investments is the responsibility of the High Commission of Investment, in tandem with the Central Bank of Sudan. It was reported that no inputs are sought by this federal agency on investment decisions from other (natural resource) ministry lines. A major issue threatening the success of REDD+ activities is that there does not seem to be consensus on whether federal or state level rules are more applicable in these matters. The Ministry of Production, which the Investment Department is a part of, then implements the decisions on the ground, at state level. Actions between the two policy levels are not streamlined and often lead to conflicts. The extension of the Kenana Sugar Company in White Nile, AGADI in Blue Nile, and Sabina were three examples listed where such inconsistencies have led to inefficiencies and conflicts between companies and communities. The activities of these three companies were initially categorized as 'strategic projects' amounting to over 250 million USD by the High Commission, under the 2013 Investment Act. They were thus given approval to expand operations at state level, and procure the required land.

Some states, such as Sennar, are currently planning new land use plans with investment incentive reforms. More follow-up on the application and future plans of the Investment Act and state-wise investment plans will be conducted in the coming years.

<sup>&</sup>lt;sup>1</sup> The system was introduced in the early 1960s by the FNC to rehabilitate degraded reserved forests, whereby villagers and forest plantation workers are given the right to cultivate agricultural crops during the early stages of forest plantation establishment, until trees begin to shade crops due to canopy closure.

#### **Tax Relevant Laws**

Private sector actors also stated that given the current federal tax laws and various issues with financing, the system is not conducive to investments. Particular issues raised were unfair tax law, increased risk and decreased profit margins, poor tax structures, tax exemptions mainly assigned to foreign investors and problems gaining access to finance.

However, certain REDD+ friendly tax policies are being planned and implemented, e.g. Preferential tax rates to support photovoltaic solar systems across Sudan. Customs exceptions are also in place for all development projects, renewable energy inclusive. Investments into renewable is expected to reduce pressure on forest and wood resources. Such policies have not had much effect, because the uptake of solar and other renewables-has been limited.

In addition, tax law states that investments in the field of agriculture, livestock and industrial production are strategic and are therefore subject to tax and fees exemptions. The Ministry of Finance has additionally decreased taxes on Gum Arabic production and marketing.

#### **Finance and Trade Relevant Laws**

Stakeholders also signaled that credit policies are unclear (lack of information or clarity to potential beneficiaries) and regulated from a purely financial standpoint. While basing credit decisions on financial considerations only is a good incentive for companies to invest and make business decisions, the lack of credit opportunities linked to environmental factors currently available (for example, activities with positive environmental impacts like afforestation and other conservation methods) means that potential for REDD+ involvement is still untapped.

Finally, regulations on import and trade are overseen by the Ministry of Trade and Investment, however, sanctions have generally negatively impacted efforts to improve business enabling conditions for many years. It is felt that this may change in the future due to a changing political environment.

#### The Role of Norms and Informal Governance Systems

Consultations revealed that informal arrangements with traditional local administrative bodies or actors;-mayors or sheikhs; and communities play an important role in forest and natural resource management. Some examples of such arrangements were raised during consultations e.g. joint committees between local communities former Ministry of Environment, Investment Council and the Farmers' Union. Communities have been and are often involved in successful forest protection activities, including registration and reforestation. Therefore, their buy-in and support of such activities, through local governance mechanisms, will play a role in any future REDD+ activity implemented at this level. It was also agreed that the informal rules contribute to sustainable management of resources; reduce conflicts, ensure accountability and participatory development, provide incomes for communities living around the forest areas. This in turn produces an incentive for forest protection in the long run. Fifteen of 17 public sector respondents, strongly believe that such arrangements are effective in undertaking and maintaining forest re- habilitation and land restoration.

## 2.9 Sector Trends Activities

#### 2.9.1 Private Sector Trends

#### Overview

The business stakeholders consulted in this project were mostly diverse and large-scale agricultural and Gum Arabic companies. These included 13 agricultural companies working on inputs and production of which:

- Six involved in the Gum Arabic sector
- Two, largely small scale ones, operating in local markets, involved wood/timber
- One specialized in charcoal and fuelwood trading
- One operating in extractives
- Some diverse actors involved in IT and equipment sector

Stakeholders expressed a strong belief that they can play a key role in the overall development of the country; not only in the economy, but also in issues related to the environment and climate change consequences and impacts. The human and material resources available to these actors, in addition to their willingness to ethically and responsibly handle natural resources qualify them to play a significant role in climate change mitigation and REDD+ in particular.

Of the 24 companies consulted 22 showed great interest in the REDD+ approach and shared details on their ongoing investments and projects in the energy and agricultural sectors. Some of which have high potential to be converted to climate mitigation and adaptation projects. The consulted companies showed interest in receiving technical advice and support in addition to more elaboration on tools and investment criteria of the REDD+ process. As part of the consultations, they have been informed that capacity building for the private sector is included in the following phases of the project.

In relation to REDD+, companies have shown interest in developing business models that contribute to Forest and Landscape Restoration (FLR). There are many opportunities in horticulture, livestock, agricultural inputs, and value addition in the agricultural supply chain (World Resource Institute, 2019), where businesses have developed profitable means of restoring degraded lands.

#### Info Box: Mining in Sudan

The mining industry in Sudan includes gold, chrome, copper, iron, manganese, gypsum, mica, limestone and marble. Gold mining has boomed in the past decade, with over 80 companies operational across various parts of Sudan (generally in mountainous regions), with extensive operations ongoing in River Nile, Blue Nile and Gedaref states, either officially or informally. Consultations revealed that mining operations have also begun recently in the northern part of Sennar state. Operations are controlled by federal security forces, who do not cooperate directly with the FNC or other natural resource linked ministries. While the Ministry of Petroleum, Gas and Minerals publishes official data and reports on the mining industry, to date, the environmental impacts of these activities have not been formally monitored or reported by the mining enterprises themselves.

An Environmental Impact Assessment on Gold Mining was recently conducted for REDD+ Sudan. Communities in sites visited expressed that resultant deforestation and reduction in tree densities has been destructive. Other findings include:

- Miners use forest resources as a source of energy, and are engaged in charcoal making and firewood collection when unemployed
- A considerable amount of wood is also used for building temporarily huts and for support of underground mines
- In Belgawa, species such as Talih, Sahab, Habeel, Ebony, Hashab have disappeared or are rarely seen around mining sites. Out of 10 000 feddan under study, about 310 feddans were completely cleared and tree density was critically reduced in about 4170 feddans. However, some inaccessible areas showed some increase in vegetation cover.
- Similar trends were observed in Um Saqata; 17% of the area showed: some retreat in the vegetation cover; 64% no change, and about 19% slight increase in vegetation cover. It is noted that agriculture is still the dominant factor in deforestation in both areas.
- Communities perceived a decrease in area and quality of rangelands around mining lands; low nutritive species are overtaking more suitable types.
- Mining activities reduce the amount of (fertile) land suitable for agriculture, with mining waste further impacting land quality. Water sources are also being contaminated.
- Most mining companies do not have any reclamation plans to restore the quality of land and ecosystem services to their pre-mining levels at the end of their operations in a particular area.

The study ultimately recommends that sufficient funds be available for reclamation, that collaboration between mining companies, the Sudanese Mineral Resources Company, government and conservation organizations increases, and that laws and legislations be enforced, including the demarcation of "no-go-sites".

While large-scale deforestation and irreversible land degradation is occurring in some states, other states such as North Kordofan have reported no impacts on forests. A positive example emerged in Gedarif, where civil mining operations in Al-Butana have left behind water harvesting pools, encouraging the growth of trees in these areas. As no representatives from the mining sector were reached during consultations, the role of this sector for REDD+ will need to be further discussed with the FNC in the future. Mining is a high impact sector in the context of forestry, however, it's planning, management and reporting activities are such that coordination with the project may be challenging.

#### **Ongoing Practices Conducive to REDD+**

#### **Environmental and Social Benefits of Business Activities**

Out of 24 respondents companies, 15 reported having: positive impacts on forests and the environment, and 4 negative impacts. Ten companies reported supporting reforestation activities

as part of their CSR activities. Motivations given for this include strategic positioning (sustainable supply practices to meet market demands), compliance and voluntary commitments. Within this pool of 24 companies, only 6 have due diligence systems in place (with quality control, sustainable sourcing and traceability systems), for example, as members of the Union for Ethical BioTrade (UEBT).

All companies consulted reported running various CSR activities; though not all respondents' la belled it as such. Five companies reported undertaking social outreach activities with farmers, for instance, providing training on improving productivity, water conservation, or organic farming approaches (companies). Other positive social change brought to communities include the creation of economic opportunities and jobs (10 companies) and goods and services such as health, education, water wells and animal feed (10 companies). Some examples of CSR activities include:

- AGADI: Under its AAAID umbrella, the company reports having a sound sustainability policy which places the environment, communities and the economy at the center of its business strategy, for CSR and compliance purposes. They provide health, education and water services in the areas around their operations.
- Africorp: The Company interacts with 4000 farmers and promotes organic farming practices. Under this scheme, 76 450 hectares of land have been certified as organic farms, producing 18 000 metric tons of crops.

At least three companies stated that they receive environmental concessions – i.e. benefits, allowances or incentives from the government for implementing specific land use investments, from brown growth projects like real estate, to green options such as reforestation – with the majority stating that they do not. This points to two trends; the first is that depending on the incentive, companies may reduce emissions by undertaking REDD+ conducive activities (social outreach and reforestation). The second trend is that there are currently not enough incentives or concessions being offered, or accessible to companies. In both cases, it becomes clear that available and potential concessions must be thoroughly reviewed, and their impacts for REDD+ assessed to ensure a do-no-harm approach to land investments.

#### **Innovations and Technologies**

Companies reported that they are currently undertaking numerous social and environmental responsible activities. However, aside from some cases of support for reforestation activities and organic farming practices, these mostly relate more to social outreach activities such as education, health services and awareness. This reflects the currently limited understanding of the private sector actors about forest smart investments and REDD+ options in general. Moving forward, companies have signaled their interest to be involved in the following REDD+ strate-gies.

Based on the REDD+ options strategy and consultations with companies, the following areas have emerged where REDD+ support and technology can play a strong role. These included (in order of importance) GIS, Renewables, LPG, certification schemes, various technologies for productivity gains (efficient irrigation, improved seeds etc.), and the green building and construction sector (Fig 1). However, barriers such as cost, high regulation compliance costs, lack of knowledge and questions of usability hinder the adoption of these technologies.



Fig 1: Potential Role of New Technologies in REDD+<sup>2</sup>

#### **Reporting and Grievance Redress Mechanisms**

The Environmental and Social Management Framework (ESMF), which is part of SESA process, includes procedures for a Grievance Redress Mechanism (GRM), necessary to manage stake-holder feedback and concerns about the impact of relevant policies, programs and operations. All REDD+ project participants are required to present such a mechanism for the ESMF plan. A Technical Working Group is set up for this component, and together with the Safeguards Unit, can provide support to project proponents and interested parties on establishing and operating grievance procedures.

Only seven companies reported currently having grievance redress systems in place, with most having rather weak systems that are not yet fully formalized or streamlined with the REDD+ project requirements. Considering that many REDD+ stakeholders, particularly communities impacted by the loss of forests and forest resources, – may not be capable to access the existing judicial and administrative conflict resolution mechanisms. Dedicated GRMs can serve to gather complaints, address minor disputes and redirect and support stakeholders in accessing the judicial and administrative mechanisms already in place in Sudan. Supporting REDD+ stakeholders to develop these capacities is therefore recommended in the engagement strategy.

There is also generally a lack of public reporting mechanisms and transparency regarding the impact of various private sector activities on forest land and natural resources. This may be due to a lack of awareness or knowledge regarding possible impacts of negative practices, and lack of legal requirement and wider public interest to publish such information. Even if such laws exist, monitoring would not be feasible or reliable. However, it was also reported that certain companies do make such information accessible, e.g. Kenana and White Nile Sugar Companies.

<sup>&</sup>lt;sup>2</sup> Note : Respondents were allowed to mark multiple options.

#### **Financing Trends and Challenges**

Access to finance is a critical challenge for 22 out of 24 of the actors consulted, underlining reasons mentioned are:

- Bureaucratic difficulties (12)
- Lack of collateral (9)
- Liquidity issues (8)
- Sanctions (6)
- Poor borrowing rates (6)

Companies signaled that incentives via improved credit conditions would provide strong encouragement to support REDD+ activities. This could be in a form of low-interest loans, risk- sharing guarantees for lending institutions, or other concessional lending instruments.

A few companies stated that they receive tax exemptions. **Environmental payments or tax** benefits are not available to companies, with "unfair of taxes" being a very common complaint across most companies.

It was also observed that informal lending systems exist and are said to be effective. This is because small holder farmers do not have the collateral to access formal lending channels. These actors **are then able** to overcome financing barriers to an extent. However, some actors also raised the possibility that informal lending schemes leave small-scale farmers even more vulnerable.

#### Policy and other Barriers

Lack of research and development, unclear land tenure and export barriers were identified as significant barriers facing REDD+ investments.

The following key policies were identified as vital to private sector operations:

- Investment Act (12)
- New Forest Policy (9)
- Action Plan for Agriculture (6)
- Tax Law (6)
- Companies Act (5)
- Zakat (2).

This is a key foundational basis for any potential REDD+ strategy, as most of the laws are not fully enforced by the authorities, nor well understood by the private sector. As a consequence, investments and business activities are hindered.

Some areas for improvement have emerged. Discussion around lessons learnt from previous projects such as Clean Development Mechanism (CDM) has revealed that such experiences can have an effect on the level of trust and confidence of the private sector in the system and on their motivations to follow through on these schemes. A disappointment in the level of bureaucratic requirements experienced in going through public procedures such as approvals and no objection processes was also communicated.

#### 2.9.2 Civil Society Trends

Ten civil society actors were consulted as part of this exercise of which:

• Two work with social issues such as water, health and education

- Six involved in the value chain (production, marketing, and relationships between actors in firewood/charcoal and Gum Arabic)
- Two work on environmental protection.

The diverse range of approaches employed by these actors make them attractive group for developing strategies for technical, financial and policy towards for reducing deforestation and degradation.

Nine of ten organizations are working in some capacity with companies and smallholders, e.g. for contracting external suppliers for equipment, supporting implementation activities and banking issues. This holds potential for developing synergies in the context of REDD+. There is need to further assess how well these relationships are run or perceived and consider envisage linking the actors with research activities and ongoing projects and programs.

Currently the firewood and charcoal traders, business federations and Gum Arabic producer organizations have no strategies to properly monitor or communicate the environmental impacts of their activities. However, reporting on social aspects and impacts is much stronger among these actors. With the exception of charcoal and firewood actors, generally all civil society organizations, perceive their own impacts on forests as positive.

This is partly true and partly not due to the lack of understanding forest degradation constituents. Gum Arabic actors contribute to reforestation mainly for profits, whereas the others seem to be motivated by strategic positioning.

Nine of ten actors agree that forest neighborhood communities perceive see deforestation as an important issue. This level of awareness is important to link the private sector with training activities, educational opportunities, and research and development projects. Community driven initiatives contribute to an extent; however, the general feeling among these actors is that they can benefit from further support from the private and public support, in terms of reforestation activities and access to finance.

### 2.9.3 Communities

In various regions, there exist contracts between communities or farmers and ministry departments for small-scale agricultural production. In North Kordofan, for example, communities cultivate cash crops between Hashab trees, and the Forest Office may purchase Hashab seeds from farmers. In Sinnar, contracts help the state to implement its agricultural policies and environmental projects in collaboration with farmers. This is even appears no existence of formal or informal community organization existed to facilitate these contracts in a structured manner.-In the Blue Nile State there no such contractual arrangements.

Overall, it is apparent that the engagement of communities in the implementation of REDD+ relevant activities in the private sector and civil societies will result in great profits, encourage settlements and ultimately lead to restoration and rehabilitation of forest areas by creating strong feelings of ownership among land custodians.

#### 2.9.4 NGOs

Although, awareness regarding energy alternatives to fuel wood is lacking, yet, at most success in this area is reported driven by NGOs., Some organizations, in collaboration with develop-
ment projects, have contributed to raising awareness on the benefits of using LPG and improved cooking stoves, which resulted in a reduction in demand for charcoal and firewood in some areas in Sinnar. A barrier facing the up scaling the use of LPG is that it is not regularly available outside of Khartoum and other big cities (due to a shortage of gas cylinders and distribution centers, as well as high prices and the government's lack of success so far in rolling out alternative fuel subsidies). No comprehensive plan is yet in place to facilitate more efficient distribution.

### 2.9.5 Financial Institutions

The finance sector, e.g. banks, was represented and consulted for the first time in a focus group and through questionnaires run by the national consultant. The role of financial and banking systems in implementing REDD+ projects and environmental initiatives in Sudan was discussed, taking into consideration the problems faced the sector; sanctions for the last 20 years and inflation for several years. Three institutions were consulted; the Animal Resources Bank (ARB), Faisal Islamic Bank (FIB) and the Savings Social Development Bank (SSDB).

#### **Bank Operations**

ARB has previously financed environmental projects such as water wells (across Omdurman, Kordofan and Darfur), and others in south Darfur. For regular 2-5 year investments, ARB requires

45% of the investment value as collateral. These financing decisions are made purely on the basis of profitability; no environmental safeguards or considerations are in place. However, they do employ a strategic position to work in partnership with forest stakeholders on reforestation and trains local communities in reducing charcoal and wood consumption. FIB finances forestry and environmental proposals and is currently a member of the national committee of GCF project selection and approval. They are currently seeking to develop innovative Islamic financial products and services, which will support the development of renewable energy and sustainable business projects. Finally, SSDB also signaled that they finance forestry and environmental projects in coordination with local government bodies, with high recovery rates (up to 95%). They mainly target producers associations, provide cash advances for the purchase of agricultural inputs and act as capital partners in accounts with depositors and entrepreneurs. The bank also prohibits tree cutting under its contracts.

#### **Financing Forestry Schemes**

On the whole, there appears to be very limited financing for forestry activities across the board. Consultations revealed that large scale plantation forestry is not a realistic investment area, given the instability of foreign exchange, land tenure issues and long-term repayment schedules. For instance, banks must typically wait 5-7 years to receive a return on investment in Hashab trees (for Gum Arabica). Traditional agricultural investments and livestock sectors still dominate land use investments.

#### **Credit and Loan Policies**

The financial institutions consulted confirmed that they provide loans tied to the demonstration of productivity improvements (e.g. financing of machinery for large scale businesses), with some loans even available to SMEs, e.g. 100,000 SDGs at a return rate of 1.5 to 2 years.

Actors were also consulted on their credit products and barriers faced. The prevalence of the informal sector and interest rates were quoted as the biggest challenges, followed by issues regarding political risk and property rights. Other challenges include the lack of safety nets in agricultural investments due to the high risk of poor growth seasons. Credit is mainly available only for larger companies or large-scale commercial farmers, which pushes these farmers out of the market. While several insurance companies are working on rainfed agriculture insurance, there is lack of consensus on whether or not these schemes eventually work during years or seasons with low rainfall and agricultural yield. The terms stated for credit products include collateral (in the form of assets), which only large scale producers can offer. Some banks also undertake direct agricultural investments (crops, livestock and tree products), covering both inputs and products. Other requirements for accessing loans include residence certificates, bank accounts, and verified occupational certificates, which are relatively more accessible.

The Sudanese Agricultural Bank was named by several actors as the most important financial institution in this context. However, follow up on its lending program could not be undertaken during consultations as the bank is currently undergoing a wide restructuring process. More engagement with this actor under the REDD+ program is recommended in the next phase.



## 2.10 Mapping



Results of a mapping exercise conducted by the consultant are presented above. Fig<del>ure</del> 1 in Section 2.1 presented project sites and land cover in Sudan. It shows that forests and shrubland are concentrated along the southern belt of the country, with croplands expanding across the area,

encroaching into forest land in many states. Figure 2 overlays private sector activity (in product/sector categories) onto the same map. Of the private sector actors consulted, most categories of enterprises are operating in Gedarif, Sinnar, Blue Nile and North Kordofan states, i.e. concentrated around the southeast and central regions of Sudan.

## 2.11 Private Sector Challenges and Barriers to REDD+ Investment

Consultations and discussions with business stakeholders indicated clearly that the private sector feels "neglected" and "underrepresented" considering the efforts exerted by the public sector and international organizations active in the field of climate change mitigation in Sudan. The private sector expressed interest to involve, through national committees and focal institutions, in REDD+ related activities dealing with climate change issues and possible roles and solutions, and at the regional level, through their own operations.

Enabling environment necessary for private sector engagement in REDD+ is currently lacking. This could be improved by providing further clarity on the contents and enforcement of the Forests and Investment laws. Clarity on financing options, investment regulations and supporting the private sector to access funding would provide the stakeholders with information and practical means to effectively engage in REDD+. The private sector is also open to various nonfinancial incentives. Overall, development and services; electricity access for all, improved technologies etc...; reducing the dependence of communities on natural resources if executed properly; will furthermore create an environment supportive to forestry activities. Reducing bureaucratic requirements and procedures can spur investments, capacity building on environment impacts and forestry, access to production inputs etc...) participation of local communities and farmers in planning and reforestation schemes, will directly build knowledge and awareness among small-scale actors, and enable them to contribute to REDD+.

# 3 Private Sector Engagement Strategy

## 3.1 Overview

Engaging with the private sector and encouraging investments in sustainable land use is challenging for numerous reasons, including land tenure issues, climate and weather risks and the long-term payback period of investments. Nonetheless, land use sectors offer significant opportunity in Sudan to address deforestation in a profitable manner. This requires a private sector engagement strategy structured as follows:

- A summary of private sector needs and interests
- An overview of the four pillars of the private sector engagement strategy for REDD+ in Sudan and a description of each component:
  - Financial incentives
  - Non-financial incentives
  - Enabling conditions encouraging private sector REDD+ investments
  - Recommendations for public-private partnerships
- List of public and private financing options and best practices

## 3.2 Private Sector Needs and Interests

Analysis of the questionnaires, interviews and stakeholder workshop has revealed that there is a large degree of interest within the private sector to engage in REDD+ activities, and receive various types of support to facilitate their engagement. For the public sector SMEs and large conglomerates in the domestic market are obvious target for fostering engagement with REDD+ strategies. The public sector actors have a wide reach in terms of driving deforestation, but also have strong potential to reverse this, and have the capacity and resources to drive innovative projects.

Regional and national investors need access to forest smart investments, but cannot directly access large and complex sources of climate finance. Therefore, institutional structures, capacity building and support in particularly banks, and international financing sources such as GCF are urgently needed, including an efficient feeder structure, where local investors can access climate finance and learn how to report their performance and compliance for concessional climate finance. Producer companies can contribute to REDD+ by improving the sustainability of their current activities and increasing investments in activities that contribute to REDD+ and respect REDD+ safeguards.

Financial institutions in turn can contribute by changing their investment practices to meet various sustainability criteria, or invest in environmental derivatives such as carbon credits, green bonds, insurance products, 'green' credit lines, etc... To categorize the wide range of possible interventions, the following chapter presents options for a private sector engagement strategy, differentiating between activities that are realizable in the short term, and those that are necessary, but can only be achieved in the long run (**Error! Not a valid bookmark self-ref-erence.**).

Time-scale	Intervention
Short-term	<ul> <li>Awareness-raising about REDD+ business opportunities for the private sector</li> </ul>
Medium-term	<ul> <li>Information exchange between public and private sectors to understand REDD+ relevant investments, and what and how financial and enabling sup- port can be provided to the private sector</li> <li>Technology uptake, e.g. digital solutions for new REDD+ relevant business models</li> <li>Capacity building on Environmental, Social and Corporate Governance (ESG), supply-chain management, and proposal writing for all sectors</li> <li>Tax exemptions (for example, for positive green list of eligible REDD+ activi- ties)</li> <li>Review subsidies with high unmanaged risk to counter REDD+ objectives</li> <li>Concessional financing options (needs more input from financial institutions to see what would be feasible)</li> </ul>
Long-term	<ul> <li>Introducing key REDD+ safeguards into Environmental &amp; Social Management Frameworks and procurement standards</li> <li>Land tenure reforms; policy and legislative change</li> <li>Investment law reforms</li> <li>Reducing barriers to technology adoption and to making investments</li> </ul>

#### Table 3: Major Intervention Areas Encouraging REDD+ in Sudan

Fig. 6 shows that in the energy and construction sectors, have most interest to invest into LPG, solar and wind energies. Though the feasibility of solar and wind energies is questioned in the context of Sudan, due to challenges relating to importing the required materials, there is room for improvement in the LPG sector. This can relate to improvements in policy and distribution.

The private sector has strong interest to engage in areas related to grazing, or improvement of fodder banks, planting appropriate species, and optimizing wood extraction. The public sector can rather improve the REDD+ enabling environment by facilitating land tenure improvements and demarcating grazing routes.

In the agricultural sector, there is an overwhelming level of interest in increasing the productivity of commercial agriculture using improved, efficient agricultural practices. The study therefore recommends that in addition to ongoing efforts to use improved seed varieties, improved livestock breeds, efficient irrigation, and clean energies for production, small, medium and large scale agricultural actors incorporate tree-based farming and climate smart approaches to land management, including sustainable soil and water management. These methods can enable actors to meet their production and profit goals, while simultaneously driving reforestation and reversing land degradation.





The companies mostly engaged in this field also put strong emphasis on CSR and the need to do business ethically. Bringing these companies into REDD+ through outreach, capacity building and other financial incentives will be appropriate, especially incentivizing efficiency gains over area expansion. Area expansion may only be encouraged in previously used and degraded land, rather than allowing for companies to expand operations onto previously unused land or non-agricultural land. Stakeholders also expressed interest in afforestation schemes and value chain enhancement of wood and NWFPs. The private sector particularly is well placed to take advantage of opportunities in manufacturing NWFPs within the areas of production, which can be highly profitable for the business and creates co-benefits for local community employment, strengthening national economy and local seed storage and planting in support of forest restoration.

## 3.3 Private Sector Engagement Strategy for REDD+

Based on the consultation findings and areas of intervention identified, the literature review and best practices, the following four categories of potential REDD+ interventions to facilitate private sector involvement are proposed. Though the options are presented individually, it is important to note that they are complementary and interdependent build on one another. Some options will not be successful if others are not implemented e.g. financial incentives are unlikely to be effective unless the enabling environment is improved. Therefore, options are recommended to be implemented as a package.



#### Figure 4: Four Pillars of the REDD+ Private Sector Engagement Strategy

The four options (Error! Reference source not found.) are summarized as follows:

- 1. Financial incentives: In addition to incentives relating to financial considerations, one aspect is also encouraging instrument that help mitigating risk, include financial, commercial and political risk insurance or guarantees
- 2. Non-financial incentives: All non-finance related incentives that encourage companies and actors to adopt REDD+ initiatives
- 3. Enabling environment: This includes all kinds of legislative and systematic changes such as political, legal, economic and societal structures, and formalized requirements
- 4. Public private partnerships: A range of options and opportunities for GoS to stimulate private sector finance and investments to support the economy, REDD+ nexus in the forest and land use sector

Category	Strategic Options	Components
Financial incentives	Offering below-market interest rates, reducing lending fees, or other attractive financing op- tions	Reduce costs of financing REDD+ activities; subsidies and low interest rates ought to particularly benefit smallholder farmers and livestock owners
	Flexible collateral op- tions as guarantees	Use off-taker purchase agreements as collateral in case of non-repayment; partial guarantees protecting financial institutions against first losses of 25-50%
	Investment accelera- tion	Supporting lending institutions & borrowers to meet fi- nancing requirements (e.g. preparation of business plans and improving accounting/reporting practices)
	Favorable loan repay- ment terms	Avail longer grace or loan tenor periods, particularly for forestry related investments and projects in nature re- serves
Non-financial incentives	Capacity building for private sector (produc- ers and companies)	Build awareness (knowledge) and train companies for im- proving practices (or scaling-up and 'marketing' existing REDD+ activities, making 'green' investments, and access- ing targeted financing; support with technology transfer
	Capacity building for fi- nancial sector	Provide training to banks and creditors on developing green financing lines, linking to international funding sources and developing M&E requirements (and ensuring companies' follow-through)
	Favorable tax calcula- tions	Grant tax exemptions (or more favorable rates) to compa- nies/projects implementing or investing in REDD+ prac- tices
	Infrastructure	Improve conditions within supply chains of key sectors, particularly those that support Gum Arabic processing e.g. through improved public infrastructure, which makes sup- ply chains less costly
Enabling environment	Clarifying laws and reg- ulations	Streamline investment approval and licensing process be- tween federal and state levels, as well as between various departments; holding policy workshops; improving chan- nels of communication in general.
	Support for formalizing M&E and GRM require- ments	Provide M&E support (e.g. through the Safeguards Unit or covering costs of external M&E teams), including the use of GRM, with the goal to comply with environmental and social reporting requirements and to access international finance
	Effective law enforce- ment	Ensure recognition of existing laws and enforcement to create a level playing field for the private sector
Public pri- vate partner- ships	Engagement with emerging and potential private sector REDD+ champions	Engage with Kenana, CTC Group, DAL Group, Haggar Group, Africorp, and others to support access to finance and upscaling of their ongoing and planned, bankable, for- est smart investments

### Table 4: Strategic Options for Engaging Private Sector in REDD+ in Sudan

Category	Strategic Options	Components
Category	Strategic Options Phased and structured investment program	<ul> <li>Consolidate individual projects and companies into a larger investment platform to achieve scale and access climate finance</li> <li>Phase I: Investment accelerator (supporting businesses to become investment ready)</li> <li>Phase II: Access climate finance TA to scale investment accelerator (help access concessional sources of financing that accept the risk associated with innovative REDD+ investments</li> <li>Phase III: Develop investment vehicles together with financial partners such as funds, green credit line or</li> </ul>
		green bonds to finance the successful and more ma- ture companies from the investment accelerator (commercial sources of financing are used to scale REDD+)

### 3.3.1 Financial Incentives

Risk and the perception of risk are key barriers to investing in REDD+ activities in Sudan. Lending to the agriculture and forestry sectors is generally low, compared to countries with similar profiles. The high cost of financing and implementing REDD+ activities is another barrier. Financial incentive recommendations should focus on addressing these two key barriers.

One key financial incentive is reducing the costs of financing REDD+ activities by offering belowmarket interest rates, reducing lending fees, or providing attractive financing options. This mechanism should be used when profitability of REDD+ activities is low in the short term, compared with business as usual. Two examples of concessional loans were presented during consultations; one to DAL Group for investments in agriculture and food industry, worth up to USD 75 million, and one to Elnifedi Group for investments in the livestock sector up to USD 65 million. Due to high business competitiveness and lack of transparency regarding the loan conditions, it is not known if these are also low interest loans. The only confirmed low interest loan currently active in Sudan is between the GCF and Haggar Group, for the solar station project, worth USD 10 million. While this study supports the further availability of such loans for potential largescale REDD+ projects, it as well recommends that subsidies and low interest rate loans be made available to smallholder farmers and livestock owners.

Another financial incentive is meant to reduce the risk or perceived risk of lending for REDD+ activities. Risk is especially a concern for financial institutions when lending to smallholders having little credit history, lack tenure, or otherwise are difficult for financial institutions to lend to. In order to reduce risk, loan guarantees, flexible collateral, and insurance are different options. Guarantees are the broadest possible mechanism, and should be used to protect financial institutions or agribusinesses against loan default. However, risk should still be shared with financial institutions so that they have a stake in evaluating the creditworthiness of borrowers through typical lending procedures. Partial guarantees protecting financial institutions against losses of 25 or 50%, should be used. It is important to consider the cost of guarantees, however, and they may not always be the most cost effective means of reducing risk. Flexible collateral options are a more targeted means of sharing risk with financial institutions. This could include, off-taker purchase agreements as collateral in case of non-repayment. Such an option is most appropriate when developed in cooperation with agribusinesses and other value chain actors. Insurance is the final tool for reducing risk, and should be used to protect lenders against specific risks related to smallholder agriculture production. Insurance is particularly valuable to address risks such as climate related risks and the alike ones that are beyond the control of borrowers.

Investment acceleration is another tool for the REDD+ program to increase investment in REDD+ activities. This would include supporting lending institutions and borrowers to meet financing requirements such as the preparation of business plans and improving accounting practices, etc.... The REDD+ program can conduct market studies to identify sub-sector specific challenging to lending. This will also enable the REDD+ program to develop credit products targeted to specific needs of smallholders and agribusinesses involved in the implementation of the program.

Finally, the REDD+ program can incentivize its activities by facilitating the provision of grace periods, concessional loans, and long tenor loans. Concessional loans may be given through bilateral financing options, and delivered to Sudan via the national budget (either discretionary or earmarked for specific activities or businesses." Some activities are profitable; yet do not immediately generate returns. Grace periods and extended tenors can therefore enable the financing of business activities or nature reserve projects that do not match typical loan repayment schedules. Tree planting investments, including forestry for timber or charcoal production and Gum Arabica production, tend to provide low returns during the first years weighted to late years. This cash flow repayment schedule makes financing via loans difficult unless grace periods or extended tenors be offered.

### 3.3.2 Non-financial Incentives

In addition to financial incentives, non-financial incentives can also play an important role in facilitating private sector participation in REDD+ activities. The private sector actors face a number of challenges and barriers to reducing deforestation, degradation, and sequestering of carbon through improved land use practices.

Taxes, particularly on exports, represent a high cost for many agribusinesses and forestry enterprises. The REDD+ program could exempt businesses contributing to REDD+ goals, by providing a powerful incentive. This could be particularly beneficial to the Gum Arabic sub-sector. Businesses committed to sourcing from Gum Arabic contribute to reforestation, would drive new planting.

Similarly, the REDD+ program could invest in improving the supply chains of key sectors that support its objectives. This support should be targeted to make value addition for the supply chain less costly and ultimately increasing profitability. Again, Gum Arabic is a potential area for investment, as processing costs are currently a limiting factor for the sub-sector. This could also include investment in public infrastructure supporting priority supply chains.

In general, knowledge and technology transfer is another non-financial incentive the REDD+ program can offer to interested actors. The Government of Sudan can play a unique role because of its ability to garner international funding, as well as its proximity to REDD+ actors by facilitating the introduction of technology into the country, or by spreading technology and knowledge among the key actors. This might include, for instance, collaborating with private sector agribusinesses to map the suppliers of agribusinesses in prioritized agricultural supply chains. This falls under the wide umbrella of capacity development for the private sector. Economies of scale ensure that larger players are able to more efficiently make big changes. Therefore, aside from the trainings of individual farmers and communities, small, medium and large scale companies should also be trained and supported in planning projects that reduce deforestation and degradation related emissions, and locate and apply for financing through appropriate channels.

In addition, the REDD+ program could also invest directly in activities that boost its goals via public/private partnerships (PPP).

### 3.3.3 Policy and Enabling Environment

In order for the private sector's potential to engage significantly in forestry activities to be realized, the current paradigm – the policy and institutional environment - needs to change, and various structural issues must be clarified. To realize the private sector's potential to engage significantly in forestry activities, the current policy and institutional environment needs to be changed, and that various structural issues be clarified.

A transparent regulatory framework for private sector investments in land and natural resources is important enabling environment. This includes, but not limited to, an establishment of a task force to conduct in-depth review to:

- Identify gaps and develop a relevant and transparent criterion for land leasing
- Review and harmonize the investment law with other land use related regulations.
- Streamline the laws governing investments and the various natural resource sectors (agriculture, livestock, forestry and rangelands), industry, energy and mining sectors in to reduce inconsistencies and clashes.
- Review the Investment Act, New Forest Policy, and the Action Plan for Agriculture, the Tax Law, Companies Act and *Zakat* in the context of the new political climate. Any future updates to these laws must be done on consultation with the concerned key sectors.
- Streamline laws and at state and federal levels. To this end, it is recommended that all future REDD+ relevant financing and activities are planned, approved and implemented through the FNC's Investment Department. To achieve this, capacity development and training, over the course of the next months, is needed to improve institutional and technical capacities of the FNC's Investment Department staff.

The land tenure must be clarified rectified, to reduce the uncertainties and conflicts which are currently hindering forest and land investments by large companies, private farmers and individuals, or organizations. Proper forest and land management through the implementation of well planned, strategic land use plans, conducted jointly with community and local government systems, will contribute to an enabling land tenure system supportive to the private sector in REDD+.

Stakeholders voiced their support for clarity of laws and norms governing potential REDD+ and forestry activities, which can occur through knowledge sharing and information dissemination, in conferences, investments into research, information materials, awareness raising and dialogues between various agencies and private actors. The ownership of REDD interventions is

expected to be FNC and the private sector. This type of relationship is new to Sudan and that both parties need more knowledge and capacity building on to run the various transactions, obligations and roles, in the context of current Institutional, legal, financial and contractual aspects.

Based on the aforementioned identified mix of financial and non-financial incentives, it is recommended that private sector actors be supported by coordinating their actions or programs related to land and forestry development plans regionally or nationally. This will enable the forestry sector to attain Sudan's overall strategic goals.

The strategy does not recommend allowing or encouraging the private sector to invest in reserved forests. In general, there is lack of compliance and monitoring requirements to control the private sector activities or sustainably guide their investments.

There are currently no official requirements for businesses to report publically to enhance transparency regarding their operations and impacts. One recommendation may be to make such reporting a formal requirement, to be presented at suitable forums as "Sustainable Management of Natural Resources Forum". Considering that a mandatory M&E system may be an expensive undertaking for small or mid-level actors, it is recommended that either such support and capacity building is offered by the Safeguards Unit free of cost, or that cheap financing schemes are offered to these businesses to cover the costs. For instance, structured Grievance Redress Mechanisms are needed. The GRM should be accessible, collaborative, expeditious and effective in resolving concerns through dialogue, join fact-finding, negotiations and problem solving. The mechanism should furthermore be legitimate, predictable, equitable, transparent, and rights-compatible and enable continuous learning through engagement. The development of a contextually adapted Feedback and GRM for REDD+ Sudan was started in September 2018, and will be elaborated through exploring and recording grievances of smallholders, particularly on land allocation, access to bank loans, basic services, destruction of nonwood forest products and unfavorable marketing policies. The joint WB and UN-REDD guidance are accessible online and a form for GRM is provided in Annex 5 of the ESMF document. Capacities for GRM are developed within the FNC, and also should be developed applied for the private and civil society bodies; such as Gum Arabic associations, forest community bodies, private forest owners and commercial enterprises. Finally, Safeguards Information Systems could help monitor the FGRM by making all complaints received in a publicly accessible online system.

Finally, there is of course an expectation that with economic development and appropriate infrastructure development and technology transfer, investments in Sudan, including in the forestry and land sectors, will increase. This is not a planned recommendation under this strategy, but is rather a long-term expectation for the country.

#### 3.3.4 Public-private partnerships

Some private sector activities and investments are already underway, namely; on ground activities, innovations defined and scaled-up; and investments made in various land use sectors. These are forest smart investments, but not recognized yet under the REDD+ umbrella. The financing for these activities is limited, but some projects are bankable and ready for scaling up under the REDD+ initiative. Based on consultations, the drivers of deforestation study, and the national REDD+ strategy document, the consultant team recommends that the priority sectors for private sector engagement should be agriculture, Gum Arabica, wood and energy. Gum Arabica in particular stands out for its potential to reforest large areas on a commercial basis. The other sectors can contribute to reducing deforestation, especially by improving productivity on existing sites in order to limit the need to expand activities into forested areas. Companies engaged in these sectors have significant impacts on forests and land use, as well as potential and interest in engaging in meaningful REDD+ activities. While companies engaged in mining have a considerable impact on forest land, given the ownership and management of mining operations, and based on the findings of this study and the SESA report, cooperation with this sector may be challenging. Without directly consulting this sector as part of the engagement strategy stakeholder outreach, it is difficult to judge precisely what their role can be.

#### **RoS Opportunities for Stimulation of Private Sector Investments**

Through the consultation period, a number of companies expressed interest to partner with the Sudan REDD+ program. These opportunities are summarized in the following pages.

Kenana Sugar Company is producing and processing sugar products in the White Nile region. They struggle to access finance because of unclear foreign exchange policies and other trade policies. Environmental regulations are difficult for them to understand and comply with. The company struggles to meet the funding proposal standards of international organizations like the GCF. They require support in adopting new standards and communicating with international funders. They are considering a number of investments:

- Vinasse Bio Digester. Vinasse is one of the byproducts of ethanol production from molasses which, without proper treatment, will result in negative environmental impacts. However, anaerobic fermentation for biogas production, which will be used for boiler fuel, can safely make use of byproducts. Wastewater can be recycled for irrigation of forests and horticulture crops. The residual of treatment will be co-composted with other byproducts for the next project of composting.
- Composting. Use byproducts, especially cow and chicken manure, with vinasse residuals for aerobic fermentation.
- Yeast feed. As a byproduct from ethanol production that can be upscaled and dried for animal feed.
- Ethanol expansion. Expansion for the existing of the ethanol plant by introducing sweet potato for Ethanol.

The CTC group is a conglomerate with significant activities in agriculture. They can be a key intermediary for increasing agricultural productivity, yet they struggle to reach their suppliers on this topic. The company is unable to communicate the link between productivity and reducing deforestation. Support is especially needed to assess the feasibility of the proposed investments and ensuring that productivity gains result in reduced deforestations. They are considering to expand their agriculture training investments in Sinnar and Gedarif states.

DAL has high interest and capacity to be involved in REDD+ investments. They have even identified their teams that will work for this line of investment. They need professional help in developing bankable REDD projects, but in general are a "low-hanging fruit" for engagement in supporting investment development. Feasibility studies and support for the development of business plans are the main need identified. They consider a number of investments:

- Roof top solar in Bahry industrial Area Khartoum.
- Hybrid solar biogas system in Alwaha farm. The farm contains 105 Central irrigation Pivots that could be powered by solar and biogas systems.
- Biogas for dairy in Ailafoun farm. The dairy farm houses 6,000 heads of cows, which could provide biogas to electrify the milking parlor and lighting of the farm.

Africorp Company has a supply chain directly linked to forests and they have strong link to surrounding communities, especially gum producers associations. They consider two relevant investments:

- Solar energy in North Kordofan and Darfur to meet the energy uses of groundnut processing.
- Expansion of Gum Arabica production in Kordofan and Gedarif.

The Haggar Group are in the process of implementing a GCF related project, but struggling with lengthy complicated process of getting their proposal approved. The company has not received any kind of technical support from public sector responsible of mainstreaming GCF projects in Sudan. They would be greatly aided by working with actors that have experience dealing with the challenging procedures and processes of the GCF. They are planning two investments:

- Solar energy station for agriculture in River Nile state. The project concept note is already approved by GCF and the Sudan NDA. The process of accessing a concessional loan from GCF was initiated, but the accredited entity process is challenging.
- Efficient cook stoves in North Darfur and Blue Nile states. The company has already distributed 5,000 stoves, for which they received Gold Standard verification. They now plan to upscale this program.

The authors recommend that GoS adopt criteria for evaluating these potential partnerships. Using similar criteria to the GCF is recommended in order to access this sort of finance (see the subsequent section for GCF criteria).

#### Phased and Structured Investment Platform

The aforementioned individual projects and companies described above can be consolidated into a big investment platform to achieve scale and access climate finance. An overview of the proposed package addresses multiple needs of a REDD+ investment program while scaling up activities and financing over time (Figure 5). Activities are phased to meet immediate needs of businesses, while progressing into gradually more self-sustaining financing sources. The first stage focuses on supporting businesses to become ready through an Investment Accelerator program. Subsequently, businesses can access concessional sources of financing that accept the risk associated with innovative REDD+ investments. Eventually, commercial sources of financing can be used to scale REDD+.

One clear item of need is to support companies to access financing sources for emissions reductions materials. Activities have been identified, but companies struggle to convince funders that projects are worthy of investment. An Investment Acceleration program could be established to work directly with businesses to help them along the project development process (Figure 6).



Figure 5: Phased and structured private sector engagement



**Figure 6: Investment Accelerator Overview** 

In addition to specific items working with the GCF, businesses surveyed face the great challenges in assessing investment feasibility, developing business plans, and being matched to potential investors. Investment Accelerator activities would focus on these issues.

As companies are being supported by the Investment Accelerator, they can also start to be matched to financing opportunities, either commercial or blended finance. Larger businesses can directly access international funding sources, including climate financing opportunities. Smaller businesses will likely access local financing sources. Support can also be provided to banks in order to develop "REDD+ credit lines," whereby specific loan products are developed and offered to a segment of companies participating in REDD+. Public and blended finance, such as the Global Agriculture and Food Security Program (GAFSP), may be necessary in order

to provide risk-sharing and reduce interest rates for investments that are not yet commercially proven.

Eventually, businesses and investors gain enough experience and comfort with the asset class and can graduate from concessional finance to full commercial finance. This milestone may be achieved concurrently with receipt of performance-based payments. REDD+ performancebased payments should be used to ensure that investments continue to happen on a self-sustaining basis.

## 3.4 Financing and Best Practices

## 3.4.1 Financing Criteria and Requirements

Countries are adopting diverse approaches to finance their REDD+ mitigation actions, fitting into two categories; public and private funding. National public sources include state budget and fiscal measures, and international public sources can include environmental funds such as GEF and GCF; REDD+ capacity support such as FCPF, UN-REDD and CAFI; bilateral aid and results-based REDD+ funds. Private sources may include equity and debt, CSR, smallholders' investment, private foundations, green bonds, insurance and micro-credit.

The private sector and various national and international financiers are actively seeking investment opportunities in businesses that generate profits through land restoration. In deciding, they screen business against a number of criteria, including profitability of activities, their scalability and replicability, environmental impacts and social co-benefits. The Green Climate Fund (GCF) for instance has the following set of investment criteria indicators:

- Impact potential
  - For mitigation (project lifetime emission reductions)
  - For adaptation (expected number of beneficiaries, change in loss of lives, value of physical assets, livelihoods, environmental or social losses due to climate disasters)
- Paradigm shift potential
  - Theory of change showing long term sustainability of results and catalysis of impact beyond a one-off investment
- Sustainable development potential
  - Evidence of at least one potential economic, social, environmental and gender empowerment co-benefit or achievement of one or more SDGs
- Needs of the recipient
  - Evidence of barriers to accessing climate-related finance (domestic or international), and other economic, social or institutional needs
- Country ownership
  - Project alignment with country's NDC, national plans, policies and commitments
  - $\circ~$  Proof of engagement with relevant stakeholders and national designated authorities
- Efficiency and effectiveness
  - Cost per ton of CO<sub>2</sub> equivalent, ratio of co-financing, expected rate of return and application of best practices in the relevant sector(s)

These criteria are fairly comprehensive and representative of pre-requisites for financing across the board.

## 3.4.2 Financing sources for REDD+ support

Based on the needs, interests and capacities of consulted private sector actors, the following potential funding sources for REDD+ activities are highlighted.

- **Green Climate Fund**: Currently, Faisal Islamic Bank, Haggar Group and Dal Group are potential nominated Accredited Entities for Sudan.
- Global Agriculture and Food Security Fund (GAFSP): GAFSP is a multi-donor trust fund that
  is implemented by several different development banks. The IFC is one implementing bank
  and they use GAFSP funds in order to protect IFC investment against credit risk and to reduce
  the cost of lending to businesses. Climate change mitigation is a co-benefit that the GAFSP
  seeks to support.
- KfW Africa Agriculture Trade and Investment Fund (AATIF): The Fund AATIF targets small, medium and large scale agricultural farms and businesses through the entire agricultural value chain, financed directly or indirectly. Direct investments include cooperatives, commercial farms and processing companies, while indirect investments relate to investments into local financial institutions or other intermediaries e.g. big agribusinesses which onlend to the agricultural sector, to fund e.g. smallholders or SMEs. Loans are a minimum of USD 3.5 million, with maturity at up to 12 years. Investors must present a business plan, audited financial statements for the past three years, and an Environmental and Social Impact Assessment of their project or activities.
- FINNFUND for Industrial Cooperation: The FINNFUND finances both Greenfield and expansion projects matching with Finnish development priorities. It generally provides long-term investment loans of 10-15 years, equity investments and mezzanine financing in sustainable forestry and plantations, grassland and bushland rehabilitation. It has recently started investing in agriculture where 15% of its EUR 594 million portfolio has so far been disbursed for climate change mitigation and adaptation financing.
- Arab Authority for Agriculture Investment and Development (AAAID): The AAAID is capitalized at about USD 1.1 billion and is established as a legal entity in Sudan. The fund focuses on medium to large-scale investments in the agriculture sector in the Arab world.
- NOVASTAR Ventures: The limited venture capital fund provides equity investments to breakthrough businesses (for-profit) that can grow rapidly to scale in the sustainable agriculture and forestry sectors. The minimum support is USD 250,000 for unproven business models with high potential and up to USD 8 million through multiple capital rounds.
- AgDevCo: AgDevCo is a specialist investor for the agriculture sector in Africa. The Fund has invested approximately USD 128 million across 40 investments on the continent. AgDevCo focuses on growth capital for agribusinesses.
- Acumen Climate Smart Agriculture Fund: Acumen has developed a fund for climate smart agriculture with special focuses on East Africa.
- Moringa Fund: Moringa invests around about USD 4-10 million per project. The first fund is fully invested fund raising for a second fund is ongoing, targeting agroforestry and forestry investments in Africa.
- **Mercy Corps:** The non-profit established an investment fund that invests in early stage, high-impact businesses, with an emphasis on investing in Africa.

# 4 Conclusions

- The proposed private sector REDD+ engagement strategy culminates from months of consultations. The recommendations developed are directly linked directly to with demands; interests and needs explored during the consultations.
- The private sector actors in Sudan expressed significant interest in REDD+ program and its implementation. Therefore, engagement with the private sector to develop and scale REDD+ investments should be a priority. This is already envisioned for the next Phase of the program, which will put great emphasis on awareness raising and tangible support for the private sector.
- A recommendation from almost all business stakeholders is to increase information sharing, communications and consultation sessions, particularly in relation to engaging the REDD+ process on concrete steps to incentivize deforestation reduction. A concrete example of improving public and private sector knowledge, awareness and involvement, suggested by respondents, is to conduct regular multi-stakeholder awareness sessions on such topics. There is currently a low level of awareness among forestry staff in the public sector, on the nature and benefits of REDD+.
- In the long-term, larger, more challenging interventions are needed, to create a political and financial environment conducive to REDD+ investments. First, enforcement of forest and natural resource laws needs to be improved. This can be achieved through law enforcement, inclusion of communities in the process, creation of alternative income activities and effective oversight, monitoring, reporting and evaluation.
- The consultant team recommends that the REDD+ program review the suggested engagement strategy, present it to all key actors and stakeholders and commit to concrete actions. Some recommendations might be addressed by the program, others might be costly or challenging.
- Implementation of the strategy should consider the sectors having high potential impact on afforestation /reforestation and land use practices, not only in the REDD+ strategy document and Drivers of Deforestation study, but also in this report.
- The involvement of the Gum Arabica sub-sector appears to be most promising.
- Commercial forestry for charcoal, poles and construction timber is another promising opportunity.
- The reduction of deforestation and forest degradation is likely best addressed by engaging the agriculture and livestock sectors.
- Another important step is creating partnerships with key private sector REDD+ champions.
- Financial institutions and agribusinesses consulted during the development of this strategy stand out as excellent partners for the REDD+ program.
- Some actors have concrete investment needs to be addressed by the REDD+ program activities.
- Champions should be incentivized to participate to demonstrate to other actors in the sector that REDD+ is profitable and valuable.
- The REDD+ program should engage partner ministries and government agencies within. Ministries of Investment, Finance, Production, and Agriculture in particular

stand out as key partner ministries for engagement. Recommended activities should be in line with ministries development programs so that REDD+ actions be complementary to the existing plans.

International financing, in particular funding from the GCF and carbon financing can help to supplement funding from the Government of Sudan, which itself can provide concessional loans for activities that encourage forest restoration and land rehabilitation. The two major Gum Arabic producers, Afritec and Africorp, two major Gum Arabic producers, could receive support to rehabilitate and manage acacia forests. Currently both companies only cover labor costs to collect the raw product, and in return, they support gum producer associations under their CSR functions. Consulted actors already expressed interest to pursue financing from these sources. The REDD+ program can leverage its investment. The GCF, with its long accreditation and approval processes, is an area where the REDD+ can intervene and multiply its resources. These investment projects can be combined into a comprehensive platform that provides businesses investment acceleration support and helping them to access external financing ing sources of financing.

Last, the REDD+ program can develop a short list of bankable projects and provide investment accelerator support to attract the investors. Certain recommendations might be difficult for the REDD+ program to address, such as, improving land tenure in traditional grazing areas; others require large significant big budget to be effective. The REDD+ program should prioritize interventions based upon available budgets.

The report finds that engaging the private sector in realizing Sudan's REDD+ goals is feasible. Some activities and investments are currently ongoing as those of CSR, and should be formally put under the umbrella of REDD+. This would open up proven business models to new financing opportunities. Going forward, the engagement should be done using a four pronged approach of:

- Providing financial incentives to the REDD+ activities by:
  - o Offering below-market interest rates
  - Reducing lending fees
  - o Reducing the risk or perceived risk of lending
  - Providing investment acceleration
  - o Facilitating the provision of grace periods concessional loans
  - Securing long tenor loans
  - Incentivizing CSR activities etc...
- Providing non-financial incentives through:
  - Tax exemptions for business contributing to REDD+
  - improving the supply chains of key sectors
  - Facilitating public-private partnerships
  - Knowledge and technology transfer
  - Training etc...
- Improving the overall enabling environment for engagement by:
  - Rationalizing, rationalizing, organizing, and harmonizing of land use and economy/investment related policies
  - Elimination of contradictions in land use policies, investment law, and climate change and emissions reduction goals

- o Capacity development
- o Application of rigorous environmental safeguards and monitoring
- Formalizing reporting
- Supporting specific ongoing and planned private sector activities with access to finance and investment acceleration (i.e. concrete support to DAL Group, Haggar Group, CTC Group, Africorp and Kenana to upscale and replicate their REDD+ relevant investments and establishment of a structured investment platform).

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# 6 ANNEX

### **Annex 1: Consultation Challenges**

State	Entity	<b>Meeting Status</b>	Remarks
	Businessmen & Employ- ers Federation	Cancelled	Dissolved by Transitional Mil- itary Council (TMC) since April
White Nile	Chamber of Commerce	Cancelled	Dissolved by TMC since April
	Ministry of Production & Economic Develop- ment white Nile	Postponed	Ministry Director General re- leased during state visit
	Gum Arabic Chamber in Business Federation	Cancelled	Dissolved by TMC since April
	AGADI Company	Postponed	facing land
			tenure problems with local farmers
Blue Nile State	Charcoal Producers	Postponed	Not available at the time
Dide Mile State	Businessmen Federation	Postponed	Dissolved by TMC since April
	Farmers & Pastoralists Unions	Postponed	Merged with Agriculture Cham- ber under Business Federation
	Business Federation	Postponed	Dissolved by TMC
			since April
	Gum Arabic Producers	Postponed	Not available at the time
Sennar State	Farmers & Pastoralists Union	Postponed	Merged with Agriculture Chamber under Business- men Federation
	Elberier Group	Postponed	Operations ceased during unrest
	Businessmen Federation	Cancelled	Dissolved by Transitional Mili- tary Council since April
	Ministry of Investment	Cancelled	Does not exist anymore
Khartoum	Agriculture and Animal Production Focal Point in National Parliament	Cancelled	The parliament no longer exists after revolution
	Chamber of Commerce	Cancelled	Dissolved by TMC since April
	Gum Arabic Council	Cancelled	Frozen by TMC
	Corporate companies in Khartoum	Postponed	They ceased operations since start of sit-in of the military HQ

#### **Annex 2: Stakeholder Consultations**

Entity name	Organization	Sector
Adra Ingo	Civil society	Multi-sector
Akeshia	Private sector	Agriculture (Gum Arabic)
Africorp	Private sector	Agriculture and livestock
Afritech	Private sector	Agriculture (Gum Arabic)
APCO, subsidiary of Mahgoub Sons Group	Private sector	Agriculture and livestock
The Arab Sudanese Blue Nile Agricultural Com- pany/Agadi-Sudan	Private sector	Agriculture and livestock
Al-Durat Agricultural Business	Private sector	Agriculture
Ali Abdelrahman Mohamed Gadif	Private sector	Agriculture
Ali Ibrahim and Sons	Private sector	Agriculture and livestock
Al-Rahka Development	Private sector	Agriculture
Animal Resources Bank	Private sector	Finance
Automated Agriculture Department, Gadarif State	Public sector	Agriculture
Bashir Sharif Eldeen	Private sector	Forestry
Business Federation North Kordofan State	Civil society	Multi-sector
Business Federation White Nile State	Civil society	Multi-sector
CTC Group	Private sector	Multi-sector
DAL Group	Private sector	Multi-sector
IFAD	Civil society	Agriculture
Faisal Islamic Bank	Private sector	Finance
Forestry Director General North Kordofan State	Public sector	Forestry
Forestry Director General Sennar State	Public sector	Forestry
Forestry Director General White Nile State	Public sector	Forestry
Forestry Management Unit White Nile State	Public sector	Forestry
Gum Arabic Producers Association Blue Nile State	Civil society	Agriculture (Gum Arabic)
Gum Arabic Producers Association White Nile State	Civil society	Agriculture (Gum Arabic)
Higher Council for the Environment Gadarif State	Civil society	Forestry
Investment Department Sennar State	Public sector	Finance
Mamoun Elberier Group of Companies	Private sector	Multi-sector
Mohamed Ahmed Al-Khadir	Private sector	Forestry
Elnasr Industrial Trading Itd	Private sector	Agriculture (including amongst others Gum Arabic)
FNC Blue Nile State	Public sector	Forestry
Foktab	Private sector	Agriculture
Forest Treasure Gum Arabic Association, Sennar State	Private sector	Agriculture (Gum Arabic)
Forestry Resources Producers and Traders Union Blue Nile State	Civil Society	Forestry

Entity name	Organization	Sector
Haggar DMCC	Private sector	Multi-sector
Kamla Industries	Private sector	Agriculture (including amongst others Gum Arabic)
Kholoog Company for Development and Agricultural Investment	Private sector	Agriculture
KSC Group	Private sector	Agriculture and livestock
Loai Abdalla	Private sector	Forestry
Ministry of Animal Production Gadarif State	Public sector	Livestock
Ministry of Production	Public sector	Multi-sector
Investment Unit Gadarif State	Public sector	Finance
Nile Petroleum Business	Private sector	Oil and gas
Planet International	Private sector	Information technology
Rainfed Agriculture Department Blue Nile State	Public sector	Agriculture
Rainfed Agriculture Department Sennar State	Public sector	Agriculture
Rangelands Department	Public sector	Livestock
Rangelands Directorate Sennar State	Public sector	Livestock
REDD+ Focal Point White Nile State	Public sector	Forestry
Savings Social Development Bank	Private sector	Finance
Sudanese Business Owners Association Gadarif State	Civil Society	Multi-sector
Sudanese Environment Conservation Gadarif State	Civil society	Forestry
Sudanese Red Crescent Society	Civil society	Multi-sector

· GROUP 1 1. Bre Grid ration For project Standard at National and Int. 2 Ethanol Projetaks (B) Improved Stove C. Technology transfer & Solar Project (Hasor E Gum Arabic Processing E Irrigation pump (solar) 3. No. REDD+ should Look at private sector myestment Criteria H. Low Interest (cst B. Insurance C- Flexiable collatral D. Concessional Loan and exemption E. Acess to International Fund. F. Carbon Cridet 7. Finance Institution Funding Environme Compliance Intrust

**Annex 3: Financial Incentives Group work Results** 

NCENTINES : NON - FINANCIA 1. Readress Laws in a many that adressed febral and state levels (TAX examples) 2. PPP projects at local community level. 3. Encrase gross periods in REPOT projects (F) natural reserves G. Introducing Carbon Credits reduction incentimes for Producers. In frashructure development (Domations = tax exentions). Knowledge transfer & Capacit development for small Producers. - Gov can offen research + guarintees for Small Producers.

Annex 4: Non-financial incentives group work results

CROUP 3 ENABLING ENVIRONMENT Enhance the coordination bet. 1. Enertian bet. The PS. and Gos. 2. Mainstreaming ? Concerned second 3. Riven the Facis and hinked with He provision of Services. 4. Taungin contribute to me Lorge scale restoration prog. poverty cracheation .- ele Job opportunities, Land & techeslogg. 5- National Investment Legisl. & Sectoral Laws. 6. Scalling up the compone. ation programs, 1-e. petro Lum, Mining - elc. 7 - Secured Saved Land Versus Restoration.

Annex 5: Enabling environment group work results

### Annex 6: Workshop Attendees

No	Name	Title	
1.	Renuka Srinivasan	Consultant (UNIQUE)	
2.	Omer Awad	National Consultant (with UNIQUE)	
3.	Razan Nimir	Consultant (WB)	
4.	Salih Aei Salih	Consultant	
5.	Abdelrahman Eltahir	SESA (II) Env. Consultant	
6.	Osman Omer Abdalla		
7.	Sayeda Khalil		
8.	Abdelhai Mohamed Skerief		
9.	Fazia Siddic	FNC	
10.	Hassan Elamin Hassan	FINC	
11.	Rasha Abdalla Fadul		
12.	Amani Ibrahim Amed		
13.	Mona Hussein		
14.	Nagla Mahgoub Hamudug		
15.	Mohamed Ali Elhadi	GM FNC	
16.	Ismat Hassan Afalla	FNC, Investment D.	
17.	Moatassim Ismail Amin	FNC White Nile State Manager	
18.	Adam Mohemed Babika	Director f. Ex. + In. FNC	
19.	Yusra Bashir Adam	Haggar Group	
20.	Tnhn Elfadil Sneed	FIB Sudan	
21.	Hussamalden Tagalser	Head of Products	
22.	Heba Hassan Fadul Ali	Africorp International	
23.	Bakhita Mahgoub	MoA, Food Security	
24.	Rowa Hassan	Strategy/ DAL Food	
25.	Suliman Mohamed Gabuil	Cwb	
26.	Sarah Eltayeb Moh.	Brand&Com./ Ariab Mining	
27.	Nazar Anoor Saad	SBSA GeoInformatics	
28.	Manal Abdelrahim Osman	Deputy Director	
29.	Yassir Mutehtar Mustafa	Min&Agr White Nile State	
30.	Abdelmonem Osman Hassan	Range and Pasture G.D.; Head of Nature Range	
31.	Khidir Elsadif Jaber	WCGA	
32.	M. Osman M. Elhassan	RSSA	
33.	Mona Abdelrahman	REDD	
34.	Khider Salah Khider	REDD+	
35.	Hamdan Kabbashi Osman	Gum Arabic Gapass	
36.	Sahl Mustafa	REDD+ M&E	

No	Name	Title
37.	Babiker Abdalla	STC-WB
38.	Mohammed Elnosbah	Tradign Mgr – Mamoun Elberier Group
39.	Sahi Abdalla Sahil	REDD+

### Annex 7: Workshop agenda

Time	Activity
09:00	Distribution of questionnaires
09:00 - 09:10	Welcome/introductions by PMU and Minister of Agriculture and Natural Resources
09:10 - 10:30	Introduction to the project by UNIQUE; role of the consultancy in this project
	Forest cover and activity map
	Summary of key findings
10:3011: 00	Break
11:00 - 12:00	Discussion on findings
12:15 - 13:00	Group work for private sector engagement strategy (discussion on financial and non-financial incentives and enabling environment)
13:00 - 13:30	Group Feedback
13:30 - 14:00	Wrap up



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