

The Ministry of Agriculture and Natural Resources

Sudan
Sustainable Natural Resources
Management Project



PROCESS FRAMEWORK

Updated for SSNRMP Phase 3

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ABBREVIATIONS AND ACRONYMS

| | |
|--------|--|
| ESIA | Environmental and Social Impact Assessment |
| EU | European Union |
| FAO | Food and Agricultural Organization |
| FNC | Forest National Corporation |
| GEF | Global Environmental Facility |
| GGWI | Great Green Wall Initiative |
| HCENR | Higher Council for Environment and Natural Resources |
| IFAD | International Fund for Agricultural Development |
| LDCF | Least Developed Countries Fund |
| MANR | Ministry of Agriculture & Natural Resources |
| MoARFR | Ministry of Animal Resources, Fisheries and Range |
| NGOs | Non-Governmental Organizations |
| NRM | Natural Resource Management |
| PA | Protected Area |
| PCU | Project Coordination Unit |
| PDO | Project Development Objective |
| PNSC | Project National Steering Committee |
| PSIR | Pressure State, Impact Response Analysis |
| PTC | Project Technical Committee |
| RPA | Range and Pasture Administration |
| RPF | Resettlement Policy Framework |
| SAWAP | Sahel and West Africa Programme |
| SFM | Sustainable Forest Management |
| SLM | Sustainable Land Management |
| SLWM | Sustainable Land and Water Management |
| SPIU | State Project Implementation Unit |
| SSNRMP | Sudan Sustainable Natural Resources Management Project |
| TA | Technical Assistance |
| ToR | Terms of Reference |
| UNDP | United Nations Development Program |
| UNEP | United Nation Environment Program |
| USAID | United States Agency for International Development |
| WCGA | Wildlife Conservation General Administration |

GLOSSARY

| | |
|---------|---|
| Nazir | Paramount tribal leader |
| Omda | Head of tribal clan |
| Sheikh | Village head |
| Dar | Tribal homeland |
| Murhal | Livestock corridors in rangelands |
| Hafir | Excavated pond to collect water for human and animal use |
| Trus | Traditional small embankment to collect runoff for cultivation |
| Hawakir | Land recognized as homeland for specific tribe or individual according to customary rules |

1. INTRODUCTION

Sudan is situated in northern-eastern Africa with a coastline bordering the Red sea. It is the third largest country in Africa with a population size of 39 million. Like in other Sahelian countries, livelihoods in Sudan heavily depend on soil, water and vegetation resources. It is estimated that agriculture (crops, livestock and forestry) contributes 35-40% of GDP (with livestock accounting for 50% of the production) and employs more than 80% of the total population.

Sudan faces environmental challenges due to its geographic location within the fragile Sudano-Sahelian and sub-Saharan African zones. Short variable erratic rainy seasons, arid lands, and poor sparse vegetative cover contribute to the country's vulnerability. In addition, the soils in the area are highly susceptible to wind and water erosion. The steady increase of both human and livestock populations puts pressure on natural resources, and has resulted in soil erosion, nutrient loss, land degradation, water pollution, and deterioration of biodiversity across large tracts of the country. Degradation of rangelands and forest resources in Sudan has been caused mainly by the rapid expansion of mechanized farming and extensive agricultural practices and charcoal production

The proposed Additional Financing for Sudan Sustainable Natural Resources Management Project (SSNRMP) is part of the Sahel and West Africa Program (SAWAP) which supports the Great Green Wall Initiative (GGWI) and it is designed to undertake sustainable natural resource management activities in range lands and forest ecosystems in North Kordofan, Northern, River Nile, Gadarif and Khartoum States.

More specifically, the AF is to finance implementation on a larger geographic scale and expand the range of SSNRMP interventions to other ecosystems through the following activities: (i) scale up Soil, Land and Water Management (SLWM) interventions to bring about 221,000 ha of land under forest and range management for the entire project; (ii) promote community rehabilitation of degraded lands and forests, including biodiversity conservation, and establishment of wind breaks and shelterbelts; (iii) promote biodiversity conservation by rehabilitation/establishing the wildlife sanctuaries (in River Nile, Northern and North Kordofan States) and prepare management plans using the concept of Community Based Wildlife and Biodiversity Conservation.

In the North Kordofan State, biodiversity conservation activities include supporting range and pasture development in Al Baja, which complements the achievements made in the piloted locality in the original SSNRMP targeted area of the White Nile State. Overall, water harvesting structure and water management, is essential for enrichment planting, natural resources regeneration, and sand dune stabilization in the new project areas and therefore, instrumental to increasing the resilience of the rural communities.

Rangelands and forests to be selected for project activities are uninhabited. The areas to be selected will also not include agricultural lands. Thus, there will be no land acquisition leading to involuntary resettlement resulting from SSNRMP activities. However, restoration and eventual gazetting of forest reserves and rangelands may affect communities living around targeted rangelands and forests by restricting their livelihoods, access to and use of the resources. This Process Framework (PF) has been prepared to address impacts of access restriction to and use of rangelands and forests to be rehabilitated and restored.

The purpose of the PF is therefore to establish the design for a consultative and participatory process by which members of potentially affected communities in the three states of the original project along with the two new states under the AF participate in design of project activities, determination of measures necessary to achieve all-inclusive access to and use of

natural resources in the process of enforcing access and use restriction due to project activities. The anticipated potential social risks and impacts, from the implementation of the SSNRMP parent project and the additional finance are summarized in the following paragraphs. The project involves restriction of access and use to protected areas (where people may have relied on the forest and non-forest timber products, gum Arabic, pasture, etc), introduce access and use restriction through area closures. In areas, where the access restriction at community level garners broad community support, with adequate documentation of the process, the policy will not apply. However, the process outlined in this process framework should be followed in determining the application of this process framework. The summary of the views, concerns and suggested mitigation measures on the proposed project activities included in Section 12, SSNRMP AF New States: Summary of key concerns and recommendations from the community consultations. The complementary ESMF in section 1.4.2 under the summary of stakeholders consultation, and the section on public consultation and disclosure.

This PF includes key processes and principles to guide the project's preparation of management plans for forest and range land and the identification and implementation of the different subproject activities related to rangeland, water resources, forest reserves and livelihood activities which mainly involve access to and use of natural resources.

2. APPROACH AND METHODOLOGY

2.1. Document review

Key documents reviewed include i) The Project Concept Note, the draft Project Paper, and various reports on the socio-economic aspects of the States where the Project will be implemented ii) the World Bank Group Operational Policies on Environmental and Social Safeguards iii) Process Framework of related projects. *The PF update reviewed implementation experience of the parent SSNRM project.*

2.2. Consultation with stakeholders

Stakeholders including governmental institutions, civil societies, academic institutions and communities that will potentially be affected by the project were consulted at the National, State and Local levels. Methods used for the consultation included questionnaires, structured interviews, informal interviews and focus group discussions.

At the National level governmental institutions such as National Council for Environment, Higher Council for Environment and Natural Resources (HCENR), Ministry of Agriculture & Natural Resources (MANR), Forest National Corporation (FNC), Wildlife Conservation General Administration (WCGA), Rangeland and Pasture Administration were consulted. Similar governmental institutions at the State Level have also been consulted. From donors and non-government institutions, United Nations Development Program (UNDP), IFAD, International Fund for Agricultural Development, United Nations Environment Program (UNEP), UK Department for International Development, European Union, Norway Embassy, Japan International Cooperation Agency, Food and Agriculture Organization (FAO), Netherland's ZOA and Islamic Relief Worldwide were consulted on the design of the Project during the preparation of the parent project.

A more detailed consultation was held at the State Level with researchers at the Ministry of Production & Economic Resources, community-based organizations in the two

states (farmers unions, pastoralist unions, herder unions, popular committees, village committees, farmers' cooperatives associations, and traditional leaders). The consultation summary with views, concerns and recommendations is included in section 11 of this document "Public Consultations, Concerns and Recommendations."

3. PROJECT DESCRIPTION

The Sudan Sustainable Natural Resources Management Project (SSNRMP) falls under the World Bank/GEF Sahel and West Africa Program (SAWAP) in support of the Great Green Wall Initiative (GGWI). The Project would address land degradation challenges in selected States of Sudan, namely North Kordofan, Northern, River Nile, Gadarif and Khartoum States, by promoting a landscape approach to natural resources management and conservation of biodiversity. The current project phase to be implemented in Khartoum and Gadarif states would be financed by GEF and the Least Developed Countries Fund (LDCF) with a total of 5.9 million USD for a period of 4 years.

3.1. Project Development Objective

The Project Development Objective (PDO) and Global Environment Objective (GEO) is "*to increase the adoption of sustainable land and water management practices in targeted landscapes.*

3.2. Project Components

The project will have three components: (1) Institutional and policy framework; (2) Community-based sustainable management of rangelands, forests and biodiversity; and (3) Project management.

Component 1: Institutional and policy framework

This component finances technical assistance, workshops, goods, services and operational costs to build or strengthen national, state and local level capacities to strengthen policy and regulatory frameworks, remove critical knowledge barriers, and develop an enabling environment for the on-the-ground activities. The project design hinges on improving the vertical and lateral coordination from the federal to the local community levels and between the various government, non-government and community players. The project design will also address the sustainability concerns providing tailored solutions. Component 1 supports:

Institutional capacity building: The project supports key institutions involved in NRM by strengthening their capacity to formulate, implement and monitor programs and projects in this area. The capacity development program is flexible and modular. Institutional, technical, and administrative training needs are determined through consultative mechanisms at all levels. The project provides institutional support to MANR, Forest National Corporation (FNC), Range and Pasture Administration: (i) develop effective interagency collaboration mechanisms at the central and state level; (ii) assist communities in preparing and implementing investments under integrated land management plans; and (iii) manage, monitor, and maintain infrastructures by Village Development Committees (VDC).

Information and knowledge management: The project has drawn the MANR and FNC much closer together at the central and state levels. Lessons of implementation are to be disseminated through regular events (in country) and through South-South knowledge exchanges in the Horn of Africa Region; knowledge exchange happens through IGAD Drought Resilience Initiative regional platform. The project supports the Pressure State,

Impact Response analysis of land and biodiversity degradation, including assessment of land management practices.

A communication plan will be developed and implemented to disseminate information on project results and lessons learned to key stakeholders. SSNRMP receives support from the Building Resilience through Innovation, Communication, and Knowledge Services (BRICKS) Project (P130888) in strategic communication and contribute to knowledge exchange initiatives benefiting project implementation, within the TerrAfrica platform and other exchange initiatives.

Malaria. Although there are global models of climate change which predict changes in malarial incidence spatially and temporally in Sudan, there are no studies based on available local data. Therefore, an AF activity will include a call for proposals to national universities to underwrite locally-relevant studies. The call will focus on identifying and explaining current and future changes in conditions for malaria incidence, how irrigation and water harvesting facilities can be protected from becoming larvae breeding grounds for mosquitos, and other relevant topics in the malaria – climate change – water management nexus as well as gender impacts of malaria. The project will facilitate the discussion of their findings with governmental agencies, international organizations and recognized experts in order to identify actionable recommendations. A synopsis of these studies, to include potential policy response measures and practical steps to address climate-induced diseases through sustainable NRM, will be disseminated. The AF Results Framework includes a dedicated indicator to reflect on the progress of this activity.

Component 2: Community based sustainable management of rangelands, forests and biodiversity

This component works on incorporating innovative technologies in community-based sustainable NRM from the menu of interventions that would match socio-economic and physical conditions of specific localities. Subcomponents include: (i) addressing climate change impacts on water resources and agriculture by promoting innovative climate-smart NRM technologies; and (ii) alleviating negative impacts of environmental degradation and climate change on human health.

Rangeland management: Given the importance of livestock in Sudan and its impact on land degradation, sustainable rangeland management activities related to husbandry and livestock are crucial. Activities include establishment of shelter belts for sand dune fixation, demarcation of animal migration routes and grazing land rotations, establishment of nurseries for rangeland rehabilitation, clearing and opening of fire lines to protect rangelands. Community level project activities may include rehabilitation and cultivation in open spaces and seeding rangelands to improve range condition with fodder grasses.

Integrated land management plans: The project will support the preparation of NRM plans for the gazetted *Om Seraig* reserve in the *Butana* area in the *Central Gadarif* locality of Gadarif State, *Sharg Elneel locality (Sayal Elfaki Saad Area)*; a forest Reserve and shelterbelt in Khartoum.

Protection and use of water resources. SSNRMP designed a collaborative management system between communities and the water authorities, where communities manage the operation of the water structure and the State Water Corporation provides technical back-stopping. The project design will take into account concerns for integrated water resources management. Community level project activities may include rehabilitation of existing hafirs and water sources, using other water harvesting techniques to utilize the water from wadis and khors (seasonal streams). Even though the rainwater harvesting structures

hold a small amount of water, due diligence will be applied to make sure rainwater would not be blocked from flowing down stream. Groundwater recharge capacity will be assessed before operations are put in place.

Forest ecosystem rehabilitation and restoration: In Khartoum State, the project will gazette and rehabilitate 3,750 ha of the Sharg Elneel Forest Reserve & Khartoum shelterbelt, while in Gadarif State, 12,000 ha of the gazetted Om Seraig reserve in the Butana area will be rehabilitated. Proposed sites can support many of the original small mammals, birds, reptiles, and diverse flora species of the Sahel biome. The project is expected to indirectly benefit biodiversity conservation through the gazetting of forest reserves, restoration of native vegetation by reforestation, enrichment planting, natural regeneration and effective implementation of management plans. These activities will generate temporary movement restrictions and limited land access to the pastoralists in the area especially during the first two years of tree plantation and this will take place at the community level with the leaders and locality government by opening temporary corridors to facilitate movement north to south and vice versa.

Strengthening resilience of communities through establishing multiple water harvesting structures, including with the application of GHG technologies (solar panels), strengthening the asset base of rural farmers including natural and financial capital, increasing the diversity of smallholder farming systems through the promotion of mixed cropping-livestock systems and diversification of crops; enhancing household food security and wellbeing through the introduction and improvement of home gardens; promoting equity and inclusion of vulnerable and marginal groups especially women; enhancing local institutions through support to VDCs; diversifying access to alternative sources of energy, and improving the availability of/and smallholder access to climate information. Phase 3 will explore the demand for biogas technologies, which convert biological waste into energy. In addition to having a clean renewable energy provide gas for household needs, many families make extensive use of the fertilizer by-product that biogas digesters provide.

Engaging the private sector. Since the beginning of SSNRMP, the project has linked public agencies, private sector and financial institutions through workshops, conferences and trainings to exchange perspectives and understand the role of private and public actors in community resilience activities. Component 1's focus on regulatory frameworks and policies has facilitated market entry of climate resilience technologies. Some of these include: (i) solar panels to replace diesel pumps for remote village communities; (ii) gas cylinders to replace firewood for village cooking; (iii) non-forest product marketing to reduce transactional costs to market; and (iv) a piloting of biogas technology in SSNRMP3. The introduction of environmentally sound technologies is encouraging communities to establish further micro-finance capacities and the local private sector to further invest in commercializing these same technologies.

Development of locality extension approaches based on incentive structures established for supporting and promoting SLWM. Capacity of new extension agents will be built through training in (i) appropriate SLWM technologies and current extension approaches and (ii) in best technologies for root and tuber crops. Existing training materials have been revised to incorporate lessons learnt during previous project support. An incentive system for extension staff based on performance assessment has been developed and implemented, to promote excellence of extension support. Study tours to countries with relevant SLWM experiences and local study tours to best SLWM practice sites will continue to be supported. The key elements of the extension approach are: (a) establishment of demonstration plots for

select SLWM technologies in target communities, and (b) supporting formation of farmer groups or individuals interested in applying similar technologies.

This component also finances technical assistance, training, investments, goods, works, services and operational costs related to the promotion of wider adoption of community-based SLWM practices in forests and rangelands in the targeted communities. Local communities will acquire the capacity to effectively participate in selection of rangeland activities, negotiation of access to grazing grounds, setting the guidelines for formation of local organization and associations (cooperatives) around specific NRM livelihood initiatives.

Component 3: Project management

Project Management includes support for day-to-day project management including, procurement, financial management, environmental and social safeguards, annual work plans and organization of supervision missions.

Monitoring and Evaluation will provide support for operating an M&E system that will track the project results, including those registered in the GEF tracking tools for Biodiversity, Land Degradation and Sustainable Forest Management. The M&E system will work in coordination with the SAWAP Program so that key indicators can be aggregated from the country level to the regional Sahel level. To achieve this, the project will receive complementary support from the BRICKS project for regional portfolio monitoring that will reinforce benchmarking and improved investment design and execution.

Changes from the Parent project to the SNNRMP AF

The changes from the original project are related to (i) name change in implementing agency (from ‘Ministry of Environment, Natural Resources and Physical Development to ‘Ministry of Agriculture and Natural Resources’. At state level (from ‘State Ministry of Agriculture and Animal Resources to ‘Ministry of Production and Economic Resources. The second set of change is related with the results framework on values, addition and deletion of indicators. The third change is regarding the loan closing date. Given the overall change described, it has no implication regarding the safeguard implementation institutional arrangement.

4. BASELINE AND SOCIO-ECONOMIC CONDITIONS

The Republic of Sudan covers an area of about 1.87 million km², (UN and Partners Work Plan, 2012 and FAO, 2012), and in general terms, desert and semi desert conditions cover between 60-70 per cent of the country’s total area. The latest estimation of the land cover of Sudan (FAO, April 2012) shows that some 51 per cent of area is bare rocks, bare soil and other unconsolidated materials (such as wind-blown sands free of vegetation in hyper-arid areas). A further 10% is classified as trees, 11.8% as shrubby vegetation, and 13.8% as herbaceous vegetation.

Sudan remains essentially rural with the majority of the population dependent on the country’s natural resources for their livelihoods. It is estimated that agriculture (crops, livestock and forestry) contributes 35-40% of GDP (with livestock accounting for 50% of the production) and employs more than 80% of the total population (Lee, et al, 2013). Traditional farming accounts for 60-70% of the agricultural output and is largely subsistence production based on shifting cultivation and livestock rearing (Badri, 2012).

The 2013 UNDP Human Development Index ranks Sudan at 171 out of 187 countries. Poverty estimates set the average rate of poverty incidence at 46 % (2009 National Baseline

Household Survey), indicating that some 15 million people are poor. The poverty rate is significantly higher in rural areas (58%) than in urban areas (26%) and varies markedly across states.

The environmental and socio-economic conditions of the three States – **Kassala**, **White Nile** and **Gezira** – where the SSNRMP has been implemented are briefly described below followed by the introduction to the new states where the project will be implemented under proposed Additional Financing – **North Kordofan**, **River Nile**, **Northern Gadarif** and **Khartoum** States.

Kassala State is in the eastern Sudan, and its population is estimated to be 1.4 million. The land area is about 42,282 km², and the cultivated land covers about 40% of the total area. The major crops grown are sorghum, sesame, wheat, peanuts and cotton.

The state is affected by recurrent drought and sand encroachment. Furthermore, the area is characterized by low productive capacity in the agricultural and livestock sectors, shortage of water resources, lack of education and health services, deterioration of natural resources, and poor road infrastructure.

Kassala State is estimated to have over 2.94 million ha of natural pasture land. This area supports around 3 million heads of the livestock in the state. It also supports a similar number of additional livestock that pass through the state on a seasonal basis. Forest-land covers 3 per cent of the state's total area, equivalent to some 126,000 ha. Of this amount, about 9,000 ha has been set aside for conservation. The proposed project will restore and rehabilitate 2,400 ha of forest areas.

The **White Nile** state is located along the White Nile, South of Khartoum, and has population of about 2.7 million. The state is home to significant numbers of refugees, nearly 10% of the population and is a transit point for Internally Displaced People (IDP) returning to the south.

Agro-ecologically, the state is within the semi-desert zone, characterized by sandy soils and with annual rainfall varying from 300 mm in the north to 600 mm in the south. About 70% of the population is rural and agriculture is the main source of livelihood.

The White Nile state has both rain fed and irrigated farming; the rain fed crop mix has sorghum as the major crop, which together with sesame and millet cover about 97% of the total cultivated area. Irrigated farming is concentrated in agricultural schemes and small farms along the White Nile. Along with crops, livestock is an important source of livelihood.

The size of rangeland in *Aum Rimta* locality, where the project will be implemented, is estimated to be 250 km², which is largely degraded because of overgrazing and recurrent drought. The project will support the rehabilitation of part of this rangeland and livelihood improvement activities for people in the project intervention area.

Gezira state is located along the Blue Nile, Southeast of Khartoum, and has a population of about 2.71 million. Agriculture is the main economic activity, followed by livestock rearing. The presence of fertile soils in the state has led to the development of extensive rain-fed grain cultivation, and the establishment of the largest irrigation scheme in the country.

The natural vegetation of the area is classified as a woodland Savannah. However, the natural vegetation has been degraded while widespread clearance for mechanized crop production, extensive burning and shifting cultivation.

It is estimated that 7% of the land is covered with forest. The Acacia forest reserve in

east Gezira, where the proposed project will be implemented, is estimated to be 85,000 hectares. This forest reserve is highly degraded largely because of selective logging and grazing. The project will support forest rehabilitation and livelihood improvement activities for people living in the forest reserve areas.

Northern Kordofan state is in the central western part of Sudan on the northern edge of the savanna belt. The state's climate is characterized by low rainfall, sparse vegetation and extreme temperatures, which reach as high as 49 degrees Celsius in the summer and as low as 1.5 degrees Celsius in the winter. Box 4-6 provides some essential climatic and vulnerability information for Northern Kordofan state. Although unable to support heavy agriculture, Northern Kordofan climate allows for small scale farming, which produces a diversity of livestock and crops, such as millet, sorghum, groundnuts, watermelon seeds, hibiscus, gum Arabic and cowpeas. Roughly 79% of the state's population depends on agriculture for their livelihoods, with agricultural production in Northern Kordofan contributing about 30% to the country's overall non-oil exports (North Kordofan State NAP Committee 2013). Within the sector, crop production comprises 53% of agricultural output, livestock 38%, and forestry and fisheries a combined 9%. Industry and service sectors are also developing slowly. However, this development is concentrated in urban centres leaving a large portion of the state's 3 million people living below the poverty line.

A harsh climate and an agriculture dependent economy make Northern Kordofan one of Sudan's most vulnerable states. Since the 1960s, recurring drought has caused widespread desertification. Should drought and rainfall variability intensify, this could threaten Northern Kordofan's already limited agricultural sector and increase food insecurity. Adaptation plans for agriculture include the introduction of improved crop varieties, shelterbelts, crop rotation, efficient water harvesting structures, and the establishment of early warning systems. In addition, strengthening the sector's poor infrastructure and expanding use of arable land may help compensate declining crop yields.

The initial study of state level vulnerability provided a long list of vulnerable localities in North Kordofan. To identify high impact adaptation measures, more information is planned to be obtained for these sites and their role in Northern Kordofan economy. Adaptation in the water sector should include improved water management as well as improved livestock and agricultural techniques. Geo-physiological studies are needed to determine ideal sites for digging wells, trainings would enable water committees to adopt better management practices, and rehabilitating or constructing new boreholes, hafirs and water pipes would help alleviate water scarcity.

River Nile state straddles both desert and semi-desert zones. It contains the River Nile, the River Atbara and many seasonal streams. Agriculture is the dominant economic activity with irrigated cultivation concentrated around the River Nile and the River Atbra banks and delta area. Flood irrigation is concentrated mainly around the River Atbra while rainfed agriculture is practiced in other parts of the state remote from seasonal streams. During the last two decades, significant increases in winter temperatures were recorded at the beginning and end of the growing season, shortening the growing season, reducing the productivity of winter crops (River Nile State NAP Committee 2013). Given that arable land is highly constrained, production decreases because of rising temperatures have led to greater food shortages. At the same time, high wind speeds and shifting sand dunes affect cultivated lands by sometimes creeping sand dunes blocking irrigation channels. Farmers in the lower River Atbara area are most vulnerable to these conditions. At the same time, annual flow rates of the River Atbara have been decreasing, leading to lower crop and animal productivity.

Increasing temperatures, floods and drought exacerbate persistent health threats. The incidence of disease is highly seasonal and usually occurs at the start of the wet season. Waterborne diseases make up 80% of the reported diseases. These include malaria, Giardiasis, Cholera, Dysentery, and parasitic infection like schistosomiasis (River Nile State NAP Committee 2013). High frequencies of tuberculosis were reported in rural areas in the north and lower Atbara. Animal husbandry represents the other major livelihood system in the River Nile state. However, rangeland productivity has been rapidly deteriorating, due to a variety of factors including increasing temperatures, recurrent drought, rising wind speeds, and overgrazing. The most vulnerable areas are north of Atbara.

Adaptation measures in the agricultural sector focus on the introduction of shelterbelts, agro-forestry cultivation techniques, new drought-resistant seeds and the introduction of new cash crops with emphasis on fruits, and non-timber forest trees and shrubs. Adaptation measures for rangelands focus on the improvement of vegetation cover of key range plants, research on rehabilitation of degraded rangelands using indigenous and introduced plant species, and livestock restocking. For the water sector, adaptation measures encompass improved water harvesting techniques, construction of canals inside the River bed to enhance and lead water to irrigation pumps intakes, provision of small-scale pumping units for irrigation to reduce the negative impacts of water recession, well drilling in rural areas, and construction of water dams for controlling river bank erosion.

Northern state is in the heart of the desert zone, it is characterized by low rainfall, extreme temperatures, and sparse vegetation. The local economy depends on both irrigated and rainfed agriculture along seasonal streams in the southern parts of the state. Rising temperatures, decreasing rainfall, fluctuations in the River Nile, and increased wind speeds have combined to result in a mix of drought and flooding with adverse effects on crop yields, rangelands, animal production, and river bank erosion (Northern State NAP Committee 2013). Shifting climates have also hastened the arrival of new plant diseases, such as the date palm disease in the Elgab area, and new skin diseases, such as “Jarab”, which are not historically common in the state. While irrigated agriculture is vulnerable at all localities, hotspots for rainfed agriculture include forests and rangelands in Merowe and Aldabah localities.

Adaptation measures for the agricultural sector include the adoption of improved varieties, crop rotation, and sprinkler irrigation. In addition, shelterbelts, studies of bank erosion, and the rehabilitation of Umm Gawaseer project for settlement of migrating people are all recommended. The recommended adaptation measures for the water sector include the construction of new wells in seasonal streams' beds, such as Umm Gawaseer in Wadi Almugadam and other settled areas, underground storage of water, conducting studies in Wadi Abu Dom for water harvesting, conducting socio-economic studies, and digging boreholes for drinking purposes in low land areas.

Khartoum state is one of the eighteen states of Sudan. Although it is the smallest state by area (22,142 km²), it is the most populous (5,274,321 in 2008 census). It contains the country's second largest city by population, Omdurman, and the city of Khartoum, which is the capital of the state as well as the national capital of Sudan. The capital city contains offices of the state, governmental and non-governmental organizations, cultural institutions, and the main airport.

The city is located in the heart of Sudan at the confluence of the White Nile and the Blue Nile, where the two rivers unite to form the River Nile. The confluence of the two rivers creates a unique effect. As they join, each river retains its own color: the White Nile with its bright whiteness and the Blue Nile with its alluvial brown color. These colors are more visible in the flood season.

It is surrounded by River Nile State in the north-east, in the north-west by the Northern State, in the east and southeast by the states of Kassala, Gadarif, Gezira and White Nile State, and in the west by North Kordofan.

The northern region of the state is mostly deserting because it receives barely any rainfall, whereas the other regions have semi-desert climates. The weather is rainy in the fall, and cold and dry in the winter. Average rainfall reaches 100–200 mm in the north-eastern areas and 200–300 mm in the north-western areas.

The temperature in summer ranges from 25 to 40 °C from April to June, and from 20 to 35 °C in the months of July to October. In winter, the temperature declines gradually from 25 to 15 °C between March and November.

The 2008 population census estimates the population of Khartoum state to be about 5,274,321 capita, composed of various tribes of the Sudan. The population is 79% urban and 74% of the state's population reported their region of origin to be outside Khartoum.

Gadarif state has an area of 75,263 km² and an estimated population of approximately 1,400,000 (2000). The state is bordered to the east by Ethiopia and Eritrea. The four Sudanese states surrounding Gadarif State are Khartoum, Kassala, Gezira and Sinnar.

Following agriculture, livestock rearing is the second economic activity in different forms, namely traditional seasonal transhumant, village livestock raising and, as a recent element, livestock raising by large-scale mechanized merchant-farmers investing surplus wealth in sheep and cattle.

Collecting and trading forest products and charcoal burning are other traditional forms of economic activity. Thus, the people derive their livelihood income from a mixture of combinations of the three main forms of land-use: agriculture, grazing and forest utilization.

Gadarif state vegetation cover types and distribution (trees and grasses are related to climatic factors particularly the rainfall. The seasonal short grasses and scattered thorn trees are available at northern parts and increase in central parts with appearance of poor savanna plants further south of these areas. At the southern parts, tall grasses, Acacia, Balanites and Hashab dominates representing rich savanna zone.

The mean temperature in the Gadarif town is 29°C, the mean maximum is 37°C and the mean minimum is 21°C. May is the hottest month of the year. The area is characterized by a unimodal rainfall season most of which primarily occurs from June to September and controlled by the nature of the Inter-Tropical Convergence Zone. The annual rainfall in the area ranges between less than 300 mm in the North to more than 800 mm in the South.

Gadarif state is part of Eastern Sudan region, it occupies the south eastern premises and located between longitude 36.36.00 – 33.27.00 and latitude 15.54.00 – 12.36.00 with a total area of 71,000 km² (about 17 million feddan). It has common state boundaries with Khartoum, Gazira, Seendar and Kassala and as well as it has an international boundary with Ethiopia. Gadarif town is the state capital and it almost situated at the center of the state. Gadarif state is distinguished by its inimitable location and the existence of numerous potential natural resources.

Most climatic zones in Gadarif state are characterized by their relatively high amounts of rainfall that provide adequate soil moisture for growing a wide variety of rainfall crops. In this regards the southern region have long growing seasons extending from 4 to 5 months that enable growing of crops which require high level of soil moisture (e.g cotton and sunflower). In the central regions with less rainfall, the growing season is reduced to 2 to 3 months which is suitable for growing cereals (sorghum, millet and sesame) whereas the northern part of the

state that have scanty rainfall is considered largely as grassland and used for grazing (The selected area for SSNRMP intervention located in this part of the state). The state constitutes the largest part of the central Clay plain in Sudan which nearly flat sloping plain with few slight undulations.

Animal resources constitute an essential part of Gadarif state set-up of wealth and natural resource. Large numbers of camels, sheep, goats and cattle exist all over the state particularly at central and northern regions. The ecological sequence in the state in regard to climate and vegetation (i.e desert, arid and wet climates) have offered a highly potential rangelands with pasture all around the year with widely known eight animal routes extending along the whole length of the state. Historically the animal routes have been located to allow the herders from different tribes to access rangelands without damaging farm lands as well as avoiding tribal conflict on grazing lands.

5. LEGAL AND ADMINISTRATIVE FRAMEWORK

5.1. National Legislation

Statuary and customary legislations as well as policies of relevance to the sustainable land and forest management activities and access to resources are described below.

5.1.1. Land Tenure and Land Regulations

- **The Civil Transactions Act 1984:** this Act regulates the different issues related to civil transactions with respect to titles on land, means of land acquisition, easement rights and conditions to be observed by land users and gives guidelines and details for practical implementation of issues related to land acquisition;
- **Land Registration and Settlement Act 1925:** this Act provides rules to determine rights on land and other rights attached to it and ensure land registration;
- **Land Acquisition Act 1930:** This Act gives the government the power to appropriate lands for development purposes in accordance with the provision of the Constitution and Civil Transaction Act 1984; Government lands cannot be sold or bought and no claims of ownership are accepted for them;
- **Disposition of Lands and Physical Planning Act 1994:** this Act regulated designation of lands for different purposes and urban planning.

5.1.2. The Interim National Constitution (2005)

The Interim National Constitution of the Republic of the Sudan (2005) is based on the Comprehensive Peace Agreement (CPA) 2005, and relevant articles of the 1998 Constitution of Sudan. The Constitution reflected on the various land tenure legislation and policies listed above. It endorses the rights of citizens to live in a clean environment (Article 11) and directs attention to the management of natural resources and cultural heritage sites. The Constitution gives a high level of decentralization of powers to States and local governments.

The Interim Constitution called for competency in land administration and provided for the incorporation of customary laws and practices. It stipulated the creation of four Land Commissions for the purposes of arbitration, entertaining claims against the relevant government or others in relation to land, assess appropriate land compensation, and make recommendations on land reform policies and recognition of customary land rights or law.

The temporary **Constitution of Sudan** is the Draft Constitutional Declaration, which was signed by representatives of the Transitional Military Council and the Forces of Freedom and Change alliance on 4 August 2019. This replaced the *Interim National Constitution of the Republic of Sudan, 2005* (INC) adopted on 6 July 2005, which had been suspended on 11 April 2019 after success of December Revolution in the country. This declaration stated that all laws remain as it is unless it canceled or changed by the National Transitional Legislative Council.

5.1.3. The National Comprehensive Strategy (NCS) 1992-2002

NCS is the first strategy with a dedicated section on the environment. The NCS spelled out the objectives and priorities for sustainable development while incorporating the framework of the country's environmental strategy. According to the NCS, environmental issues must be embodied in all development projects. Poverty alleviation, popular participation and incorporation of indigenous knowledge were recognized as key elements for sound environmental management.

5.1.4. Environmental Protection Act (2004)

This Act outlines the principles and guidelines for implementation of projects and requirements for Environmental and Social Impact Assessment (ESIA). The Act includes general principles and guidelines to be considered in implementing development projects and makes it the responsibility of the project proponents, before embarking on any development activity, to carry out ESIA or at least conduct an environmental screening. The Act provides definitions and clarifications regarding natural resources management, pollutants and sources of pollution and specifies issues to be considered in ESIA (Article 18).

5.1.5. The Five Year National Strategic Plan (2007-2011)

The NSP provides a framework for focusing and coordinating Sudan's peace processes and development efforts. Prepared by the National Council for Strategic Planning (NCSP), based on public participation at federal and state levels, the NSP was intended to set Sudan firmly on course to achieve its Quarter Century year vision. NSP focusses on five key result areas, namely: promoting sustainable economic development; sustaining peace and stability; reducing poverty and making progress towards achieving the Millennium Development Goal.

5.1.6. Draft National Water Policy (2006)

A draft National Water Policy was prepared in 1999. The policy document assessed the water situation in the country, existing legislation and policies and outlined the main policy principles and statements. Policy principles were illustrated under the sub-headings: water resources, water utilization, water and environment, international issues, socio-economic issues, disaster management and institutions and capacity building. It also recommended the development of strategic plans for the water sector. The aim of the policy is to ensure "sustainable and integrated management of available water resources through the adoption of cost effective and appropriate technologies, research, public and private sector partnership, cost sharing and cost recovery mechanisms and recognition of water as an instrument for conflict resolution".

5.1.7. Customary Land Tenure

Most of the tenure rights for land and resources including trees, pasture and water come from customary practices and indigenous traditions usually based on tribal structure. Customary land tenure can be defined as the: "rules accepted by a group of the ways in which land is held, used, transferred and transmitted...recognized as legitimate by the community... and usually explicit and generally known." (FAO, 1996)

Traditional land use system prior to the colonial era, were based on traditional tribal leadership and customary laws that organize resource use among communities. Agricultural practices were based on small holdings allocated to households while pasture and range on large tracts are managed as common resources for grazing. Other resource uses like water and forest products are under the control and management of the tribal leaders. However, the post 1970 land use policy gave the government the ownership over any wasteland, forest or unregistered land thus reducing the rights of the local people. Three categories of land ownership system emerged following several amendments to the policies. These include: private, government and community land. Most of land in Sudan is under government control.

Within the customary land tenure, there is the tribal homeland (Dar) with demarcated boundaries recognized by neighboring tribes and local authorities (e. g. Dar Hamar and Dar Kababish in Kordofan). The tribal land is organized and supervised by Nazir (the chief tribal

leader). Within the tribal land, there is clan land organized by Omda. Within the clan land, there are a number of villages, each with its land organized and controlled by the village Sheikh. Within the village land, each villager practices his private ownership respected and recognized by all.

The unclaimed land is used as range land or allotted to migrants by the village Sheikh provided that they respect the traditional rule of surrendering 1/10 of the crop to the Sheikh. As a rule, land allotted to any person cannot be withdrawn unless he/ she leave the village. Under such circumstances, the land abandoned by any person reverts to the community to be allotted to someone else. In all cases, the owner of the land is free to hire part of his land or dispose of it in the way he likes and after death, his children or relatives inherit the land.

It should be noted here that pasturelands and water resources (pools) are communally owned and utilized. They are not appropriated by individuals and pasturelands are always defined as uncultivated lands. Pastoralists have corridors (Murhal) to avoid farms and allowed to utilize uncultivated areas. Tribal chiefs usually specify these routes and grazing areas for nomads. Generally, these Acts provide procedures for land expropriation for development purposes and ways to specify rights in order to compensate the owner.

In conclusion, there are two main principles of land tenure, land use and land ownership. The access to land use is given by local chiefs. Land ownership is tied by the 1970 land law which necessitates land registration.

5.2. International Environmental and Social Agreements

Sudan signed and ratified many Multilateral Environmental Agreements. International agreements of relevance to this project include:

- Paris Climate Agreement Ratified in 2017.
- International Convention on Biological Diversity (CBD), Ratified in 1995.
- Convention to Combat Desertification (UNCCD), Ratified 1995.
- United Nations Framework Convention on Climate Change (UNFCCC), Ratified in 1993.
- The Kyoto Protocol, Ratified 2005.
- International convention on economic, social and cultural rights. Ratified in 1986.
- Convention on rights of child ratified in 1990
- Convention on the Rights of Persons with Disabilities. Ratified in 2009.
- International Convention on the Elimination of All Forms of Racial Discrimination, ratified 1977.
- International Covenant on Civil and Political Rights :1986
- International Covenant on Economic, Social and Cultural Rights :1986

The ratified treaties subsequently become part of the National Laws and their provisions prevail in case of contradictions with the provisions of the National Laws exist.

5.3. World Bank Policies

The Involuntary Resettlement Policy (OP/BP 4.12) covers direct economic and social impacts that emerge from Bank-financed investment projects, and are caused by involuntary taking of land resulting in relocation or loss of shelter, loss of assets or access to assets, loss of income sources or means of livelihood, whether or not the affected persons must move to another location or the involuntary restriction of access to legally designated parks and protected areas resulting in adverse impacts on the livelihoods of the displaced persons. The

policy is triggered in situations involving involuntary taking of land and involuntary restrictions of access to legally designated parks and protected areas.

This policy is triggered because the proposed project is envisaged to entail some restriction of access to and use of forest and range land resources related to selected critical habitats and water sources which will be earmarked for protection. Therefore, consistent with OP 4.12, this Process Framework has been prepared to manage any implications for communities relying on rangelands and forests in the project areas.

5.4. Institutional Arrangements

The process framework will be implemented with a similar institutional arrangement set out for the implementation of the ESMF of this project. The National SSNRMP Project Implementation Unit will be the primary face of the environmental and social safeguards instruments implementation, reporting and documentation. The State Project Implementation Units (SPIUs) will be responsible for the implementation of the guiding principles described under section 7 of this process framework. The key institutions that will enforce the process framework at the federal level will be the MANR, HCENR, FNC, RPA. At the state level the Ministry of Production & Economic Resources will be responsible for enforcing the process framework in forests and rangelands, respectively. An annual auditing along with ESMF will be conducted to ensure compliance with the process framework.

Besides government project implementers which are responsible for ensuring implementation of the process framework, traditional institutions (as described under section 5.1.7) will be actively engaged in guiding and enforcing the process framework at local level. Nearly in all villages community committees have been elected to administer village's affairs in coordination and collaboration with the Sheikh. Any development activity at the village level starts with permits or requests issued by the Village Development Committee to be raised to the locality for approval.

6. POTENTIAL LIVELIHOODS IMPACTS AND MITIGATIONS

The project activities will bring several direct benefits to an estimated 110,000 people living in the eight states by improving the sustainability of land and water management practices, introducing agroforestry systems, restoring and rehabilitating range lands and forest reserves. Benefits are derived from improved ecosystems and overall better managed habitats. Casual labor and other livelihood opportunities will be created to benefit local communities. These activities will serve the public and communal use rather than individuals. For individual activities a selection criteria will be applied to avoid any bias or discrimination of any community vulnerable groups.

Potential impacts

It is not possible at this stage to determine the number of project affected populations. This will be determined based on identification of the specific sites where the sub projects will be implemented. Potentially affected communities will be involved in identifying any adverse impacts, assessing the significance of the impacts, and establishing criteria for eligibility to mitigate and/or pay compensation. Some of the likely potential adverse impacts are:

- *Restricted access to forests:* protection and gazetting of forest reserves will result in restriction of access to important forest resources for communities living around the forest reserves. Forest resources are important source of fuel wood (energy), construction materials, and non-timber forest resources to the rural communities. The restriction will be on the newly rehabilitated forests and for the protected one the rights were saved as per forests law 2002.
- *Restricted access to rangelands:* the implementation of range land management may reduce access to rangeland for livestock affecting the pastoral communities. Restriction of rangelands may result in competition for water and grazing land between different users and if not mitigated appropriately, it can lead to further tensions and disputes. Temporary corridors will be availed by community leaders and local government officials to facilitate the movement of pastoralists from north to south and vice versa. access to the rest of land not used for rehabilitation were secured.
- *Conflict over natural resources including range land:* the project may face potential conflict over restriction of access to natural resources that people used to depend on for their livelihoods

Mitigation of impacts

Mitigation measures against these anticipated negative social impacts of project activities will be developed under this project in consultation with and considering the needs of local communities. The project will work in close consultation with the federal, state and local governments, local communities and their organizations. The local organizations would include, pastoralist and farmers associations, Gum Arabic producer associations, community committees, village committees, and traditional leadership in livelihood and soil and water conservation activities that would guarantee the re-establishment of existing socio-economic conditions. In addition to that SSNRMP will finance activities that strengthen the social fabrics and community cohesion using conflict sensitive approaches such as working on socially connecting activities such as communal benefits from water sources and avoid dividing activities which will make the SSNRMP interventions are socially sound. Project affected communities would be the priority beneficiaries from the community livelihood activities of the project (Sub-component 2.4).

Mitigation measures could include the following, among others:

- Give priority to employment of local people where possible;
- Identify and support the welfare and cultural identity of affected local communities;
- Train communities in the use of manure to improve productivity of crops;
- Train communities in rangeland management;
- Train communities in sustainable management of forests and non-timber production;
- Encourage the activities that benefit the whole community rather than individuals.

Conflict resolution/management within SSNRMP

Natural resources frequently represent an important source of income and power; land, is essential to the livelihoods of millions of people. When poorly managed, distributed or controlled in an unfair or unequal manner, natural resources can also be a major driver of conflict or instability.

Conflicts due to divergent interest may easily arise from an under-estimation (all beneficiaries not having access) or over-estimation (project sustainability unguaranteed) hence contradicting the purpose of a project.

SSNRMP will finance and support activities that strengthening the social and peaceful co-existence among different natural resources users across all implementation levels. Rapid assessment will be carried out at early stages for any potential negative social impacts at the community and proposed sites for SSNRMP interventions.

Multiple stakeholder engagement techniques will be used by SSNRMP such as steering and technical committees, stakeholder feedback through regular meetings for different project beneficiaries at all levels.

Participatory approaches will use by project implementers at states level to ensure the stakeholders involvement and build the trust and mitigate any misunderstanding of the project objectives, components and subprojects. Community action plans that developed by the targeted communities reflecting the needs of the whole community including vulnerable groups to have opportunities to express their views and concerns and special considerations were putted to them in all community activities.

SPIUs will obtain legal documents for the land that will host the infrastructure or natural resources activity implemented locally, in order to guarantee the sustainability of a project and mitigate any land disputes.

VDCs will tackle any disputes or conflict at the community level on behalf of SSNRMP as it represents the community and expressing their views. GRM will also represent one of the conflict management mechanism used by SSNRMP to resolve the affected people complaints and concerns.

7. KEY PRINCIPLES TO GUIDE SELECTION OF PROJECT SITES

The following principles will guide the project's preparation of management plans for forest and range land and the identification and implementation of the different subproject activities related to rangeland, water resources, forest reserves and livelihood activities.

Preparation of Management Plans: The Local Implementation Unit (LIU) will harmonize the needs of local communities with the conservation of natural resources. Thus, rangeland and forest management plans will be prepared with full participation of local communities. To facilitate the preparation of the management plans environmental and social awareness workshops will be organized on the importance of conservation of rangelands and forests. Communities' indigenous knowledge on soil and water conservation will be obtained and used to inform management plans.

The management plan preparation and implementation will include clearly defined roles and responsibilities for the LIU, local communities and civil societies

Settlements in rangelands and reserve forests: efforts will be exerted to ensure that there will not be any human settlement inside the rangelands and forest ecosystems to be restored and rehabilitated by the SSNRMP AF.

Agricultural activities in rangelands and reserve forests: areas to be selected for the management of rangelands and forest reserves should be free of cultivated lands

Project affected persons would be (a) pastoralists whose access to grazing land is reduced due to rehabilitation of rangelands (b) forest resource users such as landless, women and charcoal makers whose livelihood and income is dependent on forest and rangeland resources.

8. IMPLEMENTATION PLAN

The process to be followed for effective implementation of the PF would consist of the following four steps;

a) Social Assessment (complementary social baseline): this is a critical step and should be done before implementation of component two. The complementary social baseline for each locality where Management Plans are to be prepared would focus on developing an understanding of: (i) the social and geographic setting of the communities in the project areas, including the economic and social challenges/problems; (ii) the types and extent of community use and management of natural resources, and the existing customary rules and institutions; (iii) the communities' threats to and impacts on the NRs; (iv) the potential livelihood impacts of new or more strictly enforced restrictions on the access and use of NRs; (v) communities' suggestions and/or view on possible mitigation measures and come up with special assistance/initiatives for the community, particularly targeting for vulnerable groups; and (vi) potential conflicts over the use of natural resources, and methods for resolving them. The findings of the study will guide the overall considerations and approaches in access and use restriction mitigation measures.

b) The establishment of Forest and Rangeland Management Committees: In addition to the Village Development Committees that are already in place, local rangeland and forest committees will be established for the management of rangelands and forest

reserves. The committees should include representatives from all resource users such as pastoralists, farmers, fuel wood/charcoal makers, women, landless and other users.

c) Conduct Special Compensation Program: the SSNRMP AF implementing entity will develop a compensation package appropriate to PAPs whose livelihoods will be impacted because of the access and use restriction, if any. Special compensation measures could include but not be limited to, provision of alternative grazing area, priority in employment, provision of fodder, support in intensification and agricultural inputs;

d) Identify livelihood activities with active participation of beneficiary communities: The livelihood activities will be based on participatory land and water use approaches to address specific livelihoods needs and priorities at the local level. Selection of activities will include training to support communities in identifying livelihood activities;

e) Community Participation and Citizen Engagement during Implementation: SSNRMP will focus on increasing community engagement, participation and decision-making in all activities of the proposed AF. The participation and engagement forums would help familiarize SSNRMP AF components and accompanying benefits. Citizen feedback and a series of consultations with community members, government officials, and representatives of CSOs will continue during implementation;

f) Conflict resolution committee: Any potential conflicts between communities whose livelihoods will be affected due to the access and use restrictions will make use of the Grievance redress committee as stipulated in the complementary ESMF. The conflict resolution committee must include the participation of all stakeholders from all socio-economic backgrounds;

g) Develop Action Plan: based on the process stipulated above, SSNRMP will develop a process action plan for the State PIU or the National PCU for review and clearance based on the scope of access and use restriction. The Process action plan should be submitted and cleared before enforcing restrictions of access. Detailed action plan must be prepared together with the PAPs and stakeholders. An action plan may include, but not limited to, the following:

- Description of agreed restriction with extent and time frame;
- Boundaries of the access restricted land/resources with brief description;
- Description of the community/stakeholders affected by access restriction;
- Measures to assist access restricted affected community/individuals/ stakeholders with time bound and financial sources;
- Monitoring and evaluation arrangements;
- Impact mitigation measures (i.e. environmental and social impacts) with identified community and specific environment or location of the area that receive mitigation;
- Background of the socio-economic status of the community;
- Special measures concerning women and vulnerable groups;
- Capacity building plan (of the implementing agencies, community, stakeholders);
- Roles and responsibilities of implementers, collaborators, community, stakeholders, etc.;
- Complaint entertaining and settling mechanism.

h) Participating in Monitoring and Evaluation system of the project Community members (project beneficiaries and project affected people) participate in the monitoring and evaluation of the implementation of the PF. Community involvement in the M&E process will help to ensure that the objectives of the PF are successfully achieved; in case of some eventual gaps, corrective measures will be taken at the right moment.

9. MONITORING AND EVALUATION (M&E) ARRANGEMENTS

The objectives of monitoring implementation of the PF are a) to ensure that the bodies established and tasked, *inter alia*, with implementing the PF are performing their duties adequately and if not, to ensure their capacity is built to do so, b) to ensure that the actions taken to resolve conflicts c) to conduct a final evaluation of whether or not the PAPs identified have been affected in such a way that their living standards are equal or higher than before the project.

The Project Coordination Unit (PCU), the MANR, will be responsible for monitoring and evaluation along with SPIU. The PCU will report on project performance based on the field visits and implementation reports to the Steering and Technical Committee (TC) of the project. For detailed implementation arrangements, please see the AF Project Paper.

A number of indicators will be used to determine the status of livelihood of affected communities. Definitive indicators and milestones of success will be developed in a participatory manner after the project start date by local community representatives chosen to represent the views of communities in the project area.

At the project level, M&E will include those indicators established in project documents and aligned with the GEF biodiversity tracking tool. The overall monitoring of project progress will be achieved through quarterly reporting.

The PF will be considered successfully implemented if affected individuals, households and communities maintain their project standard of living or improve on it, and local community support is built and remains supportive of the project.

10. Grievance Redress Mechanism (GRM)

It is also important to note that the Project Appraisal Document and the Project Operations Manual provides for a Grievance Redress Mechanism (GRM) at the community, administrative unit, locality, and state levels, including Appeals' Committees at the latter two levels. A Management Information System will be developed, which in addition to collected necessary information on beneficiaries and projects to track progress, will also include a module to record complaints and the ways in which they were addressed. The intended GRM for this project will be specific to the project and various accountability tools will be used to track and evaluate effectiveness of interventions.

The GRM is an essential part of the safeguard instrument that intends to resolve complaints on the SSNRMP- subproject activities. It should address complainant concerns and complaints promptly, using an understandable and transparent process that is gender responsive, culturally appropriate, and readily accessible to all segments of the complainant persons. Generally, the Mechanism will ensure that (i) the public within SSNRMP-investment influence are aware of their rights to access, and shall have access to, the mechanism free of administrative and legal charges, and concerns arising from SSNRMP-activity in all phases are addressed effectively. Such kinds of approach are useful, among others, to improve outcomes of SSNRMP- implementation, help to prioritize supervisions, identify systematic implementation issues and trends, and promote accountability through creating more predictable, timely and results-oriented responses to citizen concerns.

Possible indicators may include, among others:

- Number and/or percentage of functional GRMs established;
- Number of GRM cases resolved
- Levels of GRM cases resolved at each level;
- Number of grievance cases registered;
- Average time and number of meetings conducted for resolution of grievances,
- Number of GRM awareness sessions;
- Number of complaints that have gone to mediation;
- Degree of involvement of women, youth, and disadvantaged/marginalized groups in discussions;
- Number of complaints received; and
- Number of accidents/incidents related to project's activities.

The GRM is a space for stakeholders to discuss and solve problems through an acceptable, independent and institutionalized mechanism for resolving conflict coming from SSNRMP implementation. Grievances can be submitted by email, written letter, telephone, SMS and a suggestion/complaint box placed at the State Forest and/or Range and Pasture Office, as appropriate. Support from NGOs, interest groups and other stakeholders is necessary for helping local natural resources' users submit their grievances. Grievances are assessed by subject-experts and project staff possessing substantial knowledge about natural resources management and conflict resolution. In relative difficult cases, an external expert can serve as a mediator in trying to reach agreement between disputing parties. If parties are unable to reach a resolution, they may submit an appeal to the SSNRMP Technical Committee, who will decide on the case. As a last resort, SSNRMP stakeholders can submit a formal complaint through the State Project Implementation Unit or other formal Sudanese

judicial system.

Given the challenge with the GRM establishment and functionality in SSNRMP-2, the PIU assessed a realistic timeline, including assessing the available system, staffing, logistics and resources, and procedure for accepting, providing feedback and documentation. The Sudan portfolio including the SNNRMP-2 had been on hold after approval due to WB mission suspension and the resumption of portfolio disbursement. Although not particular to SNNRMP, this has affected the establishment and operationalization of the GRM in the parent project. Based on this assessment and the time required for institutionalization of the project implementation, the PIU has outlined an operational procedure with timeline. Operationalization of the GRM will take 9 months starting from the effectiveness of the project. In the first 3 months, several activities are undertaken such as staff training and administrative tasks to set up the grievance mechanism for the targeted states. Second level operationalization includes expanding to a nationwide GRM with case officers stationed in all eight state forest offices. The last three months of operationalization are dedicated to creating a digital modality for submission via email any other accessible modality for the aggrieved party based on context. The GRM will be introduced with a comprehensive communication plan for stakeholders, targeted to local communities, private holders, NGOS and other interest groups, state and locality level offices, experts in environmental and social sciences, SSNRMP related structures, and GRM clients.

The PF recommends that with the quasi-judicial structure proposed, the grievance redress mechanism can be seen as an “in-between” step stakeholders can take after informal or traditional dispute resolution fails. This step is crucial, given the high tension of existing land disputes, and the difficulty local forest users have accessing the formal system because of its complexity or anxiety to use the system. The PF recommends for the GRM to become institutionalized and effective in handling grievances in an impartial and timely manner, on the legal topic, the PF recommends creating legal provisions for GRM implementation, including amendment of state laws and regulations. To ensure adequate execution of the GRM, the PF recommends to gradually expand the GRM from locality, state to national focus. This will have to go together with expert guidance, raising awareness and providing incentives for stakeholders using the GRM.

In addition to the grievance mechanism itself, the SSNRMP developed a communication plan to inform the stakeholders about the existence of the GRM and instructions of operation. The communication plan includes aspects of stakeholder-targeted communication channels, facilitators, multipliers and timelines. Such indicators are used to assess if a process is established to identify and resolve grievances and disputes related to the SSNRMP project. These include:

- National, local, regional, international and customary processes;
- Grievances and disputes that arise during design, implementation and evaluation of the SSNRMP project;
- Grievances and disputes over rights to lands, territories and resources and other rights relating to the SSNRMP project;
- Grievances and disputes related to benefit sharing;
- Grievances and disputes related to participation;
- The processes are transparent, impartial, safe and timely accessible, giving special attention to women, poor and marginalized and/or vulnerable groups;

- Grievances are heard, responded to and resolved within an agreed time period, leading to adequate redress and remedy;
- Grievances related to the operational procedures of relevant international agencies and/or international treaties, conventions or other instruments.

Proposed Grievance Redress Mechanism for SSNRMP

GRM Principles, Structure and Function

This section explains how the GRM is designed based on the outcome of the analysis in previous PF. The section starts with setting out the scope and goal of the mechanism, after which the structure is discussed. The section continues with a set of procedures, followed by measures for successful operationalization and recommendations for institutional mainstreaming of the GRM. The section concludes with a framework for grievance monitoring and evaluation.

Goal and Objectives of the GRM

The goal of the GRM is to channel grievance into an acceptable, institutionalized mechanism for resolving conflict raised from implementation of SSNRMP activities. The GRM mechanism should focus on dialogue and problem solving as an intermediate way for stakeholders to discuss problems. The GRM is expected to primarily address interest based SSNRMP conflicts, meaning conflict in which groups with some form of interdependency have a difference in (perceived) interest, for example disputes between two forest users about land use. GRMs seek to complement the legal system, not replace it. In case SSNRMP stakeholders are unable to find resolution with the GRM, they may seek their right (win-lose resolution) by submitting their case to legally provided formal dispute resolution mechanism through the local court system.

Besides the overall goal of dialogue and problem solving, the GRM has several secondary objectives, as follows:

1. The GRM will support the MANR/SSNRMP Implementation Unit to have better and improved outcomes on the implementation of SSNRMP by resolving SSNRMP related disputes in a short time. Especially because SSNRMP is still a pilot in sustainable land and water management models and prefixed solutions to emerging problems are just not available. The GRM should therefore serve as the MANR/SSNRMP Implementation Unit's early warning system and capture grievances that expand into more complex (or even intractable) conflicts, thereby attracting more parties and dealing with a higher number of issues or expanding of conflict to a larger geographical region.
2. Marginalized natural resources-dependent communities can be stimulated to get more voice in SSNRMP through the GRM. The mechanism provides an opportunity to these poor peoples, especially those living in remote locations, to submit complaints and argue for a better social situation, which is an important goal of the SSNRMP program. More importantly, marginalized groups will have the opportunity to engage in dialogues with other natural resources user groups, NGOs, Government officials of the MANR/SSNRMP Implementation Unit. It is this feature of the GRM that will give such marginalized groups (poor, women and indigenous groups) ownership of solutions found through dialogue- and problems solving activity.
3. The GRM should become the first line of response ("face") of SSNRMP for natural resources users. For example, natural resources users can acquire information about SSNRMP through the GRM in ways of putting forward a grievance on having limited

information about SSNRMP. In that way, poor communities (especially women, landless and indigenous peoples) have a channel of communication to SSNRMP. This is rather important given the hampered dissemination of information to the local level we have heard from stakeholders all over Sudan.

4. From the consultations it is evident that natural resources users have problems trusting the GoS for bringing forward pragmatic solutions for resolving natural resources disputes. Through the GRM, there is an opportunity for these stakeholders to ask questions and the SSNRMP Implementation Unit is obliged to provide answers in the form of feedback. Natural resources users then can get more trust in the process and feel more accountable for its outcomes. Such efforts are expected to have an incremental effect in trust building and often is the most decisive factor in the success or failure of a project.

Principles for capturing feedback and grievances at the local, district and national level, the GRM is designed based on thirteen principles. These principles derive from relevant international laws and standards on rights and grievance redress, the team's social-and legal/regulatory and conflict analysis and views from stakeholders nationwide.

The common GRM principles include

Principle 1: The GRM should promote a personal communication culture. Communication between Sudanese citizens is favored by personal (face to face) contact. The GRM needs to be culturally sensitive to this customary trait to become functional. Personal interaction also should improve ongoing distrust between the parties.

Principle 2: The GRM should harbor and improve relationships given the existing distrust between natural resources users and the GoS. Sudan's culture in the natural resources sector emphasizes harboring relationships between various groups of users rather than seeking for solutions which may favor one group above the other. As such, numerous natural resources user groups are encouraged to find peaceful ways to resolve conflict through informal dispute resolution mechanisms.

Principle 3: The GRM should build on the reality in which local natural resources users live to become accessible. For example, a reality is the adult literacy rate of 57.4% (2012). Most of the local natural resources users – poor groups, indigenous groups, and senior peoples - are illiterate and often afraid to visit Government offices and officials. Potential barriers for accessing the GRM need to be completely removed so these marginalized peoples can freely access the GRM.

Principle 4: The GRM should build on existing structures of informal and formal dispute resolution to enhance cost effectiveness. Relying on and strengthening these structures is an approach taken in establishing overall safeguards for the SSNRMP program. The GRM will rely on two existing systems: informal dispute resolution practices and the current district system for forestry management under the MANR. By doing this, the mechanism can easily become acceptable as most stakeholders are already familiar with it.

Principle 5: The GRM should build capacity of SSNRMP participants, such as information about obligations, policies and procedures. In general, there is a low level of awareness about SSNRMP and many natural resources users are unclear about their own

rights and the policies and procedures of the SSNRMP program. The GRM should include a strong component for strengthening awareness of local stakeholders so they can effectively engage in SSNRMP through deliberations and dialogues. The GRM will have to promote information sharing at the local level, to prevent unnecessary grievances to be submitted to the GRM.

Principle 6: The GRM should be flexible in design so it can facilitate the SSNRMP Implementation Unit and various natural resources stakeholders in a mutual learning process. Current formal disputes resolution systems in forestry end with decision without a process to learn and adapt. Therefore, the GRM design should encourage monitoring and evaluating grievance redress to learn and subsequently adapt strategies as necessary during SSNRMP implementation.

Principle 7: The GRM should have simple and friendly procedures which are understandable for each natural resources user. Stakeholders will be fully informed about the procedures, so their trust in the system is promoted. In this way, the GRM will function as a transparent mechanism for handling complaints.

Principle 8: The GRM should include specialists in SSNRMP with experience in conflict resolution.

These Sudanese specialist need to follow conflict resolution tools and techniques so they can mediate conflicts in forestry. They therefore need to have expertise on forestry, conflict resolution and international and national developments in the context of SSNRMP to mediate for workable solutions at the local level.

GRM Structure

The GRM is designed as a quasi-judicial body: a public administrative body which has defined procedures and powers in resembling those in a court of law, and is obliged to objectively determine facts and draw conclusions from them as to provide the basis of an official action. The outcome of the GRM is a contractual agreement in which parties have binding obligations under Sudanese law.

Stakeholders have three types of options to address conflicts in SSNRMP, as follows.

Option 1: As explained by most stakeholders consulted, natural resources users prefer submitting grievance to the informal dispute resolution mechanism such as local leaders, and other natural resources networks and federations' informal dispute resolution mechanism in their village or community. The function of informal dispute resolution is to solve value and interest based conflict based on traditional/customary systems, with the goal of finding a win-win resolution. During this type of resolution process, disputants are protected against face loss and are encouraged to maintain a workable relationship for the future.

Option 2: When informal dispute resolution has insufficiently delivered a resolution, disputants may submit their NRM related grievance to the GRM. The GRM envisages seeking a win-win solution by using a set of conflict tools for mapping out the interests, improving communication between parties and finding creative ways to mutually discover and seek solutions. Selected conflicts on rights-based processes or user rights disputes can also be targeted. The GRM will build in a modality to bring disputants back into informal dispute resolution mechanisms, whenever appropriate.

Option 3: If the GRM is ineffective in transforming a conflict, the disputants are free to submit the grievance to the formal system local court. The formal system is rights-based and applies the law to decide who wins and who loses. Here a final decision will be made by the local court, after which the complainant has a possibility of appeal within the Locality Judiciary or State structures. In case that is not successful, the complainant can submit their grievance to the Court of Justice.

GRM in summary

Quasi-judicial structures are not new to Sudan and have earlier been used in grievance provisions (e.g. Village Development Council and Elders' Committees). The GRM makes a strong link with the widely used informal system for dispute resolution, which is deeply trusted by local natural resources stakeholders. And in case such informal dispute resolution is ineffective, SSNRMP affected natural resources users can always find their way to the formal local grievance redress mechanism or the judicial court. Thus, the GRM can be "in-between" step stakeholders can take after informal dispute resolution fails. We expect this step to become crucial, given the high amount of (historically) existing local conflict and the difficulty local natural resources users have accessing the formal system because of its complexity or anxiety to use the system.

The GoS has proven ability to work together with local natural resources' stakeholders in a wide range of NRM systems. Our design worked along laws and provisions of this so-called natural resources management. Our study shows that existing laws and natural resources management systems are not perfect: in these management types there is large amount of conflict between different users over natural resources, many of which the GoS is party. Sudan's history teaches us that power disparity has been prevailing in natural resources management. We also heard similar remarks from forestry stakeholders in present time. So, we crafted a system in which each stakeholder can function effectively without becoming bias when participating in the GRM. The GRM particularly promotes judgments by subject experts rather than by existing government structures from the SMAARI.

11. PUBLIC CONSULTATION, CONCERNS AND RECOMMENDATIONS

Stakeholder consultations were carried out during the designing of the SSNRMP AF activities in North Kordofan, River State and Northern State (and Gadarif and Khartoum states) as part of updating the parent project ESMF and Process Framework. Preparation exercise were conducted to explain the objectives and scope of the project and to identify, discuss and respond to project issues of concern to different stakeholders. Please refer to the complementary ESMF Section 1.4.2. summary of stakeholder consultations on page, 3-7.

Consultations were undertaken with communities, local government authorities and other stakeholders in all the three new states, during January and February 2018. In North Kordofan, the consultation (21-26 January 2018) included 34 officials of which 14 were females, in River Nile State the people participated in the consultation (3-8 February 2018) were 36 officials and 12 are females, while in the Northern State (10-15 February 2018) the people met and consulted were 56 composed of a mixture of officials and community members of whom 22 were females. In Gadarif state, the consultation (27-30 January 2019) included 53 officials of which 14 were females, in Khartoum State the people participated in the consultation (7-28 February 2019) were 44 officials and 3 are females.

Stakeholder mapping: for the preparation of this AF, consultation process included orientation meetings with government entities; such as, the senior officials from the state, locality, and State Ministries of Agriculture, Animal Resources, and Irrigation. In addition, another consultation was carried out with leaders from the targeted communities at the locality and prioritized administrative units. The discussion included feedback on the current development interventions, lessons learned from previous conflict or dispute resolution mechanisms and recommendations for addressing grievance raised by the activities of the SSNRMP AF. A separate meeting was conducted with development actors in natural resources to share the project objectives and exchange views on the lessons learned from their interventions in the NRM sector.

During sub-projects preparation and implementation, consultations will be carried out with all stakeholder groups including Government agencies, Non-government organizations (NGOs), and local communities. Updated ESMPs and other safeguard instruments prepared for sub-projects under the SSNRMP will be disclosed to the public. Stakeholders consider the proposed Additional Financing to SSNRMP a positive initiative that will support and build on the original project and earlier work done by the government and other donors and NGOs supported projects. Stakeholders view the objectives and design of the project as a constructive effort aimed at finding solutions to the problems these localities face through increased community engagement: deforestation, soil degradation, desertification, scarce water resources. The overall collaboration of FNC with the state level authorities seems good. Their capacity as well as funding, however, seem to be limited.

During consultations, stakeholders suggested recommendations ranging from specific interventions to general considerations. It was recommended to contribute to stakeholder coordination, including alignment with existing programs and projects, like IFAD and FAO water harvesting program. In North Kordofan, UNDP is implementing GEF funded Climate Change Risk project which has not yet shown tangible results. UNDP would like to see SSNRMP work in the same villages, to complement their activities. Shendi locality authorities felt that they are insufficiently involved in UNDP project (no village development committees). Accordingly, capacity building at community level should be a priority.

Among recommendations on specific solutions, it was suggested that lifebelts should consist of 5 rows of different trees to stop mobile sand dunes. At the same time, according to

the Agricultural Research Center, creating shelter belts can be too expensive, and it is better to raise awareness on how to maintain and cope with hazards. FNC recommended to plant eucalyptus and tamarind trees as production trees in irrigated areas, for reforestation to use indigenous species such as acacia. To eradicate invasive species mesquite trees, FNC recommends people to cut for charcoal and firewood.

Lessons: the implementation of the parent Project demonstrated that, the investment has contributed in combating desertification and sand dune movement. The community in the consultations revealed their motivation in ensuring continuity and sustainability of the Project investments. On sharing Project implementation experiences, awareness through brochures and radio is a successful approach. Other platforms for sharing Project implementation experiences is through South-South knowledge exchanges in the Horn of Africa Region. The opportunities of employment creation through vocational training in first aid, making sweets, decorations, milk processing and products like cheese for women, income generating activities for girls, mechanic, driving, brick production for men.

The SSNRMP has a communication plan developed to disseminate information on project results and lessons learned to key stakeholders for strategic communication and contribute to knowledge exchange initiatives benefiting project implementation. The project support for development of locality extension approaches including the environment and social risk management will have a spillover effect in other activities in the project area. This AF has an integral planned Impact Assessment which will be an important lessons-learned instrument to develop an environmental and social sustainability.

Potential activities should be aimed at the problems of desertification, improving livelihood strategies, creating conditions for community engagement to tackle the existing environmental problems in concerted manner, and coordinate efforts with other stakeholders.

Prevent, combat and reverse desertification through the sustainable management of natural resources

1. Conduct a natural resource mapping for better land use planning and implementation (as a baseline).
2. Setting up and training community on natural resource management groups to follow up on community-based natural resources management plans.
3. Develop community based natural resources management plans including protection mechanisms for forest, farmland and rangeland and community by-laws to protect trees and other natural resources.
4. Conduct community awareness campaigns about forest, soil and water conservation management.
5. Provide water solutions for tree planting: solar energy, water harvesting, hand pumps.
6. Set up community nurseries and provide tree seeds of indigenous trees, to grow their own seedlings with specific involvement of women and youth;
7. Develop a business model for the tree nurseries, for multi-purpose tree production and selling.
8. Planting of trees through community mobilization to develop/expand community forest or to develop shelter belts.
9. Implement appropriate measures for sand dune fixation including establishing natural shelter belts, dune fixing plants, and strengthening existing shelter belts.
10. Provide renewable energy options (solar, wind) for water facilities, including upgrading existing systems to run on renewable energy.



Figure 1.
and
problem

Community discussion
consultation in Bara on
tree and NRM actions



Figure 2. Consultation with Community at Umat Rimla Village (Gadarif State)

Adopt improved livelihood strategies that suit the current climate and available resources

1. Conduct an assessment on livelihood options and market access in the target area as well as agricultural and family banks options.
2. Support the government agricultural extension services to reach out to remote areas for training on new climate adapted techniques to farmers.
3. Support the farmers field school/demonstration plots of the research centers to demonstrate better climate adapted farming technologies.
4. Provision of seeds of early maturing and resistant varieties through community seed bank and/or agricultural banks and tools that will increase productivity.
5. Training of Trainers for Agricultural Extension services on organic farming, including organic fertilizer, seed selection, pesticides, integrated pest management, and improved storage techniques, as well as awareness raising on risks of using chemical fertilizers and pesticides, and need for personal protection garments.
6. Support government veterinary extension services to access remote areas to raise

awareness on animal health/care.

7. Training para vets in the communities, and provide them with paravets kits, with support of the Animal Resource Department.
8. Support the establishment/improvement of individual home gardens especially targeting women, communal gardens and/or school gardens (through training, advice and provision of inputs). (*Note: FNC already has experience in doing so in Merowe*)
9. Support planting of (fruit) trees around the house as IGA.
10. Support water provision facilities (extension of available water sources; making use of waste water) for home/communal/school gardening and livestock.
11. Support small-scale farmers with maintaining/improving their pumps/boreholes to get irrigation water.
12. Provide training to water committees on operation and maintenance of water structures and energy facilities.
13. Support value addition and processing of community farming and livestock products, with special attention for opportunities for women (FNC has experience in Merowe).
14. Support women in developing IGAs such as handicraft (sewing, etc.). FNC/RP has experience in Merowe (funded by IFAD).
15. Provide vocational training for youth and women.



Figure 3. Farmer in Northern State using solar cell for pumping water for irrigation



Figure 4. The Consultation Team Visited Um Sirag Forest Adjacent to the Villages (Gadarif state)

Create active community organizations to participate in and follow up on the action's interventions and ensure protection and security of all community members

1. Support community structures relevant to projects' interventions: natural resource management committee, village development committees, water committees, women groups, youth groups, farmer groups.
2. Provision of latrines in communal places such as schools.
3. Facilitate access to financing for IGAs like community revolving funds, Sandug or support to establishment of associations/cooperatives.
4. Set up/strengthen the community safety net (contingency fund) to cover basic needs of very poor households in times of emergencies/crises (FNC/RP has experience in Merowe).
5. Provide literacy training for especially adults, both men and women.
6. Support communities with alternative building materials better adjusted to rainfall.



Figure 5. Senior officials from River Nile State (Environment, Forestry, Range and Pasture and HCENR) consultation



Figure 5. SSNRMP team consultation meeting with different organizations working in Gadarif State.

Coordinate actions with stakeholders at local, national and regional level and share good practices.

1. Facilitate exchange of knowledge and practices between communities through community exchange visits.
2. Develop and disseminate case studies and best practices regarding climate adapted livelihood options.

12. SNNRMP AF New States: Summary of key concerns and recommendations from the community consultations

| Concerns | Recommended actions |
|---|--|
| Desertification and sand dune movement | Stop or reduce the desert creeping making use of the lessons learned from previous interventions for controlling desertification since the 1970s. According to the community leaders: there is land available for planting and the community is organized. But they lack resources. |
| Continuity and sustainability | Sustainability is key to success, therefore a need for activities that will still be continued/be of value once the project is implemented. |
| Reforestation | If the forest recovers, automatically improvement in livelihoods will follow. As reforestation is a time-consuming process, efforts should be directed at stopping or reducing the desert/sand dune creeping. |
| Deforestation leads to the dissemination of invasive species such as mesquite trees. Mesquite trees have high evaporation rates and thus deplete the aquifer. | Population should use mesquite trees for charcoal production and other regular household needs, thus reducing mesquite trees' negative impact on the environment. |
| Grazing | Rotational grazing together with the improvement of the livestock breed to be more productive, so that numbers can go down. |
| Degradation of rangeland | Mobile vet clinics should charge people for their services. No service should be for free (sustainability). Providing solar energy could support the cold chain management needed for vaccines. However, a cheaper solution is providing mineral licks. |
| Erratic rainfall | Tree cover in North Kordofan state is at 580 feddan covering only 7% from the size of the state. The goal is to reach 20% tree cover to increase water availability. Awareness through brochures and radio is a successful approach. No new hafirs and boreholes necessary – just focus on maintenance. |
| Drought and low water access especially in dry season | Promote solar powered systems to reduce operation and maintenance costs. Promote house connection/more communal distribution points/stations. |

| | |
|------------------------------------|---|
| | Better access to water would help start vegetable gardening. Promote agroforestry. Promote water harvesting – dams, hafirs. |
| Unemployment | Vocational training: Women – first aid, making sweets, decorations, milk processing and products like cheese, etc. Girls – income generating activities. Men – mechanic, driving, brick production. |
| Nutrition and agricultural produce | Introduce adapted/new varieties for food consumption, e.g. short maturing sorghum, vegetables. Insecticides are expensive. People don't know how to make their own fertilizers or pesticides. Restocking (goats) Solar energy for poultry incubator (hatching) |
| Health | Repeated requests to authorities at locality level for a Health Unit, so far has not brought results. The Health Unit should have just a pharmacy and lab facility. |
| Education | Need for school bus(es) to take children to school. |

13. BUDGET

The training budget included in the ESMF training budget, as training activities identified for effective implementation of ESMF will include training on the PF too. Budget for conducting social assessment, community participation and identification of project activities by beneficiaries is including in Component 2.

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ANNEX 1: Map of Sudan SSNRMP and AF States

