

UNEP GEF PIR Fiscal Year 2021

Reporting from 1 July 2020 to 30 June 2021

1. PROJECT IDENTIFICATION

1.1. Project details

Identification Table		GEF ID.: 5703	Umoja no.: SB-006602
Project Title		Enhancing the resilience of communities living in climate change vulnerable areas of Sudan using Ecosystem Based approaches to Adaptation (EbA)	
Duration months	<i>Planned</i>	48 months	
	<i>Extension(s)</i>	24 months (up to 30/06/2023)	
Division(s) Implementing the project		Ecosystems Division; Freshwater, Land and Climate Branch; Climate Change Adaptation Unit	
Executing Agency(ies)		Higher Council on the Environment and Natural Resources (HCENR), Sudan	
Names of Other Project Partners		<ul style="list-style-type: none"> - Federal Ministries responsible for Environment & Natural Resources; Water; Forestry; Agriculture and Animal Resources. - Range and Pasture Administration of the White Nile State - White Nile State Ministry of Agriculture, Irrigation and Forests - National Forest Corporation of the White Nile State - Animal Wealth Administration of the White Nile State - Agricultural Research Corporation (ARC) - White Nile State Water Corporation - White Nile State Women Union 	
Project Type		Full Size Project	
Project Scope		National and White Nile State	
Region		Africa	
Countries		Sudan	
Programme of Work		UNEP Programme of Work 2020-2021 Sub-programme: Climate change	
GEF Focal Area(s)		Climate Change Adaptation	
UNSDCF / UNDAF linkages		<p>Sudan UNDAF (2018-2021) Focus area 2: Environment, Climate Resilience and Disaster Risk Management.</p> <p>Outcome 2 - By 2021, people's resilience to consequences of climate change, environmental stresses and natural hazards is enhanced through strengthened institutions, policies, plans and programmes.</p>	
Link to relevant SDG target(s) and SDG indicator(s)		<p>SDG 13 : Climate Action Targets 13.3 and 13.b</p> <p>Contributes to: SDGs 2 Zero Hunger & 6 Water & Sanitation</p>	

	target 2.4; 6.5, 6.6 and 6.b	
GEF financing amount	US\$ 4,284,000	
Co-financing amount	US\$ 7,915,200	
Date of CEO Endorsement	11 th August 2016	
Start of Implementation	19 th January 2017	
Date of first disbursement	5 th April 2017	
Total disbursement as of 30 June 2021	USD 2,440,161.68	
Total expenditure as of 30 June 2021	USD 1,742,548.05	
Expected Mid-Term Review Date	September 2021	
Completion Date	<i>Planned</i>	30 th June 2021
	<i>Revised</i>	30 June 2023
Expected Terminal Evaluation Date	31 July 2023	
Expected Financial Closure Date	31 December 2023	

1.2. Project description

<p>This Sudan EbA project aims to increase the climate change resilience of livelihoods and integrated productive agricultural systems in the White Nile State through Ecosystem Based Adaptation approaches. The project is implemented at multiple levels aiming to mainstream EbA approaches into policies, planning and budgets and to develop capacities at national, state and local (community) levels on EbA. The project has three main components as outlined below:</p> <p>Component 1: Capacity Development for Ecosystems based Adaptation (EbA) and policy mainstreaming.</p> <p>Under this component, the project aims to improve and strengthen the technical capacity of local, state and national institutions to plan, implement and upscale EbA. This will be achieved through supporting the creation of policy frameworks, capacity and awareness on the benefits and practical possibilities for EbA at the national, state and community levels. Additionally, the project will facilitate policy dialogue processes (to investigate the potential for EbA as a strategy for climate change adaptation in Sudan) at both the national and White Nile State levels. Furthermore, the project will facilitate a review of existing policies for entry points of mainstreaming EbA into practical legislation and planning.</p> <p>Component 2: Implementation of EbA measures to build adaptive capacities of vulnerable communities.</p> <p>This component aims to reduce vulnerability of local communities to climate change impacts through implementation of EbA measures in the White Nile State. It applies alternative, proactive EbA approaches to increase the productivity of farmers and pastoralists such as rangeland regeneration, afforestation, riparian zone protection, rainwater harvesting and drought-tolerant agriculture. Based on the integration of present and future climate risks, the project supports implementation of concrete adaptation investments that integrate EbA for the agriculture, pastoral and water sectors in 43 targeted villages in 4 localities of White Nile State. To enhance coordination at the local level, the project supports the establishment of Village Development Committees</p>

(VDCs) and sub-committees such as Water User Associations (WUAs) responsible for spearheading implementation of the EbA measures in their respective villages.

Component 3: Knowledge management for appropriate EbA design.
This component aims to strengthen information base and knowledge on EbA and its cost-effectiveness to be readily available for various uses. Therefore, the project supports knowledge management for EbA based on the lessons learned through the implementation of project interventions in Component 2. The project will also generate evidence on cost-effectiveness of EbA measures through evaluating the cost-benefits of such measures in order to promote upscaling and replication across Sudan.

The Higher Council for Environment and Natural Resources (HCENR) is the executing agency of Sudan EbA project. The project is implemented in partnership and collaboration with: Federal ministries/agencies responsible for Agriculture and Animal Resources; Water; Forestry; Finance and National Center for Research. At White Nile State level, the project is implemented in partnership with: Range and Pasture Administration of Ministry of Production and Economic Resources; Ministry of Agriculture (Horticultural Department, Rain-fed Agriculture, Technology Transfer Department, Veterinary Extension Department); Forest National Corporation; Agricultural Research Corporation (ARC); White Nile State Water Corporation; Rural Women Development Department; Universities; and private sector service providers.

1.3. History of project revisions

Version	Date	Main changes introduced in this revision
Rev 1: Project Cooperation Agreement (PCA)	23 June 2021	No cost time extension of 24 months until 30 June 2023

2. OVERVIEW OF PROJECT STATUS

2.1. UNEP Subprogramme(s)

<p>Insert the Subprogramme(s) and biennia of the PoW to which the project contributes</p> <p>Subprogramme 1: Climate Change</p> <p>Subprogramme 3: Healthy and productive ecosystems</p> <p>(MTS 2018-2021 – POW 2018/19 & POW 2020/21)</p>	<p>Specify the relevant Expected Accomplishment(s) & Indicator(s)</p> <p>Insert the Subprogramme's Expected Accomplishment(s) and Indicator(s) to which the project contributes</p> <p>Subprogramme 1 Climate change (a). Countries increasingly advance their national adaptation plans which integrate ecosystem-based adaptation.</p> <p>Indicator (ii): The number of countries supported by UNEP that have technical capacity to integrate ecosystem-based management into their national adaptation plans</p> <p>Subprogramme 3 Healthy and productive ecosystems (a) The health and productivity of marine, freshwater and terrestrial ecosystems are</p>
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	<p>institutionalized in education, monitoring and cross-sector and transboundary collaboration frameworks at the national and international levels</p> <p>(i) Increase in the number of countries and transboundary collaboration frameworks that have made progress to monitor and maintain the health and productivity of marine and terrestrial ecosystems</p>
<p>During the reporting period, the Sudan EbA project supports the implementation of Sudan's National Adaptation Plan (2016) in White Nile State (WNS). It has supported dialogue between, and training to, sectoral institutions in WNS to plan and apply cross-sectoral development planning that integrate ecosystem-based adaptation. These are being demonstrated through cross-sectoral engagement in the 43 communities and which has strengthened cross-sectoral partnerships and collaboration between WNS sectoral agencies as well as local communities, civil society and private sector entities and universities. The trainings and demonstrations are promoting the national and state level agenda on integration of EbA across sectors (agriculture, livestock, water, forestry, food security and energy) in line with the National Adaptation Plan (2016) priorities. The project has also advanced on increasing the land areas benefiting from reforestation, improved rangelands and climate-resilient agriculture which is contributing to improving the climate resilience of land, water and forest ecosystems in the project area.</p>	

2.2. GEF Core Indicators (for all GEF 6 and later projects):

GEF Core Indicators	Indicative expected Results	
<p>The project has made good progress during the reporting period towards achieving its targets and contributing to the GEF-7 Climate Change Adaptation Strategy objectives and targets. Since 2019 (see previous PIR), the project has supported access to climate change resilient food / water sources and improved ecosystem services in the 43 targeted villages and reached 8,389 (of which 43% are women/women headed households). This translates to 123% of the initial target that was set to be achieved by the end of the project. Similar advances have been achieved with regard to area of land managed for climate resilience:</p>		
Indicator – GEF 7 CCA Strategy	Expected values at	
	Mid-term	End-of-project
Total number of direct beneficiaries (male and female)		6,800 households (head of HH disaggregated by gender)
Area of land managed for climate resilience		42,500ha of agricultural land; 1,500ha reforested with climate change resilient species; 6,600ha of rangeland regenerated with climate change resilient species; 1,486ha of riparian zones rehabilitated; Shelterbelts established on 10% of cultivated areas (mapping is being done to establish the equivalent of 10% of cultivated area in terms of Ha or kilometres)

Total number of policies/plans that will mainstream climate resilience		At least one national development framework and one state Five Year Sector Plan.
Total number of people trained (male and female)		50% of local authorities and 8,389 community households, (30% of those trained must be women) (number of target local authorities officials to be confirmed)

2.3. Implementation status and risk

	FY 2018	FY 2019	FY 2020	FY 2021	FY 20__
PIR #	1 st	2 nd	3 rd	4 th
Rating towards outcomes (section 3.1)	MU	MS	S	S	
Rating towards outputs (section 3.2)	MU	MS	S	S	
Risk rating (section 3.3)	M	M	M	M	

The rating towards Outcomes is **Satisfactory** because the project continues to make significant progress towards the achievement of all three outcomes; namely through supporting policy dialogues on EbA, enhancing cross-sectoral planning and implementation of EbA measures as well as promotion of learning, knowledge generation and sharing. During the reporting period, policy dialogues forums continued to be held at Federal, White Nile State and local community levels in an effort to promote EbA through multi-level collaborative governance. These dialogue sessions provided platforms for setting the national and state level agenda on integration of EbA across sectors (agriculture, livestock, water, forestry, food security and energy). Furthermore, it has enhanced cross-sectoral partnerships and collaboration among government agencies during planning and implementation of EbA measures in White Nile State. Strong linkages between relevant federal and White Nile State institutions has also been reinforced through White Nile State technical committee whose membership includes relevant government institutions, local communities, civil society, private sector players and public universities in WNS. A stocktaking of existing national and White Nile State Policies is also ongoing as part of the efforts to identify entry points for mainstreaming EbA in national and subnational policies, strategies, budgets and development frameworks. Upon completion of the stocktaking exercise, policy briefs and technical guidelines will be produced to guide the integration of climate change adaptation interventions – including EbA – into cross-sectoral plans.

Since EbA remains a new concept in Sudan, the project has continued to use demonstration effect through ‘learning-by-doing approach’ to showcase innovative EbA techniques. This has triggered further autonomous adaptation through adoption of piloted EbA technologies/practices by local communities in their farms. For instance, using barter trade, beneficiaries of improved seed varieties of sorghum, millet, sesame and groundnuts are now sharing seeds collected from their farms (upon harvesting) with neighboring communities that are non-beneficiaries of the project. In this case, barter trade involves exchanging improved seed varieties with local varieties or with livestock e.g. goats, cows etc. Similarly, non-beneficiary communities that were initially using heavy tractors for land preparation are now adopting the use of appropriate agricultural implements e.g. chisel plough (locally known as Kharbash) and light implements in sandy and clay soils respectively as a way of conserving soil structure and enhancing soil water conservation. This is

contributing towards improved agricultural productivity thus strengthening the resilience of rain-fed farmers to climate change hazards especially droughts and floods in the White Nile State. As a result, 8,389 households (43% being women/women headed households) in the 43 targeted villages of White Nile State have adopted ecosystem-based adaptation (EbA) measures. This translates to 123% of the initial target that was set to be achieved by the end of the project.

To ensure sustainability of the restoration of critical ecosystem services provided by rangelands, forest and water resources, HCENR is working closely with Federal ministries and the White Nile State Administration to ensure that EbA interventions are incorporated in respective sector plans, programmes and budgets. Additionally, development of template protocols and plans to guide implementation and monitoring of EbA as well as demonstrated interventions in the field is expected to build the knowledge and expertise which is an important element for promoting and sustaining uptake of EbA concept beyond the project. Formation of Village Development Committee at the community level is expected to enable fuel uptake of EbA beyond the project. Notably, the project team is currently undertaking a mapping exercise to document the survival rate of trees that have been planted through afforestation, shelterbelt establishment, riparian land restoration and agroforestry.

To build capacity on EbA, training sessions targeting staff of HCENR staff and White Nile State Technical Committee members have been facilitated while template protocols that outline the standard procedure and guidelines to identify/verify sites to carry out specific EbA interventions as well as community-based EbA intervention management and monitoring plans have been developed. Additionally, through established community level governance structures (Village Development Committees (VDCs) and sub-committees - with at least 30% female) in 43 targeted villages, communities have been empowered to plan, implement, manage, monitor and evaluate community-based EbA measures. As a result, communities now have local structures and platforms to participate in defining cost effective strategies for rangeland regeneration, increasing water infiltration and improving agricultural and pastoral yields using EbA approaches in their localities. In an effort to promote learning, knowledge sharing as well as collection of feedback and lessons learnt on EbA practices, field visits to EbA demonstration sites have been undertaken and attended by officials from Federal ministries, White Nile State Administration and local communities. Furthermore, an economic cost-benefit assessment of EbA interventions in Sudan has been initiated as part of strengthening information base and knowledge on EbA. The outcome of the assessment is expected to demonstrate evidence of EbA as an effective adaptation strategy that generates livelihood benefits for local communities.

The rating towards Outputs is **Satisfactory** because major progress continues to be attained towards achievement of project outputs across all the three components. Under component one, cross-cutting policy dialogue on EbA between HCENR, relevant ministries and other stakeholders were held at Federal and White Nile State levels through platforms such as Project Steering Committee, White Nile State technical Committee and Project Coordination Working Group. This culminated into strengthening the coordination during planning and implementation of EbA measures while at the same time promoting programmatic synergies of interlinked initiatives at the state level. Additionally, a stocktaking exercise to identify entry points for mainstreaming EbA into relevant Federal, White Nile State and locality level policies, development frameworks and sectoral budgets has also been initiated. Capacity building initiatives on EbA have also been undertaken through training of HCENR staff and White Nile State Technical Committee on the concept and protocols to guide application and monitoring of EbA.

Under component 2, established Village Development Committees (VDCs) and sub-committees (with atleast 30% female) in the 43 targeted communities have been central to the planning, implementation and monitoring of community-based EbA measures. These VDCs and sub-committees have provided communities with local structures and platforms to participate in defining cost effective strategies for rangeland regeneration, increasing water infiltration and improving agricultural and pastoral yields using EbA in their respective villages. To guide implementation of EbA, template protocols that outline the standard procedure and guidelines to carry out EbA

interventions as well as management and monitoring have been developed and are now being applied. Furthermore, efforts to support regeneration of critical ecosystem services to improve resilience of rain fed agriculture and pastoralism under increasing drought conditions and dry seasons have been initiated through implementation of EbA measures. So far, approx. 1,996 Ha (representing 124% of the target) of rangeland reserves have been rehabilitated with 9,185 kg of nine different varieties of early maturing, high nutritive value and drought tolerant rangeland seeds. A total of 814 ha been afforested with a mixture of Acacia Senegal and Acacia Tortilis that are drought tolerant while 1,486 ha of riparian zones have also been replanted with flood tolerant acacia species and 59 km of shelter belt have been broadcasted with Acacia Nilotica and Acacia Seyal in Al Rawat village. Planted Acacia trees are multipurpose since they provide both environmental benefits (e.g. control soil erosion, nitrogen fixation in the soil, habitat for birds, and fodder for livestock etc) and social economic benefits through supply of gum Arabic, fuel wood and timber. These tree seedlings are natives of Sudan and Northern Sahara which are highly tolerant to drought conditions (rainfall and temperature variations). Additionally, 42,500 ha have benefited from climate-resilient 'agricultural package' which includes: improved seeds (early maturing, drought and pest tolerant); training on agronomic practices and post-harvest handling; in-situ rainwater harvesting in farms; application of appropriate fertilizers; mixed cropping; application of appropriate agricultural implements e.g. chisel plough (locally known as Kharbash) and light implements in sandy and clay soils respectively as a way of conserving soil structure and enhancing in-situ rainwater harvesting. Alternative livelihood interventions have also been piloted through introduction of poultry farming, home garden farming, and small ruminant, strategic feeding as well as alternative energy use strategies to enhance community resilience to current and predicted climate change impacts.

Under component 3, field visits to project sites have been held in an effort to promote learning, knowledge sharing as well as collection of feedback and lessons learnt on EbA practices. The outcomes of these visits have been fundamental in informing ongoing/planned project activities as well as future programmes. A methodology and data collection protocols for conducting an economic cost-benefit assessment for EbA measures in Sudan have also been developed. The assessment is expected to demonstrate evidence of EbA as an effective adaptation strategy that generates livelihood benefits for local communities. The methodology also outlines the procedure for the development of an upscaling strategy of EbA across Sudan based on the cost-benefit assessment.

The overall project risk rating is **Moderate** because all identified risks were continuously analyzed and monitored which enabled the project team to implement risk management and mitigation measures in order to minimize or avert the likelihood of the risks significantly impacting the smooth and successful implementation of project activities. As a result, the rating of the risks has either been lowered, maintained or raised depending on the likelihood of occurrence, the degree of impacts to the project schedule, scope, cost and quality of the outputs. For instance, comparison of 2021 and 2020 risk rating indicate that four risks have maintained a rating of Low; risk rating of Significant and Medium have each maintained one risk; rating of five risks have been reduced from Medium to Low while rating of another one risk has been reduced from High to Medium; the rating of two risks have been elevated from Significant to High.

For the risks that have maintained a rating of Low and five risks whose rating has been reduced from Medium to Low, the probability of occurrence and their impacts on the project are either minimal or the risk mitigation measures employed have been effective. For instance, the risk of the lack of institutional capacity and coordination on EbA leading to inappropriate or deficient implementation of EbA measures and policy frameworks has been reduced from Medium to Low. The executing entity has been effective in promoting multi-level collaborative governance through cross-sectoral dialogues at Federal and White Nile State levels thus providing a platform for enhancing coordination, institutional linkages, planning and integration of EbA across sectors (agriculture, livestock, water, forestry, food security and energy). Similarly, the risk related to political violence in Sudan leading to government shifts or disruption of project activities has also been reduced from Medium to Low since the White Nile State has continued to enjoy political

stability and remains calm and peaceful without any major disruptions in service delivery in both public and private sector. The appointment of senior government officials at the federal level also bodes well for the project with adaptation to climate change remaining a top priority for both Federal and White Nile State governments. Stakeholders including government agencies and staff have also remained committed and supportive towards implementation of the project.

For the two risks that have maintained a rating of Significant as well as one risk whose rating has been elevated from Significant to High, two of them are outside the control of the project and are having a high degree of impact on cost of goods and services procurement by the project as well as adhering to project implementation schedule. These are related to rising inflation rates in Sudan since 2019/2020 which is contributing to increased cost of goods and services as well as the COVID-19 pandemic and associated restrictions on travel and gatherings. The risk whose rating has been elevated from Significant to High relates to the delays to signing of Memorandum of Understanding (MoUs) between HCENR and other partners institutions supporting implementation of Sudan EbA project interventions. The delay has significantly impacted the implementation schedule and project delivery of community adaptation measures in White Nile State. However, it is noted that risk mitigation measures put in place will help to mitigate these risks thus reducing their impacts on to the project schedule, scope, cost and quality of the outputs.

2.4. Co-financing

<p>Planned Co-finance Total:</p> <p>US\$ 7,915,200</p> <p><i>(of which US\$6,515,200 is in Kind contribution and US\$1,400,000 is Funds Managed by UNEP (ADAPT! project))</i></p> <p>Actual to date:</p> <p>US\$ 2,444,837</p> <p><i>(31% as of 31st June 2021)</i></p>	<p>The total co-finance that has materialized so far is estimated to be US\$2,444,837 which is 31% of the total co-financing commitment. The sources of the materialized co-finance is from ADAPT! Project managed by UNEP US\$1,401,943 (57.3%) as well as in-kind contribution from the following project partners: US\$215,964 (8.8%) from Higher Council for Environment and National Resources (HCENR); US\$235,030 (9.6%) from White Nile State Ministry of Agriculture, Irrigation and Forests; US\$60,850 (2.5%) from Animal Wealth Administration of the White Nile State; US\$43,400 (1.8%) from Forest National Corporation (FNC) of the White Nile State; US\$35,250 (1.4%) from Range and Pasture administration of the White Nile State; and US\$116,400 (4.8) from White Nile State's Water Corporation. These co-financing contributions can be distributed as follows: component 1, 33% (US\$798,643); component 2, 28% (US\$694,468); and component 3, 39% (US\$951,726). For the Adapt! Project, co-financing has been on Component 1 related to capacity development for Ecosystems based Adaptation (EbA) and policy mainstreaming as well as knowledge management for appropriate EbA design as carried out by Adapt! Activities and deliverables. The in-kind contributions from other partners has mainly been on administrative and technical support during planning and implementation of project interventions in White Nile State, and a cash injection from the Ministry of Finance (US\$16,364) for HCENR coordination, provision of farm implements (tractor to prepare land), improved seeds and tree seedlings, provision of transport services as well as construction of two additional boreholes.</p>
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2.5. Stakeholder engagement

<p>Stakeholder engagement</p>	<p>During the reporting period, the project team has continued to promote and facilitate engagement with a diverse range of stakeholders through a variety of platforms and forums such as Project Steering Committee meetings, White Nile State Technical Committee meetings, Project</p>
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	<p>Coordination Working Group, Village Development Committees, community meetings, workshops and one on one meeting with the project team. As a result, this has is strengthened and broadened the stakeholder interaction while at the same time created opportunities for new partnerships and collaboration with a diverse range of institutions and service providers that are playing a critical role during the implementation of project activities. For instance, through consultations, HCENR has now engaged White Nile State Water Corporation to design and rehabilitate/construct water harvesting infrastructures under the Sudan EbA Project. Furthermore, established partnerships/collaborations technical support during implementation of various project activities is being provided by experts from partner and co-financing institutions such as: Range and Pasture Administration of Ministry of Production and Economic Resources; Ministry of Agriculture (Horticultural Department, Rain-fed Agriculture, Technology Transfer Department, Veterinary Extension Department); Forest National Corporation; private sector suppliers of improved seeds and land preparation among others.</p> <p>Notably, a key challenge to the stakeholder engagement during the reporting period has been the outbreak of COVID-19 global pandemic. The measures taken by Government of Sudan to slow down the spread of the virus have changed general work practices such as working from home or offices having staff at 50% capacity. Additionally, social distancing measures e.g. lockdowns and travel restrictions have forbid most face-to-face stakeholder engagements originally envisioned in the project. In light of the ongoing COVID-19 pandemic, the Sudan EbA project team has put in place adaptive management to ensure business continuity although not at the full scale. For instance the project team is utilizing virtual platforms to hold meetings, training sessions and stakeholder consultations. The project team is also holding face-to-face meetings with stakeholders while adhering to the Ministry of Health guidelines.</p>
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2.6. Gender

<p>Gender mainstreaming</p>	<p>Design and implementation of Sudan EbA interventions has continued to be done through a gender lens in order to ensure they are gender-responsive. Coupled with affirmative action, strategies the number of women/women headed households that have adopted EbA measures (e.g. climate resilient land management practices) now stand at 43%. Training sessions have also recorded an average of 39% to 53% women representation. Similarly, women are also actively involved in the local community governance structures (Village Development Committees) where they constitute atleast 30% of membership. Notably, the largest Village Development Committee that was established with the support of Sudan EbA project is chaired by a woman and this is considered a key milestone in empowering women in a patriarchal society. At the same time, the project is supporting implementation of gender-specific adaptation technologies and livelihood diversification initiatives with a strong emphasis on addressing systemic climate related vulnerabilities and low adaptive capacities of women, youth and elderly. Some of these technologies targeting women headed households that have been implemented in all the 43 targeted villages include: distribution of 43 poultry cages to 43 selected women (one in each targeted village) to pilot</p>
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	<p>modern poultry rearing; distribution of improved cookstoves to 8,389 households; establishment of backyard gardens for vegetable and fruit production. Moreover, small ruminant ‘shami’ (improved) goats that were distributed to 20 female headed households in Um Naam village have so far given birth to more than 366 young ones that have been subsequently been distributed to other vulnerable families. Additionally, the construction/rehabilitation of water harvesting facilities in Um Naam, Al Rawat (a cluster of 33 villages) and Um Zureiba villages is currently supplying water for both domestic and animal consumption all year round. This has benefited women and young children by reducing the time spent in water collection to less than one hour from more than 6 hours which they used to walk a distance of between 5 to 23 kilometers in search of water during dry seasons.</p> <p>Despite the significant progress towards achieving gender equity, gender mainstreaming remains a key challenge in some communities (e.g. in Adweim locality) due to cultural barriers that restrict women participation in decision-making processes/structures. As a strategy to overcome this challenge, the project team has been holding sensitization workshops with village elders to raise awareness on the need for ensuring gender inclusion in development processes. In particular, women’s participation in capacity building and decision-making processes is strongly emphasized. Additionally, the project team underscores the need to ensure that either gender constitute atleast 30% of membership to village development committees and sub-committees that are spearheading the implementation of EbA interventions in various localities. Measures have also been put in place to ensure that all training modules are gender-sensitive and that gender consideration is taken into account to allow 50% representation of either gender in all capacity building initiatives.</p>
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2.7. Environmental and social safeguards management

<p>Environmental and social safeguards management</p>	<p>During the reporting period, implementation of EbA interventions in White Nile State continued to comply with relevant Sudan legal and policy frameworks as well as UNEP environmental and social safeguards as outlined during project design. All EbA interventions were approved by relevant Federal and White Nile State authorities through Project Steering Committee and White Nile State Technical Committee respectively. So far, project activities are having positive environmental impacts by restoring critical ecosystem services provided by rangelands, forest and water resources such as enhancing soil stability and water infiltration through reforestation and climate resilient land management practices in the pilot sites. Additionally, EbA interventions are contributing towards reducing the impacts of flooding and droughts through regulating the flow of water by protecting and rehabilitating riparian zones and construction of water harvesting infrastructure to provide water during dry seasons. For instance, through installation of water harvesting infrastructure (two earth dams ‘haffir’ with a capacity of 30,000m³ each) in Al Rawat (a cluster of 33 villages) and Um Naam village respectively as well as rehabilitation of a well in Um Zureiba village, local communities have been able to access water for domestic and other productive purposes., This has helped to alleviate the suffering of mainly women and children in the 4,200 households residing in the aforementioned villages who used to trek over long distance in search of water during dry episodes. Additionally, distribution of improved seed</p>
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	<p>varieties of sorghum, millet and sesame that are drought and pest tolerant have helped local communities to increase production by an average of threefold and fourfold as captured in the field monitoring reports. As a result, this is contributing towards enhancing the adaptive capacity of local communities in White Nile State while improving environmental conditions in the short- to long-term. Notably, none of the implemented project activities have so far required detailed EIAs. Similarly, although the project doesn't have a laid down grievances redress mechanism, the senior management of HCENR and White Nile State Administration has maintained direct communications channels with stakeholders including communities through which any emerging grievance can be raised. Any grievance and conflict should be handled by White Nile State Technical Committee with guidance of the Project Steering Committee. Notably, no major grievance regarding environmental and social impacts of project activities has been reported so far. However, the project team will continue oversee and monitor adherence to GEF and UNEP environmental and social safeguards as well as relevant Sudan legal and policy frameworks in order to ensure corrective measures are put in place where necessary throughout the implementation of the project. A grievance reporting mechanism will be established and made operational during the next reporting period.</p>
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2.8. Knowledge management

<p>Knowledge activities and products</p>	<p>Knowledge and awareness creation on EbA continued to be strengthened at Federal, White Nile State and community levels. For instance, template protocols that outlines the standard procedure and guidelines for the implementation and monitoring of EbA measures in Sudan have been developed by the International EbA Expert. As part of capacity building initiatives, virtual training sessions on the application of the template protocols have also been facilitated and attended by the Sudan EbA team, HCENR staff and WNS technical committee. Furthermore, a draft concept on the methodology for undertaking a stocktaking exercise of National and White Nile State policy- and decision-makers to identify entry points for updating existing policies and strategies to incorporate EbA in the context of future climate risks has also been developed. Additionally, a methodology and data collection protocols to guide the conduct of an economic cost benefit assessment for EbA measures has also been described. Upon completion, the assessment will demonstrate the socio-economic benefits of EbA as an effective adaptation strategy.</p>
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2.9. Stories to be shared

<p>Stories to be shared</p>	<p>The western region of White Nile State is one of Sudan's most vulnerable region that is severely impacted by climate change induced hazards. Most notably, increasing temperatures, decreasing trends and variability of precipitation are causing a gradual shift of arid ecological zones from north to south. This is increasing the vulnerability of the majority of local communities that practice traditional rain-fed farming and pastoral practices in the area. Informed by this precarious situation, the Sudan EbA project is building the capacity of local communities to enhance the resilience of livelihoods and integrated productive agricultural systems in White Nile State. Part of this process has been the establishment of local governance structures in form of Village Development Committees</p>
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	<p>(VDCs) and sub-committees with atleast 30% female representation. So far, 42 VDCs have been established in targeted villages thus providing local communities with platforms to actively participate in decision making processes during planning, implementation and monitoring of community-based EbA measures in their localities. The VDCs have also been trained on how to sustainably manage and conserve their ecosystems in order to ensure continuous flow of ecosystem services as a strategy to enhance their resilience to the impacts of climate change. Most notably, these VDCs have been critical in spearheading implementation of some of the EbA interventions in their localities even during the COVID-19 outbreak that seen Sudan impose travel restrictions of White Nile State experts to the villages. As a result, the VDCs have therefore proven to be very critical in bringing about deep-rooted social change which relies on participation and commitment of local communities that reside in an area that is faced with formidable climate related constraints compounded by harsh natural conditions in the Sahara desert.</p>
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3. PROJECT PERFORMANCE AND RISK

Based on inputs by the Project Manager, the **UNEP Task Manager**¹ will make an overall assessment and provide ratings of:

- (i) Progress towards achieving the project Results(s)- see section 3.1
- (ii) Implementation progress – see section 3.2

Section 3.3 on Risk should be first completed by the Project Manager. The UNEP Task Manager will subsequently enter his/her own ratings in the appropriate column.

3.1 Rating of progress towards achieving the project outcomes

Project objective and Outcomes	Indicator	Baseline level	Mid-term target	End-of-project target	Summary by the EA of attainment of the indicator & target as of 30 June 2021	Progress rating ²
Objective: Increase the climate change resilience of livelihoods and integrated productive agricultural systems in the White Nile State through Ecosystem Based Adaptation approaches	Percentage of targeted HHs (head of HH disaggregated by gender) that have adopted EbA measures which improve access to climate change resilient food / water sources for improved agricultural productivity	0% of the targeted HHs have adopted EbA measures to improve their access to food and water.		100% of all targeted 6,800 HHs (head of HH disaggregated by gender) have access to climate change resilient food / water sources for improved agricultural productivity	During the reporting period, the project continued to use a demonstration effect through 'learning-by-doing approach' to showcase innovative EbA techniques and trigger further adoption of climate resilient technologies/practices for improved agricultural productivity and access to water in the White Nile State. As a result, local communities are embracing autonomous adaptation through adoption of piloted EbA technologies/practices in their farms. For instance, local communities who are not beneficiaries of the project are now procuring improved seeds (early maturing, drought and pest tolerant) as well as in-situ rainwater harvesting in farms through application of appropriate agricultural implements e.g. chisel plough (locally known as Kharbash) and light implements in sandy and clay soils respectively as a way of conserving soil structure and enhancing in-situ rainwater harvesting. This is contributing towards improved agricultural productivity and access to water thus strengthening the resilience of rain-fed farmers and pastoralists to climate change hazards especially droughts and floods in the White Nile State. Notably, 8,389 households (43% being women/women headed households) in the 43 targeted villages of White Nile State have adopted ecosystem-based adaptation (EbA) measures. This translates to 123% of the initial target that was set to be achieved by the end of the project. The EbA measures that have so far been adopted include: restoration of critical ecosystem services provided by rangelands, forest and water resources; investment in climate resilient agricultural land management practices; diversification of livelihoods and energy efficiency.	HS

¹ For joint projects and where applicable ratings should also be discussed with the Task Manager of co-implementing agency.

² Use GEF Secretariat required six-point scale system: Highly Satisfactory (HS), Satisfactory (S), Marginally Satisfactory (MS), Marginally Unsatisfactory (MU), Unsatisfactory (U), and Highly Unsatisfactory (HU).

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Project objective and Outcomes	Indicator	Baseline level	Mid-term target	End-of-project target	Summary by the EA of attainment of the indicator & target as of 30 June 2021	Progress rating ²
<p>Outcome 1: Improved and strengthened technical capacity of local, state and national institutions to plan, implement and upscale EbA</p>	<p>Number of national and state development frameworks that have integrated EbA planning and budgeting for implementation and upscaling</p>	<p>All activities of the White Nile State's most recent Five Year Sector Plan (2012 – 2016) for the agriculture and water sector, within which the Action Plan for Agricultural Revival (2008) has been integrated, relate indirectly to the maintenance of ecosystem services. Total annual financing for both sectors is limited and on the order of USD 800,000 only.</p>		<p>At least 1 national development framework and 1 state Five Year Sector Plan are updated with a budget of at least USD 30,000 to implement and upscale gender-sensitive EbA measures</p>	<p>To support mainstreaming of EbA/adaptation into Federal, White Nile State and locality development plans, programmes and budgets, policy dialogue sessions were held with various Federal and White Nile officials, White Nile State technical Committee and Project Coordination Working Group. These policy dialogue sessions provided a platform for setting the national and state level agenda on integration of EbA across sectors (agriculture, livestock, water, forestry, food security and energy). Through the policy dialogues, programmatic synergies and cross-sectoral partnerships and collaboration was promoted across relevant government institutions, local communities, civil society, private sector players and public universities in WNS.</p> <p>To complement the policy dialogue sessions, field visits to project sites were held in August 2020 and June 2021 by senior level officials from Federal and White Nile State ministries as well as State Technical Committee members with the objective of gathering practical evidence and lessons learnt from EbA interventions towards enhancing adaptation to the adverse effects of climate change.</p> <p>Currently, a stocktaking of existing national and White Nile State Policies is ongoing as part of the efforts to identify entry points for mainstreaming EbA in national and subnational policies, strategies, budgets and development frameworks. Upon completion of the stocktaking exercise, policy briefs and technical guidelines will be produced to guide the integration of climate change adaptation interventions – including EbA – into cross-sectoral plans.</p>	<p>MS</p>

Project objective and Outcomes	Indicator	Baseline level	Mid-term target	End-of-project target	Summary by the EA of attainment of the indicator & target as of 30 June 2021	Progress rating ²
<p>Outcome 2: Reduced vulnerability of local communities to climate change impacts in the White Nile State</p>	<p>Percentage of targeted HHs (head of HH disaggregated by gender) that have adopted EbA measures which improve access to climate change resilient food / water sources and improved ecosystem services (e.g., via reforestation and rangeland regeneration)</p>	<p>0% of the targeted HHs have adopted EbA measures to improve their access to food, water and ecosystem services. Farmers and pastoralists are unable to mobilize water with physical infrastructure for use during the dry season (e.g., using rainwater harvesting, boreholes, etc). Also, ecosystem services are poor due to forest and rangeland destruction and unsustainable land use practices. Farmers and pastoralists do not have technical and applied knowledge on soil and water conservation methods and other sustainable practices to ensure that they can continually make use of productive ecosystem services.</p>		<p>100% of all targeted 6,800 HHs (head of HH disaggregated by gender) have access to climate change resilient food / water sources and improved ecosystem services relative to the baseline</p>	<p>Since EbA is a new concept in Sudan, the Sudan EbA project is using the 'learning-by-doing approach' to demonstrate innovative EbA techniques through climate resilient land and water management interventions to strengthen rain-fed farmers and pastoralists resilience to climate change. So far, adoption of EbA measures which improve access to climate change resilient food / water sources and improved ecosystem services in the 43 targeted villages has reached 8,389 (of which 43% are women/women headed households). This translates to 123% of the initial target that was set to be achieved by the end of the project.</p> <p>To strengthen institutional capacity and coordination in the implementation of EbA, template protocols that outline the standard procedure and guidelines to identify/verify sites to carry out specific EbA interventions as well as community-based EbA intervention management and monitoring plans. Training sessions on the concept of EbA and application of the template protocols have also been facilitated targeting staff of HCENR and White Nile State Technical Committee members.</p> <p>Through established community level governance structures (Village Development Committees (VDCs) and sub-committees - with at least 30% female) in 43 targeted villages, communities have been empowered to plan, implement, manage, monitor and evaluate community-based EbA measures. As a result, communities now have local structures and platforms to participate in defining cost effective strategies for rangeland regeneration, increasing water infiltration and improving agricultural and pastoral yields using EbA in their localities. The VDCs have also been registered with Humanitarian Aids Commission (HAC) to give them legal recognition to continue supporting development initiatives beyond the Sudan EbA Project.</p> <p>Food security and livelihood support system for vulnerable communities continue to be improved through implementation of climate smart agricultural practices, reforestation of 579ha, replanting of trees along 1,486ha of riparian zones, establishment of 59km of shelterbelts, establishment of demo farms, construction/ rehabilitation of water harvesting infrastructure/wells and alternative livelihood activities based on indigenous practices such as back yard gardening, provision of small ruminants (improved goats) etc.</p>	<p>S</p>

Project objective and Outcomes	Indicator	Baseline level	Mid-term target	End-of-project target	Summary by the EA of attainment of the indicator & target as of 30 June 2021	Progress rating ²
<p>Outcome 3: Strengthened information base and knowledge on EbA and climate change are readily available for various uses</p>	<p>Number of lessons learned, demonstrations of intervention cost effectiveness and upscaling strategies on EbA integrated into the existing Cloud database</p>	<p>An existing cloud database contains climate data and forecasts, together with information on climate adaptation technologies. It is currently managed by ARC and HCENR under the CRFP project. However, the database does not detail information on sustainable agro-pastoral best practices in Sudan and there is no information specifically on EbA activities.</p>		<p>At least 10 lessons learned, 10 demonstrations of intervention cost effectiveness and 1 upscaling strategy on EbA integrated into the existing Cloud database</p>	<p>To assess and demonstrate the cost-effectiveness of EbA interventions in Sudan, a cost-benefit assessment has been initiated and so far a methodology and data collection protocols have been developed. The assessment is now scheduled to be completed by mid-2022 and is expected to demonstrate evidence of EbA as an effective adaptation strategy that generates livelihood benefits for local communities. Proving the cost effectiveness of these measures is essential to making the case for EbA to stakeholders, ranging from local communities and planners to national level decision-makers and donors. This will significantly contribute to the development and/or mainstreaming of evidence-based EbA into policies, strategies and budgets. Additionally, an upscaling strategy of EbA across Sudan will also be developed based on the outcome of the cost-benefit assessment.</p> <p>In an effort to promote learning, knowledge sharing as well as collection of feedback and lessons learnt on EbA practices, two field visits to project sites were held in August 2020 and June 2021 respectively. These visits were attended by senior level officials from Federal and White Nile State ministries as well as State Technical Committee members with the objective of gathering practical evidence and lessons learnt from EbA interventions towards enhancing adaptation to the adverse effects of climate change. The outcomes of the visits have been fundamental in informing ongoing/planned Sudan EbA project activities.</p> <p>Due to the global corona virus (COVID-19) pandemic, cross visits by VDCs and WUAs as well as an international exchange visit by Federal and White Nile State government representatives to EbA project sites were postponed and rescheduled to 2021 or 2022.</p>	<p>MS</p>

3.2 Rating of progress implementation towards delivery of outputs

Outputs/Activities ³	Expected completion date ⁴	Implementation status as of 30 June 2020 (%)	Implementation status as of 30 June 2021 (%)	Progress rating justification ⁵ , description of challenges faced and explanations for any delay	Progress rating ⁶
COMPONENT 1: Capacity Development for Ecosystems based Adaptation (EbA) and policy mainstreaming					
Output 1.1: A multi-disciplinary White Nile State Technical Committee established and strengthening of HCENR in order to facilitate cross cutting dialogue at the state and national levels of climate change adaptation and EbA and coordination of EbA measure planning in vulnerable sectors	December, 2022	70%	80%	<p>Cross-cutting policy dialogue on EbA between HCENR, relevant ministries and other stakeholders were held at Federal and White Nile State levels through platforms such as Project Steering Committee, White Nile State technical Committee and Project Coordination Working Group. This culminated into strengthening the coordination during planning and implementation of EbA measures. Furthermore, it promoted programmatic synergies of interlinked initiatives at the state level.</p> <p>However, during the reporting period, meeting schedule was affected by the emergency of the novel COVID-19 pandemic in early 2020 that disrupted project operations after Sudan imposed a ban on physical meetings, restrictions on mass gathering and travel.</p> <p>However, upon lifting of the restrictions, HCENR has continued to spearhead stakeholder engagements to facilitate cross cutting dialogue, institutional linkages and planning on climate change adaptation at White Nile State level.</p>	S
Output 1.2: A stocktaking exercise undertaken and revisions of existing national and White Nile State policies and strategies identifying entry points for EbA and cost-effective up-scaling strategies for climate-risk informed EbA planning and budgeting.	March, 2023	30%	35%	<p>A stocktaking exercise to identify entry points for mainstreaming EbA into relevant Federal, White Nile State and locality level policies, development frameworks and sectoral budgets has been initiated and a draft report produced by the international Adaptation and Policy Expert. Upon completion of the stocktake exercise, policy briefs and technical guidelines will then be produced</p> <p>Notably, delay in the recruitment of the national adaptation and policy/Economic expert has affected the timely completion of the stocktaking exercise as well as development of technical guidelines and policy briefs to guide EbA mainstreaming across multiple sectors and support policy coherence.</p> <p>However, the national consultant is now on board and implementation of activities under this output is expected to resume.</p>	MS

³ Outputs and activities (or deliverables) as described in the project logframe (and workplan) or in any updated project revision.

⁴ The completion dates should be as per latest workplan (latest project revision).

⁵ As much as possible, describe in terms of immediate gains to target groups, e.g. access to project deliverables, participation in receiving services; gains in knowledge, etc.

⁶ To be provided by the UNEP Task Manager

Outputs/Activities ³	Expected completion date ⁴	Implementation status as of 30 June 2020 (%)	Implementation status as of 30 June 2021 (%)	Progress rating justification ⁵ , description of challenges faced and explanations for any delay	Progress rating ⁶
<p>Output 1.3: Policy briefs and technical guidelines developed and distributed for policy – and decision makers on increasing the resilience of local community livelihoods to current and future climate change risks using appropriate ecosystem based adaptation and knowledge gained from demonstration activities.</p>	<p>March, 2023</p>	<p>0%</p>	<p>30%</p>	<p>So far, technical guidelines in form of template protocols that outline the standard procedure and guidelines to identify/verify sites to carry out specific EbA interventions as well as community-based EbA intervention management and monitoring plans have been developed.</p> <p>Based on practical demonstration of EbA measures (implemented under component 2) and the results of economic cost-benefit assessment (CBA), policy briefs will be developed and distributed to policy- and decision makers to guide the integration of climate change adaptation interventions – including EbA – into cross-sectoral plans as well as Federal, White Nile State and Locality level policies, strategies, programmes and budgets.</p>	<p>MS</p>
<p>Output 1.4: Targeted CC adaptation and EbA planning/implementation training programmes for stakeholders completed, including field visits to learn from successful adaptation implementation.</p>	<p>December, 2022</p>	<p>45%</p>	<p>50%</p>	<p>Targeted virtual training sessions on the concept and protocols to guide application and monitoring of EbA have been facilitated by the International EbA expert. These training sessions were attended by HCENR staff and White Nile State Technical Committee.</p> <p>Field visits were also conducted in October 2020 and June 2021 for stakeholders to learn from successful adaptation implementation. Due to the emergency of COVID-19, international field visit to EbA demonstration sites couldn't be held and have been postponed to a later date when the situation allows.</p> <p>In addition to information gathered from field visits, evidence generated through economic cost-benefit assessment (CBA) of EbA measures will provide information for development of training materials on planning/implementation of EbA. Thereafter targeted training sessions will target various stakeholders at the Federal, White Nile State and community levels will be facilitated.</p>	<p>MS</p>

Outputs/Activities ³	Expected completion date ⁴	Implementation status as of 30 June 2020 (%)	Implementation status as of 30 June 2021 (%)	Progress rating justification ⁵ , description of challenges faced and explanations for any delay	Progress rating ⁶
<p>Output 1.5: Facilitation of a local policy dialogue (based on vulnerability assessments and practical experiences from pilot implementation of EbA in component 2) on mainstreaming of adaptation into state and locality development plans.</p>	<p>September, 2022</p>	<p>40%</p>	<p>55%</p>	<p>Based on the V&A assessment that was concluded in 2019 as well as practical demonstration of EbA interventions, local policy dialogues on mainstreaming of adaptation into state and locality development plans have continued to be held during community meetings and stakeholder engagement forums e.g. White Nile State Technical Committee and Project Coordination Working Group meetings that are held biannually.</p> <p>In addition to V&A assessment, an economic cost-benefit assessment (CBA) of EbA measures is also scheduled to be undertaken in early 2022. The results of the CBA are expected to generate evidence of EbA as an effective adaptation strategy. An upscaling strategy of EbA across Sudan will then be developed as part of promoting cost-effective EbA options for agro-pastoral areas targeting public and private sector, Federal, State and community level decision-makers and donors. Discussions and validation of the results of the CBA and the development of upscaling strategy is expected to be carried out during policy dialogue sessions as part of efforts to support mainstreaming of adaptation into state and locality development plans.</p> <p>However, due to travel restrictions after the emergency of COVID-19, awareness raising campaigns and training of White Nile State authorities and relevant local representatives on how to integrate EbA into local plans based on current and predicted climate change impacts were postponed and will now be implemented from Q4 2021.</p>	<p>MS</p>
<p>COMPONENT 2: Implementation of EbA measures to build adaptive capacities of vulnerable communities</p>					

Outputs/Activities ³	Expected completion date ⁴	Implementation status as of 30 June 2020 (%)	Implementation status as of 30 June 2021 (%)	Progress rating justification ⁵ , description of challenges faced and explanations for any delay	Progress rating ⁶
<p>Output 2.1: Current and future climate change vulnerability and risks for the selected vulnerable sites are identified to guide EbA interventions in pilot sites in the White Nile State.</p>	<p>December, 2021</p>	<p>55%</p>	<p>85%</p>	<p>The gender sensitive and participatory V&A assessment that was completed in 2019 has been fundamental in providing a comprehensive overview of specific climate change vulnerabilities (both existing and predicted) as well as adaptation options for each of the target localities. Similarly, the formation Village Development Committees (VDCs) and sub-committees (with atleast 30% female) in the 43 targeted communities has been central to the planning, implementation and monitoring of community-based EbA measures. Established VDCs and sub-committees have provided communities with local structures and platforms to participate in defining cost effective strategies for rangeland regeneration, increasing water infiltration and improving agricultural and pastoral yields using EbA in their respective villages. The VDCs have also been registered with Humanitarian Aids Commission (HAC) to give them legal recognition to continue supporting development initiatives beyond the Sudan EbA Project. A revolving fund is currently providing technical support and capacity building to the VDCs in the design, establishment and operationalization of Revolving Funds in 43 targeted villages.</p> <p>Additionally, a template protocols that outline the standard procedure and guidelines to identify/verify sites to carry out specific EbA interventions and guide the implementation process of the interventions as well as community-based EbA intervention management and monitoring plans have been developed. Virtual training sessions on the application of the protocols targeting HCENR staff and White Nile State Technical Committee have also been facilitated by the International EbA expert.</p> <p>However, due restrictions on mass gathering and international travel after the emergency of COVID-19, community training sessions on the application on the application of the protocol were postponed to 2021/2022.</p>	<p>S</p>

Outputs/Activities ³	Expected completion date ⁴	Implementation status as of 30 June 2020 (%)	Implementation status as of 30 June 2021 (%)	Progress rating justification ⁵ , description of challenges faced and explanations for any delay	Progress rating ⁶
<p>Output 2.2: Regeneration of critical ecosystem services to restore degraded rangelands, increase water infiltration and improve resilience of rain fed agriculture and pastoralism under increasing drought conditions and dry seasons.</p>	<p>December, 2022</p>	<p>55%</p>	<p>80%</p>	<p>During the reporting period, 504 ha of rangeland reserves in Um-zureiba village were restored through broadcasting of 2,600 kgs of pasture seedlings. As a result, the total area of rehabilitated rangeland since project inception is now approx. 1,996 Ha (representing 124% of the target) with 9,185 kgs of nine different varieties of early maturing, high nutritive value and drought tolerant rangeland seeds having been broadcasted.</p> <p>Two enclosures of 42 ha and 5 ha have also been established in Um-zureiba and Um-naam villages respectively. Additionally, 200 ha have been cultivated with animal feeds (Clitoria & Phaseolus) around the farmers' fields in Alsalam locality villages.</p> <p>A grass cutter (feed chopper) machine was also procured for the local community in Tugy village to assist them in the preparation of feedstock before storage for use during dry seasons to feed the animals.</p> <p>Additionally, 579 ha was afforested with a mixture of Acacia Senegal and Acacia Tortilis that are drought tolerant increasing the total afforested area to 814 ha.</p> <p>A total of 1,486 ha of riparian zones have also been replanted with flood tolerant acacia species while 59 km (of two meters width) of shelter belt have been broadcasted with Acacia Nilotica and Acacia Seyal in Al Rawat village. Planted Acacia tree seedlings are multipurpose and provide both environmental benefits (e.g. control soil erosion, nitrogen fixation) and social economic benefits through sale of gum Arabic and timber. These tree seedlings are natives of Sudan and Northern Sahara which are highly tolerant to drought conditions (rainfall and temperature variations).</p> <p>Through partnerships and collaboration between HCENR, relevant government institutions and communities, efforts to support regeneration of critical ecosystem services are ongoing with implementation of EbA interventions in the agro-pastoral ecosystems.</p> <p>However, due to numerous lockdowns and restrictions that were imposed by the government of Sudan in order to curb the spread of novel corona virus, the project had to scale down its annual target for the establishment of shelterbelts, afforestation, riparian land and rangeland rehabilitation. Similarly, documentation of successful experiences by North Kordofan State in limiting the use of tractors as well as mapping of the current land use and soil quality using community involvement with endorsement by the State legislation Council were not completed and were postponed to 2021/2022.</p>	<p>S</p>

Outputs/Activities ³	Expected completion date ⁴	Implementation status as of 30 June 2020 (%)	Implementation status as of 30 June 2021 (%)	Progress rating justification ⁵ , description of challenges faced and explanations for any delay	Progress rating ⁶
<p>Output 2.3: A number of EbA support measures are piloted and integrated into existing local community livelihood activities, including <i>in situ</i> rainwater harvesting and drought/flood resilient eco-agriculture.</p>	<p>December, 2022</p>	<p>50%</p>	<p>78%</p>	<p>So far, EbA support measures that have been implemented include: climate-resilient land management practices across 42,500 ha; establishment of 10 demonstration farms; design and construction of three rainwater harvesting reservoirs with a capacity of 30,000m³ each; rehabilitation of one borehole and construction of three ponds to support micro-irrigation in farms.</p> <p>To date, Sudan EbA project has supported piloting and integration of climate resilient land management practices/technologies through introduction of an 'agricultural package' in 42,500 ha of community farms. This includes 1,648 ha belonging to 1,288 (22% women headed) farmers that were supported during the reporting period. The 'agricultural package' include: provision of improved seeds (early maturing, drought and pest tolerant); training on agronomic practices and post-harvest handling; in-situ rainwater harvesting in farms; application of appropriate fertilizers; application of appropriate agricultural implements e.g. chisel plough (locally known as Kharbash) and light implements in sandy and clay soils respectively as a way of conserving soil structure. Distributed seed varieties include: 8 tonnes of Sorghum; 1 tonne of millet; 3tonne of groundnut and 4 tonne of sesame benefiting a total of 652 (21% female headed) farmers. The agricultural package is expected to enhance crop production under increased variability of rainfall, drought and desertification.</p> <p>During the reporting period, only 10 of the 34 targeted demonstration farms were established due to the delay in the start of the rainfall season and the erratic rainfall pattern experienced during the August-November 2020 rainy season. Integrated Pest Management (IPM) techniques for farms are also yet to be implemented since HCENR is yet to sign a MoU with Agricultural Research Corporation that will support this activity.</p> <p>During the reporting period, design and rehabilitation of water harvesting infrastructure including provision of water hand pumps and introduction of solar pumps for surface wells as well as training of WUAs were not implemented after the operating licence of the subcontracted organization (El Sugya Charity Organization) was revoked by the government of Sudan. However, in March 2021 HCENR signed an MoU with White Nile State Water Corporation which will now undertake the aforementioned activities. This therefore means that the project has only supported three rainwater harvesting reservoirs with a capacity of 30,000m³ each, one borehole and three water ponds that were constructed in 2019/2020 reporting period.</p> <p>White Nile State Ministry of Water could also not undertake training sessions targeting Water User Associations (WUAs) on water-borne diseases and proper hygiene including provision of medical kits with prophylactics due to a ban on mass gathering after the emergency of COVID-19. This activity is now scheduled to be undertaken in 2021/2022.</p>	<p>S</p>

<p>Output 2.4: Pilot implementation of alternative livelihood activities based on indigenous practices, including, <i>inter alia</i>, poultry breeding, home garden farming, and small ruminant strategic feeding as well as alternative energy use strategies to enhance community resilience to current and predicted climate change impacts.</p>	<p>December 2022</p>	<p>58%</p>	<p>73%</p>	<p>So far, the following alternative livelihood activities based on indigenous practices have been implemented: distribution of 20 small ruminant (Damascus ‘shami’ goats) that have now reproduced 366 crossbreed offspring; distribution of 43 poultry cages to 43 selected women; establishment of home gardens with vegetables in 1,111 households; and distribution of 8,389 improved cookstoves.</p> <p>By November 2020, a total of 20 small ruminant (Damascus ‘shami’ goats that were distributed in 2019 to female headed households in Um Naam village had reproduced 366 crossbreed offspring. The crossbreed offspring are hardy and more resilient to droughts and diseases and are therefore able to survive in difficult environment which is an important adaptation element as the effects of climate change continue to be severe in White Nile State.</p> <p>To promote modern poultry breeding, 43 poultry cages were procured and distributed to 43 selected women households during the reporting period. Poultry breeding is expected to provide livelihood diversification especially for women and is a viable option to reduce overreliance on intensive land use.</p> <p>During the reporting period, approx. 800 women benefited from the distribution of 147 Kg of vegetable seeds for home gardens that includes: queen finger, watermelon, Karkadi, corn, beans and cucumber. Cumulatively, the total number of women/women headed households that have been supported by Sudan EbA project to establish backyard gardens for vegetable production has now increased to 1,111 household (69% of the project target).</p> <p>So far, improved cookstoves have been distributed to 8,389 households (123% of the project target). Testimonies from beneficiary households indicate that the improved cook stove is highly fuel efficient and produces less smoke and therefore better indoor air quality, which has health benefits to women and girls who are responsible for food preparation.</p> <p>To support communities to continue implementing community-based EbA activities, a revolving funds expert is currently providing technical support to the design and operationalization of a revolving fund that will provide soft loans to local communities to purchase animal drawn ploughs, drought-resistant seeds, animal feed supplements, solar pumps for wells, veterinarian kits for CAWH and improved cookstoves.</p> <p>Notably, the activity related to promotion of alternative building materials to reduce dependencies on trees as biomass fuel was not undertaken since HCNER is yet to sign a memorandum of understanding with National Center for Research. Furthermore, provision of training on post-harvest activities (dry/processing and storage vegetables, etc.) was not undertaken due to a ban on mass gathering after the emergency of COVID-19. This activity was postponed and rescheduled to 2021/2022.</p>	<p>S</p>
<p>Output 2.5: Local authorities, communities, committees and user groups trained on</p>	<p>December 2022</p>	<p>45%</p>	<p>50%</p>	<p>During the reporting period, template protocols that outline the standard procedure and guidelines to identify/verify sites to carry out specific ecosystem-based adaptation interventions as well as community-based EbA intervention management</p>	<p>MS</p>

Outputs/Activities ³	Expected completion date ⁴	Implementation status as of 30 June 2020 (%)	Implementation status as of 30 June 2021 (%)	Progress rating justification ⁵ , description of challenges faced and explanations for any delay	Progress rating ⁶
<p>adapting community livelihoods to climate change through the use of EbA and on monitoring of EbA measures.</p>				<p>and monitoring plans were developed. Training sessions on the application of these protocols were also conducted and attended by technical experts in White Nile State local authorities and members of the White Nile State Technical Committee.</p> <p>However, due to the emergency of COVID-19, training of VDCs and local communities on the application of the template protocols were postponed and rescheduled to 2021/2022. Additionally, the following activities were also postponed:</p> <ul style="list-style-type: none"> • Training of communities on the establishment and management of farmer and pastoralist production groups • Training of community VDCs and WUAs to oversee, monitor and coordinate local community involvement in the implementation of EbA and climate-resilient land/water management interventions • Training of local communities at each project intervention site on the implementation and maintenance of EbA interventions and climate-resilient land management techniques • Hosting of four experience-sharing events where people from nearby communities are brought to the demonstration plots and trained on climate-resilient land management techniques. • Design and implementation of a nationally-based monitoring strategy designed in Activity 2.5.1 to assess the impacts of EbA to provide lessons learned and best practices for upscaling EbA for use in Component 3. 	
<p>COMPONENT 3: Knowledge management for appropriate EbA design</p>					

Outputs/Activities ³	Expected completion date ⁴	Implementation status as of 30 June 2020 (%)	Implementation status as of 30 June 2021 (%)	Progress rating justification ⁵ , description of challenges faced and explanations for any delay	Progress rating ⁶
<p>Output 3.1: Information, lessons learnt from project interventions and knowledge on climate change adaptation and resilient livelihoods using EbA are captured, stored and widely disseminated among stakeholders at all levels.</p>	<p>March, 2023</p>	<p>25%</p>	<p>35%</p>	<p>In an effort to promote learning, knowledge sharing as well as collection of feedback and lessons learnt on EbA practices, two field visits to project sites were held in August 2020 and June 2021 respectively. These visits were attended by senior level officials from Federal and White Nile State ministries as well as State Technical Committee members with the objective of gathering practical evidence and lessons learnt from EbA interventions towards enhancing adaptation to the adverse effects of climate change. The outcomes of the visits have been fundamental in informing ongoing/planned project activities as well as future programmes.</p> <p>Due to the global corona virus (COVID-19) pandemic, cross visits by VDCs and WUAs as well as an international exchange visit by Federal and White Nile State government representatives to EbA project sites were postponed and rescheduled to 2021 or 2022.</p> <p>Elaboration of a monitoring and reporting strategy to supplement the project M&E framework has delayed owing to a high staff turnover of project monitoring and reporting expert post. A third recruitment process for a monitoring and reporting expert is currently underway. The expert will spearhead development of the monitoring strategy and its implementation.</p>	<p>MS</p>
<p>Output 3.2: A central information base of data on EbA lessons learned and cost-effectiveness of interventions established within the existing Cloud operated jointly by HCENR and the ARC.</p>	<p>March, 2023</p>	<p>0%</p>	<p>0%</p>	<p>This activity will be implemented in 2022 once lessons learnt are documented and cost-effectiveness of EbA interventions established through cost-benefit assessment.</p>	<p>N/A</p>
<p>Output 3.3: An upscaling strategy for EbA across Sudan by both the public and private sectors is developed based on an economic cost-benefits assessment.</p>	<p>March, 2023</p>	<p>15%</p>	<p>20%</p>	<p>A methodology and data collection protocols for conducting an economic cost-benefit assessment for EbA measures in Sudan have been developed. The assessment is expected to demonstrate evidence of EbA as an effective adaptation strategy that generates livelihood benefits for local communities. The methodology also outlines the procedure for the development of an upscaling strategy of EbA across Sudan based on the cost-benefit assessment. The upscaling strategy will target public and private sector, Federal, State and community level decision-makers and donors.</p>	<p>MS</p>

3.3. Risk Rating

Table A. Risk-log

Risk	Risk affecting:	Risk Rating								Variation respect to last rating	
	Outcome / outputs	CEO ED	PIR 1	PIR 2	PIR 3	PIR 4 (this PIR)	MTR	PIR 4	PIR 5	Δ	Justification
Lack of institutional capacity and coordination on EbA could lead to inappropriate or deficient implementation of EbA measures and policy frameworks. (CEO Endorsement/PRODOC)	All outcomes & outputs	M	M	M	M	L				↓	Capacity building initiatives on EbA continued to be implemented through virtual training sessions targeting staff of HCENR and White Nile State Technical Committee on EbA principles and approaches facilitated by the International EbA Expert. Similarly, template protocols that outline the standard procedure and guidelines for the implementation and monitoring of EbA measures in Sudan have been developed and virtual training sessions on the application of these protocols facilitated. Multi-level collaborative governance has also been promoted through cross-sectoral dialogues that were held with various Federal and White Nile State senior officials, White Nile State Technical Committee, Project Coordination Working Group, local communities and other stakeholders. These dialogue sessions have provided platforms for enhancing coordination, institutional linkages, planning and integration of EbA across sectors (agriculture, livestock, water, forestry, food security and energy). A stocktaking exercise of existing national and White Nile State Policies has been initiated in order to identify entry points for mainstreaming EbA in national and subnational policies, strategies, budgets and development frameworks. This will be complemented by the economic-cost benefit assessment that aims to generate evidence of EbA as an effective adaptation strategy that generates livelihood benefits for local communities.
Volatile political situation in Sudan could lead to government shifts or disruption of project activities. (CEO Endorsement/PRODOC)	All outcomes & outputs	M	L	H	M	L				↓	The White Nile State has continued to enjoy political stability and remains calm and peaceful without any major disruptions in service delivery in both public and private sector. The appointment of senior government officials at the federal level also bodes well for the project with adaptation to climate change remaining a top priority for both Federal and White Nile State governments. Stakeholders including government agencies and staff have also remained committed and supportive towards implementation of the project.
National financial instability undermining investments in adaptation.	All outcomes & outputs	H	M	H	H	M				↓	The Transitional government of Sudan has initiated macro- and micro-economic reforms aimed at removing economic distortions and stabilizing the economy while building a foundation for future sustained inclusive growth, development, and poverty reduction.

(CEO Endorsement/PRODOC)										<p>As a result, this is helping to address inflation that was significantly affecting the purchasing power of the Sudan project related goods and services.</p> <p>At the project level, senior government officials from key ministries e.g. Ministry of Finance and National Economy, Ministry of Agriculture among others have continued to be part of the Project Steering Committee and the White Nile State Technical Committee thus providing strategic guidance on planning and budgeting of Sudan EbA project interventions.</p> <p>An Adaptation Intervention & Policy Expert has also been hired to spearhead a stocktaking exercise for policy- and decision-makers in order to identify entry points for mainstreaming EbA in the context of current and future climate risks. This will help to embed EbA in policies / legislation.</p>
<p>Trained, qualified engineers/ technicians leave for more lucrative positions (“brain drain”) resulting in limited sustainability of requisite human resources and technical/operational capacities.</p> <p>(CEO Endorsement/PRODOC)</p>	All outcomes & outputs	M	L	L	M	S			↑	<p>There has been a high staff turnover in White Nile State ministries especially senior officials and technical staff that have been affected by the new appointments after the formation of transition government in Sudan. These changes in human resources have the potential to disrupt project operations and support provided by White Nile State ministries that we are partnering with to implement Sudan EbA Project.</p> <p>To mitigate this risk, the project team is holding strategic meetings with newly appointed senior officials and technical staff to ensure high level political support in the implementation of Sudan EbA project. The project team has also been providing regular updates to the newly appointed officials on the progress of project implementation while inviting them to participate in field visits and White Nile State Technical Committee meetings.</p>
<p>Current climate and seasonal variability and/or hazard events prevent implementation of planned activities.</p> <p>(CEO Endorsement/PRODOC)</p>	Outcome 2	M	S	M	M	L			↓	<p>Extreme weather events and seasonal variability of rainfall occurring in White Nile State continue to pose a risk in the scheduling and implementation of project activities. For instance, floods occurred in Sudan in September 2020 although project sites were not affected as it had happened in the rainfall season of 2019.</p> <p>In view of the foregoing, the project team and White Nile State Technical Committee continue to proactively review the specific climate change vulnerabilities and risks (both existing and predicted) in each of the target communities in order to enhance planning and implementation of project interventions in the face of climatic uncertainty. For instance, the project team is sourcing improved crop seeds certified by Agricultural Research Corporation (ARC) and that are more tolerant to drought and fast maturing. With support of Forest National Corporation, flood and</p>

											drought tolerant tree varieties are being planted in flood zones. Demonstration sites affected by flooding have also been relocated to areas that are less likely to be affected by floods.
Communities do not support interventions and do not adopt ecosystem management activities for adaptation during or after the LDCF3 project because of limited immediate benefits of EbA. (CEO Endorsement/PRODOC)	Outcome 2	M	-	L	L	L				=	<p>During planning and implementation of community-based EbA intervention measures, extensive consultations with beneficiary communities continue to be held through VDCs and sub-committees (with at least 30% women participation) as well as local leaders (village elders including women, religious and government representatives). The project also has two senior staff with extensive experience in community-based development processes and climate change adaptation that spearheading efforts to mobilize community support in the adoption of EbA approaches.</p> <p>Community adaptation needs and aspirations are also considered during the process of setting priority EbA measures that are implemented in their localities through community representation at the White Nile State Committee. This includes activities that aim to enhance local livelihoods while restoring, conserving and ensuring sustainable supply of ecosystem services as well as other co-benefits in their localities.</p> <p>Community mobilization, awareness raising and training of local communities at each project intervention site on the implementation, management, maintenance, monitoring and evaluation of community-based EbA interventions and climate-resilient land management techniques is on-going.</p>
Priority interventions implemented are not found to be cost effective. (CEO Endorsement/PRODOC)	Outcome 2	L	-	-	L	L				=	<p>To assess and demonstrate the cost-effectiveness of EbA interventions in Sudan, a methodology and data collection protocols for conducting the economic cost-benefit assessment for EbA measures have been developed. The outcome of the assessment is expected to demonstrate evidence of EbA as an effective adaptation strategy that generates livelihood benefits for local communities. Proving the cost effectiveness of these measures is essential to making the case for EbA to stakeholders, ranging from local communities and planners to national level decision-makers and donors. This will significantly contribute to the development and/or mainstreaming of evidence-based EbA into policies, strategies and budgets. Additionally, an upscaling strategy of EbA across Sudan will also be developed based on the outcome of the cost-benefit assessment.</p>
Conflicts between farmers and pastoralists such as uncontrolled nomadic settlements, continuous cultivation and illegal tractor use	Outcome 2	H	-	M	M	L				↓	<p>Land use planning (identification/mapping of sites for piloting specific EbA measures) is done in liaison with communities through VDCs and Sub-committees as well as local leaders (village elders, religious leader and respective government agencies representatives).</p>

<p>due to non-transparent, unequitable and unjust resource allocation.</p> <p>(CEO Endorsement/PRODOC)</p>										<p>EbA measures being piloted are also aimed at reducing climate change vulnerabilities that affect both rain-fed farmers and pastoralists. These measures include: restoration of critical ecosystem services provided by rangelands, forest and water resources; investment in climate resilient agricultural land management practices; diversification of livelihoods and energy efficiency. Sensitization of local communities on the benefits of restoring natural ecosystems for purposes of enhancing their adaptive capacity to the impacts of climate change has also been going on.</p>
<p>Use of the revolving fund for purposes other than those supporting EbA.</p> <p>(CEO Endorsement/PRODOC)</p>	<p>Output 2.4 of outcome 2</p>	<p>L</p>	<p>-</p>	<p>-</p>	<p>L</p>	<p>L</p>			<p>=</p>	<p>A revolving funds expert has been recruited and is currently providing technical support to the design, establishment and operationalization of revolving funds in 43 targeted villages. The expert has also been tasked with the role of building the capacity of Villages Development Committees (VDCs) that are fundamental in the management of revolving funds. The VDCs have also been registered with Humanitarian Aid Commission (HAC) in order to allow them become legal entities to manage revolving funds.</p> <p>These VDCs will be responsible for ensuring that revolving funds are utilized for the intended goal of providing soft loans to local communities to implement EbA interventions such as drought-resistant seeds, animal feed supplements, implements to support climate resilient farming e.g. solar pumps for wells, purchase animal drawn ploughs, agrochemicals for animals and crops, improved cookstoves etc.</p>
<p>Health and safety risks due to water mobilization care for animals, cookstove use.</p> <p>(CEO Endorsement/PRODOC)</p>	<p>Outcome 2</p>	<p>L</p>	<p>L</p>	<p>L</p>	<p>L</p>	<p>L</p>			<p>=</p>	<p>Local communities have expressed the danger posed by the water reservoirs to children and animals especially drowning. To mitigate such risks, all reservoirs constructed with the support of Sudan EbA project will be fenced and safe water collection points provided. The Water Users Associations (with at least 30% women) that have been established in the 43 targeted villages will also be responsible in the management of the water infrastructure to ensure they are safe.</p> <p>In collaboration with the Department of Drinking Water department of the Ministry of Water, Water User Associations (WUAs) members are scheduled to be trained on water-borne diseases and proper hygiene including provision of medical kits with prophylactics. Water from earth dams will also be pumped to water supply tanks and collection points near villages to allow ease of access by communities.</p> <p>In collaboration with ARC, piloting of Integrated Pest Management is being done on agro-pastoral ecosystems. The</p>

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											<p>use of Integrated Pest Management techniques is expected to pose no risks to the local communities and the environment.</p> <p>Regarding cookstoves, all beneficiaries have received training on handling and operating the cookstoves to avoid injuries. Testimonies from beneficiary households indicate that the improved cook stove is highly fuel efficient and produces less smoke and therefore better indoor air quality, which has health benefits to women and girls who are responsible for food preparation.</p>
<p>Delays to signing of Memorandum of Understanding (MoUs) between HCENR and other relevant institutions supporting implementation of Sudan EbA project interventions.</p> <p>(PIR 2019)</p>	All outputs of Outcome 2	N/A	N/A	S	S	S					<p>The current HCENR Secretary General that was appointed in 2020 has committed to fast-track the signing of MoUs between executing agency (HCENR) and other relevant institutions supporting implementation of Sudan EbA project interventions. The Secretary General has instructed HCENR legal team to guide the process of finalizing the MoUs in readiness for signing without further delay. The MoU between HCENR and White Nile State Water Corporation has already been signed and those remaining will be signed in the course of 2021.</p>
<p>Lengthy and bureaucratic procurement process leading to delays in the recruitment of national consultants to undertake specific project tasks.</p> <p>(PIR 2019)</p>	Outcomes 1 and 3	N/A	N/A	S	M	M					<p>The executing agency has set up a special procurement committee headed by a senior management official that is specifically focussing on supporting the procurement processes of Sudan EbA project. Similarly UNEP is updating the scope of Mid-Term Reviews to increase analysis against GEF criteria and results verification which has contributed to a delay in conducting the project's MTR, compounded with COVID restrictions. It is now scheduled for September 2021.</p> <p>The project has also provided financial support to strengthen the procurement systems of the executing agency through training to boost the technical expertise of the procurement unit personnel.</p>
<p>Rising inflation rates in Sudan increasing cost of goods and services as compared with the project budget.</p> <p>(PIR 2019)</p>	All outcomes & outputs	N/A	N/A	M	S	H					<p>The project team has constantly monitored the price of required goods/services in order to ensure a pragmatic approach is applied during planning and budgeting of project activities to avoid cost overruns.</p> <p>Government ministries/agencies partnering with Sudan EbA project have also continued to provide co-financing during implementation of Sudan EbA project thus easing the pressure of the high inflation rate that was being experienced in Sudan.</p>
<p>COVID-19 Pandemic and associated restrictions on travel and gatherings affecting the project to undertake project activities and achieve project</p>	All outcomes & outputs	N/A	N/A	N/A	S	S					<p>The emergency of COVID-19 pandemic has had a major impact on the implementation of project interventions especially those requiring mass gathering and extensive travels. For instance, international experts have been unable to travel to Sudan since March 2020 and are now supporting the project virtually. Similarly,</p>

<p>outputs and outcomes within original project timelines. (PIR 2020)</p>										<p>some EbA interventions that require extensive interaction with communities had to be postponed especially after Sudan imposed a three months lockdown in an effort to curb the spread of COVID-19.</p> <p>As a result, some of the project activities that require gathering and traveling had to be postponed until such a time the situation may allow their execution. Annual project targets had to be scaled down thus requiring more time for implementation. To ensure completion of all planned project activities, a two year no cost extension request was also submitted and is waiting for approval by the GEF.</p> <p>However, even in the face of COVID-19 pandemic, implementation of Sudan EbA project interventions has been sustained through adoption of adaptive management e.g. working from home; connecting teams remotely through calls, emails and virtual meetings in order to engage stakeholders spearheading implementation of project activities.</p> <p>With restricted movements especially to the field, the project teams have engaged extension officers of partner agencies who are able to get the necessary permission for mobility to help them perform project related field assignments. At the same time, the team has also taken advantage to undertake activities that can be done remotely implemented with the support of national and subnational teams.</p> <p>With easing of travel and meeting restrictions in Sudan, implementation of field activities has now resumed as well as trainings/meetings requiring individual attendance are now being held while adhering to the laid down ministry of health protocols/advisories in Sudan.</p>
<p>Consolidated project risk</p>		<p>N/A</p>	<p>M</p>	<p>M</p>	<p>M</p>	<p>M</p>				<p>Consolidated project risk rating remains Medium. Of the 14 identified risks two has been rated High; two risks have been rated Significant; two risks have been rated Medium while eight risks have been rated Low. Comparison of 2021 and 2020 risk rating indicate that the following risks have maintained their rating; four risks a rating of Low, two risks a rating of Significant and one risk a rating of medium. Similarly, the rating of five risks have been reduced from Medium to Low while rating of another one risk has been reduced from High to Medium; the rating of one risk has been elevated from Significant to High due to reasons explained in the justification section above.</p>

Table B. Outstanding medium & high risks

Risk	Actions decided during the previous reporting instance (PIR _{t-1} , MTR, etc.)	Actions effectively undertaken this reporting period	Additional mitigation measures for the next periods		
			What	When	By whom
National financial instability undermining investments in adaptation	<p>So far, efforts to strengthen advocacy efforts on long- and medium-term economic benefits on integration of adaptation options into national budgets among policymakers are on-going. For instance, senior government officials from key ministries e.g. Ministry of Finance and National Economy, Ministry of Agriculture among others have been included as part of the Project Steering Committee and the White Nile State Technical Committee. The senior government officials have also been attending strategic project related meetings during which the concept of ecosystem-based adaptation and the need to support the mainstreaming of adaptation options into national and White Nile State planning and budgetary processes have been discussed.</p> <p>In collaboration with relevant government institutions, the project is also engaging private sector players in implementation of EbA interventions thus providing an opportunity to tap into private sector resources.</p>	<p>Senior government officials from key ministries e.g. Ministry of Finance and National Economy, Ministry of Agriculture among others have continued to be part of the Project Steering Committee and the White Nile State Technical Committee thus providing strategic guidance on planning and budgeting of Sudan EbA project interventions.</p> <p>In collaboration with relevant government institutions, the project is engaging private sector players in implementation of project activities e.g. supply and distribution of improved cookstoves, tree seedlings and improved seeds; and preparation of demonstration farms. This has helped to actively engage the private sector players in exploring economic opportunities that can be tapped during implementation of EbA approaches.</p> <p>An Adaptation Intervention & Policy Expert has been hired to spearhead a stocktaking exercise for policy- and decision-makers in order to identify entry points for mainstreaming EbA in the context of current and future climate risks. This will help to embed EbA in policies / legislation.</p>	<p>Strengthen advocacy and awareness-raising among the decision-makers on long- and medium-term economic benefits on integration of adaptation options into national budgets and communicate these to policymakers throughout.</p> <p>The International and National Adaptation Intervention and Policy Experts are expected to lead in development of gender sensitive policy briefs and technical guidelines for policy – and decision makers on integration of EbA as part of the adaptation strategies.</p>	<p>Continuous</p> <p>April 2022</p>	<p>Government Coordinator and HCENR SG</p> <p>International and National Adaptation Intervention and Policy Experts as well as Project Team</p>
Trained, qualified engineers/technicians leave for more lucrative positions (“brain drain”) resulting in limited sustainability of human resources and technical/operational capacities.	<p>Capacity building initiatives including trainings have targeted staff of the government agencies/ministries (especially those with long term contracts and that will stay in their respective institutions for more than 2 years as per Sudanese law), civil society, private sector and local communities that are custodians of the EbA measures. This will reinforce their technical capabilities in mainstreaming and supporting implementation of EbA measures thus strengthening motivation and career development and contributing to sustainability.</p>	<p>To mitigate this risk of high staff turnover, the project team is holding strategic meetings with newly appointed senior officials and technical staff in White Nile State in order to ensure high level political support in the implementation of Sudan EbA project. The project team has also been providing regular updates to the newly appointed officials on the progress of project implementation while inviting them to participate in field visits and White Nile State Technical Committee meetings.</p> <p>Signing of Memorandum of understanding (MoUs) between HCENR and relevant</p>	<p>Ensure senior officials and technical staffs from all line ministries and agencies are included in the trainings provided under Sudan EbA project. This will enhance the capacity of the institutions supporting implementation of Sudan EbA project.</p>	<p>December, 2022</p>	<p>National Project Manager</p>

	<p>Collaboration and partnerships between HCENR and relevant government agencies have allowed government officials that possess necessary skills and knowledge to provide technical support during implementation of project activities. Providing opportunities to officials to apply their skills and knowledge contributes to ensuring motivation and interest in their jobs and prospects for career development in Sudan.</p>	<p>government agencies is also being fast-tracked in order to formalize collaboration and partnerships which have allows government officials that possess necessary skills and knowledge to provide technical support during implementation of project activities. Providing opportunities to officials to apply their skills and knowledge contributes to ensuring motivation and interest in their jobs and prospects for career development in Sudan.</p>			
<p>Delays to signing of Memorandum of Understanding (MoUs) between HCENR and other relevant institutions supporting implementation of Sudan EbA project interventions in WNS</p>	<p>The newly appointed HCENR Secretary General has committed to fast-track the signing of MoUs between executing agency (HCENR) and other relevant institutions supporting implementation of Sudan EbA project interventions. The Secretary General has instructed HCENR legal team to guide the process of finalizing the MoUs in readiness for signing without further delay.</p>	<p>The MoU between HCENR and WNS Water Corporation was signed in March 2021 for the later institution to support in the installation/rehabilitation of water related infrastructure.</p> <p>The remaining MoUs between HCENR and the below listed institutions are expected to be signed in the course of 2021</p> <ul style="list-style-type: none"> i. National Center for Research ii. Agricultural Research Corporation 	<p>Ensure that all pending Memorandum of Understanding (MoUs) between HCENR and relevant government agencies supporting implementation of Sudan EbA project is finalized and operationalized.</p>	<p>December 2021</p>	<p>National Project Manager, Government Coordinator and HCENR SG</p>
<p>Lengthy and bureaucratic procurement process leading to delays in the recruitment of national consultants to undertake specific project tasks</p>	<p>The newly appointed HCENR Secretary General has reviewed the procurement process of the national consultant and has initiated negotiations with the successful candidate to allow the signing of the contract without further delay.</p> <p>The project has also provided financial support to strengthen the procurement systems of the executing agency through training to boost the technical expertise of the procurement unit personnel.</p>	<p>The executing agency has set up a special procurement committee headed by a senior management official that is specifically focussing on supporting the procurement processes of Sudan EbA project.</p>	<p>Follow up with the special procurement committee to ensure that procurement of goods and services required by Sudan EbA project are finalized in a timely manner as indicated the procurement plan.</p>	<p>Continuous</p>	<p>National Project Manager</p>
<p>Rising inflation rates in Sudan increasing cost of goods and services as compared with the project budget.</p>	<p>Regular monitoring of the price of required goods/services in order to ensure a pragmatic approach is applied during planning and budgeting of project activities to avoid cost overruns.</p>	<p>The project team continues to monitor market trends of the required goods and services in order to ensure a pragmatic approach is applied during planning and budgeting to avoid cost overruns and align with UNEP/GEF financial guidelines.</p>	<p>Continue lobbying government ministries/ agencies that are partners in the implementation of Sudan EbA project to meet their part of co-financing commitment.</p>	<p>Continuous</p>	<p>Government Coordinator, National Project Manager, Finance Assistant and WNS</p>

		Government ministries/ agencies partnering with Sudan EbA project have also continued to provide co-financing during implementation of Sudan EbA project thus easing the pressure of the high inflation rate that was being experienced in Sudan.	Constantly monitoring of market trends of the required goods and services in order to ensure a pragmatic approach is applied during planning and budgeting to avoid cost overruns.		Coordination Consultant
COVID-19 Pandemic and associated restrictions on travel and gatherings affecting the project to undertake project activities and achieve project outputs and outcomes within original project timelines.	Project operations will adhere to COVID-19 regulations and guidelines provided by Ministry of Health of Sudan. Project staff will also adhere to social distancing requirements within project offices. The project will utilize virtual platforms using internet-based applications to facilitate stakeholder consultations and meetings/workshops.	<p>The project team has employed adaptive management measures e.g. use of virtual platforms to conduct training and meeting; focus on design of various activities that do not require travelling e.g. description of methodology and protocols for undertaking a cost-benefit assessment of EbA measures, development of various protocols; capitalize on the lockdown periods to review, plan and put in place strategies for fast-tracking project implementation.</p> <p>Additionally, some of the project activities that required travelling and stakeholder engagements had to be postponed/ rescheduled until such a time that it was possible to undertake them.</p>	<p>The Project will continue to minimize regular face-to-face interactions by leveraging on digital platforms (where possible) to hold virtual meetings, training sessions and stakeholder consultations.</p> <p>Additionally, the project team will continue to foster relations with field extension officers of partner government agencies who can support implementation of the project interventions with minimal travel requirements. Where possible, training and community mobilization activities will be held while adhering to the ministry of health COVID-19 regulations and guidelines.</p>	Continuous	National Project Manager, WNS Coordination Consultant, Community NRM Consultant

High Risk (H): There is a probability of greater than 75% that **assumptions** may fail to hold or materialize, and/or the project may face high risks.
Significant Risk (S): There is a probability of between 51% and 75% that **assumptions** may fail to hold and/or the project may face substantial risks.
Medium Risk (M): There is a probability of between 26% and 50% that **assumptions** may fail to hold or materialize, and/or the project may face only modest risks.
Low Risk (L): There is a probability of up to 25% that **assumptions** may fail to hold or materialize, and/or the project may face only modest risks.