TERMINAL EVALUATION REPORT

CLIMATE RISK FINANCE FOR SUSTAINABLE AND CLIMATE RESILIENT RAINFED FARMING AND PASTORAL SYSTEMS, SUDAN

UNDP PIMS ID 4591

Funded By: Global Environment Facility (GEF)

Implementing Agency: UNDP

Executing Agency: Higher Council for Environment and Natural Resources (HCENR)

Evaluation Team

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EXECUTIVE SUMMARY

Project Summary Table

Project Summary Table				
Project Title:	Climate Risk Finance for Sustainable and Climate Resilient Rainfed Farming and Pastoral Systems			
GEF ID:	4958		at endorsement (US$)	at completion (US$)
UNDP Project ID:	PIMS 4591	GEF/LDCF Financing:	5,700,000	5,700,000
Country:	Sudan	IA/EA:	-	-
Region:	North Africa	Government	-	-
Focal Area:	Climate Change	Others	-	-
Executing Agency:	HCENR	Total project cost	5,700,000	5,700,000
Other Partners involved:	SMA, RSA, ARC, MoA	ProDoc Signature (date project began):		29.09.2014
		(Operational) Closing Date:	Proposed: 3.12.2018	Actual: 30.06.2020

Project Description

The Climate Risks Finance for Sustainable and Climate Resilient Rain-fed Farming and Pastoral Systems (PIMS 4591) in Sudan was implemented between 2014 and 2020 with an overall budget of $ 24,500,000. The project received Global Environment Facility (GEF)/ Least Developed Countries Fund (LDCF) grant funding of $5,700,000, complemented by UNDP cash input of $600,000 and private injection of $3,200,000. National ownership and appropriation of the action was demonstrated through a significant in-kind contribution of the Government of Sudan amounting to $15,000,000.

The overall aim of the project was to increase climate resilience of rain-fed farmer and pastoral communities in regions of high rainfall variability through climate risk financing. The objective was to strengthen climate adaptation capabilities of farmers and pastoralists in six highly affected and needy agro-ecological regions (River Nile State, Northern Kordofan, Gedarif and Southern Darfur, States of Kassala and White Nile) in the country. By so doing, it was expected that the project will support the Government of Sudan (GoS) in carrying out all the necessary activities to cover large areas of rain-fed agricultural and pastoral communities with weather monitoring, safeguard farmers and pastoralists from climate related risks, providing weather information, transfer risk through insurance schemes, micro-financing and policy back up. Upon completion of the project , the following outcomes were expected to be achieved:

Outcome 1: Institutional and technical capacity for climate observation, forecasting and early warning strengthened at national and local levels.

Outcome 2: Residual climate risk to rural livelihoods in the states of greatest rainfall variability addressed through parametric insurance products.

Outcome 3: Improved access of needy farmers and pastoralists to financial services for climate change adaptation and disaster risk reduction.

The preferred solutions pursued were to improve national and decentralized capacities to provide timely forecasts and early warnings, as well as complementary micro-finance (MF) and weather-based index insurance (WII) services to rainfed farmers and pastoralists to improve their ability to manage and adapt to climate risks.

This Terminal Evaluation (TE) was carried out in collaboration with relevant implementing ministries with government, UNDP country office, project beneficiaries, and the project coordination team. It adopted the UNDP Evaluation Guidance for GEF Financed Projects to assess the level of achievement of the three stated project outcomes. The report articulates the level of attainment of the project objective in terms of number of farmers and pastoralists with access to microfinance and insurance products, and the level of commitment of the government to domestic climate finance targets. The TE at the end provides lessons and recommendations moving forward. Table 1 shows the TE rating table based on GEF criteria.

Table 1: Evaluation Rating Table

Evaluation Rating	**Rating**
Monitoring and Evaluation	
Overall quality of M&E	Satisfactory
M&E design at project start up	Highly satisfactory
M&E plan implementation	Moderately satisfactory
IA&EA Execution	
Quality of UNDP Implementation	Moderately satisfactory
Quality of Execution - Executing Agency	Moderately satisfactory
Overall quality of Implementation / Execution	Moderately satisfactory
Outcomes	
Overall quality of project outcomes	Satisfactory
Relevance	Highly satisfactory
Effectiveness	Satisfactory
Efficiency	Moderately satisfactory
Sustainability	
Overall sustainability	Moderately likely
Financial resources	Moderately unlikely
Socio-economic	Moderately likely
Institutional and governance	Moderately likely
Environmental	Moderately likely
Impact	
Overall impact	Satisfactory

Overall project results	**Satisfactory**

(1) 6 point scale: Highly satisfactory (HS); Satisfactory (S); Moderately satisfactory (MS); Moderately unsatisfactory (MU); Unsatisfactory (U); Highly unsatisfactory (HS)
(2) 2 point scale: Relevant (R); Non-relevant (NR)
(3) 4 point scale: Likely (L); Moderately likely (ML); Moderately unlikely (MU); Unlikely (U)
(4) 3 point scale: Significant (S); Minimal (M); negligible (N)

Summary of Conclusions, Recommendations and Lessons

Main Conclusions

Project Design and Formulation

The project was excellently designed through a highly participatory multi-stakeholder process. The project document demonstrates that lessons learned from the past LDCF1 project and other ongoing national projects were integrated into the project design and served as baseline for the LDCF2 project. The project log frame analysis found that the project horizontal and vertical logic was sound and relevant risks and activities identified. The project M&E system at design was also robust based on SMART objectives formulated. The project target groups and beneficiaries were also very carefully identified including the development of a stakeholder engagement plan. Gender considerations were effectively built into the design with strategies and activities designed to reach women and the poor. The priorities of the project were in line with the needs of the beneficiaries but also national climate priorities and donor objectives. The absence of a consistent inception phase to clarify roles and responsibilities amongst implementation partners, was a key weakness with subsequent impacts on overall project implementation and delivery. The project demonstrated strong replicability while drawing on excellent comparative advantage of UNDP in Sudan in the design.

Project Implementation

Project implementation was led by the HCENR while delivery was championed through government agencies at national and local levels, working with both private sector and civil society actors to deliver on the project. The project management team was responsible for day-to-day operations of the project with oversight from the project boards, UNDP and HCENR. Implementation started off poorly with limited definition of roles and responsibilities during the inception phase which consequently led to significant delays, communication challenges and conflicts in the delivery of the action. While the project design demonstrated a strong stakeholder engagement plan, the delivery failed to build on ongoing initiatives in the country. Limited documentation of lessons learned, or best practices was achieved putting a dent on potential for replicability. Adaptive management was considered to be moderately satisfactory considering the problems of political interference, staff turnover and other coordination challenges which marred the effective delivery of the project in the beginning. The results of the MTR were largely addressed following the granting of a project extension period. With stronger adaptive management and application of UNDP's comparative advantage, the TE team considers that this project could have

been delivered during the project initial period. Credit however to UNDP and the government for not abandoning the action and for striving to make progress that notwithstanding. These issues and others highlighted the fact that despite a robust M&E design judged as satisfactory, the M&E delivery was considered moderately unsatisfactory. This was additionally because despite plans to develop a project theory of change, this was never done. This could have further strengthened the project's pathways to impact. The grant extension enabled however, for delays to be addressed and for the project to be satisfactorily delivered. The project made a significant effort to mainstream gender despite lack of a dedicated gender plan and evidence showed that over 40% of beneficiaries were women. The following section shows that overall, the project objectives were met and outcomes achieved.

Project Results

By the end of the project initial period, **impacts** are emerging in terms of increased food and livestock productivity and hence food security in line with UNDAF/CPAP and GEF objectives and outcomes. Evidence was found of increased adaptation practices related to: soil and water conservation practices, livelihood diversification strategy, the use of climate-smart technologies and varieties of crop and livestock, the change of lifestyle from pastoralists to agro-pastoralists. A 65% increase in the productivity for farmers who used improved seeds and water harvesting technology in the target states was reported. It could be argued that a key policy impact of this action has also been the approval and vetting of the Technical and Legal components for the establishment of WII products by the Supreme Insurance Authority and the Higher SHRIA committee respectively.

At **specific objective** level, the project has benefitted 12, 699 direct beneficiaries comprising about 8500 households in six target states. At specific objective level, 3300 direct beneficiary farmers and pastoralists from the 45,000 targeted were reached. Another 16500 indirect beneficiaries were reached with microfinance and MF/WII products. This suggests unsatisfactory achievement of specific objective target. However, in terms of government commitment to climate risk finance, the Government of Sudan (GoS) increased the budget available for weather related institutions by close to 140% total over the project lifetime. This is enabling these institutions to strengthen their capabilities for monitoring and reporting on weather information. There is a more than 100% (including Baseline) reported increase in the geographic coverage for climate / weather early warning monitoring in each of the 6 target states achieved over the course of the project. The assessment of the overall attainment of the results is strongly influenced by the satisfactory performances across all three project outcomes. Further assessment of the results under the separate outcomes is presented below.

Outcome 1*: Institutional and technical capacity for climate observation, forecasting and early warning strengthened at national and local levels.*

- ✓ There is more than 100% increase in the coverage for climate /weather monitoring in each of the 6 target state achieved during this project period;
- ✓ Establishment of weather stations, distribution of telephone equipment, production of weather and information bulletins and link to iCloud for climate information sharing;
- ✓ 75% women & 70 % men covered with climate monitoring and observation devices (AWS, rain gauges, early warning unites and APP);

- ✓ Collaboration with MTN and Sudani to provide customized SMS services to the project's target communities in Early warning system, Microfinance /Micro insurance related information.

Based on the baseline situation, the TE concludes that this outcome meets the expectations (satisfactory).

Outcome 2*: Residual climate risk to rural livelihoods in the states of greatest rainfall variability addressed through parametric insurance products.*

- ✓ 20 products approved by the Supreme Insurance Authority which has far exceeded 6 WII products;
- ✓ Policies developed from more than 10 companies;
- ✓ Average number of days to settle claims ranges decreased from 25 to 20 days in 2017 to 15 in 2019;
- ✓ The average claims ratio increased from 45% in 2017 to 55% in 2019.

Compared to the baseline, the TE concludes that the achievement of this outcome is satisfactory.

Outcome 3*. Improved access of needy farmers and pastoralists to financial services for climate change adaptation and disaster risk reduction.*

- ✓ 12 loan products, at least two for each of the 6 states developed;
- ✓ 11 finance policies in collaboration Microfinance institutions reaching 3,300 (40% female) direct farmers and pastoralist;
- ✓ Six smart technologies adopted like water harvesting techniques; early maturing crop species; drought resistant seed varieties in six states working with the Agricultural Research Corporation;
- ✓ Productivity was increased 65% in farmers who used smart technologies.

The effectiveness of outcome 3 is assessed to be satisfactory.

Recommendations

Outcome 1

- ✓ Ensure that project equipment supplies are done based on objective criteria accepted by stakeholders; ensure sophisticated equipment-like drones and EWS are provided with their accessories;
- ✓ Build local capacity for maintenance and security of climate information infrastructure;
- ✓ Continue to secure and maintain collaboration with mobile telephone companies and local media agencies to disseminate climate information;
- ✓ Develop an inventory of project assets such as the iCloud server, drones, mobile-based application, the call centre, early warning unit equipment, and cars, and be prepared for the maintenance/transfer which to be clearly stated in the exit strategy.

Outcome 2

- ✓ Scale up MF and insurance products beyond initial 3300 beneficiaries following validation of products by Supreme insurance authority and SHRIA council;
- ✓ Continue sensitisation and awareness creation amongst farmers and pastoralists on MF and climate insurance products and on climate resilience building to enhance adoption and buy-in.
- ✓ Continue to promote MF and climate risk finance amongst national MF and insurance companies.

Outcome 3

- ✓ Continue engagement with MF/insurance companies to adapt, refine and upscale climate risk finance products, targeting not only small farmers and pastoralists but also explore nomadic pastoralists;
- ✓ Facilitate experience sharing between MF and insurance companies to share lessons and best practices;
- ✓ Organise, centralise and promote lessons learned on best agricultural/pastoral practices via written and video reports and other means/tools;
- ✓ Future projects could also consider coupling climate information system with a market information system enabling farmers to access market information which can also help them to market their products;
- ✓ Regularly monitor legal framework for MF/WII to ensure it continuously responds to the emerging needs of small farmers and pastoralists.

Lessons Learned

A number of key lessons can be drawn from this project which can inform future projects.

- ✓ Strong multi-stakeholder engagement in the project design, helps clarify needs and ground project on local realities. It also ensures that the strengths of different groups of actors are taken into consideration. During implementation, clarification of roles and responsibilities ensures that complementarities are built while avoiding overlaps, competition and waste of resources;
- ✓ Small farmers and pastoralists when engaged in the process of designing and implementing climate risk finance tools enhances buy-in and adoption of practices;
- ✓ Microfinance and micro insurance are effective tools for building climate resilience amongst farmers and pastoralists when delivered in culturally adapted approaches. for instance the role of the SHRIA council helped to address barriers to adoption;
- ✓ Need to couple financial products with capacity building, productive resources and practices but also facilitation of market access for farmers. This package can build stronger resilience to climate vulnerability, increase incomes and reduce poverty;
- ✓ A mix of technological packages owned and managed by local actors can increase roll out of climate information systems. Building synergies between international and private sector agencies to access satellite data, training and technical assistance are required to develop a viable climate information service;
- ✓ Government leadership is critical but there must be avenues for accountability amongst government officials.

Contents

Acronyms and Abbreviations

ARC	Agricultural Research Corporation
CO	Country Office
COSS	Country Office Support Service
CPAP	Country Programme Action Plan
CRF	Climate Risk Finance (project)
DRR	Disaster Risk Reduction
EA	Executing Agency
ENSAP	Eastern Nile Subsidiary Action Program
ENTRO	Eastern Nile Technical Regional Office
EWS	Early Warning System
FAO	Food and Agriculture Organisation
FEWS NET	Famine Early Warning System Network
FPEW	Flood Preparedness and Early Warning project
FSPS	Food Security Policy and Strategy
GDP	Gross Domestic Product
GEF	Global Environment Facility
GGW	Great Green Wall
GoS	Government of Sudan
GPC	Government Project Coordinator
HAC	Humanitarian Aid Commission
HCENR	Higher Council for Environment and Natural Resources
IA	Implementing Agency
IC	International Consultant
IFAD	International Fund for Agriculture Development
IPRSP	Interim Poverty Reduction Strategy Paper
LDCF	Least Developed Country Fund
MASAR	Pastoralist NGO
MDG	Millennium Development Goals
MoEFPD	Ministry of Environment, Forestry and Physical Development
MoI	Ministry of Interior
MoWRE	Ministry of Water Resources and Electricity
M&E	Monitoring and Evaluation
MFI	Micro-finance Institution
MoU	Memorandum of Understanding
MTR	Mid-term Review
NAPA	National Adaptation Plan of Action
NGO	Non-Government Organisation
NHMS	National Hydrology Meteorology Service
NIM	National Implementation Modality
NPD	National Project Director
NPM	National Project Manager
OCHA	Office for Coordination of Humanitarian Affairs
PIR	Project Implementation Report
PIW	Project Inception Workshop
PMU	Project Management Unit
Prodoc	Project Document
PSC	Project Steering Committee
PTC	Project Technical Committee

QA	Quality Assurance
QC	Quality Control
ROtI	Review of Outcome to Impact
RRF	Result and Resources Framework
RSA	Remote Sensing Authority
SCCN	Sudanese Climate Change Network
SDF	State Social Development Fund
SDGs	Sustainable Development Goals
SMA	Sudanese Meteorology Authority
SMART	Specific, Measurable, Achievable, Relevant, Time-bound
SNC	Second National Communication
SP	Strategy Plan
SRFP	Smallholder Rainfed Farmers and Pastoralists
SSDB	Savings and Social Development Bank
ToR	Terms of Reference
UNDAF	UN Development Assistance Framework
UNDP	United Nations Development Programme
UNDP HQ	UNDP Headquarter
UNFCCC	United Nations Framework Convention on Climate Change
US$	United States Dollar
V&A	Vulnerability and Adaptation
WII	Weather Index-based Insurance

Currency of Sudan is the Sudanese Pound. At the time of the Mid-term Review, US$ 1 = SDG17.68

List of tables

1. INTRODUCTION

1.1. Purpose of the Terminal Evaluation (TE)

The TE had four main objectives:

- ✓ To assess the results obtained by the project as stipulated by its three outcomes;
- ✓ To draw lessons learned and identify the best practices;
- ✓ To inform about all steps taken so far and those to be taken thereafter in order to ensure/enhance sustainability;
- ✓ To put forward recommendations that would guide the implementation of similar projects in the future as well as better inform the preparation of the exit strategy.

1.2. Scope of the Terminal Evaluation

The consultancy focused on gaging the level of achievements through rigorous assessment of the accomplished status of the three main outcomes of the project. It also assessed the project impact on insurance coverage, microfinancing of climate resilience projects for farmers and pastoralists in the 6 target states. As indicated in the Terms of Reference in Annex 1, the evaluation equally addressed different aspects of the project design and implementation. These were project design and formulation, project logical framework, stakeholder participation, management and institutional arrangements, adaptive management, partnership arrangements, monitoring and evaluation activities and gender issues. The levels of achievement of project outputs and outcomes was graded in line with GEF guidelines on project evaluation.

1.3. Structure of the Evaluation Report

The TE report is structured according to the following six sections:

- ✓ Executive Summary presents the project summary, key findings and recommendations;
- ✓ Chapter One is the introduction - purpose, scope, methodology and limitations of the TE;
- ✓ Chapter Two highlights the project description and development context;
- ✓ Chapter Three deals with the findings in terms of project design, implementation and results;
- ✓ Chapter Four concludes and presents recommendations and lessons from the project ;
- ✓ Annexes section contains supplementary information regarding the TE.

1.4. Methodology

1.4.1. General Approach of the TE

The Evaluation Team worked closely with the project team throughout the assignment. The team was specifically guided by evaluation criteria and guidance given in the Terms of Reference in undertaking the TE and preparing the evaluation report. Further guidance was provided by the UNDP CO Project Team in Sudan. We adopted a strong evidencebased participatory approach while paying particular attention to gender issues.

The TE process constituted of two interrelated stages: 1) review of literature: this entailed a content analysis of the relevant project document. This provided required secondary data (qualitative and quantitative) for analysis, and 2) Field work: this entailed primary data collection through face-to-face, group and focus groups discussions with the project target groups, beneficiaries and implementers. The TE will focus the assessment of progress against the predefined results framework, identified challenges and lessons learned and provided recommendations to stakeholders.

1.4.2. Phases of the TE

A three-phase approach was used in the TE: Inception phase; Data collection and analysis phase and Close out phase.

Inception Phase: During this phase the TE team delineated the boundaries of the assignment in order to agree on the scope and timelines for the assignment. During this phase, initial review of documentation was carried out, data collection tools and methods refined and timelines for data collection and evaluation matrix proposed. This process was concluded by an inception report which was reviewed and approved by the client.

Field data collection: Primary and secondary data collection was undertaken during this phase. This consisted of desk review and research as well as in-country work to collect primary data from project stakeholders. This mixed approach was critical to ensure triangulation but also credibility and reliability of the evidence presented.

Desk review and research: The team was provided with key project documents and other evidence from different project components. The list of documents reviewed are presented in annex xxx.

Stakeholders' interviews & discussions: Field data collection included face to face interviews with key project stakeholders such as government implementation agencies, UNDP staff, state officials, representatives of microfinance and insurance companies, small farmers and respondents and others. The team used a combination of face to face interviews but also focus group discussions. Throughout, gender considerations were mainstreamed to ensure sufficient representation of males and females in the TE process. Table 2 shows the number and distribution of respondents.

Table 2: Number and distribution of participants in the TE

Stakeholder	Number of respondents
Higher Council for Environment & Natural Resources (HCENR)	1
UNDP	7
Sudan Meteorological Authority (SMA)	8
Ministry of Animal Resources	4
Ministry of Agriculture	2
Agriculture Research Corporation	2
Al Ebda'a Bank	2
Early Warning System	4
Pastoral Development	6
Community members	19
Remote Sensing Authority (RSA)	9
Meshka	2

Once collected, the data was analysed using Nvivo data analysis software which enables the evidence from the ground to be analysed based on pre-identified themes. These were pre-defined

based on the UNDP GEF analysis criteria. In addition to collecting primary data from participants, quantitative data was also collected from a number of sources including project reports and testimonials from respondents. A combination of the methodological approach and tools provided the information required to make conclusions and recommendations based on a rigorous crtical analysis perspective.

Close-out Phase: Following data collection and analysis the TE team compiled a first draft report which was submitted to the client for approval and feedback. Exchanges between the client and the TE team ensured that all comments and feedback was addressed and that the final TE report was approved by all key relevant stakelders.

1.4.3. Limitations

It is important to raise a number of challenges faced during the assignment

- ✓ Non availability and access to some key respondents during the study;
- ✓ Lack of access to project financial records and audit reports, limited the team's ability to assess the level to which the full government in-kind contributions were met;
- ✓ With the COVID 19 pandemic, field visits were highly limited and this reduced the sample size of primary data that was collected.

2. PROJECT DESCRIPTION AND DEVELOPMENT CONTEXT

This section presents the background to the project under evaluation. It covers issues around the project design, logical framework analysis, project resources, stakeholder identification and engagement.

2.1. Project Start and Duration

2.1.1. Project Start and Duration

The project was initially approved in 2012 but several political transitions and delays meant that the final project document was only signed in September 2014 for five years. Unfortunately, significant delays in the first years of implementation led to an extension to June 30, 2020. A further extension was granted following an emergency extension meeting organised on the 13th of July 2020 by the executing agency and endorsed by UNDP CO representative. Three additional months up to September 2020 were added and consequently, the final evaluation was commissioned thereafter. Table 3 shows the project timeline.

Table 3: Key timelines for project implementation.

Key Project Dates	
PIF Approval Date	Nov 5, 2012
CEO Endorsement Date	Apr 21, 2014
Project Document Signature Date (project start date):	Sep 29, 2014
Expected Date of Mid-term Review	May 16, 2016

Actual Date of Mid-term Review	Nov 30, 2017
Expected Date of Terminal Evaluation	Jun 30, 2020
Original Planned Closing Date	Dec 30, 2018
Revised Planned Closing Date	Jun 30, 2020
Second extension	September 2020
Actual termination of final evaluation	January 2021

Source: Updated from UNDP/GEF project implementation review 2020[1]

2.1.2. Problems that the Project sought to address

This project was designed to address the following key issues linked to climate change and climate vulnerability of farmers and pastoralists to increasing rainfall variability and drought. Smallholder rain-fed farmers and pastoralists are particularly vulnerable to climate change and are in desperate need of risk reduction measures. The project outputs were designed to address the following key issues affecting the resilience of small farmers and pastoralists to climate change in six target states in Sudan.

Barrier Addressed

- ✓ Insufficient coverage of weather, climate and hydrological monitoring infrastructure
- ✓ Insufficient coverage of weather, climate and hydrological monitoring infrastructure
- ✓ Poor long-term sustainability of observational infrastructure and technically skilled human resources
- ✓ Challenges in producing tailored weather/climate information and agricultural advisories
- ✓ Challenges with cross sectorial data sharing and institutional collaboration
- ✓ No experience with Weather Index Insurance products
- ✓ Long approval and complicated compensation process for existing insurance products
- ✓ No experience with Weather Index Insurance products
- ✓ Long approval and complicated compensation process for existing insurance products

Lack of customized and understandable microfinance services for rural clients

2.1.3. Immediate and Development Objectives of the Project

The overall (or immediate) objective of the project is to increase climate resilience of rain-fed farmer and pastoral communities in regions of high rainfall variability through climate risk financing. The key components and outputs of the project are summarised below.

Component 1: Institutional framework and capacity for sustainable climate observation and early warning

[1] UNDP/GEF (2020) Project implementation review report, 2020

Outcome 1: Institutional and technical capacity for climate observation, forecasting and early warning strengthened at national and local levels

Output 1.1: Rainfall modelling and simulations for six target states (River Nile, Gedarif, North Kordofan, and South Darfur, Kassala and White Nile States) to enable local flood forecasts and climate projections.

Output 1.2: Procurement of 7 automatic climate stations, 6 automatic synoptic stations with telemetry and 162 rain gauges; purchase of high-resolution remote sensing data; and capacity reinforcement related to new products/equipment to enhance the availability, quality and transfer of real-time weather/climate data on 130,000 ha of drought-prone land for purposes of drought forecasting and early warning.

Output 1.3: SMA, RSA and MoWRE are trained to provide sustainable services on weather / climate observation, risk analysis, forecasting and early warning including the establishment of a farm information management system and the revitalization of targeted seasonal forecast delivery for rain-fed farmers and pastoralists;

Output 1.4: Improved communication protocols and mechanisms (i.e. partnership with mobile phone operators) to provide timely and accurate weather and climate risk forecasts to rain-fed farmers and pastoralists in 6 target states.

Component 2: Capacities to design and deploy Weather Index Insurance to address residual risk and promote long term adaptation

Outcome 2: Residual climate risk to rural livelihoods in the states of greatest rainfall variability addressed through parametric insurance products.

Output 2.1 Comparative analysis and feasibility assessment of different business models for index-based insurance.

Output 2.2 At least 6 index-based risk transfer products (e.g., Weather Index Insurance) designed and introduced, covering at least 45,000 farmers and pastoralists who depend on rain-fed farming systems, including the creation of a nationally-based WII marketing and development team.

Output 2.3 Insurance literacy programme / awareness campaign designed and delivered to small businesses, community-based organisations, local farmers and pastoral communities.

Output 2.4 Legal and regulatory framework for risk transfer in 6 target states assessed, policy recommendations developed and reinsurance secured

Component 3: Financial service provision for farmers and pastoralists to increase adaptive capacity of rural livelihoods.

Outcome 3: Improved access of needy farmers and pastoralists to financial services for climate change adaptation and disaster risk reduction.

Output 3.1 In each state at least 1 adaptation options/packages developed to inform and enable the provision of MFI credit packages to stimulate smallholder adaptation and disaster risk reduction including the transfer of adaptation technologies to make crop and livestock production more resilient

Output 3.2 Legal and regulatory frameworks reviewed, analysed and improved to increase the co-provision of microcredit and micro-insurance services

Output 3.3 At least three micro-credit, flexible loan products designed and tested to account for pastoral mobility and income cycles of smallholder rain-fed farmers and pastoralists (SRFP).

Output 3.4 Organization and capacity development for smallholder rain-fed farmers and pastoralists (SRFP) on newly developed and targeted financial services including training on a financial services management manual

2.2. Main Stakeholders

The project was designed following significant bilateral and multilateral stakeholder consultations including two comprehensive workshops. The consultation process ensured that relevant stakeholders were mapped, their interests and areas of influence on weather/climate monitoring, microfinance, insurance and adaptation technologies for rain-fed farmers and pastoralists were analyzed. Section 2.9 of the project document suggests that this consultation ensured that proposed actions were grounded in local realities whilst being aligned to national policy priorities. The project outcomes, outputs and activities were developed based on the recommendations of the stakeholders given the technical, operational and financial constraints of the project. The consultation process culminated in the development of the project stakeholder engagement plan during project implementation. This ensured that the strengths of the implementation partners were identified but also the capacity building gaps which informed the capacity building activities. The key stakeholders in this project can be grouped into four categories:

- **Primary stakeholders.** These are final beneficiaries consisting of small farmers and pastoralists and their households in six target states. It was also critical to engage women's associations, farmers' organizations and trade unions are key conduits for outreach to individual farmers in six states. The national citizen population stands to benefit from multiplier effects generated through better resilient communities.

- **Secondary stakeholders**
  a. **National and decentralized authorities:** They are critical in providing funding, technical assistance and support to project delivery. Their ownership of the whole project is critical given their strong level of influence and power, but also interest in achieving national climate goals and objectives. Key stakeholders include the executing agency and related ministries and departments such as MoAg, MoWRE and MoEFPD.
  b. **Private sector:** private sector actors are critical in defining project outcomes, outputs and key microfinance and insurance products and policies. Private sector also includes mobile phone operators critical in providing tailored alerts to farmers and pastoralists.
  c. **Universities and academia:** These included the women's university, Ahfad University which is associated with and houses women-focused NGOs. The key interest was to engage them and ensure outreach to women and to build buy-in. Academia could also play a role in

documenting best practices and knowledge sharing as well as integrating learning within academic curriculum nationally in order to address the labour skills gap.

d. **Gender focused NGOs/Civil society:** the objective was to engage them in conducting gender disaggregated surveys, indicating their receipt of alerts and the adoption of financial services by women as per the Project Results Framework.
e. **Media:** dissemination of climate information
f. **International development actors and donors:**

The project implementation was designed in line with the UNDP National Execution (NIM) modality.

3. FINDINGS

3.1. Project design / Formulation

The design and formulation of the project's goal, objectives and components were very clear, practicable and feasible within the proposed time frame. This sub-section provides further analysis and discussion on the different aspects of the project design and formulation.

3.1.1. Analysis of Logical Framework / Results Framework

The project log frame/results framework was the key planning tool, which articulated the vertical and horizontal logic of the intervention. The vertical logic had a specific objective, 3 outcomes and 12 outputs. The relevant risks that could restrain the achievement of each objective were identified and key assumptions presented. Regarding the horizontal logic, the log frame presented key project indicators and means of verification. The indicators of the logframe are all SMART (Specific; Measurable; Achievable, Relevant and Time-bound).

Characteristic	Description
Specific	• The logframe was succinct with a key specific objective, three outcomes and relevant outputs. • The outputs were sufficient to contribute towards achieving the project outcomes
Measurable	• The indicators were mostly specific and target oriented though no midterm indicators were presented for the most part. • Three indicators did not have stated baselines • Some indicators disaggregate data by gender. An example of this effort is seen in indicator 1.2 *50 % increase in population who have access to improved EWS/CI* *(% Women who received EWS alerts/CI in target states: 8%* *% Men who receive EWS alerts/CI in target states: 15%; disaggregation by producer will be confirmed.*
Achievable	• The evaluation team considers that the project targets were for the most part achievable with allocated resources, timelines and management arrangements working as planned.

	• With the management challenges and socio-political assumptions taking place, the project extensions and adaptive management efforts were required and provided additional scope for targets to be achieved. A key challenge though was linked to roles and responsibilities as captured in the project implementation review 2019[2] *The inception workshop didn't have sufficient time to discuss the project implementation details which resulted in a lack of understanding and confusion among stakeholders.*
Relevant	• All indicators were relevant • An inception phase could have helped to define certain baseline and mid-term targets
Time-bound	• Project indicators were time-bound

In addition to the horizontal and vertical soundness, a detailed list of activities was proposed for each output and budgeted for. However, an additional component on market access for farmers could have been proposed to ensure that increases in production and resilience would be facilitated by increased incomes. Additionally, the role of academia and research institutes could have also included activities on supporting mainstream project lessons learned into academic curriculum. As a project management tool, the annual project implementation review and other project reports, show that the log frame was used as a reporting tool to track progress towards the targets.

3.1.2. Assumptions and Risks

As stated above, the project log frame had a set of proposed risks and developmental (linking outcomes and objectives), implementation (linking outputs and outcomes) and management assumptions (operational level). As per the project document, 12 key risks were identified with 2and low level, 4 of high level and 6 of medium level. The high risks identified at project formulation phase are as follows:

- Targeted farmers and pastoralists are skeptical and unwilling to engage into the weather index-based insurance scheme
- Index-based insurance and the adoption of creative solutions, such as remotely sensed data-based indices, are likely to be challenging for insurance companies. Consequently, they will not have the experience and knowledge to adapt the product to new crops and data
- High upfront costs in developing WII may not be cost-effective and can lead others towards cheaper traditional forms of micro-insurance
- Natural disasters damage infrastructure (particularly floods)

The reporting and risk monitoring showed that most of the uncontrollable assumptions (project document page 62) held true during implementation.

Uncontrollable Risks	Assumptions

[2] UNDP Project implementation review report 2019

Poor co-ordination among implementing and executing agencies	On a national level, the strong government buy-in into the project design is a solid foundation for effective planning and communication and the Institutional Arrangement (TORs) ensures clearly defined roles
Conflict	The first NAPA (LDCF1) project, the ABSUMI and the Connecting the Farmers to Market projects were already implemented in the chosen localities, so there are no foreseen conflicts which might hinder project implementation
Political instability	The Higher Council has demonstrated that it is a stable institution nationally and can withstand changes in governmental regimes / strategies, etc. The LDCF2 project will continue building public awareness among policy makers on climate risks and the benefits of using financial services to support adaptation in order to increase backing for the project.

For instance, the project was implemented in a context characterized by security and political challenges, the emergence of the Covid-19 pandemic was not foreseen but had an impact towards the end of the project. Unfortunately, these external risks took a toll on the project and led to delays in the early years of the project. It was therefore crucial that extensions were approved, which enabled the project teams to ramp up delivery of the project outputs in the last three years of the project. The 2018 project implementation review[3] identified a number of key risks and how they were addressed.

Firstly, to address some of the administrative risks, project teams were recruited though initial political interference and appointments of staff to the project did not help. Biweekly or monthly meetings of a committee from the UNDP, HCENR and the project team were also explored to strengthen monitoring and timely correction of any weaknesses. Issues around political interference were also highlighted in the MTR and their consequent impacts on staff turnover in the project management teams. As highlighted in the 2019 PIR, *the political turmoil and related security skirmishes have created a rather restrained environment to conduct business as usual. The change in government has also resulted in a frequent change in the senior management which resulted in delays in many decisions pertinent to the activities of the project. Data sharing was hindered by lack of coordination / willingness of agencies to share data or by technical constraints.* The MTR review[4] of the project also detailed communication and coordination problems that also impacted the timely delivery of the action.

With the grant extensions approved, the 2019[5] and 2020[6] project implementation reviews demonstrated that actions were taken to address the uncontrollable risks. For instance, skeptical farmers and pastoralists were encouraged to engage in the Weather Index-based Insurance Pilot initiative and the premium for the policy was paid by the project. To that effect, insurance

[3] UNDP/GEF Project implementation review report 2018
[4] CFRP MTR 2017 REPORT
[5] UNDP/GEF Project implementation review report 2019
[6] UNDP /GEF Project implementation review report 2020

companies prepared Agro-pastoralist policies. A significant number of trainings and awareness raising campaigns were also conducted to target MF and insurance companies, to strengthen their buy-in and engagement, which paid off through for instance the issuing of significant number of loans, development of MF products and lending/insurance policies targeting farmers and pastoralists. One of the biggest weaknesses of the project has been limited progress made regarding the pathways to impact communication. Despite reporting success stories and lessons learnt, there is limited evidence of documentation of best practices and sharing which is a key sustainability risk. Unfortunately, the recruitment of the national communications expert came rather belatedly.

3.1.3. Lessons Learned from other Projects Incorporated into Project Design

The LDCF2 was designed to build strategically on the LDCF1 (first NAPA follow-up) project. In order to consolidate gains achieved from LDCF1, the LDCF2 project would focus activities on the same regions of high rainfall variability, thereby providing complementary risk management mechanisms to support the on-going adaptation technology implementations in LDCF1. Through detailed analysis, it emerged that the states of Kassala and White Nile were equally needy and met the criteria of climate variability, reliability on climate sensitive livelihood and high incidents of climate poverty. Additionally, to maximize the use of project resources, it was important to work with existing beneficiaries from the initial 4 states, who reportedly had already adopted adaptation technologies. It was expected that their knowledge of adaptation technologies provided the ground for testing financial and insurance services. Furthermore, LDCF2 integrated recommendations from LDCF1 project to *"focus on organizational, economic and financial practices of the communities in the face of climate change, addressing issues such as credit, market access and insurance".* So in fact, the LDCF2 highly complements LDCF1 by seeking to address the following specific gaps[7]:

- Bringing additional expertise on the social, economic and business aspects of agricultural production/water management/climate change to the sites;
- Bringing additional resources for knowledge management, lesson learning, and participatory planning brought to the States and the sites; and
- Engaging with existing Stakeholders on how to improve their resilience to CC by facilitating access to financial services and conducting strategic, localized assessments with villages and state level stakeholders prior to developing the WII and microfinance products;
- Using the similar Technical Committee (TC) structure at state levels.

The project document provided detailed analysis of ongoing and past actions in country and articulated how lessons learned were used to inform the project design and development. Importantly, the project baselines were developed drawing on the results of these projects. The UNDP CO was in place during this process, which meant that institutional memory, local knowledge and expertise was expended during project design to build complementarities while avoiding unnecessary overlaps.

Table 4: Some examples of the projects and potential synergies

Past project	Areas of complementarity and lessons

[7] CRFP project document page 22

The FISU project (Finish Government)	Aims to promote adaptation to climate change by reducing weather and climate-related losses through improved agro-meteorology services in Sudan. Strengthens North-South cooperation at the Sudan Meteorological Authority (SMA).
The Famine Early Warning Systems Network (FEWS NET funded by USAID)	Data portal provides access to geo-spatial data, satellite image products, and derived data products in support of FEWS NET. The Humanitarian Aid Commission (HAC) is working with FEWS NET to provide baseline information for livelihood zones and is contributing to the Integrated Food Security Phase Classification (IPC) project
The Eastern Nile Technical Regional Office (ENTRO), Eastern Nile Subsidiary Action Program (ENSAP)	ENTRO intends to provide Regional Flood Coordination in Addis Ababa to support flood forecasting and mitigation efforts in Ethiopia, Egypt, and Sudan and to facilitate data exchange between the three countries, all Eastern Nile States
Flood Preparedness and Early Warning Project, FPEW II	Plans to support hydrologic forecasting and flood early warning in the Eastern Nile countries
IGAD-HYCOS	The project aims to establish a regional water management information system and to strengthen observation networks and their real-time data transmission within participating countries including Kenya, Uganda, Sudan, Ethiopia, Somalia, Eritrea and Djibouti and more recently South Sudan, Burundi and Rwanda.
The United Nations Office for Outer Space Affairs	supporting RSA to use space technology data for natural resources management, environmental monitoring and disaster management
UN-SPIDER program	Providing support to RSA with training workshops in Disaster Risk Management which detail available data sources and open source software and free models that support climate forecast and early warning
Global Monitoring for Food Security	Optimize agricultural surveys with satellite earth observations.
North Kordofan Services Project,	Building capacities to perform rainwater harvesting.
Great Green Wall Initiative-GGW[8]	The GGW initiative will address policy, investment, and institutional barriers that exacerbate the effects of climate change and variability, leading to desertification and deterioration of the environment and natural resources and the risk of conflicts between communities.
Peace Consolidation Project	Providing Microfinance services to South Darfur.
National Early Warning Committee to be established in the Disaster Risk Reduction project	The LDCF2 project will build on the training for SMA, MoWRE and RSA on new technologies and data interpretation provided by the DRR project. The LDCF2 project will also exploit the SOPs on EWS dissemination prepared under DRR.
Vaisala project.	Build upon the equipment acquisitions self-financed by SMA in the
Food Security Policy and Strategy Capacity Building Programme (FSPS	By collaborating with the Ministry of Agriculture to integrate weather/climate information into food security policies and enhance the current ability of NHMS ministries to plan long-term budgeting.

[8] http://sudanow.info/new/interview/the-african-great-green-wall-interview-with-environment-minister-hassan-a-hilal/

UNOOSA and UNSPIDER initiatives	Build upon the remote sensing capabilities
SISFIA programme	Complement its forecasts for aid planning in response to major disasters.
IGAD-HYCOS project and the ENTRO	By procuring and rehabilitating complementary equipment / stations and facilitating flood-based data sharing across sectors in Sudan.
FEWSNET data portal	By providing more detailed risk and crop yield maps to be generated by RSA under the LDCF2 project.
Private sector and government	Use private sector investments and Government budget lines provided by micro-finance and insurance to support weather/climate monitoring in the long-term.

3.1.4. Planned Stakeholders' Participation

As identified in section 1.4 (main stakeholders), in addition to identifying the key stakeholders to be involved in the project, a stakeholder engagement plan was developed. The stakeholder plan described the roles and levels of participation of stakeholders throughout the project lifecycle. The planned stakeholder engagement matrix identifies six main categories[9] of stakeholders:

- National/federal level
- Regional sector
- Technical Research Institutions / Universities
- Private sector
- NGOs/CBOs/CSOS
- Donors and multilateral agencies.

Interestingly, the stakeholder matrix did not include the beneficiary small farmers and pastoralists targeted by the project itself. By taking a multi-stakeholder approach, the project was designed and to be implemented following the UNDP National Execution (NIM) modality in close collaboration with national government stakeholders.

[9] Project document page 75-79

Stakeholder	Inception Consultations	Involvement in Baseline Assessment	Role Identification	Risk/Barrier Analysis	Policy/ Strategic alignment to priorities	Co-financing Identification	Gender	Upscale / Sustainability planning	Document Endorsement
Federal Sector									
Ministry of Environment and Forestry	X	X	X	X	X			X	
HCENR	X	X	X	X	X	X	X	X	X
Humanitarian Aid Commission (HAC)		X		X	X			X	
Office for Coordination of Humanitarian Affairs (OCHA)	X			X	X		X		
Sudan Meteorological Authority (SMA)	X	X	X	X	X	X		X	
Remote Sensing Authority (RSA)	X	X	X	X	X			X	
Agricultural Research Corporation (ARC)	X	X	X	X	X		X	X	
Ministry of Agriculture and Irrigation	X	X	X	X	X			X	
Ministry of the Interior (Civil Defence & HAC)	X	X	X	X	X			X	
Ministry of Animal Resources	X	X	X	X	X			X	
Central Bank of Sudan	X	X	X	X	X		X		
Agricultural Bank of Sudan	X	X	X	X	X	X		X	
Savings and Social Development Bank (SSDB)	X	X	X	X	X			X	
The Farmers Commercial Bank	X			X				X	
The Sudanese Rural Development Company	X			X				X	
Kassala State Social Development Fund	X			X				X	
Sheikan Insurance company	X			X				X	
Cooperative Insurance Company	X			X				X	
The Farmers Commercial Bank	X			X				X	

Technical Research Institutions / Universities									
Sudanese Environmental Conservation Society	X		X						
Sudanese Meteorological Society	X		X						
State universities	X						X		
Private Sector									
Mobile phone company	X	X		X		X		X	
Sudanese Microfinance Development Corp.	X	X	X	X		X		X	
Sheikan Insurance company	X			X		X		X	
Regional/Sector									
Gedarif State Social Development Fund (SDF)	X	X	X	X		X		X	
South Darfur State SDF	X	X	X	X		X		X	
River Nile State SDF	X	X	X	X		X		X	
White Nile SDF	X	X	X	X		X		X	
N. Kordofan SDF	X	X	X	X		X		X	
Kassala SDF	X	X	X	X		X		X	
NGOs/CBOs/CSOs									
Farmer's Trade Union in each State	X	X	X	X				X	
Pastoralist's Trade Union in each State	X	X	X	X				X	
Practical Action	X	X	X				X	X	
Youth/Women Society Organizations (Ahfad University, Women's Union of Kassala, Sudanese Youth Union)	X	X	X	X			X	X	
Sudanese Climate Change Network	X	X	X				X	X	
MASAR (pastoralist NGO)	X	X	X				X	X	
Nafeer Initiative	X	X	X	X			X		
OXFAM	X								
Donor Partners									
UNEP	X	X				X	X	X	
World Bank									
CIDC	X							X	
European Commission									
WFP	X	X						X	
IRDC	X							X	
US AID	X								
FAO	X							X	
IFAD	X							X	

3.1.5. Replication Approach

The replicability of the project was clearly articulated in the project design. The TE team concludes that this project can be up scaled nationally, regionally but also internationally.

Hands-on approach

Given the hands-on approach adopted in the development of MF tools, loan and insurance products for small farmers, these can be readily adapted to other contexts to strengthen the resilience of small farmers and pastoralists against climate change risks and vulnerability. For instance, studies were conducted to develop flexible MF products linked to adaptation. Scientific validation trials were used to enhance adoption by farmers. MF institutions are now able to provide targeted support to farmers and pastoralists which means this can be upscaled to other markets. MF to use information from the ARC is also crucial in replicating tis action. Knowledge gained by the insurance teams through several trainings and awareness raising events focused on the use of WII documentation allows them to continue to use the knowledge even beyond the project initial period. Sensitisation of community leaders, extension officers and brokers can be easily adapted to other areas. The use of farmer field schools and exchanges between farmers and farmers' organisations was very useful to improve project uptake. This approach can be expanded throughout the country. Future exchanges between farmers from different states could create a groundwork for knowledge consolidation amongst small farmers and pastoralists.

Innovative products

The piloting of the WII is a success story and the new MF products can be easily upscaled nationally considering that the relevant policies. By working in collaboration between MF/MI institutions and early warning institutions resulted in clear mechanism to make use of climate/ weather information by MF/MI institutions and small farmers. Furthermore, by gaining experience in Weather Index Insurance and recognizing the importance of continuous weather/climate observations, both public and private insurance sectors will serve as important catalysts in supporting sustainable environmental monitoring. Critically, the fact that the project is capitalizing on the Bank of Sudan's policy on microfinance which will enable the project to create the required MF /MI linkages critical for replicability and upscaling. Additionally, by restructuring the insurance team to increase market outlets for agents and brokers through companies demonstrates this further.

Legal and policy framework

The project helped to strengthen the enabling environment for climate risk finance in the country supported by friendly legal and regulatory frameworks. Due to the project interventions, weather index insurance became a reality in Sudan and supported legislated by laws and regulations. Some notable examples which would facilitate future development of these products include:

- The project had received many proposals from companies (Alneeilan,shikan , Aleslamia and altaawnia) to adapt agro-pastoralist policy.
- The Supreme Insurance Authority approved the Technical and Legal components for the establishment of WII products.
- The project had developed three finance policies in collaboration with Ebdaa microfinance bank in first time in 2019.
- Technical and legal approval of WII products from Higher SHRIA committee achieved through El nelein insurance company (EIC).

- The memorandum of Understanding has been signed with Microfinance institutions to complete the WII requirements by including national revised policies and regulations, awareness raising and commitment to support individuals and associations lending.

Capability strengthening

This project strengthened not only the capability of national climate institutions to address climate risks in Sudan, it built the framework for future development of the sector. This was demonstrated by government buy-in and various in-kind contributions to the process. For instance, increasing the budgets for weather related institutions (SMA Sudan Meteorological Authority), RSA (Remote Sensing Authority), MoWRE, and ARC). This strengthened their capabilities for monitoring and reporting on weather information including access to state-of-the-art equipment, satellite data and iCloud.

Systems for information sharing and production of climate information for farmers in collaboration with mobile telephone companies also show another milestone achieved by this project. With increasing mobile phone coverage globally, this experience can be scaled up not only the country but internationally.

Documentation of best practices and dissemination

All the trainings, awareness raising events, policies and documents are all relevant for potential replication of this project. The TE concludes that limited progress has been made to document best practices and share widely. The national communications consultant could support this process. A project archive and website hosting the project deliverables is important to ensure knowledge and institutional memory is maintained. This will also facilitate access to the product documents from interested national and international stakeholders. Unfortunately, the project could have made better use of the national universities to explore integrating the learning into academic curriculum to further bridge the knowledge gap in the area of climate risk finance and adaptation.

Creating opportunities to share the project experience would help replication as seen the participation of project teams in the Regional Conference on Risk Transfer and Micro-Insurance for Resilience Building in the IGAD region-Kampala, Uganda September 2 - 3, 2016 as well as the organisation of a side event in CoP 22 of the UNFCCC Conference took place at Morocco in collaboration with UNDP Sudan November 2016. The project should explore further participation in the COP 26 in Glasgow to showcase the achievements of the project while using the opportunity to mobilise further support for future initiatives.

3.1.6. UNDP Comparative Advantage

These sorts of projects are complex not only due to their multi-stakeholder approach but also their multi-sectorial nature. It can be said that UNDP's comparative advantage becomes evident given its established and longstanding experience in the management of complex climate projects, programmes, policies and processes from national to global levels. Its experience in Results Based Management enables the organisation to leverage its extensive knowledge of the similarities and differences between countries at different stages of development, and to translate that into evidence-based insights for effective, adaptable development solutions. Its engagement in the LDCF2 project was built on its experience of working with national governments and assisting them to design and deliver on projects consistent with GEF mandate both at national, regional and global scales. In

Sudan, the UNDP has a very large programme of projects focusing on governance, decentralisation, peacebuilding, gender, environment and energy. The UNDP Country Programme counts on partnerships within and outside the UN System including with the government and donors to help build national capacity. Most significantly for this project, UNDP has a physical presence in each State, which was critical for delivery. In addition to this presence on the ground, its comparative advantage stems from its strong presence in the project area. It supported the NAPA formulation and helped Sudan to access the LDCF funds for critical NAPA priorities. UNDP has also been among the lead agencies supporting the Central Bank of Sudan in developing a micro-finance facility and helping to build essential capacities to make MFIs more demand oriented to be able to meet the needs of the poor. Its regional mandate enabled UNDP to draw lessons and experiences from developing climate risk mechanisms in Ethiopia, Kenya, Eritrea, Malawi, Mexico, India, the Caribbean and other developing countries. UNDP also has significant experience globally as one of the lead GEF Implementing Agencies in the area of climate change adaptation.

The proposed project very much aligned with UNDP's comparative advantage, as articulated in the GEF matrix, in the area of capacity building, providing technical and policy support as well as expertise in project design and implementation. Being an accredited entity of the GCF and an implementing agency (IA) of GEF and other conventions, UNDP is well respected globally and understands all the international processes, contracting and reporting procedures, and many more of the different multilateral and bilateral institutions. One of the main advantages of UNDP is therefore its capacity to mobilize financial resources on behalf of the GoS, prepare, endorse and support the implementation of project proposals for the GoS.

UNDP is committed to building the capacity of the country in many areas including the mainstreaming of environmental considerations in the development processes at the national, regional and sub-regional levels. With its experts spread all over the world, UNDP can bring valuable expertise to contribute to addressing Sudan's development challenges,– including directly through its country office and other offices out of the country. This is most crucial as the GoS staff capacity is limited in some cases. During implementation UNDP played a key role in providing oversight and quality assurance on the delivery of the project. It supported navigation of the complex relationships between state and implementing partners and helped steer the PMU to achieve set objectives. Its regular contributions to the project implementation reviews, board meetings and decision making on grant extensions were crucial for project success. The evidence of UNDP's strategic role is seen in the following.

> *During the past six months, the performance of the project has significantly improved. This is not least due to the recruitment of a new project team, which is being coached by UNDP and supported by a number of specialized international consultants. The latter will no doubt also speed up implementation as we move forward, since there is limited national capacity available in the area of WII. More regular meetings to closely monitor project implementation, and address challenges*[10].
>
> *UNDP is in the process of recruiting an international consultant to develop regulatory policy document and conduct training for key counterparts for WII that demonstrate international practices of linkage of MF/MI and adaptation technology*[11]

[10] 2018-GEF-PIR (1) report
[11] 2019-GEF-PIR report

To strengthen the management component of the project, UNDP recruited (on September 2019) a National Management Advisor to support the management team. This in addition to a weekly management committee meeting that include UNDP, HCENR, Ministry of Finance and the project team, chaired by HCENR, has been employed .to closely monitor the project implementation, timely address challenges and ensure the quality of delivery[12].

The UNDP is a lead partner globally pushing for the delivery of the SDGs and this project particularly targets the SDGs 1, 2, 3, 5, 13, and 15. These are all in line with UNDP's Strategic Plan (SP) for Sudan (2014-2017) which emphasized building resilience through reforms that reduce financial risk and improve incentives for adaptation and mitigation responses. The project is in line with the pillars of technical and financial assistance, which form the foundation from which risks of Climate Change can be reduced in Sudan.

3.1.7. Linkages between Project and Interventions within the Sector

The stakeholder engagement plan and baseline projects were very ambitious regarding the objectives of cross-sectoral collaboration. However, none of the action plans from 2016-2020 mentions any engagement or complementary actions between the named project partners and government stakeholders. Additionally, none of the annual project review (2018-2020) mentions or reports on any of such actions. This is highly unsatisfactory considering UNDP's comparative advantage situation.

3.1.8. Management Arrangements

The implementation of the project is part of a bigger process under the National Adaptation Programmes of Action (NAPAs) of Sudan. The project was implemented under the UNDP National Implementation Modality while the Country Office Service Support (NIM-COSS) was applied to ensure broad stakeholder engagement but also sufficient flexibility to support project delivery. The UNDP CO provided specific support services for proper project implementation, as required, through its Administrative, Programme and Finance Units and through support from UNDP Regional Centre.

The HCENR was the lead executing agency. It recruited the National Project Manager (NPM) and the deputy and nominated the Government Project Coordinator (GPC) to coordinate project operations and support the NPM with overall administration, oversight, coordination of activities and maintaining a liaison with UNDP. Key government stakeholders were involved including the Ministry of Finance and National Economy - the Directorate of International Cooperation, the Ministry of Agriculture and Irrigation, the Ministry of Science and Communication, the Ministry of Water Resources and Electricity, the Ministry of the Interior, the Ministry of Livestock, Bank of Khartoum and the Central Bank of Sudan as the main target agencies. In its role as lead organisation, the HCENR led the Project Board (PB) with the key functions for approving annual work plans and provision of strategic oversight and guidance to the project management team. The PB was a multistakeholder group comprised of UNDP and representatives from the Ministry of Finance and National Economy- Directorate of International Cooperation, the Ministry of Science and Communication (MSC), the Ministry of Water Resouce and Electricity (MoWRE), the Ministry of the Interior (MoI), the Federal Ministry of Agriculture (MoAg)/Ministry of Livestock (MoL), the 6 target State Ministries of Agriculture/Livestock, the Insurance Advisory Authority, Bank of

[12] 2020-GEF-PIR-PIMS4591-GEFID4958 Last one

Khartoum and the Central Bank of Sudan. Additionally, the project board included representatives from beneficiary groups such as those from the Climate Change Network (CCN), National Farmers Production Associations, and National Pastoralists Production Associations.

The Project Management Unit (PMU) was composed of a National Project Manager (NPM), a Deputy Project Manager, finance and administrative officer, a monitoring and evaluation expert and communication officers. The PMU is responsible for the day to day management of the project activities and is accountable to the PB. Based on the approved activities, the PMU had responsibility for provision of funds to all institutions/organizations for their respective activities. All executing agencies were responsible for managing tasks related to their institution/organization. A Memorandum of Understanding which laid out the roles and responsibilities of each implementing agency was developed by the PMU while taking into consideration the capacity needs assessment of the implementing agencies conducted in 2013. There is evidence that regular project monitoring and review meetings were organised during which progress was measured and solutions proposed to address shortcomings. The UNDP country office provided and ensured strategic oversight to ensure that the project was delivered in line with project technical and financial guidelines laid down through the grant funding from GEF. This role was also critical to ensure that funds were used in line with agreed activities, timely reporting and respect of procurement procedures, rules and guidelines. The guiding reference for the PMU was the project's logic of intervention and logframe which facilitated monitoring and evaluation of the project throughout implementation. However, communication and coordination gaps between UNDP and national IPs could have been strengthened in the early years of the project. Reportedly, this relationship improved following MTR recommendations.

In addition to the PMU, the Project Technical Committee (PTC) was put in place comprised of representatives from participating national institutions. The PTC led by the Secretary General, Higher Council for Environment and Natural Resources. In terms of hierarchy and reporting framework, the PTC was answerable to the project board. The remit of the PTC was to provide technical project support through appointed focal points from the Sudan Meteorological Authority (SMA), the Remote Sensing Authority (RSA), the Ministry of Water Resources and Electricity (MoWRE), the Agricultural Research Corporation (ARC), the Central Bank of Sudan (CBS), the Sudanese Microfinance Development Corporation (SMDC), the Shiekan Insurance and Reinsurance Company, the Al-Ta'awuniya Insurance Company and the Sudanese Climate Change Network NGO responsible for delivering project results in their respective departments / organizations. Other State level technical committees were also in place to support coordination in the target states. The role of the NAPA coordinators was critical to facilitate synergies with ongoing actions while minimising overlaps and conflicts.

In terms of timelines, the project was extended beyond its initial completion project to secure and consolidate gains achieved. To gain this extension, an urgent meeting of the PB was convened by the HCENR on the 13th of July 2020 with the objective to reflect on the reasons that warrant the extension of the CRF Project beyond its scheduled termination of end June 2020. A key result of the meeting was the extension of the project period by three months (July to September, 2020) to address gaps created by delays and the onset of the Covid 19 pandemic.

3.2. Project Implementation

The TE Consultants reviewed the project implementation with focus on the following aspects:

- Adaptive management (changes to the project design and project outputs during implementation);
- Partnership arrangements (with relevant stakeholders involved in the country);
- Feedback from M&E activities used for adaptive management;
- Project finance;
- Monitoring and evaluation; design at entry and implementation;
- UNDP and Implementation Partner Implementation/ execution coordination, and operational issues.

Achievements of project implementation and adaptive management have been rated in terms of the criteria above at a six-level scale as follows (TE's TOR): Highly satisfactory (HS) - the project has no shortcomings; Satisfactory (S) - minor shortcomings; Moderately satisfactory (MS) - moderate shortcomings; Moderately unsatisfactory (MU) - significant shortcomings; Unsatisfactory (U)- major shortcomings; and Highly unsatisfactory (HU) -severe shortcomings. The results of the review and justification for the rating provided is described in the following paragraphs.

3.2.1. Adaptive Management

While the project document was developed in a very participatory manner, the inception phase of such a complex multi-sectorial was judged to have been inadequate to build the ownership and clarity required amongst the different stakeholders from local to national levels. The MTR reports that a two hour inception meeting was organised which is largely inadequate. The key failure here was not only the inability to review the project logic and its sufficiency, key roles and responsibilities were not clarified, decision making structures, reporting, communication, conflict resolution mechanism, the project theory of change were not developed. Funding commitments made by government were not critically reviewed and secured. With limited access to project audits and financial reports, the TE team is unable to make a determination on the extent to which the commitments from government were met.

The MTR report judged that adaptive management was weak and provided a series of recommendations. Evidence from the 2019 and 2020 action plans, shows that activities were ramped up and condensed action plans delivered. Unfortunately still, most of the issues identified in the logs from 2016 to 2019 remained in the action plans suggesting that they were not being addressed. In the 2019 PR report, issues of *direct political interference in the implementation of the project and frequent change of its management team delayed the smooth implementation of a number of critical activities.*

The minutes of the project board of January 2020[13] still show that issues of national ownership, communication, roles and responsibilities, documentation of best practices recommended by the MTR had not been fully addressed. For instance;

- *Changing the employees and 6 managers have been appointed to the project within 5 years,*
- *Shortages in local component to cover staff salaries form October 2019 and onwards,*
- *No full authority for the project manager to run the project (TOR), continued absence of HCENR SG due to travelling holding all authorities with him*

[13] Minutes of project board meeting January 12 2020

This suggests a more reactive management approach. No documented evidence was provided of management response to the MTR. The 2019 and 2020 PIR reports endorsed by UNDP, the executing agency and GEF technical adviser, however showed satisfactory achievement of project outcomes and outputs suggesting that significant inputs were integrated following the MTR which largely judged progress at the time as unsatisfactory. This would suggest that corrective measures were taken to address some of the MTR gaps. For instance,

> *the M&E officer, …, presented an updated annual work plan for the project during the period 2019 – 2020, which was prepared, subsequent to the project extension. Prior to its endorsement, the annual work plan had gone into intensive consultations with all parties concerned and finally reviewed with the consent of the Secretary for HCENR.*

Clearly, had there been stronger adaptive management, the project issues could have been addressed sooner rather than later. The TE team assesses adaptive management as moderately satisfactory.

3.2.2. Partnership Arrangements

The evaluation found that significant steps were taken to deliver on the stakeholder engagement plan to a great extent. Some examples of concrete engagement are presented in table 5 below:

Table 5: Evidence of partnership engagement during implementation

Stakeholder group	**Evidence of engagement**
Federal level	*The GoS increased the budget available for weather related institutions (SMA(Sudan Meteorological Authority), RSA (Remote Sensing Authority), MoWRE, and ARC) by 60% according to 2019 PIR report.* *Government agencies were engaged throughout the delivery from providing funding for activities, heading the project board and other technical committees.* *Twenty WII products and approved by the Supreme Insurance Authority which has far exceeded the of 6 WII products*[14] *Project partners (SMA(Sudan Meteorological Authority), RSA (Remote Sensing Authority), ARC (Agricultural Research Corporation) and MoWRIE (Ministry of Water Resources, Irrigation and Electricity) continued to provide office space, as well as national and state staff to provide technical assistance in support project activities*[15]. *The ministry of animal resources dedicated considerable efforts to execute training courses in the six targeted states, (8) workshops directed to the leaders of extensions and pastoralists were completed. Remote Sensing Authorities (RSA)*

[14] 2018-GEF-PIR report
[15] 2020-GEF-PIR-PIMS4591-GEFID4958 Last one

	delivered GPS, GIS training for 28 participants comprising extension agents, insurance broke[16]
Regional level	*Moreover, CRFP established three committees for early warning three levels: national level, state level and at Locality/community level*[17]. *Director Generals of the targeted six states commented on the progress of activities in their respective domains. Most of them expressed their satisfaction with the progress made so far and they confirmed that they will strife to bring the project into a safe end*[18].
Private sector	*The project conducted adequate capacity building programme for the micro-finance institutions and developed financial and insurance packages for farmers and pastoralists, enabled by national micro-finance policy*[19]. *Three different insurance companies (Alneeilan ,Albaraka and altaawnia) are actively engaged and started to disseminate MF/WII products in 6 target states*[20]. *The project with the collaborating working telecommunication companies (MTN and Sudani) is providing customized SMS services to the project's target communities in Early warning system, Microfinance /Micro insurance related information*[21]. *Microfinance institutions especially the Microfinance Unit of the Bank of Sudan has a long partnership with the project form the design phase through to the implementation phase. Both insurance and microfinance sectors are represented within the Project Board to provide the adequate guidance in both fields*[22]
Civil society/NGOs/	*Project built strong partnership with the Farmer's and Pastoralist's Associations to ensure that key project messages are communicated through these institutions. Relevant NGOs such as Practical Action, Youth and Female Society Organizations and the Sudanese Climate Change Network as well as MASAR (a Pastoralist NGO), contracted by the project to ensure that awareness campaigns about weather index insurance are communicated to the targeted communities across the villages and localities of the six targeted states*[23]. A specific gender plan could have further strengthened gender mainstreaming throughout. *NGOs and community institutions are members of the Project committees and are part of the pool of community institutions with which the project consults with*

[16] 2018-GEF-PIR
[17] 2020-GEF-PIR-PIMS4591-GEFID4958 Last one
[18] Project Board meeting minutes 12 January 2020
[19] 2018-GEF-PIR report
[20] 2019-GEF- PIR report
[21] 2020-GEF-PIR-PIMS4591-GEFID4958 Last one
[22] Op cit
[23] 2018-GEF-PIR report

	on issues relating to the quality of deliverables and information/data gathering to better improve consultants reports as per their areas of speciality in each state. *200 mobile phones are currently being distributed to the heads of Farmers Associations and other farmers who have accepted responsibility for measuring and reporting*[24]
Academia/research	*The project involved University and Research institutions to conduct some activities and also worked with various government institutions at national and also state level to execute various responsibilities. It developed insurance policies to safeguard farmers from climate related disasters. It also improved the capacity of meteorology organization, farmers and also remote sensing organization. It improved the knowledge and understanding of the use of weather information for farming among farmers and by insurance companies*[25].
Donors and multilateral agencies	*The UNDP Co played a key role throughout the project cycle as well as GEF technical advisers. Partners where involved in steering committees, project boards and took part in annual project implementation reviews*[26]. The role of partners was crucial in navigating communication support and leveraging relationships to facilitate project delivery. This included amongst others support to recruitment of international consultants to backstop and coach national teams. Their presence ensured that recommendations from the MTR and other project board meeting were taken on board by project management teams and committees.

While a wide range of named project implementation partners were involved in the project, evidence suggests that the participation was in many cases tense, uncoordinated in some cases leading to overlaps or issues not being addressed on time. One SMA[27] respondent stated that:

> *One of the main complains is lack of communication between project coordinators of the states and SMA. A MoU between SMA and HCENR was prepared but is not yet effective. One of the concerns is the absence of division of responsibilities between MoAg and SMA. There are no efficient security measures for these stations as they are so valuable and eligible for theft and /or damage. Selection of sites was by the MoAg, without consultation with SMA.*

This is very concerning considering the security and political situation the country. Gains could be lost if the security of the installations is not secured. Unfortunately, this situation is not picked up in any of the project issue logs.

According to a MF respondent, some of the consequences of inadequate participation led to: *customers think that project should donate funds (lack of awareness) and loss of confidence between*

[24] 2019-GEF- PIR report
[25] 2020-GEF-PIR-PIMS4591-GEFID4958 Last one
26 CRF board meeting minutes of 12th January 2020
[27] SMA respondent

stakeholders and financing agents[28]. Another respondent from one of the key insurance companies[29] also noted that*: again, pastoralists were not included in this insurance program, which is one of the drawbacks.* Also a key iCloud respondent revealed some challenges which persisted during delivery with the risk of affecting the sustainability of the project.

> *Some of the constraints of the I cloud include minimal response of some partners as they do not reveal all information to feed the system, especially the IC and MF. Ebda'a bank was an exception and was highly responsive. Also flow of information from the field to decision makers is minimal.*

A key positive impact though is highlighted by one of the participating banks[30] as follows: *although the project is phasing out, the bank will continue financing farmers and pastoralists, and depending on the customer's commitment on repayment, the bank will continue supporting the needy ones.*

Gender

Women, of different ages represent the most vulnerable groups in Sudan socially and economically. A key objective of the project was to empower the target groups (including youth and women) through providing financial services (MF/MI) and adaptation technologies for small producers farmers and pastoralist through women associations. The project made a significant effort to mainstream gender despite lack of dedicated gender plan and gender experts on project teams – Team leader of the Sustainable Livelihoods Units and the Program Officer, as well as 3 female project coordinators at the state level[31]. Participation of women increased during the lifetime of the project and women are actively participating in the project at all levels. The percentage of females participating had increased in the implementation of the project activities as WII piloting in rainy season 2017, awareness camping, community female leaders or on technical committees increased from 20% in 2015 to 60% in 2019[32]. The 2014-2020 report showed that for the project period 75% women and 70 % men were covered with climate monitoring and observation devices (AWS and rain gauges) which help to access to improved climate information and early warnings to droughts and floods incidents. Also, the project ensured that the design of the Weather Index-based Insurance was done in a way to be accessible to females in the targeted communities.

The implementation of smart technologies also reported increased productivity from 15% to 65% achieved working with the Agricultural Research Corporation. Key technologies included water harvesting techniques; early maturing crop species; drought resistant seed varieties, for the six states in collaboration and consultation with the Agricultural Research Corporation. With the emergence of the Covid-19 pandemic, great care needs to be taken to ensure that these gains are not lost and the resilience capabilities are maintained. More needs to be done in terms of facilitating market access as productivity increases. This is critical for the sustainability of this action as increased incomes from marketing are likely to translate to more savings and insurance coverage but also other livelihoods options and alternatives. Also, the project did not integrate pastoralists nomads in the scheme. A respondent from Ministry of Animal Resources[33] recommends that *pastoral nomads*

[28] MF interview respondent
[29] Insurance company respondent
[30] Al Ebda'a Bank (Gedarif Branch) respondent
[31] Interview with Team Leader of Sustainable Livelihood Unit
[32] Ministry of animal resources respondent
[33] Ministry of animal resources respondent

are to be considered; animal health was totally neglected although it is a crucial part in animal production; introduction of EWS in range management to link the project with the community.

3.2.3. Feedback from M&E Activities Used for Adaptive Management

The project MTR was a key milestone for the project. following the MTR, project activities were ramped up in condensed 2018-2020 action plans which were developed following the grant extension. It can be said that MTR was used to drive towards successful delivery of the project. Some of the key actions included recruitment of international consultants to support the project management teams, recruitment of national communications expert and upscaling of work with MF institutions in the development of MF products.

3.2.4. Project Finance

The total project cost was US$ 24,500,000 (US$6,300,000 in cash and US$18,200,000 in kind) and US$ 850,000 250,000 was for project implementation, primarily funded by the GEF (Table 6). It is also important to note the strong co-financing contribution of US$ 15.000,000 in kind of the government of Sudan and the private sector contribution of US$ 3,200,000. Co-financing is one of the strong sides of the government of Sudan during project implementation which reveals their commitment and ownership of the project. The co-financing for this project was well planned and clearly mentioned in the project document, though the contributions were not made as per commitment[34] .

Outcome 1 had the highest amount in terms of expenditure, followed by Outcome 3 and the least costly was Outcome 2

Table 6: Outline of funded project costs

Component	Outputs	Cost (US$)
OUTCOME 1: Institutional and technical capacity for climate observation, forecasting and early warning strengthened at national and local levels	Four indicators focused on increasing climate/weather monitoring and increasing farmers' access to weather information.	675,227
OUTCOME 2: Residual climate risk to rural livelihoods in the states of greatest rainfall variability address through parametric insurance products	Four indicators focused on creating Weather Index-based Insurance (WII) products for farmers / pastoralists, and increasing market outlets and insurance agents in rural areas for the dissemination of these products.	100,000
OUTCOME 3: Improved access of vulnerable farmers and pastoralists to financial services for climate change adaptation and disaster risk reduction	Four indicators focused on designing and introducing loan products for adaptation, designing of policy for the adoption of adaptation technologies, access to micro-finance and increased productivity for farmers / pastoralists. change risks and enhancing community preparedness.	362,000
Total Project Implementation Costs		
Project Execution cost		
Total Project Cost		***1,137,226***
Amount of Financing Requested in US$		**6,520,850**

[34] MTR report Sudan Climate Risk Finance project

Table 7: Total project expenditure from 2014 to 2018 by outcome

Outcome	2014	2015	2016	2017	2018	Total $US
Outcome 1	402,700	4432,700	315,200	315,200	74,200	1,550,000
Outcome 2	624,400	571,400	318,400	308,400	77,400	1,900,000
Outcome 3	560,900	758,250	643,850	567,400	69,600	2,600,000
Total Management	61000	61000	55,050	55,050	17,900	250,000
Sub-total	**1,649,000**	**1,833,350**	**1,332,500**	**1,246,050**	**239,100**	**6,300,000**

3.2.5. Monitoring and Evaluation (M&E) (*)

M&E Design

The project had a robust M&E system at design. As already discussed earlier, the project logframe was strong in terms of the vertical and horizontal logic. But for three indicators which did not have baseline figures, the indicators were SMART. Earlier analysis also revealed that there was a limited project inception process to fine tune and clarify roles and responsibilities which over the years created significant challenges for project delivery. The allocated budget for M&E of USD 122,000 (One Hundred Twenty-Two Thousand) set aside for M&E activities seems realistic. All project reports and PIR updates showed that the logframe was used consistently for monitoring and reporting. The key weakness though was the fact that reports were focused only on the logframe with little evidence of the overall administrative delivery of the project.

M&E Implementation

The M&E plan was sufficiently budgeted and funding provided for the recruitment of an M&E specialist. The budget included funding for an MTR and a TE. Data on specified indicators was relevant, collected and reported against as captured in the project annual reports and the final project report (2014-2020). Overall progress and reporting followed guidelines but for cases of non-respect of procurement procedures, misunderstandings of roles of different actors and persistent technical and operation issues. For instance[35,]

- Delegation of Authority, Guideline for chain of Command;
- Difficulty on receiving the local component from the partners & Government;
- The State Coordinators not delegated to monitor and coordinate the project activities;
- Weak understanding of the project philosophy and concepts to apply pastoralist policy;
- Slow flow and continuous delay of install;
- Lack of monitoring and follow up by PMU due to overlapping and unclear understanding by the metrological authority.
- Agricultural research corporation dominance without producing project relevant validation trials that can be used in the l cloud for loan provision and insurance governance more over they are not using their in kind contribution.

[35] Annual project workplan 2020

- Alneelain insurance company is receiving money from the project on behalf of the Agro pastoralists without payment directly to insurance policy owners.
- Low absorption capacity of the Government different Institutions

Additionally, other operation and budget issues were identified by MoAg state official[36]:

> *Some of the challenges were continued replacement of NPC, distribution of rain gauges and drones was so subjective, distribution of component budget was irrational, some very sophisticated equipment-like drones and EWS were not provided with their accessories.*

Evidence suggests that the annual work plans and budgets as well as reports went through the required processes within the PMU, PB and Technical project committee and validation by UNDP and head of the executing agency. There is limited evidence however on the management processes and documentation thereof. The participation of women, farmers and pastoralists was monitored and regularly reported in annual reports. A key weakness is that a bespoke project theory of change was not developed to further refine the pathways to impact despite being consistently mentioned in the annual work plans (2016-2018). As also mentioned, all the annual work plans had recurring risks/issues throughout without reports of how risks were being prioritised and addressed. From the TE's view, this project could have been concluded earlier with more rigorous monitoring and engagement between the government agencies, UNDP and project management teams. For a project of this size, there was no communications strategy as well which to a great extent limited commitment of implementation partners. The recruitment of a national communications expert was late in the day and it is unlikely that a suggested communications action plan would be delivered before project close. None of the action plans or project reports provided evidence of engagement and complementarity with other national projects and processes suggesting that monitoring of the project engagement plan was insufficient or not prioritised.

Monitoring and evaluation	Rating
M&E Design	S
M&E Implementation	MU
Overall M&E	MS

3.2.6. UNDP and Implementing Partner, Coordination, and Operational Issues (*)

UNDP team had a significant role in project design and implementation. As already stated, this was a very well designed and relevant project which responded to national priorities and needs of small holders and pastoralists. The roles of UNDP CO were also clearly articulated at design. Evidence from the MTR however showed that there were failures in the coordination role of UNDP due in many instances to communication issues and political interference. Following the MTR, the 2018-2020 action plans and subsequent PIR reports were endorsed and validated by the responsible UNDP CO officials. Presented with significant delays in the project delivery, UNDP in collaboration with the national executing agency made the decision to apply up to two extensions to the project in order to complete the proposed project activities. A management consultant was recruited to support the project, as a buffer between UNDP and the government. The annual project reports were very thin on the respect of social and environmental safeguards.

[36] State official of Ministry of Agriculture

The statement from one UNDP respondent during the TE sums it up:

> *We did beyond what we do for a normal project. Lots of problem, writing back and forth, could have decided to stop at some point, took a lot of energy from UNDP to address all challenges. Was not an easy project. …decided to face the challenges and save our relationship with the government*

This shows that UNDP used its comparative advantage to see the project through in the face of a challenging situation. Given the initial weaknesses from UNDP's side, the TE assesses that UNDP role was marginally satisfactory.

3.3. Project Results

3.3.1. Overall Results (Attainment of Objectives) (*)

The project has successfully enabled financial and insurance institutions to adopt and deliver weather index-based insurance and climate risk microfinance to pilot farmers. Farmers demonstrated adoption of improved climate smart agricultural technologies leading to enhanced production and productivity in targeted communities. Farmers now have an improved awareness on not only the impact of climate change driven risks but also the importance of access to micro-finance and its importance in climate change adaptation. Agricultural productivity increased from 15% to about 65% with the introduction of climate-smart agricultural technologies, such as water harvesting techniques, early maturing crop species, and drought resistant seed varieties for the six project states.

Additional evidence of achievements included delivery of targeted climate information services through information bulletins and SMS messaging in collaboration with mobile telecommunications enterprises.

Further assessment of the results under the separate outcomes is presented below.

Outcome 1*: Institutional and technical capacity for climate observation, forecasting and early warning strengthened at national and local levels.*

- There is more than 100% increase in the coverage for climate /weather monitoring in each of the 6 target state achieved during this project period;
- Establishment of weather stations, distribution of telephone equipment, production of weather and information bulletins and link to iCloud for climate information sharing;
- 75% women & 70 %men covered with climate monitoring and observation devices (AWS, rain gauges, Early warning unites and APP);
- Collaboration with MTN and Sudani to provide customized SMS services to the project's target communities in Early warning system, Microfinance /Micro insurance related information.

Based on the baseline situation, the TE concludes that this outcome meets the expectations (satisfactory).

Outcome 2*: Residual climate risk to rural livelihoods in the states of greatest rainfall variability addressed through parametric insurance products.*

- 20 products approved by the Supreme Insurance Authority which has far exceeded the of 6 WII products;
- Policies developed from more than 10 companies;
- Average number of days to settle claims ranges decreased from 25 to 20 days in 2017 to 15 in 2019;
- The average claims ratio increased from 45% in 2017 to 55% in 2019.

Compared to the baseline, the TE concludes that the achievement of this outcome is satisfactory.

Outcome 3*. Improved access of needy farmers and pastoralists to financial services for climate change adaptation and disaster risk reduction.*

- 12 loan products, at least two for each of the 6 states developed;
- 11 finance policies in collaboration Microfinance institutions reaching 3,300 (40% female) direct farmers and pastoralist;
- Six smart technologies adopted like water harvesting techniques; early maturing crop species; drought resistant seed varieties in six states working with the Agricultural Research Corporation;
- Productivity was increased 65% in farmers who used smart technologies.

The effectiveness of outcome 3 is assessed to be satisfactory.

The project benefitted about 12,699 direct beneficiaries in six targeted states as shown in table 8. This estimated to have reached 8464 households.

Table 8: Distribution of direct small farmers and pastoralists benefitting from project

Selected Project Activities	**Number of farmers / pastoralists who benefitted**
Access to MF/WII products and lending	1387 direct in 4 states
Provision of insurance to farmers/pastoralists linked with technologies	1913 direct in 5 states
Training sessions and workshops	5164 from 6 states
Farmers' field schools, pastoralist rang land, veterinary services, rural women activities, home gardening and fruit trees	935 in 4 states
Piloting phase for 8 WII products	3300
Total	**12,699**

3.3.2. Relevance (*)

This was a very timely and relevant project for the Government of Sudan, small farmers, pastoralists and international development partners.

Relevance to GEF Strategic Priorities

The relevance of the project to the Global Environment Facility (GEF) mandate and strategic priorities is significant. The project is strongly aligned with the mandate of the GEF, which is to reap global environmental benefits and catalyse environmental action by providing the money

needed to make a project clean, encourage national authorities and governments, aid agencies and members of the civil society and business sector to integrate global environmental objectives in their development projects. Moreover, the project contributes directly to some of the GEF priority project sectors – biodiversity, climate change adaptation and mitigation.

Relevance to UNDP Strategic Priorities

The project is significantly relevant to the strategic priorities of the UN in general and UNDP Sudan in particular. Key areas of alignment are the UN sustainable development goals number 1 (no poverty), 2 (zero hunger), 5 (gender equality), 13 (climate action) and 15 (life on land). Specifically, the project aligns with two of the three development settings of UNDP's Strategic Plan, 2018-2021 - Eradicate poverty in all its forms and dimensions and build resilience to shocks and crises.

Relevance to National and Local Priorities

The relevance of this project is well established considering that it set to address real needs of farmers and pastoralists identified through a very participatory and consultative process. The organization of national validation workshops and lessons drawn from other ongoing projects in the country ensured alignment with national priorities. In addition to addressing real needs of beneficiaries and citizens, the project aligned with national and international priorities and commitments of the Sudanese government and its development partners such as UNDP. Sudan signed United Nations Framework Convention on Climate Change (UNFCCC) in Rio in 1993. As a non-Annex 1 country, it is committed to fully implementing the convention .Sudan's Second National Communication (SNC) includes projections which demonstrate that climate change will highly impact water resources and pastoralist livelihoods that are dependent upon water. Government of Sudan submitted NAPA in July 2007 which identified urgent adaptation initiative to reduce the increasing vulnerability of the rural communities to current and future climate risks. The NAPA process also yielded a consensus that the highest priority NAPA follow-up interventions should be a project of adaptation interventions in five distinct areas, with a major focus on the enhancement of food security by building the adaptive capacities of the rural population, particularly of rain-fed farming and pastoral communities. This project responds directly to the NAPA and addresses several of the highest NAPA priorities. The project is consistent with the Conference of Parties (COP-9) and also satisfies criteria outlined in the UNFCCC Decision 7/CP.7 and GEF/C.28/18. Furthermore, the project is aligned with Sudan's National Adaptation Plan that has been developed as part of a multilateral environmental agreement (MEA) to combat desertification and preserve biological diversity. The project supports the delivery of the SDGs 1, 2, 3, 8, 13, 15 and 17.

At inception of the project, the goals were very much in line the Sudanese Government's Five-Year Plan (2012-2016) which at the time made strong references to the MDGs in Sudan. These included a) public investment in infrastructure; b) focusing on small-scale farmers in rain-fed farming area; c) development of crop insurance programs; d) research; e) continued institutional reforms such as land policy; and f) increased involvement of the private sector in developments. Sudan's medium-term strategy also calls for reviving agricultural development, however with significant shift in emphasis and policies in favour of traditional agriculture. The main elements of the strategy relevant to the LDCF2 project included: i) land tenure reform ii) technological package development and outreach (research and extension) iii) rural credit provision and iv) improvement of access to markets. The project is also aligned to other projects including the country strategic plan for the

World Food Programme (2019-2023)[37]. As discussed in section 3.1.3, 3.1.4 lessons learnt from past and ongoing projects were effectively used to inform the design of the project though evidence presented in section 3.2.2 revealed that the large inventory of actors were not effectively integrated during implementation or at least scant evidence was available from project reports of this. Future projects should seek to address this weakness.

3.3.3. Effectiveness (*)

The overall effectiveness of the project is rated as Satisfactory (S).

Outcome 1: Institutional and technical capacity for climate observation, forecasting and early warning strengthened at national and local levels.

***Output 1.1*: Percentage increase in coverage for climate/weather monitoring in each of the six target states**

This output saw a 100 percent increase in coverage for climate and weather monitoring in each of the six target states. This is due to the installation of early warning units in the states as well as drones and spectroradiometers by 2019. By 2019, 20 WII products had been developed, more than two times higher than what was originally planned (8 products). Over 200 farmer and pastoralist groups were established, and these groups were able to receive information on climate and precipitation, provided by the automatic weather stations (AWS) that had been provided. An app, a call center and toll-free number for complaints was also created by the project, under this output, to assist in the dissemination of weather and climate information, serve as a technical advisory and provide information on marketing, insurance and financial services. High Resolution spectrometers were installed to provide faster and more precise data regarding vegetation phenology and soil types. Such information proved to be very beneficial to small scale farmers and pastoralists, as it guided them in their agricultural activities leading to increase in yield. The project increased market outlets for insurance agents and brokers through workshops and insurance companies in all the six states, making these companies become more receptive towards agro-pastoralist policies.

***Output 1.2*. Percentage of rain-fed farmers and pastoralists with access to improved weather/climate information and early warnings (disaggregated by gender and producer type)**

This output is assessed to be highly satisfactory as it exceeded its targets. The project saw 75% or female farmers and 70% of male farmers in the rain-fed farming and pastoral areas gaining access to and coverage from climate monitoring and observation devices such as rain gauges and AWS. This exceeded the target of 8% women and 15% men who were expected to be covered with AWS and climate information in general by the end of the project. Some beneficiaries complained that even though they received gauges and drones, some accessories were not provided and this made it hard for them to make full use of the devices they received. This, in their opinion was further worsened by the lack of sufficient spare parts and delayed arrival of some cables.

***Output 1.3.* Frequency of forecast bulletins provided**

[37] WFP (2019) The Sudan Country Strategic Plan (2019-2023) https://docs.wfp.org/api/documents/4b39bb0eec314f31b39f792785e6b0be/download/

Output 1.3 is rated as satisfactory. Weather and climate information was disseminated on a regular daily and weekly basis to farmers and pastoralists, MF and insurance institutions. This served to help them make informed decisions regarding finance and insurance services. They were all linked to an iCloud that enabled them receive news on the weather and also weather prediction bulletins, updated automatically by the focal point, who in turn circulates this information widely by SMS on a phone-based contact list of beneficiaries in all six states. The project conducted 7 yearly workshops in Khartoum, Kassala, White Nile, South Darfur, North Kordofan, Gedarif and River Nile states to strengthen rainy season forecasts. Future projects could also consider coupling this system with a market information system enabling farmers to access market information which can also help them to market their products.

Outcome 2: Residual climate risk to rural livelihoods in the states of greatest rainfall variability addressed through parametric insurance products

Output 2.1. WII product(s) created for rain-fed farmers / pastoralists

This output is rated as highly satisfactory due to the several accomplishments that meet and exceed the expectations of the project . The project created insurance products which were approved by the Supreme Insurance Authority, which by far exceeded the previously set target of 6 WII products. 8 MF products have been adopted by 3,300 farmers and pastoralists who are the direct beneficiaries of the WII pilot phase. Five out of the six target states had fully put the products into use by mid-2020 and two insurance companies (Skihan and Alneeilan) had adopted the insurance. Administrative challenges hindered increased adoption rate especially as this is a new concept in Sudan and the government said the policies were not compliant with sharia laws. This made it hard for all the states to adopt the new policies so the project focused on states like Kordofan where the farmers were more willing to adopt them.). Ultimately this was addressed following its vetting by the SHRIA council.

Output 2.2. Percentage increase in the number of market outlets and insurance agents in the rural areas to disseminate MF / WII products

The performance of this output was satisfactory. Twelve workshops and trainings were carried out by the project in the six states and this increased the number of market outlets for insurance by 85%. The project, in collaboration with insurance companies developed policies that benefitted more than 10 companies. However, some beneficiaries claimed that pastoralists were not included in the insurance programs, which made it less effective.

Output 2.3. Average speed of claim resettlement in all six states over the past 10 years

This output is rated highly satisfactory given that it reduced the number of days required for claim resettlement dropped significantly. In effect there was a decline from 20-25 days in 2017 to 15 days in 2019.

***Output 2.4.* Claims ratio in all six states over the past 10 years**

This output is rated satisfactory, given that claims ratio increased from 45% in 2017, during the WII pilot phase to 55% by 2019.

Outcome 3. Improved access of vulnerable farmers and pastoralists to financial services for climate change adaptation and disaster risk reduction

The effectiveness of outcome 3 is assessed to be satisfactory because of a few challenges. Though there was a low adoption rate of 3-4% instead of 15%, the overall outputs were delivered.

Output 3.1. Number of loan products for adaptation farming and livestock production which provide flexible repayment schedules for farmers and pastoralists dependent on rain-fed practices
This achievement of this output is satisfactory though the overall number of beneficiaries was well below expected of 45000. Under this output, the project designed 12 loan products (2 per state) with one product designed for adaptive farming and the other for adaptive livestock production. This was done after conducting a series of 60 awareness campaigns in the six states (Kordofan, Nyala, White Nile, Kassala, Gedarif and River Nile) to promote four of the loan products - 2 loans for farm products and 2 loans for agro-pastoralist products. 1,337 farmers and pastoralists directly benefitted from MF institutions in four states with 6,935 indirect beneficiaries (see Table 9 below disaggregated by gender).

Table 9: Distribution of direct MF beneficiaries by state

State	**# of beneficiaries**	**# of males**	**# of females**
White Nile	68	20	48
North Kordofan	556	278	278
Gedarif	30	14	16
Kassala	683	487	196
Total	**1337**	**799**	**538**

Insurance companies in Sudan insured farmers linking them with adaptive technologies and microfinance. There were 1,913 direct and 9,565 indirect beneficiaries for this activity in five states represented on the table 10 below disaggregated by gender.

Table 10: Distribution of direct insurance beneficiaries by state

State	**# of beneficiaries**	**# of males**	**# of females**
White Nile	811	383	428
North Kordofan	50	25	25
Gedarif	183	165	18
Kassala	329	204	125
South Darfur	540	371	169
Total	**1913**	**1148**	**765**

As part of activities to achieve this output, the project developed smart agricultural technologies for the six states in collaboration and closer consultations with the Agricultural Research Corporation which further linked with financial services. Such technologies included water harvesting techniques, early maturing crop species and drought resistant seed varieties. The project did a good job by conducting 60 workshops and 40 awareness raising sessions to disseminate information on and discuss product development ideas.

Output 3.2. Number of micro-finance policy designed and agreed upon by all micro-finance providers

The achievement of this outputs is satisfactory. The concept of weather index-based insurance was endorsed by the Bank of Sudan's microfinance policy during the lifetime of this project. The project also developed 11 finance policies for adaptation – two for five states and one for River Nile state, in collaboration with MF institutions, thereby mandating the adoption of adaptation technologies for MF products, for rain-fed farmers and pastoralists. The developing of these policies marked a remarkable success in the history of the project and a key sustainability aspect.

Output 3.3. Number and type of adaptation technologies linked with microfinance services adopted by rain-fed farmers / pastoralists (disaggregated by gender to study women separately)
The achievement of this output is assessed as satisfactory. The project has developed six climate-smart agricultural technologies which include water harvesting techniques, early maturing crop species, and drought resistant seed varieties for all six states. This was done in collaboration and consultation with the Agricultural Research Corporation. Trials on these techniques were conducted in five states - Kassala, Gedarif, White Nile, South Darfur and River Nile. There were 1913 direct beneficiaries (1148 males and 765 females) and 9565 indirect beneficiaries with regards to microfinance services linked to adaptation technologies in five states (see table 11 below).

Table 11: Direct beneficiaries for MF linked to climate-smart technologies

State	**# of beneficiaries**	**# of males**	**# of females**
White Nile	811	383	428
North Kordofan	50	25	25
Gedarif	183	165	18
Kassala	329	204	125
South Darfur	540	371	169
Total	**1913**	**1148**	**765**

By the close of the CRFP project, the number of associations created increased to 129, which facilitated awareness raising on and access to microfinance, micro-insurance, as well as weather index-based insurance products, in addition to piloting agro-pastoralist policy in two states North Kordofan and White Nile. Some of the project stakeholders observed towards the end of the project that micro finance policy appeared obscure to the majority of farmers and pastoralists, which may have affected the level of success achieved for this output. Some interviewees felt that pastoralists were not well informed on the MF services and were less involved, compared to farmers.

Output 3.4. Percentage of the productivity and income of rain-fed farmers and pastoralists who use adaptation options / packages linked with MF / MI (as compared with non-participating farmers / pastoralists)
This output is rated highly satisfactory, given that farmers who adopted smart climate agricultural techniques and practices saw a continuous increase in their productivity during the CRFP project. During the project, productivity increased from 15% in 2017 to 65% in 2019 amongst farmers adopting climate smart agricultural technologies and practices.

3.3.4. Efficiency (*)

Overall, the project was rated satisfactory (5). A large part of the project implementation period was plagued by poor management, oversight and control issues. It appears that there was an improvement following the MTR and the consequent grant extension periods. This was achieved partly due to the establishment of dedicated management committee as well as a specialized procurement committee.

In terms of resource allocation and efficiency, the project design proposed a structure based on lessons learnt from the LDCF1 project. A national to local level structure was designed to ensure national ownership but also impact at federal and regional levels. It was designed to draw on the expertise and complementarities amongst implementing partners and agencies while drawing on lessons learnt from other ongoing projects. Unfortunately, the lack of a consistent inception period led to massive problems of coordination, communication and respect of roles and responsibilities[38]. High turnover of project managers, political interference and overlaps in roles led to poor project delivery. UNDP CO did not succeed to steer the project in the right direction.

Page 58-59 of the project document presents the financial allocation of the project output with 28% of the US$5,449,700 allocated to outcome 1; 35% t outcome 2 and 37% to outcome 3. This allocation took into consideration the needs of different stakeholder groups and potential contributions from implementing partners and local and national levels. Without access to the project audit reports, it is not possible to assess how the government and private sector match funding was distributed across the outcomes. In any case, the project reports show that following the MTR, significant progress was made to deliver on most of the project outputs. With better consistent project management, it was possible to deliver the project within its initial design period of five years.

It must also be stated that the election of a new government in 2015 delayed the signing of the project document. Subsequent political and security changes impacted on the disbursement of project funds and procurement of project infrastructure. In many cases appointments were made to project posts rather than through recruitment processes. Procurement processes were also not followed in many cases as well as disbursement delays which slowed down delivery. The impact of Covid affected travel while the government freeze on financial transactions slowed down delivery in its final stages.

3.3.5. Sustainability (*)

The overall likelihood of sustainability is rated as Moderately Likely (moderate risks), consistent with ratings given in the sub-categories below.

Financial risks: The rating of financial and socio-economic risks to sustaining the long-term results of the project is moderately unlikely. Farmers are already earning money from crop and livestock production, communities now see and understand the potentials of their agricultural production system and are more willing to continue after the project . Institutions in charge of disseminating climate/weather information intend being able to continue project investments as they see the value in these EWS and are now able to issue early weather forecasts to farmers and pastoralists. Insurance

[38] MTR report 2017

companies are evaluating the value of carrying out these insurance programs, if they see value they will continue but if they do not see value, they may not continue providing the MF/MI activities. The insurance companies need to be convinced that the new technologies are profitable, without which they may not be able to continue providing those services. There needs to be a certain level of mutual confidence among MF service providers and other institutions and project stakeholders to ensure financial sustainability and mitigate any risks. Even though the project is phasing out, the banks will continue to support needy farmers/ pastoralists and finance those in need, but that depends on their commitment on the repayment of the credits they receive from these financial institutions. The high inflations of Sudanese currency during last two years (from 6 SDG in 2015 to 55 SDG in 2020 per 1 $ i.e. 816%) will affect the cost of maintaining infrastructure in place.

Socio-political risk: Sudan has witnessed a series of political transitions since the design of the project as well as other security crises. The COVID-19 pandemic have further exacerbated the situation already made complex by the climate vulnerability facing small rain-fed farmers and pastoralists in the country. This past trend leads the TE team to conclude that these socio-political challenges are likely to persist in the short to medium term. Were this situation to persist, the institutional leadership needed to sustain the project gains might be lost due to institutional memory loss if people move to other areas or due to change of priorities away from the target project sectors. For these reasons, the team assesses the socio-political risk as moderately likely.

Institutional and Governance risks: The rating of institutional and governance risks to sustaining the long-term results of the project is moderately likely. At the national level, the development and implementation of the National Adaptation Plan (NAP) and Nationally Determined Contribution (NDC) under the Paris Climate agreement will provide opportunities for legal and institutional frameworks and processes that support the sustainability of the project results. There are institutional risks related to inadequate management of project activities and poor collaboration among stakeholders that may hinder sustainability of the project. Significant capacity building activities were implemented as part of this project. It is expected that the knowledge, skills and tools acquired by stakeholders will continue to be applied beyond the project initial period. For instance, a series of TOTs for Agricultural and Technology Transfer Administrations, extension officers and researchers were conducted to assist in disseminating the MF/ MI knowledge, Agricultural advisory services and further on how to organize SRFPs. The project also conducted capacity building project for the micro-finance institutions and developed financial and insurance packages for farmers and pastoralists, enabled by national micro-finance policy. It is expected to advance the achievement of this outcome during this year. Additionally, the project supported the creation of producers' associations which provides the institutional foundation for farmers to work together in building community resilience not only to access MF/insurance products, but also support to production and marketing of farmers' products. Evidence also shows that the Mishka Microfinance institution had lended to 29 associations (449 direct and 2245 indirect beneficiaries) in 2019 while the Elebdaa Microfinance Bank signed agreement with the Project to lend farmers and pastoralists and promoting two new products. Furthermore, Elebdaa Microfinance bank paid the first premium on behalf of the piloted farmers and pastoralists through their associations/groups for this season. With a favourable institutional environment, these institutions could maintain the incentive to continue providing services to farmers and pastoralists.

The project also put in place infrastructure and systems that are likely to be viable beyond the project initial period if an operational and funded exit plan is implemented. For instance, weather stations (AWS) and 162 rain gauges have been installed; the knowledge sharing mechanism between the key Early Warning System institutions (Sudan Meteorological Authority, Remote Sensing Authority, and the Ministry of Water Resources Irrigation and Electricity) improved enabling these institutions to provide relevant and accurate weather information to institutions responsible for Micro-finance and Micro-insurance. Two tailored weather bulletins developed by SMA and the CRFP , targeting the project beneficiaries in the six states are disseminated on daily basis, using text messages and other media. These are all institutional gains that could persist beyond the project but require resourcing.

Finally, the policy grounding of the project was achieved with the approval of insurance products by the Supreme Insurance Authority and the SHRIA council. This addresses the policy gaps that might emerge in the future. This gives certainty about the policy environment for further development and upscaling of project gains.

Environmental risks: The rating for environmental risks to sustaining the long-term results of the project is moderately likely. While it is certain that Sudan's agricultural sector will face climate risks, it is likely that the farmers and pastoralists will be better able to adapt to these threats, with the help of the activities implemented during the lifetime of the CRF project. For example, the dissemination of weather and climate warning information will help the farmers better prepare for unforeseen weather events, and with the help of the various resilient technologies that they have been trained on, better navigate such periods of harsh climate events. This implies that the six states in which project activities were conducted will witness increased adaptive capacity thanks to the project. The key risks will be if the MF/insurance institutions do not maintain presence on the ground providing future support to beneficiaries. Additionally, once farmers increase resilience and productivity of agriculture and livestock increases, market access will be a key challenge. Supporting farmers to access more beneficial markets will boost project sustainability through application of climate smart and environmental friendly practices.

Sustainability rating

Sustainability dimension	**Rating**
Financial	MU
Socio-political	ML
Institutional	ML
Environmental	ML
Overall Sustainability ranking	ML

3.3.6. Country Ownership

From the onset of the CRFP project, country ownership was clear starting from the agreed institutional set up and the recruitment of the various people involved in the implementation, monitoring and evaluation as well as field work. The project is designed to align with various documents of the Government of Sudan such as the Sudan's Agricultural Revival Programme, which aims to develop the agricultural sector by ensuring that small farmers in all farming subsectors have access to micro finance (credit) services to finance the adoption of appropriate

adaptation packages and inputs. The Strategy for the Development and Expansion of the Microfinance Sector in Sudan, launched in 2007 as well as the Strategic Plan for Sudan (2014 – 2017) are also development documents which are in line with the objectives of the CRFP. The plan emphasized building resilience through reforms that reduce financial risk and improve incentives for responses to adaptation and mitigation for the medium to long term. The project cuts across different focus areas of Sudan's Country program Action Plan (CPAP, 2013 – 2016) which included: Focus Area 1 - poverty reduction and inclusive growth, and Focus Area 2 – environment, energy and natural resource management. Cross cutting issues mentioned in Sudan's 5-year National Development Plan (2012-2016) – gender, environment and climate change, emergency preparedness and Disaster Risk Management are part of the focus of the CRFP project. Other national documents that align with the project objectives are Sudan's 3-year Salvation Economic Programme 2011-2013, the Interim Poverty Reduction Strategy Paper (I-PRSP), Sudan's 25-year National Strategy (2007-2031) as well as UNDP's Country Programme Document (CPD, 2013-2015).

Government agencies and national MF and insurance companies took the lead in the delivery of this project. In kind contributions from government demonstrated strong in country ownership while contributions from private sector showed their commitment to the project. The validation of project deliverables by the national insurance authority and the SHRIA council also shows that the project became grounded in local realities. Various trials were carried out with local farmers and pastoralists in their own communities leading to acceptable levels of adoption of the MF/insurance tools amongst the pilot farmers. As mentioned earlier, the fact that come companies have already committed to continue providing these services to small holders beyond the project initial period further provides support for local ownership of the project.

3.3.7. Mainstreaming

Poverty Alleviation: The project provided farmers with knowledge and access to micro finance, insurance and smart agricultural techniques which helped them better face the risks of climate change and increase agricultural productivity. Trainings organized provided the farmers/pastoralists and even institutions with the relevant skills to better manage the available resources in the fight against climate risks in the agriculture sector and improve livelihoods in the target communities. All these livelihood assets will go a long way to improve the well-being of the communities and project beneficiaries and would eventually contribute towards poverty alleviation.

Gender Perspective: Gender mainstreaming for this project was rated as highly satisfactory. The project's gender approach was strengthened through the integration of gender into the project design and logical framework. Implementation and presentation of results were therefore guided by a gender lens. Women, and youth played an integral role in the implementation of most if not all of the activities of the project. Women who make up a large portion of farming communities and are among the most vulnerable groups in communities, took part in trainings, workshops as well as piloting of financial services. They also benefitted from the project activities, just like their male counterparts and were fairly represented in most activities, some states saw higher women's participation higher than men. Women received training on the different climate-smart techniques that were introduced during the project, and had access to financial products too. During the project implementation, some of the persons involved in managing the project activities were also women,

such as the Team Leader of Sustainable Livelihood units and the Program Officer, while the project in its lifetime had 3 female coordinators at the state level. Results of the project were presented in a sex-disaggregated format, to easily show the participation of women and men in main project activities. Women were so involved in North Kordofan and White Nile while in Gedarif, women were not too involved. In the West of Sudan, women tend to be more receptive and present than in the east, due to cultural reasons. In any case a documented strategy and dedicated gender staff could have further promoted the place of gender throughout project delivery.

Improved Governance: While significant institutional failures have been documented in this TE, this project could be considered as a continuous process of national building and democratisation. By bring different stakeholders across a wide range of sectors, provided the opportunity for cross coordination. It is expected that lessons learnt throughout this project can further the willingness of inter-ministerial coordination, which is a major challenge in most developing country contexts. The same applies for actors at the regional levels. During this action, producers' organisations, trade unions and other NGos were engaged with government within project boards and field activities. This cross stakeholder engagement also helps to build a spirit of participation, accountability and transparency, which are all ingredients of good governance.

3.3.8. Impact

Our evaluation through interviews and review of documents show that the immediate verifiable impact of the project is significant . It is much easier to appreciate and acknowledge the impact that the project has created at this stage, in improving adaptive capacity and farmers' access to microfinance and insurance. Agricultural institutions have become more knowledgeable on climate/weather early warning systems, insurance companies have now adopted microfinance and insurance as a necessary concept in climate change adaptation for farmers and pastoralists.

The project is already yielding some very impressive positive changes in the lives of farmers/pastoralists, their livelihoods and immediate environment. Just to name a few cases that indicate enhanced resilience of farmers and their ecosystems:

- Water harvesting techniques, drought resistant seeds and other smart agricultural technologies that have been introduced into the target states, have helped farmers improve their productivity. Farmers and pastoralists were able to navigate adverse climate events using the new technologies learned.
- Farmers started diversifying their products, with new plants such as potatoes being planted as a result of the project activities.
- Farmers and pastoralists changed the mentality they had about insurance and microfinance, after being exposed and trained on MF/WII products. They now understood how to use these as a tool to reduce the impacts of climate change.
- The target communities are starting to experience food security as a result of improved agricultural yield, using adaptive seeds and other smart adaptive techniques, for which they have been trained.
- Cattle are now producing better quality milk in higher quantities, which helps to alleviate poverty and improve livelihoods within farming communities.

4. CONCLUSIONS, RECOMMENDATIONS AND LESSONS

4.1. Conclusions

By end of the project initial period, **impacts** are emerging in terms of increased food and livestock productivity and hence food security in line with UNDAF/CPAP and GEF objectives and outcomes. Evidence was found of increased adaptation practices related to: soil and water conservation practices, livelihood diversification strategy, the use of climate-smart technologies and varieties of crop and livestock, the change of lifestyle from pastoralists to agro-pastoralists. A 65% increase in the productivity for farmers who used improved seeds and water harvesting technology in the target states was reported. In some communities, beneficiaries report a doubling or tripling in productivity. It could be argued that a key policy impact of this action has also been the approval and vetting of the Technical and Legal components for the establishment of WII products by the Supreme Insurance Authority and the Higher SHRIA committee respectively.

At **specific objective** level, the project has benefitted 12, 699 direct beneficiaries comprising about 8500 households in six target states. At specific objective level, 3300 direct beneficiary farmers and pastoralists from the 45,000 targeted were reached. Another 16500 indirect beneficiaries were reached with microfinance and MF/WII products. This suggests unsatisfactory achievement of specific objective target. However, in terms of government commitment to climate risk finance, the Government of Sudan (GoS) increased the budget available for weather related institutions by close 140% total over the project lifetime. This is enabling these institutions to strengthen their capabilities for monitoring and reporting on weather information. There is a more than 100% (including Baseline) reported increase in the geographic coverage for climate / weather early warning monitoring in each of the 6 target states achieved over the course of the project[39].
The assessment of the overall attainment of the results is strongly influenced by the satisfactory performances across all three project outcomes Further assessment of the results under the separate outcomes is presented below.

Outcome 1*: Institutional and technical capacity for climate observation, forecasting and early warning strengthened at national and local levels.*

- There is more than 100% increase in the coverage for climate /weather monitoring in each of the 6 target state achieved during this project period;
- Establishment of weather stations, distribution of telephone equipment, production of weather and information bulletins and link to iCloud for climate information sharing;
- 75% women & 70 %men covered with climate monitoring and observation devices (AWS, rain gauges, Early warning unites and APP);
- Collaboration with MTN and Sudani to provide customized SMS services to the project's target communities in Early warning system, Microfinance /Micro insurance related information.

Based on the baseline situation, the TE concludes that this outcome meets the expectations (satisfactory).

[39] 2014-2020 project report

Outcome 2*: Residual climate risk to rural livelihoods in the states of greatest rainfall variability addressed through parametric insurance products.*

- 20 products approved by the Supreme Insurance Authority which has far exceeded the of 6 WII products;
- Policies developed from more than 10 companies;
- Average number of days to settle claims ranges decreased from 25 to 20 days in 2017 to 15 in 2019;
- The average claims ratio increased from 45% in 2017 to 55% in 2019.

Compared to the baseline, the TE concludes that the achievement of this outcome is satisfactory.

Outcome 3*. Improved access of needy farmers and pastoralists to financial services for climate change adaptation and disaster risk reduction.*

- 12 loan products, at least two for each of the 6 states developed;
- 11 finance policies in collaboration Microfinance institutions reaching 3,300 (40% female) direct farmers and pastoralist;
- Six smart technologies adopted like water harvesting techniques; early maturing crop species; drought resistant seed varieties in six states working with the Agricultural Research Corporation;
- Productivity was increased 65% in farmers who used smart technologies.

The effectiveness of outcome 3 is assessed to be satisfactory.

4.2. Corrective Actions for the Design, Implementation, M&E of the project

The project design process was robust and consisted of a very participatory process. In terms of implementation and M&E, the following cross cutting considerations appear critical.

- For this scale of project, ensure there is sufficient time allocated for project inception phase to ensure roles and responsibilities are clear and the resources are adequately allocated;
- A key weakness is that a bespoke project theory of change was not developed to further refine the pathways to impact despite being consistently mentioned in the annual work plans (2016-2018);
- UNDP needs to play a stronger role and use if financial leverage if necessary to draw project partners together. Regularly project reviews with government agencies could enable issues to be identified and addressed more promptly;
- Despite a long inventory of stakeholders identified during project design, there was little evidence of how that huge potential was effectively used. Important to use the stakeholder engagement plan as a project management tool that needs monitoring and reporting and not just a criteria for project approval;
- Document in-kind contributions to ensure accountability and transparency. So far while project results are satisfactory there is scant consolidated and accessible data on the level of contributions promised by private sector and government;

- For a project of this size, it is not understandable why there was no communications strategy. The documenting and sharing of best practices of the project was left to the end of the project even though designed as a key project activity. Provide budget to the communications expert to ramp up this process. Explore participation at the COP 26 to further demonstrate impact of the project and mobilise international goodwill necessary to generate future project funding;
- Future exchanges between farmers from different states could create a groundwork for knowledge consolidation amongst small farmers and pastoralists.

4.3. Actions to Follow up or Reinforce Initial Benefits from the Project

- This is critical for the sustainability of this action as increased incomes from marketing are likely to translate to more savings and insurance coverage but also other livelihoods options and alternatives.
- The preparation of knowledge products – technical and policy briefs and best practices to be disseminated and used to guide and facilitate future replication and upscaling in different communities. UNDP and the government can take the lead.
- *One of the main complains is lack of communication between project coordinators of the states and SMA. A MoU between SMA and HCENR was prepared but is not yet effective. One of the concerns is the absence of division of responsibilities between MoAg and SMA. There are no efficient security measures for these stations as they are so valuable and eligible for theft and /or damage. Selection of sites was by the MoAg, without consultation with SMA.* This is very concerning considering the security and political situation the country. Gains could be lost if the security of the installations is not secured. Unfortunately, this situation is not picked up in any of the project issue logs. It is critical to address this issue.
- Work with other stakeholders such as universities and academia to mainstream lessons learned into academic curriculum.
- Project should not have waited the end to develop a sustainability strategy and/or mobilise further funding to land gains secured through the project. Urgent efforts have to be put in to develop a proposed LDCF3 to ensure that the momentum achieved is not lost.
- Ensure resources are available to maintain various types of equipment and infrastructure installed during the project.

4.4. Proposals for Future Directions Underlining main Objectives

The government and its partners should consider LDCF3 proposal or mobilise other funding for a new phase. This means that the core objective will not be very different. A potential option is to upscale the project activities to cover more regions and target more farming households. The challenges and shortcomings of the current project should be incorporated into the phase two as additional aspects of the project.

4.5. Best and Worst Practices in Addressing Issues Relating to Relevance, Performance and Success

The project demonstrated a number of best practices which resulted in the successful implementation of the project that may be adopted for the formulation of other projects and projects . Some of the best practices are:

- A wide representation from government ministries and institutions in project development, coordination and implementation is a contributing factor to successful achievement of the project objective;
- A strong focus on the priorities of vulnerable communities and their strong participation in the implementation of the project both as volunteers and part time employees created a strong local ownership feeling that boosted the morale and engagement of communities;
- A strong replicability characterised by a hands on approach, development of innovative projects and piloting and roll out of pilot MF/insurance projects;
- The use of trials and farmer field schools as tools to ensure and build buy in from farmers;
- Collaboration with mobilise communications institutions on the delivery of climate information to micro finance/insurance institutions, farmers and pastoralists. This approach can be used to build a market information system which will further strengthen the resilience farmers and pastoralists;
- Strong focus on gender with up to 40% of beneficiaries women;
- The project helped to strengthen the enabling environment for climate risk finance in the country supported by friendly legal and regulatory frameworks. Due to the project interventions, weather index insurance became a reality in Sudan and supported legislated by laws and regulations.

Some of the Worst practices to avoid are:

- ✓ High turnover with project managers being changed very frequently. The project in its lifetime had six different project managers;
- ✓ Regular interference from the minister who kept appointing managers rather than through competitive selection;
- ✓ Poor communication between stakeholders and unclear roles and responsibilities.

4.6.Lessons Learned

A number of key lessons can be drawn from this project which can inform future projects.

- ✓ Strong multistakeholder engagement in project design helps clarify needs and ground project on local realities. It also ensures that the strengths of different groups of actors are taken into consideration. During implementation, clarification of roles and responsibilities ensures that complementarities are built while avoiding overlaps, competition and waste of resources;
- ✓ Small farmers and pastoralists when engagement in the process of designing and implementing climate risk finance tools enhances buy-in and adoption of practices;
- ✓ Microfinance and micro insurance are effective tools for building climate resilience amongst farmers and pastoralists when delivered in culturally adapted approaches. For instance the role of the SHRIA council helped to address barriers to adoption;
- ✓ Need to couple financial products with capacity building, productive resources and practices but also facilitation of market access for farmers. This package can build stronger resilience to climate vulnerability, increase incomes and reduce poverty;
- ✓ A mix of technological packages owned and managed by local actors can increase roll out of climate information systems. Building synergies between international and private sector agencies to access satellite data, training and technical assistance are required to develop a viable

climate information service. Local approaches such as using call centres and local media agencies are strong tools to exploit;

- ✓ Government leadership is critical but there must be avenues for accountability amongst government officials.

4.7. Recommendations

Outcome 1

- Ensure that project equipment supplies are done based on objective criteria accepted by stakeholders; ensure sophisticated equipment-like drones and EWS are provided with their accessories;
- Build local capacity for maintenance and security of climate information infrastructure;
- Continue to secure and maintain collaboration with mobile telephone companies and local media agencies to disseminate climate information;
- Develop an inventory of project assets such as the I-Cloud server, drones, mobile-based application, the call center, early warning unit equipment, and cars, and be prepared for the maintenance/transfer which to be clearly stated in the exit strategy.

Outcome 2

- Scale up MF and insurance products beyond initial 3300 beneficiaries following validation of products by Supreme insurance authority and SHRIA council;
- Continue sensitisation and awareness creation amongst farmers on MF and climate insurance products and on climate resilience building to enhance adoption and buy-in;
- Continue to promote MF and climate risk finance amongst national MF and insurance companies.

Outcome 3

- Continue engagement with MF/insurance companies to adapt, refine and upscale climate risk finance products targeting not only small farmers and pastoralists but also explore nomadic pastoralists;
- Facilitate experience sharing between MF and insurance companies to share lessons and best practices;
- Organise, centralise and promote lessons learned on best agricultural/pastoral practices via written and video reports and other means/tools;
- Future projects could also consider coupling climate information system with a market information system enabling farmers to access market information which can also help them to market their products;
- Regularly monitor legal framework for MF/WII to ensure it continuously responds to the emerging needs of small farmers and pastoralists.

ANNEX

Annex 1 Terms of Reference
Annex 2 Persons Consulted

Annex 1 TERMS OF REFERENCE

INTRODUCTION

In accordance with UNDP and GEF M&E policies and procedures, all full and medium-sized UNDP support GEF financed projects are required to undergo a terminal evaluation upon completion of implementation. These terms of reference (TOR) sets out the expectations for a Terminal Evaluation (TE) of the project Climate Finance in Sudan.

The essentials of the project to be evaluated are as follows:

B)PROJECT SUMMARY TABLE

Project Title	Climate Risk Finance for Sustainable and Climate-Resilient Rain-fed Farming and Pastoral Systems in Sudan			
GEF Project ID:	4591		at endorsement (MUS$)	at completion (MUS$)
UNDP Project ID and Award:	00088863 00078764	GEF financing:	5,700,000	
Country:	Sudan	IA/EA own:		
Region:	Arab States/ Sudan	Government:	Please include, if it is in kind then we footnote these contributions/description	
Focal Area:	Climate Change	Other:		
Operational Program FA Objectives, (OP/SP):		Total co-financing:	Please include	
Executing Agency:	HCENR, UNDP	Total Project Cost:	Please include	
Other Partners involved:	HCENR, UNDP, GEF, Early Warning System, Private Sector, Central Bank of Sudan	ProDoc Signature (date project began):		2014 Please add

	(Microfinance component), Insurance Companies. Metrological Authority (SMA) and Remote Sensing Authority (RSA)	(Operational) Closing Date:	Proposed:	Actual: June 2020. The Project is extended to 30th September.

C) OBJECTIVE AND SCOPE

The Main objective of the Terminal Evaluation is four-fold: firstly, to assess the results obtained by the project as stipulated by its three outcomes; secondly, to draw lessons learned and identify the best practices; thirdly, to inform about all steps taken so far and those to be taken thereafter in order to ensure/enhance sustainability; and fourthly, put forward recommendations that would guide the implementation of similar projects in the future as well as better inform the preparation of the Exit Strategy.

The Scope of the Consultancy:

The consultancy will focus on gaging the achievements made and results obtained through rigors assessment of the accomplished status of the three main outcomes of the project. The consultancy will also vision the impact of the project on coverage of insurance, volume of micro financing and compensation being paid to farmers and pastoralists (number and amount). The project's outcomes stipulate the following:

Outcome 1: Institutional and technical capacity for climate observation, forecasting and early warning strengthened at national and local levels

Outcome 2: Residual climate risk to rural livelihoods in the states of greatest rainfall variability addressed through parametric insurance products.

Outcome 3: Improved access of needy farmers and pastoralists to financial services for climate change adaptation and disaster risk reduction.

The CRF Project is linked and aligned to the UNDP Corporate Strategic Plan Output number 2.3.1 Data and risk-informed development policies, plans, systems and financing incorporate integrated and gender responsive solutions to reduce disaster risks, enable climate change adaptation and mitigation, and prevent risk of conflict:

SDG 13: Take urgent action to combat climate change and its impacts

SDG Target: 13.2 Integrate climate change measures into national policies, strategies and planning.

The TE will also dwell on the limitations and challenges that faced the implementation of the project and how these were effectively contained.

D) EVALUATION APPROACH AND METHOD

An overall approach and method[1]for conducting project terminal evaluations of UNDP supported GEF financed projects has developed over time and a lot of

knowledge and experience have been gained over time. The evaluator is expected to frame the evaluation effort using the criteria of relevance, effectiveness, efficiency, sustainability, and impact, as defined and explained in the UNDP Guidance for Conducting Terminal Evaluations of UNDP-supported, GEF-financed Projects. A set of questions covering each of these criteria have been drafted and are included with this TOR (Annex C) The evaluator is expected to amend, complete and submit this matrix as part of an evaluation inception report, and shall include it as an annex to the final report.

UNDP evaluations cover at a minimum the following five major criteria:

These five evaluation criteria should be further defined through a series of questions covering all aspects of the project intervention, broken out in three main sections: a) project formulation; b) project implementation; and c) project results. Evaluation questions should be agreed upon among users and other stakeholders and accepted or refined in consultation with the evaluation team.

METHODOLOGY OF THE EVALUATION

An overall approach and methods for conducting UNDP/GEF project terminal evaluations has developed over time, and involves using the following tools, including e**valuation criteria and key guiding questions** **Relevance**

•The extent to which an objective has been achieved or how likely

it is to be achieved. **Effectiveness**

•The extent to which results have been delivered with the least costly resources possible; also called cost affectedness or efficacy.

Efficiency

•The positive and negative, foreseen and unforeseen changes to and effects produced by a development intervention. •In GEF terms, results include direct project outputs, short to medium-term outcomes, and longer-term impact including global environmental benefits, replication effects and other local effects.

Results' sustainability

•The likely ability of an intervention to continue to deliver benefits for an extended period of time after completion. •Projects need to be environmentally, as well as financially and socially sustainable

· *Were suitable strategies for sustainability developed and implemented?*

· *To what extent are the project results likely to be sustained in the long-term?*

· *To what extent did the benefits of a project continue after donor funding ceased?*

· *What were the major factors which influenced the achievement or non-*

achievement of sustainability of the project?.

The evaluation must provide evidence-based information that is credible, reliable and useful. The evaluator is expected to follow a participatory and consultative approach ensuring close engagement with government counterparts, in particular the GEF operational focal point, UNDP Country Office, project team, UNDP GEF Technical Adviser based in the region and key stakeholders, particularly the groups of farmers and pastoralists in the project's targeted states. The evaluator is expected to conduct a field mission to the six states and conduct intensive interviews with the main stakeholders including organizations and individuals.

Impact:

Analyzing the positive and negative changes produced by the Project, directly or indirectly, intended, or unintended. This involves the main impacts and effects resulting from the activity on the local social, economic, environmental, and other development indicators. The examination should be concerned with both intended and unintended results and must also include the positive and negative impact of external factors, such as changes in terms of social and economic conditions.

· *What has happened as a result of the project?*
· *What real difference has the activities made to the beneficiaries?*
· *How many people have been affected?*

The evaluator will review all relevant sources of information, such as the project document, project reports – including Annual APR/PIR, Community Based Adaptation (CBA) interventions reports, project budget revisions, midterm review, quarterly progress reports, minutes of the Bard meetings, best practices, project files, national strategic on climate change, technical studies and any other materials that the evaluator considers useful for this evidence-based assessment. A list of documents that the project team will provide to the evaluator for review is included in Annex B of this Terms of Reference.

The methodology should be robust enough to ensure high quality, triangulation of data sources, and verifiability of information. It is expected that the evaluation methodology can include, but would not be limited to the following elements:

1) **Desk review** of project documents, annual reports, MTR and other relevant documents. 2) **In-depth interviews** with key informants such as government officials, and members of local, national, coordination bodies; and questionnaires

3) **Focus group discussions** with the targeted beneficiaries, and Project/UNDP staff.

4) **Interviews** with the project team, and UNDP's Senior Management.

5) **Consultations** with donors/ international partners and national non-governmental organizations that were directly engaged in project implementation.

4

Assistance will be provided by UNDP in the identification of key stakeholders, and in organizing the schedule of interviews, focus groups, and site visits.

E) KEY DELIVERABLES:

The **Consultant** will produce the following:

1) **Inception Report** detailing the evaluation methodology and includes evaluation matrix with methodology, data collection tools, and data sources for evaluation; within 11 days of starting the assignment

2) **Draft Evaluation Report** to be submitted to UNDP and **presentation** to the UNDP Team on the draft report outlining the key following aspects: (i) overall findings of the ICRRP Programme; (ii) overall findings and in-depth analysis of each component/outputs; within 32 days of starting the assignment

3) **Final Evaluation Report** (using UNDP Evaluation Report Template/UNDP Outline of the evaluation report format) should be submitted to UNDP no later than **two weeks** after receiving feedback. All evaluation tools and summary should be annexed to the evaluation report and all stakeholders should be de-briefed on the findings and recommendations: within 36 days of starting the assignment

It should be noted that the above list of deliverables, together with the implementation time-frame might be subject to review and revision by UNDP in discussion with the consultant in the event of unexpected changes to the context/ working environment in Sudan during the consultancy period, given the operating context of COVID-19.

F) VALUATION CRITERIA & RATINGS

An assessment of project performance will be carried out, based against expectations set out in the Project Logical Framework/Results Framework (see Annex A), which provides performance and impact indicators for project implementation along with their corresponding means of verification. The evaluation will at a minimum cover the criteria of **relevance, effectiveness, efficiency, sustainability and impact.** Ratings must be provided on the following performance criteria. The completed table must be included in the evaluation executive summary. The obligatory rating scales are included in Annex D.

Evaluation Ratings:			
1. Monitoring and Evaluation	***rating***	**2. IA& EA Execution**	***Rating***
M&E design at entry		Quality of UNDP Implementation	
M&E Plan Implementation		Quality of Execution - Executing Agency	
Overall quality of M&E		Overall quality of Implementation / Execution	

3. Assessment of Outcomes	rating	4. Sustainability	Rating
Relevance		Financial resources:	
Effectiveness		Socio-political:	
Efficiency		Institutional framework and governance:	
Overall Project Outcome Rating		Environmental:	
		Overall likelihood of sustainability:	

Evaluation cross-cutting issues sample questions

Human rights

- To what extent have poor, indigenous and physically challenged, women and other disadvantaged and marginalized groups benefited from the work of UNDP in the country?

Gender equality

- To what extent have gender equality and the empowerment of women been addressed in the design, implementation and monitoring of the project?
- Is the gender marker data assigned to this project representative of reality?
- To what extent has the project promoted positive changes in gender equality and the empowerment of women? Were there any unintended effects?

G) PROJECT FINANCE / CO-FINANCE

The Evaluation will assess the key financial aspects of the project, including the extent of co-financing planned and realized. Project cost and funding data will be required, including annual expenditures. Variances between planned and actual expenditures will need to be assessed and explained. Results from recent financial audits, as available, should be taken into consideration. The evaluator(s) will receive assistance from the Country Office (CO) and Project Team to obtain financial data in order to complete the co-financing table below, which will be included in the terminal evaluation report.

Co-financing (type/source)	UNDP own financing (M US$)		Government (M US$)		Partner Agency (M US$)		Total (M US$)	
	Planned	Actual	Planned	Actual	Planned	Actual	Actual	Actual

Grants								
Loans/ Concessions								
In-kind support								
Other								
Totals								

H) MAINSTREAMING

UNDP supported GEF financed projects are key components in UNDP country programming, as well as regional and global projects . The evaluation will assess the extent to which the project was successfully mainstreamed with other UNDP priorities, including poverty alleviation, improved governance, the prevention and recovery from natural disasters, and gender.

IMPACT

The evaluators will assess the extent to which the project is achieving impacts or progressing towards the achievement of impacts. Key findings that should be brought out in the evaluations include whether the project has demonstrated: a) verifiable improvements in climate risk financing, b) verifiable reductions in impact of climate change and/or c) demonstrated progress towards these impact achievements.[2]

CONCLUSIONS, RECOMMENDATIONS & LESSONS

The evaluation report must include a chapter providing a set of **conclusions**, **recommendations** and **lessons**.

Implementation arrangements (Management and Implementation arrangements)

The principal responsibility for managing this evaluation resides with the UNDP CO in Sudan. The UNDP CO will contract the evaluators and ensure the timely provision of per diems and travel arrangements for the evaluator. The Project Team will be responsible for liaising with the Evaluators team to set up stakeholder interviews, arrange field visits, coordinate with the Government etc. This TOR shall be the basis upon which compliance with assignment requirements and overall quality of services provided by the consultants will be assessed by UNDP.

LOCATION AND EVALUATION TIMEFRAME:

The final detailed evaluation workplan will be agreed upon between the UNDP and the selected consultant. The Project evaluation will take place between 15 August and 30 Sep 2020. including a combination of home-based work, and in-country work which includes travel to selected project implementation areas (security situations permitting). In-country, work including visits to project implementation locations, is subject to COVID-19 operating context.

The consultant is expected to commence the assignment on **25 August 2020**. The assignment and final deliverable is expected to be completed, no later than **20 October 2020,** with the detail as described in the below

EVALUATION TIMEFRAME

The total duration of the evaluation will be 30 days according to the following plan:

Activity	**Timing**	**Completion Date**	**Indicative location**
Preparation	3 days	August 25th 2020	Home based/Remote
Evaluation Mission	*15* days	10 September 2020	If travel is not possible due to COVID-19, data will be collected by the national consultant
Draft Evaluation Report	*8* days	Oct 10th , 2020	Home based/Remote
Final Report	*4 days*	Oct 20th, 2020	Home based/Remote

EVALUATION DELIVERABLES

The evaluator is expected to deliver the following:

Inception Report	Evaluator provides clarifications on timing and method	No later than 2 weeks before the evaluation mission.	Evaluator submits to UNDP CO
Presentation	Initial Findings	End of evaluation mission	To project management, UNDP CO

Draft Final Report	Full report, (per annexed template) with annexes	Within 3 weeks of the evaluation mission	Sent to CO, reviewed by RTA, PCU, GEF OFPs
Final Report*	Revised report	Within 1 week of receiving UNDP comments on draft	Sent to CO for uploading to UNDP.

*When submitting the final evaluation report, the evaluator is required also to provide an 'audit trail', detailing how all received comments have (and have not) been addressed in the final evaluation report.

TEAM COMPOSITION

The International consultant will be assisted a national evaluator. The International consultants shall have prior experience in evaluating similar projects. Experience with GEF financed projects is an advantage. The evaluator selected should not have participated in the project preparation and/or implementation and should not have conflict of interest with project related activities.

- Experience and qualifications required:

1. Master degree in evaluation, economics or environment related issues;
2. Minimum *15* years of relevant professional experience

The Evaluator shall possess: Knowledge of UNDP and GEF Previous experience with results-based monitoring and evaluation methodologies. Technical knowledge in the targeted focal area(s)

EVALUATOR ETHICS

Evaluation consultant will be held to the highest ethical standards and are required to sign a Code of Conduct (Annex E) upon acceptance of the assignment. UNDP evaluations are conducted in accordance with the principles outlined in the UNEG 'Ethical Guidelines for Evaluations'

PAYMENT MODALITIES AND SPECIFICATIONS

(*this payment schedule is indicative, to be filled in by the CO and UNDP GEF Technical Adviser based on their standard procurement procedures)*

%	Milestone
20%	Upon submission of the evaluation inception report
40%	Following submission and approval of the 1ST draft terminal evaluation report
40%	Following submission and approval (UNDP-CO and UNDP RTA) of the final terminal evaluation report

APPLICATION PROCESS

Applicants are requested to apply online by insert new date. Individual consultants are invited to submit applications together with their CV for these positions. The application should contain a current and complete C.V. in English with indication of the e-mail and phone contact. Shortlisted candidates will be requested to submit a price offer indicating the total cost of the assignment (including daily fee, per diem and travel costs).

UNDP applies a fair and transparent selection process that will take into account the competencies/skills of the applicants as well as their financial proposals. Qualified women and members of social minorities are encouraged to apply.

ANNEX B: LIST OF DOCUMENTS TO BE REVIEWED BY THE EVALUATORS

1. UNDP Initiation Plan
2. UNDP Project Document
3. Environmental Impact Assessment
4. Project Inception Report
5. All Project Implementation Reports (PIR's)
6. Quarterly progress reports and work plans of the various implementation task teams
7. Audit reports
8. Finalized GEF focal area Tracking Tools at CEO endorsement and midterm (*fill in specific TTs for this project's focal area*)
9. Oversight mission reports
10. All monitoring reports prepared by the project
11. Financial and Administration guidelines used by Project Team
12. MTR of the project
13. Project operational guidelines, manuals and systems
14. UNDP country/countries programme document(s)
15. Minutes of Board Meetings and other meetings (i.e. Project Appraisal Committee meetings)
16. Project site location maps

ANNEX C: EVALUATION QUESTIONS

This is a generic list, to be further detailed with more specific questions by CO and UNDP GEF Technical Adviser based on the particulars of the project.

Evaluative Criteria Questions	Indicators	Sources	Methodology
Relevance: How does the project relate to the main objectives of the GEF focal area, and to the environment and development priorities at the local, regional and national levels?			
●	●	●	●
●	●	●	●
●	●	●	●
Effectiveness: To what extent have the expected outcomes and objectives of the project been achieved?			
●	●	●	●
●	●	●	●
●		●	●
Efficiency: Was the project implemented efficiently, in-line with international and national norms and standards?			
●	●	●	●
●	●	●	●
●	●	●	●
Sustainability: To what extent are there financial, institutional, social-economic, and/or environmental risks to sustaining long-term project results?			
●	●	●	●
●	●	●	●
●	●	●	●
Impact: Are there indications that the project has contributed to, or enabled progress toward, reduced environmental stress and/or improved ecological status?			
●	●	●	●
●	●	●	●

ANNEX D: RATING SCALES

Ratings for Outcomes, Effectiveness, Efficiency, M&E, I&E Execution	***Sustainability ratings:***	***Relevance ratings***
6: Highly Satisfactory (HS): no shortcomings 5: Satisfactory (S): minor shortcomings 4: Moderately Satisfactory (MS) 3. Moderately Unsatisfactory (MU): significant shortcomings 2. Unsatisfactory (U): major problems 1. Highly Unsatisfactory (HU): severe problems	4. Likely (L): negligible risks to sustainability 3. Moderately Likely (ML): moderate risks 2. Moderately Unlikely (MU): significant risks 1. Unlikely (U): severe risks	2. Relevant (R) 1.. Not relevant (NR) ***Impact Ratings:*** 3. Significant (S) 2. Minimal (M) 1. Negligible (N)
Additional ratings where relevant: Not Applicable (N/A) Unable to Assess (U/A		

ANNEX E: EVALUATION CONSULTANT CODE OF CONDUCT AND AGREEMENT FORM

Evaluators:

1. Must present information that is complete and fair in its assessment of strengths and weaknesses so that decisions or actions taken are well founded.
2. Must disclose the full set of evaluation findings along with information on their limitations and have this accessible to all affected by the evaluation with expressed legal rights to receive results.
3. Should protect the anonymity and confidentiality of individual informants. They should provide maximum notice, minimize demands on time, and respect people's right not to engage. Evaluators must respect people's right to provide information in confidence and must ensure that sensitive information cannot be traced to its source. Evaluators are not expected to evaluate individuals and must balance an evaluation of management functions with this general principle.
4. Sometimes uncover evidence of wrongdoing while conducting evaluations. Such cases must be reported discreetly to the appropriate investigative body. Evaluators should consult with other relevant oversight entities when there is any doubt about if and how issues should be reported.
5. Should be sensitive to beliefs, manners and customs and act with integrity and honesty in their relations with all stakeholders. In line with the UN Universal Declaration of Human Rights, evaluators must be sensitive to and address issues of discrimination and gender equality. They should avoid offending the dignity and self-respect of those persons with whom they come in contact in the course of the evaluation. Knowing that evaluation might negatively affect the interests of some stakeholders, evaluators should conduct the evaluation and communicate its purpose and results in a way that clearly respects the stakeholders' dignity and self-worth.
6. Are responsible for their performance and their product(s). They are responsible for the clear, accurate and fair written and/or oral presentation of study limitations, findings and recommendations.
7. Should reflect sound accounting procedures and be prudent in using the resources of the evaluation.

Evaluation Consultant Agreement Form[40]

Agreement to abide by the Code of Conduct for Evaluation in the UN System

Name of Consultant: _____

Name of Consultancy Organization (where relevant)**:** _____

I confirm that I have received and understood and will abide by the United Nations Code of Conduct for Evaluation.

Signed at *place* on *date*

Signature: _____

[40] www.unevaluation.org/unegcodeofconduct

ANNEX F: EVALUATION REPORT OUTLINE[41]

i. Opening page:
- Title of UNDP supported GEF financed project
- UNDP and GEF project ID#s.
- Evaluation time frame and date of evaluation report
- Region and countries included in the project
- GEF Operational Program/Strategic Program
- Implementing Partner and other project partners
- Evaluation team members
- Acknowledgements

ii. Executive Summary
- Project Summary Table
- Project Description (brief)
- Evaluation Rating Table
- Summary of conclusions, recommendations and lessons

iii. Acronyms and Abbreviations
(See: UNDP Editorial Manual[42])

1. Introduction
- Purpose of the evaluation
- Scope & Methodology
- Structure of the evaluation report

2. Project description and development context
- Project start and duration
- Problems that the project sought to address
- Immediate and development objectives of the project
- Baseline Indicators established
- Main stakeholders
- Expected Results

3. Findings
(In addition to a descriptive assessment, all criteria marked with (*) must be rated[43])

3.1 Project Design / Formulation
- Analysis of LFA/Results Framework (Project logic /strategy; Indicators)
- Assumptions and Risks
- Lessons from other relevant projects (e.g., same focal area) incorporated into project design
- Planned stakeholder participation
- Replication approach
- UNDP comparative advantage
- Linkages between project and other interventions within the sector
- Management arrangements

3.2 Project Implementation
- Adaptive management (changes to the project design and project outputs during implementation)
- Partnership arrangements (with relevant stakeholders involved in the country/region)
- Feedback from M&E activities used for adaptive management
- Project Finance:
- Monitoring and evaluation: design at entry and implementation (*)
- UNDP and Implementing Partner implementation / execution (*) coordination, and operational issues

3.3 Project Results
- Overall results (attainment of objectives) (*)
- Relevance (*)
- Effectiveness & Efficiency (*)

[41]The Report length should not exceed *40* pages in total (not including annexes).
[42] UNDP Style Manual, Office of Communications, Partnerships Bureau, updated November 2008
[43] Using a six-point rating scale: 6: Highly Satisfactory, 5: Satisfactory, 4: Marginally Satisfactory, 3: Marginally Unsatisfactory, 2: Unsatisfactory and 1: Highly Unsatisfactory, see section 3.5, page 37 for ratings explanations.

- Country ownership
- Mainstreaming
- Sustainability (*)
- Impact

4. Conclusions, Recommendations & Lessons
   - Corrective actions for the design, implementation, monitoring and evaluation of the project
   - Actions to follow up or reinforce initial benefits from the project
   - Proposals for future directions underlining main objectives
   - Best and worst practices in addressing issues relating to relevance, performance and success
5. Annexes
   - ToR
   - List of persons interviewed
   - Summary of field visits
   - List of documents reviewed
   - Evaluation Question Matrix
   - Questionnaire used and summary of results
   - Evaluation Consultant Agreement Form

ANNEX G: EVALUATION REPORT CLEARANCE FORM

(to be completed by CO and UNDP GEF Technical Adviser based in the region and included in the final document)

Annex 2 PERSONS CONSULTED

Name	**Institution**
Prof. Rashid Mekki Hassan	**Secretary General, HCENR**
Dr. Hiba Gubara	Acting Project Manager
Dr. Awatif Abdel Gadir Bashir	Deputy Project Manager
Mr. Abuel Gasim Abudeik	Project Management Consultant
Mr. Ismail Dool	M&E officer
Mrs. Hanan Magzoub Rabah (D.G)	**Sudan Meteorological Authority** (SMA)
Mrs. Maha Abdalla Abdel Rahman	SMA
Mr. Mohammed Ahmed Mohammed Salih	SMA
Mr. Osman Ahmed Musa	SMA
Mr. Omer Abu Kalam	SMA
Dr. Badr el Deen Ahmed Hassan (D.G.)	**Remote Sensing Authority** (RSA)
Dr. Awatif Bashir El Nair	RSA
Dr. Sulafa Babikir	RSA
Dr. Amna Hamid	RSA
Dr. Khalid El Haj	RSA
Dr. Gawahir El Yas Abdalla	Ministry of Animal Resources
Dr. Sara Hamad Abel Rahman	Ministry of Animal Resources
Mrs. Nafiesa Nouh	D.G. State Min. of Agric. (Gedarif)
Mrs. Hanan Abdel Tawab Sulaiman	Director, ARC (Gedarif)

Mrs. Nahid Ali Mohammed	Ext.& Teh Transfer (Gedarif)
Mrs. Tayba Rahamtalla Ahmed	Ext.& Teh Transfer (Gedarif)
Mrs. Rash Bashir Ali	**Early Warning Systems (EWS) Gedarif**
Mr. Abdel Halim Hassan El Hadi	EWS (Gedarif)
Mr. Mohammed El Amin Abu Bakr	EWS (Gedarif)
Mr. Ammar Abdalla	EWS (Gedarif)
Mr. Adil El Haj Yousif	**Sudan Meteorological Authority (SMA) Gedarif**
Mr. Hamza Hassn Ibrahim	SMA (Gedarif)
Mr. Ibrahim El Amin	SMA (Gedarif)
Mr. Musbah Mohammed Musa Gabir	General Manager, Ibda'a bank (Gedarif)
Mrs. Amna Mohammed El Hassan	Ext. Manager, Pastoral Dev.(Gedarif)
Dr. Rabie Sulaiman Mohammed	Ext. Manager, Pastoral Dev.(Gedarif)
Dr. Shaza Mohammed Osman	Ext. Manager, Pastoral Dev.(Gedarif)
Ms. Nagla Hamid Mohammed	Ext. Manager, Pastoral Dev.(Gedarif)
Ms. Rehab Babikir	Ext. Manager, Pastoral Dev.(Gedarif)
Ms. Mawahib Sa'ad Barri	Ext. Manager, Pastoral Dev.(Gedarif)
Dr. Idris Musa Adam Omer	D.G. State Min. of Agric. (N. Kordofan)
Mr. Mohammed Bashir Ajban	Agricultural Manager, Bara (N.Kordofan)
Prof. El Gailani Adam Abdalla	ARC Director (El Obeid)
Dr. Abdel Latief Ahmed Sulaiman	Researcher, ARC (El Obeid)
Mr. Nasir Khalid Mohammed Ahmed	G.Manager, Meshkah (El Obeid)
Mr. Yasir Abdelnabi Malik	Operation Manager, Meshkah (El Obeid)
Mrs. Amani Ismail Abdel Wahab	Project Coordinator, (N.Kordofan)
Mr. Abdel Mohsin Kharrash	Project team, (N. Kordofan)
Mrs. Shazlia El Taj El Jak	**Early Warning Systems (EWS) & Remote Sensing Authority (RSA) N.Kordofan**
Mrs. Amani Awad Ismail	EWS & RSA (N.Kordofan)
Mrs. Slwa Ali Adam	EWS & RSA (N.Kordofan)
Mrs. Nada Asakir Adam	EWS & RSA (N.Kordofan)
Mr. Akmal Ibrahim Abdelgadir	Community leader (Umnabag) N.Kordofan.
Mr. Ibrahim El Daw Ismail	Community member
Mr. Dafa'a Alla Makkawi Ibrahim	Community member
Mr. Mohammed Ahmed Adam Ibrahim	Community member
Mr. Abuel Gasim Bashir Guma'a	Community member
Mr. Ibrahim Makkawi Ibrahim	Community member
Mr. El Fatih Ibrahim Makkawi	Community member
Mrs. Zainab Ahmed	Community member
Mrs. Amani Mohammed Ahmed	Community member
Mrs. Nuha Hasaballa Ahmed	Community member
Mrs. Ina'am Musa	Community member
Mrs. Mastura Manna Yousif	Community member
Mrs. Um Kharief	Community member
Mrs. Muna Hamadto	Community member
Mrs. Nura Adam	Community member
Mr. Hamadto Homeida Adam	Community member

Mr. Adnan Balla Nasir	Community member
Mr. Mohammed Adam El Haj	Community member
Mr. Elgaili Adam El Haj	Community member

Annex 3 DOCUMENTS CONSULTED

- UNDP, 2014. Climate Risk Finance for Sustainable and Climate Resilient Rain-fed Farming and Pastoral Systems – Sudan. Global Environment Facility Project document. UNDP PIMS ID 4591.
- Government of the Republic of Sudan 'Sudan's Intended Nationally Determined Contributions (INDCs) report' October 2015.
- Government of the Republic of Sudan, 'National Adaptation Programme of Action, NAPA', Ministry of Environment and Physical Development Higher Council for Environment and Natural Resources, July 2007.
- Government of the Republic of Sudan, 'Sudan 's First National Communication' Ministry of Environment, Forestry and Physical Development, United Nations Framework Convention on Climate Change, February 2003.
- Government of the Republic of Sudan, 'Sudan's Second National Communication' Ministry of Environment, Forestry and Physical Development, United Nations Framework Convention on Climate Change, January 2013.
- UNDP Initiation Plan
- UNDP Project Document
- Environmental Impact Assessment
- Project Inception Report
- UNDP/GEF, 'Project Performance Reports', 2013, 2014, 2015,2017. (PPR's)
- Quarterly progress reports and work plans of the various implementation task teams
- Oversight mission reports
- All monitoring reports prepared by the project
- Financial and Administration guidelines used by Project Team
- MTR of the project
- Project operational guidelines, manuals and systems
- UNDP, 'Draft Country Programme Document for Sudan' 2007-2011.
- UNDP, 'Draft Country Programme Document for Sudan 2013-2016.
- UNDP, 'Country Programme Document for Sudan' 2017-2021.
- Minutes of the CRF Board Meetings and other meetings
- Project site location maps
- National Development Plan document
- Sectoral policy documents of the MoA and MoEFPD
- UNDP Initiation Plan
- UNDP Programme Document
- Environmental Impact Assessment
- Project Inception Report
- All Project Implementation Reviews (PIRs) 2018,2019,2020.
- Quarterly progress reports and work plans of the various implementation task teams
- Finalized GEF focal area Tracking Tools at CEO endorsement and mid-term
- Oversight mission reports
- All monitoring reports prepared by the project
- Financial and Administration guidelines used by Project Team
- MTR of the project

- Project operational guidelines, manuals and systems
- UNDP country/countries programme document(s)
- Project site location maps
- National Development Plan document
- Sectoral policy documents of the MoA and MoEFPD

Annex 4 FIELD MISSION ITINERARY AND SITES VISITED

Date	Tasks / Activities Performed
17/11/2020 - 27/11/2020	- Preparatory work by the international consultant
17/11/2020	- Initial mission briefing with UNDP team - Working session by international & national consultants at UNDP - Initial contacts with Project Manager
24/11/2020	- Finalisation of inception report - Finalisation of field mission preparation (checklist/questionnaire) - Visit to Ministry of Agricuture (MoAg)
30/11/2020 – 3/12/2020	***Visit to Khartoum state***: Discussions with - Ministry of Water Resources and Irrigation - Remote sensing - S.M Authority - ARC and Ebda'a Bank - Ministry of Animal Resources - Ministry of Agriculture - Improved energy sources
6/12/2020 – 9/12/2020	***Visit to Gedarif:*** Discussions with - Director General State Ministry of Agriculture - ARC Gedarif - Extension Department - Field visits
13/12/2020 – 15/12/2020 16/12/2020 – 19/12/2020	**Visit to North Kordofan**: Discussions with - Director General State Ministry of Agriculture - ARC (North Kordofan) - Extension Department **Visit to South Darfur** - Director General State Ministry of Agriculture - ARC (North Kordofan) - Extension Department
20/12/2020 -	- Field data entry and management - Secondary data review and analysis
12/12/2020	- Secondary data review and analysis - Preliminary analysis of field data - Interviews with stakeholders
13/12/2020	- Preparation of methodological approach employed (PPP) - Preparation of initial findings (in word and PPP) - Interviews with stakeholders
14/12/2020	Field mission debriefing meeting at UNDP

Annex 5 EVALUATION QUESTIONS MATRIX

Evaluative Criteria	Questions	Indicators	Sources	Methodology
Relevance: How does the project relate to the main objectives of the GEF focal area, and to the environment and development priorities at the local, regional and national levels?				
• Are the project objectives conformed to agreed priorities in the UNDP Country Programme Document (CPD)?	• How does the project support the environment and sustainable development objectives of the GoS ?	• In line with the national priorities mentioned in the UNDP Country Programme Document	• UNDP Country Programme Document • Project document	• Documents analyses • Interviews with UNDP and project team
• Is the project relevant to other international conventions objectives	• Does the project support other international conventions, such as the Stockholm Convention?	• Priorities and areas of work of other conventions incorporated in project design	• Project documents • National policies and strategies • Relevant international conventions web sites	• Documents analyses • Interviews with project team, UNDP and other partners
• Is the project relevant to the GEF Climate Change focal area?	• How does the project support the GEF Climate Change focal area?	• How does the project support the GEF Climate Change focal area?	• Project documents • GEF documents	• Documents analyses • GEF website • Interviews
• Is the project relevant to the GoS environment and sustainable development objectives?	• Is the project country-driven? • What was the level of stakeholder participation and ownership? • Does the project adequately take into account the national policy in its design and its implementation?	• Project's supports to national environmental objectives • Coherence between the project and nationals priorities • Adequacy of project design to national existing capacities • Involvement of different actors in the project design process	• Project documents • National policies and strategies • Key project partners	• Documents analyses • GEF website • Interviews with UNDP and project team

		• Coherence between national stakeholders and UNDP/GEF criteria		
• Is the project internally coherent in its design?	• Are there logical linkages between log frame and the project design? • Is the length of the project sufficient to achieve Project outcomes? • Had gender issues been taken into account in project design and implementation?	• Level of coherence between project expected results and project design internal logic • Level of coherence between project design and project implementation approach	• Program and project documents • Key project stakeholders	• Document analysis • Key interviews
• Is the project addressing the needs of target beneficiaries at the local level?	• How does the project support the needs of relevant stakeholders? • Has the implementation of the project been inclusive of all relevant stakeholders? • Were local beneficiaries and stakeholders adequately involved in the project design and implementation?	• Strength of the link between expected results from the project and the needs of relevant stakeholders • Degree of involvement and inclusiveness of stakeholders in project design and implementation	• Project partners and stakeholders • Project documents	• Document analysis • Interviews with relevant stakeholders
• How is the project relevant with respect to other donor-supported activities?	• Does the GEF funding support activities and objectives not addressed by other donors? • How do GEF-funds fill gaps that are not covered by other donors? • Is there coordination and complementarity between donors?	• Degree to which project was coherent and complementary to other donor programming nationally and regionally	• Documents from other donor supported activities Other donor representatives • Project documents	• Documents analyses • Interviews with project partners and relevant stakeholders
Evaluative Criteria	**Questions**	**Indicators**	**Sources**	**Methodology**
Effectiveness: To what extent have the expected outcomes and objectives of the project been achieved?				
• Has the project been effective in achieving the expected outcomes and objectives?	• Has the project been effective in achieving its three expected outcomes?	• See indicators in project document results framework and log frame	• Project documents • Project team and relevant stakeholders	• Documents analysis • Interviews with project team • Interviews with relevant stakeholders

			• Data reported in project annual and quarterly reports	
• How is risk and risk mitigation being managed?	• How well are risks, assumptions and impact drivers being managed? • What was the quality of risk mitigation strategies developed? Were these sufficient? • Are there clear strategies for risk mitigation related to long-term sustainability of the project?	• Completeness of risk identification and assumptions during project planning and design • Existing information in place to identify emerging risks/ issues • Risk mitigations strategies developed and followed	• Project documents • UNDP, project team, and relevant stakeholders	• Document analysis • Interviews
• What lessons can be drawn regarding effectiveness for similar projects in the future?	• What lessons have been learned from the project regarding achievement of outcomes? • What changes could have been made (if any) to the design of the project in order to improve the achievement of the project's expected results?		• Data collected throughout evaluation	• Data analysis
Evaluative Criteria	**Questions**	**Indicators**	**Sources**	**Methodology**
Efficiency: Was the project implemented efficiently, in-line with international and national norms and standards?				
• Was project support provided in an efficient way?	• Was adaptive management used or needed to ensure efficient resource use? • Were the project logical framework and work plans and any changes made to them used as management tools during implementation? • Were the accounting and financial systems in place adequate for project management and producing accurate and timely financial information? • Were progress reports produced accurately, timely and did they respond	• Availability and quality of financial and progress reports • Timeliness and adequacy of reporting provided • Level of discrepancy between planned and utilized financial expenditures • Planned vs. actual funds leveraged • Cost in view of results achieved compared to costs of similar projects from other organizations	• Project documents and evaluations • Project team	• Document analysis • Key interviews

	to reporting requirements including adaptive management changes? ● Was project implementation as cost effective as originally proposed (planned vs. actual) ● Did the leveraging of funds (co financing) happen as planned? ● Were financial resources utilized efficiently? Could financial resources have been used more efficiently? ● Was procurement carried out in a manner making efficient use of project resources? ● How was results-based management used during project implementation?	● Adequacy of project choices in view of existing context, infrastructure and cost ● Quality of results-based management reporting (progress reporting, monitoring and evaluation) ● Occurrence of change in project design/ implementation approach (i.e. restructuring) when needed to improve project efficiency ● Cost associated with delivery mechanism and management structure compared to alternatives		
● How efficient were partnership arrangements for the project?	● To what extent partnerships/ linkages between institutions/ organizations were encouraged and supported? ● Which partnerships/linkages were facilitated? Which ones can be considered sustainable? ● What was the level of efficiency of cooperation and collaboration arrangements? ● Which methods were successful or not and why?	● Specific activities conducted to support the development of cooperative arrangements between partners, ● Examples of supported partnerships ● Evidence that particular partnerships/linkages will be sustained ● Types/quality of partnership cooperation methods utilized	● Project documents and evaluations ● Project partners and relevant stakeholders	● Document analysis ● Interviews
● Did the project efficiently utilize local capacity in implementation?	● Was an appropriate balance struck between utilization of international expertise as well as local capacity? ● Did the project take into account local capacity in design and implementation of the project? ● Was there an effective collaboration between institutions responsible for implementing the project?	● Proportion of expertise utilized from international experts compared to national experts ● Number/quality of analyses done to assess local capacity potential and absorptive capacity	● Project documents and evaluations ● UNDP ● Beneficiaries	● Document analysis ● Interviews

• What lessons can be drawn regarding efficiency for other similar projects in the future?	• What lessons can be learnt from the project regarding efficiency? • How could the project more efficiently carry out implementation (in terms of management structures and procedures, partnerships arrangements etc.)? • What changes could have been made (if any) to the project in order to improve its efficiency?	•	• Data collected throughout evaluation	• Data analysis
Evaluative Criteria	**Questions**	**Indicators**	**Sources**	**Methodology**
Sustainability: To what extent are there financial, institutional, social-economic, and/or environmental risks to sustaining long-term project results?				
• Is the Project financially and socio-economically sustainable?	• Are there financial and socio-economic risks that may jeopardize the sustainability of project outcomes? • What is the likelihood of financial and economic resources not being available once GEF grant assistance ends?	• The likely ability of an intervention to continue to deliver benefits for an extended period of time after completion.	• UNDP, project team, and relevant stakeholders	• UNDP, project team, and relevant stakeholders
• Is the Project environmentally sustainable?	• Are there ongoing activities that may pose an environmental threat to the sustainability of project outcomes?	•	• UNDP, project team, and relevant stakeholders	• Document analysis • Interviews
• To what extent will the stakeholders sustain the project?	• Are there social or political risks that may threaten the sustainability of project outcomes? • What is the risk that the level of stakeholder ownership will be insufficient to allow for the project outcomes/benefits to be sustained? • Do the various key stakeholders see that it is in their interest that project benefits continue to flow? • Is there sufficient public/stakeholder awareness in support of the project's long-term objectives?	•	• UNDP, project team, and relevant stakeholders	• Document analysis • Interviews

Evaluative Criteria	Questions	Indicators	Sources	Methodology
Impact: Are there indications that the project has contributed to, or enabled progress toward, reduced environmental stress and/or improved ecological status?				
● Assess the likely permanence (long lasting nature) of the impacts	● Clarify based on extent: ● a) verifiable improvement in energy intensity; and/or ● b) through specified indicators that progress is being made towards achievement of project objectives ● c) regulatory and policy changes at regional, national and/or local levels	● The positive and negative, foreseen and unforeseen changes to and effects produced by a development intervention	● Project documents ● UNDP, project team, and relevant stakeholders	● Document analysis ● Interviews

Annex 6 QUESTIONNAIRE USED IN THE FIELD

Questions for Field Interviews

Relevance

Evaluation criteria question:

- Was the project relevant or not relevant to solve your needs? If yes. In what ways? If not then why?

- What will be your rating of the relevance of the project? 3= very relevant (significant), 2= Moderately relevant (minimal), 1=not very relevant (Negligible N)

- How does the project relate to existing environment and development priorities and needs as reflected in national development plan? (was it relevant or not? What will be your rating of the relevance of the project? 3. Significant (S), 2. Minimal (M), 1. Negligible (N) (Note: This is for the Ministries and government officials)

- How does the project relate to the main objectives of the GEF focal area? (was it relevant or not? What will be your rating of the relevance of the project?
  2. Significant (S), 2. Minimal (M), 1. Negligible (N) (Note:

2. Attainment of overall results / objective

- How did the project interventions contribute to the achievement of the objective which is to "To increase climate resilience of rain-fed farmer and pastoral communities in regions of high rainfall variability through climate risk financing?

- What are some of the challenges that hindered the full achievement of the project objective?

3. Effectiveness

3.1.Outcome 1

- How would you assess the contribution of the project to "Institutional and technical capacity for climate observation, forecasting and early warning strengthened at national and local levels" (6 = Highly Satisfactory, 5 = Satisfactory, 4 = Marginally Satisfactory, 3 = Marginally Unsatisfactory, 2 = Unsatisfactory, 1= Highly Unsatisfactory)

- Explain

3.2.Outcome 2

- How would you assess the contribution of the project to "Residual climate risk to rural livelihoods in the states of greatest rainfall variability address through parametric insurance products" (6 = Highly Satisfactory, 5 = Satisfactory, 4 = Marginally Satisfactory, 3 = Marginally Unsatisfactory, 2 = Unsatisfactory, 1= Highly Unsatisfactory).

  Explain.

3.3.Outcome 3

- How would you assess the contribution of the project to "Improved access of needy farmers and pastoralists to financial services for climate change adaptation and disaster risk reduction" (6 = Highly Satisfactory, 5 = Satisfactory, 4 = Marginally Satisfactory, 3 = Marginally Unsatisfactory, 2 = Unsatisfactory, 1= Highly Unsatisfactory).

  Explain.

4. Efficiency

- How would you assess the implementation of the project in terms of rational use of human resources given the results achieved? (6 = Highly Satisfactory, 5 = Satisfactory, 4 = Marginally Satisfactory, 3 = Marginally Unsatisfactory, 2 = Unsatisfactory, 1= Highly Unsatisfactory).
  Explain.

- How would you assess the implementation of the project in terms of rational use of financial resources given the results achieved? (6 = Highly Satisfactory, 5 = Satisfactory, 4 = Marginally Satisfactory, 3 = Marginally Unsatisfactory, 2 = Unsatisfactory, 1= Highly Unsatisfactory).
  Explain.

5. Sustainability

- To what extent are there financial risks to sustaining the long-term results of the project?

(4=Likely (L): negligible risks to sustainability; 3=Moderately Likely (ML): moderate risks
2=Moderately Unlikely (MU): significant risks; 1=Unlikely (U): severe risks)

- To what extent are there institutional and management risks to sustaining the long-term results of the project?

(4=Likely (L): negligible risks to sustainability; 3=Moderately Likely (ML): moderate risks
2=Moderately Unlikely (MU): significant risks; 1=Unlikely (U): severe risks)

- To what extent are there social-economic risks to sustaining the long-term results of the project?

(4=Likely (L): negligible risks to sustainability; 3=Moderately Likely (ML): moderate risks 2=Moderately Unlikely (MU): significant risks; 1=Unlikely (U): severe risks)

- To what extent are there environmental risks to sustaining the long-term results of the project?

(4=Likely (L): negligible risks to sustainability; 3=Moderately Likely (ML): moderate risks 2=Moderately Unlikely (MU): significant risks; 1=Unlikely (U): severe risks)

- To what extent can the results of the project be scaled-up or replicated to other regions of the country?

(4=Likely (L): negligible risks to sustainability; 3=Moderately Likely (ML): moderate risks 2=Moderately Unlikely (MU): significant risks; 1=Unlikely (U): severe risks)

6. Impact Pathways

- Are there indications that the project has contributed to, or enabled progress toward addressing climate change, through strengthening of technical capacity and institutional arrangement at national and local level?

(Impact Ratings: 3=Significant (S); 2=Minimal (M); 1=Negligible (N)

7. Gender Mainstreaming

- How would you assess the involvement of women in the project implementation?

(6 = Highly Satisfactory, 5 = Satisfactory, 4 = Marginally Satisfactory, 3 = Marginally Unsatisfactory, 2 = Unsatisfactory, 1= Highly Unsatisfactory).
Explain.

8. Questions for Government Ministries and Institutions Only

- Country Ownership of the project
  How has the project ensured that there is total country ownership in its implementation?

- Mainstreaming gender
  In what ways does the project ensure that gender is fully mainstreamed in its activities?

- **Project Design / Formulation**

1. How did the project design take into consideration Results Framework? (Project logic /strategy; Indicators)

2. What assumptions and risks were identified during the implementation of the project?

3. What lessons from other relevant projects (e.g., same focal area) were incorporated into the project design?

4. What was the level of stakeholder participation in the project implementation?

5. How was the replication approach considered in the project design and implementation?

6. What gave UNDP a comparative advantage within the implementation of the project?

7. What linkages were made between the project and other interventions within the sector?

8. What management arrangements were made within the project during its implementation?

- **Project Implementation**

1. What are some of the steps you took towards adaptive management (changes to the project design and project outputs during implementation)?

2. What are the different partnership arrangements? (with relevant stakeholders involved in the country/region)?

3. How did you use the feedback from M&E activities for adaptive management?

4. How was the project financed?

Areas for further discussions with project experts from MoLWE, MoA and UNDP

- Country Ownership of the project
- Mainstreaming
- Project Design / Formulation
  - ✔ Analysis of LFA/Results Framework (Project logic /strategy; Indicators)
  - ✔ Assumptions and Risks
  - ✔ Lessons from other relevant projects (e.g., same focal area) incorporated into project design
  - ✔ Planned stakeholder participation
  - ✔ Replication approach
  - ✔ UNDP comparative advantage
  - ✔ Linkages between project and other interventions within the sector
  - ✔ Management arrangements
- Project Implementation

- ✔ Adaptive management (changes to the project design and project outputs during implementation)
- ✔ Partnership arrangements (with relevant stakeholders involved in the country/region)
- ✔ Feedback from M&E activities used for adaptive management
- ✔ Project Finance:
- ✔ Monitoring and evaluation: design at entry and implementation (*)
- ✔ UNDP and Implementing Partner implementation / execution (*) coordination, and operational issues.