Annex 11: Monitoring and Evaluation Plan

The CAISAR Monitoring and Evaluation (M&E) Plan serves as a strategic roadmap to track and assess the results of project interventions throughout the project lifecycle. It guides the CAISAR team in implementing effective M&E activities, including how data will be collected, analyzed, and used to monitor progress against the output and outcome indicators outlined in the logical framework. The plan also ensures that monitoring data is systematically analyzed and that results are disseminated both internally and externally to donors and stakeholders. The specific objectives of the M&E plan are to:

- Measure and assess progress toward the Project Development Objective and outreach targets;
- Demonstrate the results achieved by the project at the output, outcome, and impact levels;
- Provide project management with accurate, timely information to monitor progress, identify challenges, and formulate appropriate responses;
- Support effective project supervision by ensuring that performance data is readily available for assessment;
- Assess Value for Money by evaluating the cost of delivering outputs, and where feasible, the cost of achieving outcomes;
- Promote awareness of project achievements, support knowledge sharing, and strengthen partnership

The Project Management Units (PMUs) of the Ministry of Water Resources and Meteorology (MOWRAM) and the National Committee for Sub-National Democratic Development Secretariat (NCDD-S) share the overall responsibility for the monitoring and evaluation of the CAISAR project. The Project Managers of both PMUs will ensure that the M&E Work Plan is implemented on schedule and meets the required standards. To carry out these responsibilities, the Project Managers are supported by the Planning and M&E team, including a Senior Planning and M&E Specialist, the ICT Specialist, and short-term consultants engaged for specific tasks such as the development of the Management Information System (MIS) and Geographic Information System (GIS).

The PMUs' core M&E functions include preparing the annual M&E Work Plan and the preparation, implementation, and management of the MIS and GIS systems. The PMUs are also responsible for liaising with service providers to ensure timely submission of monitoring data as stipulated in their terms of reference. Additionally, the PMUs will contract a service provider to conduct the Outcome Survey. Additionally, the MWORAM PMU will coordinate with implementing agencies in preparing the Six-Month and Annual Reports. It will further review and consolidate these reports and drafts their summary sections. Other key responsibilities include conducting the Value for Money analysis, maintaining and updating the project website and dashboard, and regularly updating the Project's Logical Framework. The PMU also reports on CAISAR's contribution to relevant Country Strategic Opportunities Programme (COSOP) indicators and oversees the production and dissemination of knowledge products.

Furthermore, the MOWRAM PMU will be responsible for overseeing the implementation of the M&E Work Plan and will coordinate closely with NCDD-S to ensure that all M&E activities are carried out on schedule and to a high standard. An M&E Work Plan will be developed as part of the Annual Work Plan

and Budget (AWPB). This plan will outline the key monitoring and evaluation activities to be undertaken during the year, specifying the type of activity, methodology, timeline (start and completion dates), and the associated budget. The Planning and M&E Specialist will collaborate with each implementing agency to support the preparation of the M&E Work Plan for their respective components or sub-components.

The M&E system is designed to capture comprehensive and disaggregated data across multiple dimensions to effectively measure project performance and outcomes. The monitoring data to be collected under the CAISAR project has been clearly defined in the Project Implementation Manual (PIM). The system will also track performance against the project's logframe indicators, which are organized into four levels: output, outcome, impact, and outreach indicators. Progress will also be assessed through achievement against annual targets outlined in the AWPB. It will track the type, quantity, location, and cost of all project outputs, as well as the number and profile of direct beneficiaries where relevant, as disaggregated by smallholders, women, youth, persons with disabilities, and Indigenous Peoples (IPs). It will also collect data on project-specific actions critical to tracking implementation progress and results such as :(i) FWUC leadership and staff, (ii) HH members active in each value chain; (iii) Farm data on production of target value chain commodities; (iv) financing packages; (v) beneficiary contributions to investments; and (vi) results of investments. In addition to quantitative data, the M&E system will capture **qualitative information** such as beneficiary satisfaction with CAISAR processes and outputs, insights on the causal links between outputs and outcomes, lessons learned during implementation, and opportunities for future project design, including activities not originally planned under CAISAR that may contribute to project objectives. Data collection will take place through regular uploading of data to the CAISAR Management Information System (MIS) by service providers and implementing agencies; reporting by service providers, mobile applications and an Outcome Survey.

The collected data will be reported using the following channels:

1. **Annual Reports:** The Annual Report will include a brief narrative section that focuses on the key challenges encountered during implementation and the proposed solutions to address them. Each Executing Entity (EE) is responsible for preparing its own annual progress report. The Annual Progress Reports are required to include, at a minimum: a summary of activities and outputs completed, progress made against AWPB targets, and disbursement figures at the end of year. The Annual Report will take the form of the GCF's Annual Performance Reports (APR) and will be submitted to the GCF through its online portal, PPMS, on the 28th of February every year. The annual reports will contain the following information:
    i. A brief update on the EIB Technical Description, explaining the reasons for significant changes vs. initial scope;
    ii. Update on the date of completion of each of the main project activities and sub-projects, explaining reasons for any possible delay;
    iii. Update on the cost of the project, explaining reasons for any possible cost variations vs. initial budgeted cost;
    iv. A description of any major issue with impact on the environment;
    v. Update of the procurement plan;
    vi. Update on the project's demand or usage and comments;
    vii. Any significant issue that has occurred and any significant risk that may affect the project's operation;

viii. Any legal action concerning the project that may be on-going;
ix. Non-confidential project-related pictures, if available.

2. **Project Completion Report:** The Project Completion Report will be prepared approximately 15 months after project completion. It will provide a final Technical Description of the completed project, detailing any significant changes from the original design. The report will include the completion dates of all major components, explaining any delays, as well as the final project cost, highlighting any deviations from the initial budget. It will also cover the project's employment effects, including person-days during implementation and permanent jobs created. Additionally, the report will outline any major environmental or social impacts, updates on procurement procedures and note deviations from the procurement plan, and provide information on project demand or usage. It will also highlight any significant issues or risks affecting operations, report ongoing legal actions, and include non-confidential project-related photos, if available.
3. **Project Website**: CAISAR will continue to manage and regularly update the project website, which serves as a central platform for information sharing and stakeholder engagement. The website is designed to present key information about the project's purpose, design, and implementation approach. It provides links to other relevant websites and platforms, summarises progress made, and highlights key achievements. In addition, it offers access to tools such as the MIS, Project Dashboard, and GIS, and serves as a repository for downloadable knowledge products. The website also includes contact information for project stakeholders and provides a channel for submitting complaints
4. **Project Dashboard**: The Project Dashboard provides a concise summary of CAISAR's progress and performance. It is generated using data from the MIS, financial reports, and findings from Supervision Mission reports. The dashboard presents key information such as the project's target areas, beneficiaries, and activities, and tracks progress against AWPB targets. It also includes updates on outputs and outcomes, which is based on the Outcome Survey, as well as the most recent version of the Project Logframe. In addition, the dashboard features disbursement figures by project component and performance ratings derived from Supervision Mission assessments, offering a comprehensive overview of the project's implementation status.
5. **Geographic Information System (GIS)**: The Geographic Information System (GIS) will be used to analyze and visually present project data through maps and charts. This will help stakeholders better understand the geographic scope and impact of CAISAR interventions. The GIS will illustrate the locations of schemes, Farmer Water User Communities (FWUCs), and other relevant infrastructure; display the number, type, and distribution of beneficiaries; and highlight key characteristics of the schemes. It will also present outcome indicators disaggregated by scheme and integrate other geographic data that provide a clearer understanding of project progress and results.
6. **Value for Money Analysis:** The purpose of the Value for Money (VFM) Analysis is to assess the cost-efficiency of delivering each type of output outlined in the CAISAR logframe. This includes calculating the cost per unit of output, cost per beneficiary, and, starting from Year 3, the cost of achieving outcome indicators based on data from the Outcome Survey. The analysis goes beyond presenting CAISAR-specific data by comparing costs with similar outputs from other projects, identifying whether CAISAR's costs are higher, lower, or comparable, and exploring the reasons behind any differences. It also seeks to determine which types of outputs most cost-effectively contribute to the achievement of outcomes. The VFM Analysis draws on data from the Management Information System (MIS) and CAISAR financial reports, and will be reported annually as part of the Annual Report.

7. **Project Logical Framework**: The Project's Logical Framework will be updated annually and annually, based on the most recent data available for output, outcome, and impact indicators. These updates will be aligned with the timing of the Supervision Missions to ensure consistency and relevance. The updated logframe will be made available on the Project Website and annexed to the Project Annual Report.

Monitoring and Evaluation Plans

Monitoring -

Data/Source	Collection Tool	Frequency	Indicator	Indicative Budget
Regular Monitoring (through Annual Progress Report, TA reports and digital M&E system)	Field observation visits	Annual	• Total number of farmers trained in CR technologies through the FFS training programme • Number of trainers trained to demonstrate and propagate the CR technologies and practices to farmers • Number of service providers who will provide mechanization services to farmers • Number of farming households benefiting from the 4P model through increased access to finance • Number of MSMEs with increased access finance due to the linkages facilitated by the 4P model • Number of farmers benefitting from CIEWS delivered through the mobile app • Number of hydromet stations and agrometeorological stations rehabilitated • Number of automatic weather stations rehabilitated • Total kilometers of roads upgraded in the project areas, taking into account current and future climate change risks • Number of farmers benefiting from improved road connectivity in the project areas • Number of Irrigation schemes and drainage facilities upgraded, rehabilitated and constructed • Number of fully functional WUAs sustainably maintaining irrigation systems • Area provided with irrigation services - Improved (ha) • Area provided with drainage services - Improved (ha) • Number of polder embankments designed and procured for climate-resilient water management and flood protection • Number of FWUC established and trained to ensure sustainable and effective operation and maintenance of irrigation scheme • Number of people trained in using the SCADA system	USD 7,714,486

			• Number of policies, regulations, and institutional frameworks strengthened or adopted to promote sustainable resource management and climate resilience • Number of MOWRAM staff trained in river basin management, water accounting, SCADA system operation, and the design and implementation of climate-resilient green technologies • Number NCDDS staff trained on project management, policy formulation and implementation and resource mobilization • Number of private sector actors supported by the project and integrated in the rural value chain	
Sub-total Monitoring				USD 7,714,486

Evaluation

valuation			
Type	Timing	Independent/Self-evaluation	Indicative Budget
Outcome	Mid term	Independent	USD 100,000
Outcome	Final Evaluation	Independent	USD 150,000
Sub-total Evaluation Budget			**USD 250,000**
Total Monitoring and Evaluation Budget			**USD 7,964,486 (3% of Project Cost)**

The total monitoring and evaluation budget for the project is USD 7,964,486, which is 3.3% of the total project cost. Of this amount, USD 7,714,486 is the monitoring budget while USD 250,000 is the evaluation budget.

Detail Breakdown of Monitoring Activities -

Monitoring			
Data/Source	**Collection Tool**	**Frequency**	**Indicator**
Mid-term and end-of-project household socioeconomic surveys	Survey/questionnaire	Midline and Endline	Percentage increase in yield for rice and vegetables in targeted households benefiting directly from the project
Mid-term and end-of-project household socioeconomic surveys	Survey/questionnaire	Midline and endline	Percentage decrease in post-harvest losses for rice and vegetables in targeted households benefiting directly from the project
Regular Monitoring (through Annual Progress Report)	Field Observation Visits	Once a year	Total number of farmers (male and female) trained in CR technologies through the FFS training programme
Regular Monitoring (through Annual Progress Report)	Field Observation Visits	Once a year	Number of trainers (male and female) trained to demonstrate and propagate the CR technologies and practices to farmers
Mid-term and end-of-project household socioeconomic	Survey/ questionnaire	Midline and endline	Percentage of farmers adopting climate resilient farming practices promoted by the project

surveys			
Training Survey	Survey/ questionnaire	Midline and endline	Average percentage of beneficiaries who are satisfied with the knowledge gained from the trainings provided
Regular Monitoring (through Annual Progress Report)	Field Observation Visits	Once a year	Number of service providers who will provide mechanization services to farmers
Regular Monitoring (through Annual Progress Report)	Field Observation Visits	Once a year	Number of farming households benefiting from the 4P model through increased access to finance
Regular Monitoring (through Annual Progress Report)	Field Observation Visits	Once a year	Number of MSMEs with increased access finance due to the linkages facilitated by the 4P model
Regular Monitoring (through Annual Progress Report)	Field Observation Visits	Once a year	Number of farmers (male and female) benefitting from the climate information and early warning services (CIEWS) delivered through the mobile app
Regular Monitoring (through Annual Progress Report)	Field Observation Visits	Once a year	Number of hydromet stations and agrometeorological stations rehabilitated
Regular Monitoring (through Annual Progress Report)	Field Observation Visits	Once a year	Number of automatic weather stations rehabilitated
Regular Monitoring (through Annual Progress Report)	Field Observation Visits	Once a year	Total kilometers of roads upgraded in the project areas, taking into account current and future climate change risks
Regular Monitoring (through Annual Progress Report)	Field Observation Visits	Once a year	Number of farmers benefiting from improved road connectivity in the project areas
Regular Monitoring (through Annual Progress Report)	Field Observation Visits	Once a year	Number of Irrigation schemes and drainage facilities upgraded, rehabilitated and constructed
Regular Monitoring (through Annual Progress Report)	Field Observation Visits	Once a year	Number of fully functional Water User Associations (WUAs) sustainably maintaining irrigation systems
Regular Monitoring (through Annual Progress Report)	Field Observation Visits	Once a year	Area provided with irrigation services - Improved (ha
Regular Monitoring (through Annual Progress Report)	Field Observation Visits	Once a year	Area provided with drainage services - Improved (ha)

Regular Monitoring (through Annual Progress Report)	Field Observation Visits	Once a year	Number of polder embankments designed and procured for climate-resilient water management and flood protection
Regular Monitoring (through Annual Progress Report)	Field Observation Visits	Once a year	Number of FWUC established and trained to ensure sustainable and effective operation and maintenance of irrigation scheme
Mid-term and end-of-project household socioeconomic surveys	Survey/ Questionnaire	Midline and endline	Percentage of farmer-households using Climate information and early warning (CIEWS) advisory services promoted by the project
Regular Monitoring (through Annual Progress Report)	Field Observation Visits	Once a year	Number of people trained in using the Supervisory Control and Data Acquisition (SCADA) system
Regular Monitoring (through Annual Progress Report)	Field Observation Visits	Once a year	Number of policies, regulations, and institutional frameworks strengthened or adopted to promote sustainable resource management and climate resilience
Regular Monitoring (through Annual Progress Report)	Field Observation Visits	Once a year	Number of MOWRAM staff (male and female) trained in river basin management, water accounting, SCADA system operation, and the design and implementation of climate-resilient green technologies
Regular Monitoring (through Annual Progress Report)	Field Observation Visits	Once a year	Number NCDDS staff (male and female) trained on project management, policy formulation and implementation and resource mobilization
Mid-term and end-of-project household socioeconomic surveys	Survey/ questionnaire	Midline and endline	Proportion of women actively participating in and influencing decision-making processes in community-based institutions (e.g., water user associations, farmer groups)
Regular Monitoring (through Annual Progress Report)	Field Observation Visits	Once a year	Number of private sector actors (e.g., agri-businesses, cooperatives, SMEs) supported by the project and integrated in the rural value chain
Mid-term and end-of-project	Survey/ Questionnaire	Midline and endline	Percentage increase in revenues of MSMEs supported by the project

household socioeconomic surveys			