

Strengthening the resilience of ecosystems and populations in four regional hubs in northern Mauritania

Annex 11

Monitoring and Evaluation Plan



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1. Introduction

This monitoring and evaluation (M&E) plan outlines the work required for monitoring the project's progress towards the objectives set in the project results framework. The plan also includes information on the work required for the implementation of the social and environmental management plan and gender action plan, as well as for the Interim and Final evaluation. A break-down of costs for each of these items is presented below.

2. Monitoring of Project Results Framework

Indicative costs for measurement against project indicators and targets are presented in Table 1. A baseline assessment, to be carried out in Year 1, will determine the data gathering methodology for measuring progress against the project indicator targets. The main activities of the baseline assessment are listed below.

1. Develop the methodology for establishing baseline values for all outcome and output indicators in the project strategy.
2. Design the survey tools to assess benchmark levels of stakeholder capacity and document sampling strategy to be adopted.
3. Collect baseline data through: i) interviews with project beneficiaries, stakeholders and vendors; ii) visual inspections — supported by digital photos and videos; and iii) most recent satellite imagery at a reasonable pixel resolution of project area overlaid on topographical base maps.
4. Draft report including the logical framework with baseline values established and a recommended monitoring protocol and methodology for each indicator and target, annexing the record of stakeholder consultations, images and maps.

Table 1. Indicative measurement methodology and costs against the project results framework.

Monitoring				
E.3. GCF Outcome level: Reduced emissions and increased resilience (IRMF core indicators 1-4, quantitative indicators)				
Indicator	Data/source	Collection tool	Frequency	Indicative budget
Core 2: Direct and indirect beneficiaries reached	Independent household survey undertaken by project consultants (primary data)	Independent change analysis reports incorporating community surveys based on a random sampling plan/ (estimated sample size of 1,314 households for a target population size 64,741 households, confidence level 95%, margin of error 5%)	Baseline, interim and final surveys	<ul style="list-style-type: none"> - US\$40,000 household survey at project baseline - US\$40,000 household survey at project mid-term - US\$40,000 Independent household survey at project completion <p>Total \$120,000 (under budget line M&E6)</p>
Supplementary 2.1: Beneficiaries (female/male) adopting improved and/or new climate-resilient livelihood options	Independent household survey undertaken by project consultants (primary data)	Independent change analysis reports incorporating community surveys based on a random sampling plan/ (estimated sample size of 1,314 households for a target population size 64,741 households, confidence level 95%, margin of error 5%)	Baseline, interim and final surveys	Included in M&E budget for Core Indicator 2.
Supplementary 2.5: Beneficiaries (female/male) adopting innovations that strengthen climate change resilience	Independent household survey undertaken by project consultants (primary data)	Independent change analysis reports incorporating community surveys based on a random sampling plan/ (estimated sample size of 1,314 households for a target population size 64,741 households, confidence level 95%, margin of error 5%)	Baseline, interim and final surveys	Included in M&E budget for Core Indicator 2.
Supplementary 2.3: Beneficiaries (female/male) with more climate-resilient water security	Independent household survey undertaken by project consultants (primary data)	Independent change analysis reports incorporating community surveys based on a random sampling plan/ (estimated sample size of 1,314 households for a target population size 64,741	Baseline, interim and final surveys	Included in M&E budget for Core Indicator 2.

		households, confidence level 95%, margin of error 5%)		
Core 4: Hectares of natural resources brought under improved low-emission and/or climate-resilient management practice	Satellite data (Landsat/Sentinel) and drone imagery (equipment procured by the project)	GIS mapping of land cover change.	Interim and final	- US\$38,000 GIS mapping and field surveys at project baseline - US\$38,000 GIS mapping and field surveys at project mid-term - US\$38,000 Independent GIS mapping and field surveys at project completion Total US\$114,000 (under budget line M&E6)
	Rehabilitation reports and certification from the MEDD, Technical Partners and local authorities	Project records on restoration and conservation agreements.	Interim and final	
Supplementary 4.1: Hectares of terrestrial forest, terrestrial non-forest, freshwater and coastal marine areas brought under restoration and/or improved ecosystems	Satellite data (Landsat/Sentinel) and drone imagery (equipment procured by the project)	GIS mapping of land cover change.	Interim and final	Included in M&E budget for Core Indicator 4.
	Rehabilitation reports and certification from the MEDD, Technical Partners and local authorities	Project records on restoration and conservation agreements.	Interim and final	Included in M&E budget for Core Indicator 4.
Supplementary 4.2: Number of livestock brought under sustainable management practices	Independent household survey undertaken by project consultants (primary data)	Independent change analysis reports incorporating community surveys of 240 households and field surveys	Baseline, interim and final	Included in M&E budget for Core Indicator 2.
E.4. GCF Outcome level: Enabling environment (IRMF core indicators)				
Indicator	Data/source	Collection tool	Frequency	Indicative budget
Core Indicator 5: Degree to which GCF investments contribute to strengthening institutional and regulatory frameworks for low emission climate-resilient development pathways in a country-driven manner	Capacity assessment undertaken by the project monitoring officer (primary data).	Institutional and regulatory strengthening scorecards	Baseline, interim and final	-US\$7,000 Capacity assessment at project baseline - US\$7,000 Capacity assessment at project mid-term - US\$7,000 Independent capacity assessment at project completion Total: US\$21,000 (under budget line M&E6)
Core indicator 8: Degree to which GCF investments contribute to effective knowledge	Surveys based on random sampling plan of staff at key ministries involved in climate change adaptation-related	Independent ease of access ministerial staff surveys based on a random sampling plan	Baseline, interim and final	Included in M&E budget for Core Indicator 5.

generation and learning processes, and use of good practices, methodologies and standards	decision- and policy-making and planning (primary data).			
	Independent household survey undertaken by project consultants (primary data)	Independent change analysis reports incorporating community surveys based on a random sampling plan/ (estimated sample size of 1,314 households for a target population size 64,741 households, confidence level 95%, margin of error 5%)	Baseline, interim and final	Included in M&E budget for Core Indicator 2.
E.5. Project/programme specific indicators				
Indicator	Data/source	Collection tool	Frequency	Indicative budget
Percentage increase in institutional commitments and allocated budget for EbA interventions in government strategies and plans.	Analysis of annual budget allocations, policy documents and strategic planning documents that reflect increased commitment and financial support for EbA interventions.	Policy and planning documents Budget plans developed	Baseline, interim and final	Included in M&E budget for Core Indicator 5.
Change in the technical capacity of the MEDD, Ministry of Sustainable Development; Ministry of Agriculture; Ministry of Livestock Farming; Ministry of Water and Sanitation; and Ministry of Housing, Urbanism and Regional Planning to plan and budget for EbA in desert ecosystems and oases.	Surveys based on random sampling plan of staff at key ministries involved in climate change adaptation-related decision- and policy-making and planning (primary data).	Certifications at workshops/ surveys showing increase in awareness over time; and Technical and institutional capacity surveys ¹	Baseline, interim and final	Included in M&E budget for Core Indicator 5.

¹ Score card with four levels of technical and institutional capacity of public-sector entities to understand and implement sustainable natural resource management practices in desert ecosystems. Level 0: Little to no technical capacity to understand and implement sustainable natural resource management practices in desert ecosystems, Level 1: Medium technical and institutional capacity of public sector entities to understand and implement sustainable natural resource management practices in desert ecosystems, Level 2: High technical and institutional capacity of public sector authorities resulting in high confidence for implementing sustainable natural resource management practices in desert ecosystems, and Level 3: High technical capacity resulting in public sector entities having implemented sustainable natural resource management practices in desert ecosystems. Score card survey to be developed by M&E officer.

Number of knowledge management products developed.	Knowledge products. Interviews with PMU.	Review of knowledge management products.	Review of knowledge management products.	Included in M&E budget for Core Indicator 2.
Number of individuals with improved sustainable access to food and water, and reduced exposure to climate change-induced desertification.	Independent household survey undertaken by project consultants (primary data)	Independent change analysis reports incorporating community surveys based on a random sampling plan/ (estimated sample size of 1,314 households for a target population size 64,741 households, confidence level 95%, margin of error 5%)	Baseline, interim and final surveys	Included in M&E budget for Core Indicator 2.
Change in the rate of sand encroachment within target areas.	Satellite data (Landsat/Sentinel) and drone imagery (equipment procured by the project)	GIS mapping of land cover change.	Interim and final	Included in M&E budget for Core Indicator 4.
	Construction and rehabilitation reports from the MEDD, Technical Partners and local authorities	Project records on restoration dune fixation infrastructure.	Interim and final	Included in M&E budget for Core Indicator 4.
Increased water availability on historical transhumance routes through boreholes and solar pumps	Field surveys	Field surveys of number of boreholes (solar pumps)	Interim and final	Included in M&E budget for Core Indicator 2.
Additional volume of water (litres) stored through rooftop rainwater harvesting	Independent household survey undertaken by project consultants (primary data)	Independent change analysis reports incorporating community surveys based on a random sampling plan/ (estimated sample size of 1,314 households for a target population size 64,741 households, confidence level 95%, margin of error 5%)	Baseline, interim and final surveys	Included in M&E budget for Core Indicator 2.
Number of people with improved access to water for use in market gardens, livestock farming and sustainable nature-based livelihoods.	Independent household survey undertaken by project consultants (primary data)	Household surveys Focus group discussions	Baseline, interim and final surveys	Included in M&E budget for Core Indicator 2.

Change in livestock, crop and horticultural yields	Independent household survey undertaken by project consultants (primary data)	Household surveys Key informant interviews	Interim and final	Included in M&E budget for Core Indicator 2.
Amount of funds disbursed and number of EbA sub-projects funded through the on-granting mechanism.	Financial reports from the on-granting mechanism	Financial reports from the on-granting mechanism Project funding records and documentation of funded EbA projects.	Interim and final	Included in M&E budget for Core Indicator 2.
Project/programme co-benefit indicators				
Indicator	Data/source	Collection tool	Frequency	Indicative budget
Change in the number of recorded respiratory, nutritional or waterborne diseases in the target communities.	Independent household survey undertaken by project consultants (primary data)	Independent change analysis reports incorporating community surveys based on a random sampling plan/ (estimated sample size of 1,314 households for a target population size 64,741 households, confidence level 95%, margin of error 5%)	Baseline, interim and final surveys	Included in M&E budget for Core Indicator 2.
	Review of health statistics	Clinic and Health Ministry reports	Baseline, interim and final surveys	- US\$5,000 Report assessment at project baseline - US\$5,000 Report assessment at project mid-term - US\$5,000 Independent report assessment at project completion Total US\$15,000 (under budget line M&E6)
Change in species richness in restored and conserved ecosystems.	Diversity sampling based on a random sampling plan in the four target hubs	Field surveys	Baseline, interim and final	- US\$15,000 Field surveys at project baseline - US\$15,000 Field surveys at project mid-term - US\$15,000 Independent field surveys at project completion Total US\$45,000 (under budget line M&E6)
Reduction in damages and losses caused by floods	Independent household survey undertaken by project consultants (primary data)	Local government records Community feedback	Baseline, interim and final	Included in M&E budget for Core Indicator 2.

Increase in agricultural yield of communal crops	Independent household survey undertaken by project consultants (primary data)	Agricultural records Household surveys	Baseline, interim and final	Included in M&E budget for Core Indicator 2.
Increase in the diversity of crops grown	Independent household survey undertaken by project consultants (primary data)	Agricultural records Household surveys	Baseline, interim and final	Included in M&E budget for Core Indicator 2.
Subtotal Monitoring activity costs				US\$315,000²
Subtotal Monitoring and Evaluation Officer salary³				US\$330,000
Total cost of project Monitoring				US\$645,000

² The total cost for implementing the M&E plan, as presented in Annex 4, is US\$315,000. This amount has been spread equally across three time points — baseline, interim and final —resulting in three separate costs of US\$105,000.

³ This cost is estimated at ~US\$55,000 per year (full-time) over a six-year implementation period (total = US\$330,000)

3. Implementation of the Environmental and Social Safeguards Plan

The Safeguards and Gender Specialist/Consultant will track the implementation of project interventions against the Environmental and Social Management System (Annex 6) and the Gender Action Plan (Annex 8) through field observation visits, focus groups, and key informant interviews to ensure that that ESS standards are adhered to, that safeguards assured/addressed and that gender targets are met. The costs associated with monitoring of ESS and Gender outcomes will be covered by the Gender Officer (US\$ 60,000 salary per year) and the Social & Environmental Safeguards Officer (US\$ 60,000 salary per year).

4. Evaluations

The interim evaluation will provide an assessment of project performance at the project's mid-point. This will be a formative exercise and will include analysing whether the project is on track, what problems and challenges the project is encountering, and which corrective actions are required so that the project can achieve its intended outcomes by project completion in the most efficient and sustainable way. The Project Steering Committee will participate in the interim evaluation process and develop a management response to the review's recommendations along with an implementation plan. The Independent Evaluation Office of UNEP will provide an assessment of the quality of the Interim Review report.

An independent ex-post evaluation (terminal evaluation) will take place once the project has reached operational completion. The Evaluation Office of UNEP will be responsible for the final evaluation, which is a summative evaluation, and will liaise with the UNEP Task Manager and relevant stakeholders throughout the process. An independent assessment of project performance against standard evaluation criteria (e.g. strategic relevance, effectiveness, efficiency, likelihood of impact and sustainability) will be made based on documentary evidence, stakeholder interviews and, in most cases, a field mission.

Evaluation				
Type	Timing	Independent/Self-evaluation	Indicative Budget	Source of funds
<i>Formative</i>	Interim (mid-term)	Independent	US\$114,400	UNEP
<i>Summative</i>	At project completion (terminal)	Independent	US\$143,000	UNEP