

# **Building climate resilience in the landscapes of Kigoma region, Tanzania**

## **Annex 11**

### **Monitoring and Evaluation Plan**

## Annex 11 Monitoring and evaluation plan

The monitoring and evaluation plan consists of the work undertaken to monitor implementation progress against the project results framework; the work to implement the social and environmental management plan and the gender action plan, as well as the mid-term and terminal evaluation. A break-down of costs for each of these items is presented below.

### Monitoring of Project Results Framework

Indicative costs for measurement against project indicators and targets is presented below in Table A11.1. The baseline assessment, to be carried out in Year 1, will determine the data gathering methodology to measure progress against the project indicator targets. Key activities of the baseline assessment comprise:

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: 1) interviews with project beneficiaries, stakeholders and vendors; 2) visual inspections (supported by digital photos and videos) and 3) most recent satellite imagery at a reasonable pixel resolution of project area overlaid on topographical base maps.
4. Draft report including the results 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 A11.1 Indicative measurement methodology and costs against the project results framework**

<b>Monitoring: GCF CORE INDICATORS</b>				
<b>Data/Source</b>	<b>Collection Tool</b>	<b>Frequency</b>	<b>Indicator and target</b>	<b>Indicative Budget</b>
<b>Reduced emissions and increased resilience:</b> <b>ARA 1 Most vulnerable people and communities</b> <b>ARA 2 Health, Wellbeing, food security and water security</b> <b>ARA 4: Ecosystems and Ecosystem Services</b>  <b>Core indicator 2:</b> Direct and indirect beneficiaries reached. <b>Supplementary 2.1:</b> Beneficiaries (female/male) adopting improved and/or new climate-resilient livelihood options. <b>Core indicator 4:</b> Hectares of natural resource areas brought under improved low-emission and/or climate-resilient management practices. <b>Supplementary 4.1:</b> Hectares of terrestrial forest, terrestrial non-forest, freshwater and coastal marine areas brought under restoration and/or improved ecosystems.				
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 376 households for a	Baseline, mid-term and completion	<b>Core 2 (ARA 1):</b>  570,341 direct beneficiaries ~50% of which are female These are the households in the host	- \$31,350 Household survey at project baseline (under budget line M&E8) - \$31,350 Independent household survey at project mid-term (budget line M&E9)

	<p>target population size 16,350 households, confidence level 95%, margin of error 5%)</p> <p>Population data records from the national census and UNHCR</p>		<p>community with access to benefits, along with the refugees in the camps within the area of focus.</p> <p>711,516 ~50% of which are women</p> <p><b>Core 2 (ARA2) :</b> Direct beneficiaries: 16,350 (50% women) indirect beneficiaries: 348,395 (50% women)</p> <p><b>Supplementary 2.1:</b></p> <p>Number of people who adopted climate resilient farming</p> <p>15,000 people 7,500 females 7,500 males</p> <p>Number of people who adopted mushroom growing</p> <p>500 people 250 females 250 males</p> <p>Number of people who adopted beekeeping 850 people 425 females 425 males</p> <p>Total number of people who adopted diversified, climate-resilient livelihood options</p> <p>16,350 people 8,175 females 8,175 males</p>	<p>- \$31,350 Independent household survey at project completion (budget line M&amp;E9) Total \$94,050 (See Annex 4 Detailed assumptions for more information.)</p>
Satellite data (Landsat/Sentin el) and drone imagery (equipment procured by the project)	<p>GIS mapping of land cover change</p> <p>Independent change analysis report based on GIS mapping of</p>	Baseline, mid-term and completion	<p><b>Core 4 (ARA 4):</b> Total of 42,000 ha of forest ecosystems protected in Kakonko, Kasulu, and Kibondo Districts and</p>	\$115,000 (B4)

integrated in the Tanzania Forest Service (TFS) GIS-based monitoring system developed by the Technical Partner	land cover change and project certifications		strengthened in response to climate variability and change  <b>Supplementary 4.1</b> 30,000 under CBFM	
Certification from TFS, District Councils and Technical Partner	Certification of # hectares protected, afforested, under agroforestry or under CBFM with project interventions.	Mid-term and completion	2,000 under afforestation  10,000 ha under agroforestry  Total of 42,000 ha of forest ecosystems protected in Kakonko, Kasulu, and Kibondo Districts and strengthened in response to climate variability and change	Included in activity 2.2. budget

### **Enabling environment**

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

Core indicator 8: Degree to which GCF investments contribute to effective knowledge generation and learning processes, and use of good practices, methodologies and standards

Assessment undertaken by project consultants (primary data)	Capacity assessment scorecard measurements	Baseline, mid-term and completion	Legal and policy frameworks that govern or are relevant to adaptation in the Kigoma region are revised and harmonized to promote ecosystem-based adaptation considering the current and projected climate impacts and the adaptation needs of host and refugee populations  Evidence generated on the economic, environmental and social value of this model supports mainstreaming of EbA into policies, plans and strategies in Tanzania and in humanitarian programmes, contributing to the scalability and replication of the project results at the national level and internationally in other refugee hosting	-\$6,250 Capacity assessment at project baseline (included in M&E8) -\$6,250 Capacity assessment at project mid-term (budget line M&E9) -\$6,250 Capacity assessment at project completion (budget line M&E9) Total: \$ 18,750 (See Annex 4 Detailed assumptions for more information.)
Independent verification undertaken by project consultants (primary data)	Independent verification of savings association accounts showing reinvestment of funds in livelihood activities	Baseline, mid-term and completion		-\$8,000 Independent verification at project baseline (included in M&E8) -\$8,000 Independent verification at project mid-term (budget line M&E9) -\$8,000 Independent verification at project completion (budget line M&E9) Total: \$ 24,000

			landscapes through UNEP and UNHCR operations and policy contributions.	(See Annex 4 Detailed assumptions for more information.)
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Monitoring: Project Outcomes				
Data/Source	Collection Tool	Frequency	Indicator	Indicative Budget
<i>Project outcome indicators</i>				
Assessment undertaken by project consultants (primary data)	Capacity assessment scorecard measurements	Baseline, mid-term and completion	<b>Outcome 1 indicator: Capacity of communities and local authorities to conduct ecosystem-based adaptation planning and implement strategies and activities to respond to climate change and variability</b>	-\$6,250 Capacity assessment at project baseline -\$6,250 Capacity assessment at project mid-term -\$6,250 Capacity assessment at project completion Total: \$ 18,750 (See Annex 4 Detailed assumptions for more information.)
Satellite data (Landsat/Sentinel) and drone imagery (equipment procured by the project) integrated in the Tanzania Forest Service (TFS) GIS-based monitoring system developed by the Technical Partner	GIS mapping of land cover change	Baseline, mid-term and completion	<b>Outcome 2 indicator: Hectares of forest ecosystem protected and strengthened in response to climate variability and change</b>	Same as Core 4 and supplementary 4.1 above.
Average standard deviation in monthly minimum and maximum temperatures and monthly rainfall over a 30-year period.	Open data secondary sources	Baseline	<b>Outcome 3 indicator: Average change in LVI-IPCC Index or similar index</b>	Included under the social and ecological baseline survey cost
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 376 households for a target population size	Baseline, mid-term and completion	<b>Outcome 3 indicator: Average change in LVI-IPCC Index or similar index</b>  <b>Outcome 4 indicator: % of beneficiaries under</b>	-\$8,000 Independent verification at project baseline -\$8,000 Independent verification at project mid-term -\$8,000 Independent verification at project completion

	16,350 households, confidence level 95%, margin of error 5%)		<b>Output 3 eating 3 meals per day</b>	Total: \$ 24,000
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<b>Monitoring: Project outputs</b>				
<b>Data/Source</b>	<b>Collection Tool</b>	<b>Frequency</b>	<b>Indicator</b>	<b>Indicative Budget</b>
<b><i>Project performance indicators (outputs)</i></b>				
District and National Land Use Planning Commission registers (secondary data)	District and National Land Use Planning Commission registers of existing land use plans	Baseline and annual	<b><i>E5.1 Number of villages in project area have adopted C-LUP plans and have implemented measures within them (interventions under Outputs 2 and 3)</i></b>	M&E Officer time. No additional cost.
Independent assessment undertaken by project consultants (primary data)	Independent assessment of the quality of the C-LUP plans in respect of climate change mainstreaming	Baseline, mid-term and completion		-\$26,500 Independent assessment at project baseline (included in M&E8) -\$26,500 Independent assessment at project mid-term (budget line M&E9) -\$26,500 Independent assessment at project completion (budget line M&E9) Total \$ 79,500 (See Annex 4 Detailed assumptions for more information.)
Satellite data (Landsat/Sentinel) and drone imagery (equipment procured by the project) integrated in the Tanzania Forest Service (TFS) GIS-based monitoring system developed by the Technical Partner	GIS mapping of land cover change	Baseline, mid-term and completion	<b><i>E5.2 Hectares of agroforestry, afforestation and flood in kms of erosion control measures implemented in priority locations identified, as identified in the C-LUP process</i></b>	Same as Core 4 and supplementary 4.1 above.
Construction works completion certificates endorsed by the Water Consultant and UNHCR	Certification of flood and erosion control infrastructure completed.	Annual /APR		Cost included in activity 2.3 budget
Certificates issued by District Councils and TFS	Certification of hectares afforested, under agroforestry or CBFM	Annual /APR		Cost included in activity 2.2 budget

Certificates issued by District Councils and TFS	Certification of hectares of national forest reserve under increased protection	Annual /APR	<b><i>E5.3 Hectares of national forest reserve under increased protection</i></b>	Cost included in activity 2.2 budget
Construction works completion certificates endorsed by the Water Consultant and UNHCR	Certification of rainwater harvesting and irrigation infrastructure	Annual /APR	<b><i>E5.4 Amount of water available for irrigation as a result of water harvesting and groundwater usage interventions</i></b>	Cost included in activity 3.2 budget
Independent survey undertaken by project consultants (primary data)	Independent change analysis reports incorporating community surveys based on a random sampling plan (Estimated sample size of 376 households for a target population size 16,350 households, confidence level 95%, margin of error 5%)	Baseline, mid-term and completion	<b><i>E5.5 Amount of cassava, beans, mushrooms, and honey produced</i></b>	Same household survey for Core 2 and supplementary 2.1 above.
Project reports and secondary data sources (policy and planning documents)	Policy briefs and guidelines developed  Workshops and Consultation meeting reports  Policy and planning documents	Baseline, mid-term and completion	<b><i>E5.6 Planners in Ministry of Water and Irrigation, Ministry of Agriculture and Tanzania Forestry Service Agency at the National and District levels include economic valuation information in policy and planning documents.</i></b>	Included in activity 4.3 budget
Independent assessment undertaken by project consultants (primary data)	Capacity/awareness scorecard <sup>1</sup> of representatives from key policy/planning authorities in Tanzania	Baseline, mid-term and completion	<b><i>E5.7 Capacity developed at District level for EbA planning including cross-sectoral coordination.</i></b>	-\$6,600 Capacity assessment at project baseline (included in M&E8) -\$6,600 Capacity assessment at project mid-term (budget line M&E9) -\$6,600 Capacity assessment at project completion (budget line M&E9) Total: \$ 19,800 (See Annex 4 Detailed assumptions for more information.)

<sup>1</sup> This capacity scorecard will have three levels and will measure the extent of climate change and EbA knowledge amongst policy/planning authorities in Tanzania and UNHCR. Level 0: Climate change and EbA not understood, or not considered meaningfully when developing policies, plans or strategies; Level 1: Training materials and/or draft policy briefs, guidelines or recommendations in climate change adaptation have been developed; Level 2: High-level representatives have attended training/workshops/forums and/or received policy briefs, guidelines or recommendations in climate change adaptation

Risk registers from VPO and UNHCR	Situation reports on political risks from VPO and UNHCR Tanzania (See other means of verification for political risk indicators under Risk Factor 10)	Continuous monitoring. Annual reporting/APR	<b><i>E5.8 Political risk monitoring framework established and updated at the project level</i></b>	Included in PMU staff costs and UNHCR co-funded staff
<b><i>Project/programme co-benefit indicators</i></b>				
Independent assessment undertaken by project consultants (primary data)	Independent assessment undertaken by project consultants (primary data)	Independent assessment undertaken by project consultants (primary data)	Independent assessment undertaken by project consultants (primary data)	Independent assessment undertaken by project consultants (primary data)
Assessment and data collection by the Safeguards and Gender Officer	Assessment and data collection by the Safeguards and Gender Officer	Assessment and data collection by the Safeguards and Gender Officer	Assessment and data collection by the Safeguards and Gender Officer	Assessment and data collection by the Safeguards and Gender Officer
PMU M&E officer \$ 240,000 (full time position 5 years) (budget line M&E 2).				
M&E expert \$99,000 (part-time international consultant 30-35 days/year) (budget line M&E 4).				
PMU annual working budget for M&E plan including M&E plan dissemination \$13,000/year (budget line M&E 7).				
Total monitoring cost: \$ 711,783 (budget lines M&E2, M&E4, M&E7,M&E8)				

## 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 cost of this monitoring evaluation will be covered by the Safeguards and Gender Officer (USD 45,600 salary per year) and the Social & Environmental Safeguards Specialist/Consultant (USD 19,800 salary per year) plus USD 25,000/year discretionary ESS and gender mainstreaming spending allowance)

## Evaluations

The MTR 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 MTR 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 Mid-Term Review report.

An independent ex-post evaluation (terminal evaluation) (TE) will take place once the project has reached operational completion. The Evaluation Office of UNEP will be responsible for the TE,



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.

<b>Evaluation</b>			
Type	Timing	Independent/Self-evaluation	Indicative Budget
<i>Formative</i>	Mid-term	Self-Assessment	\$114,400.00
<i>Summative</i>	At project completion	Independent	\$143,000.00
<i>Total evaluation cost</i>	--	--	\$ 257,500.00