

## **Annex XI**

### **Monitoring and Evaluation Plans: Monitoring, Evaluation, Accountability and Learning (MEAL)**

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**PEARL: Public-Social-Private Partnerships for Ecologically-Sound Agriculture and Resilient Livelihood in Northern Tonle Sap Basin**

## Monitoring, Evaluation, Accountability and Learning (MEAL) Plan

### GCF Outcome level: Reduced emissions and increased resilience (IRMF core indicators 1-4, quantitative indicators)

Indicator	Mid-term target	Final target	Data collection mechanism	Frequency	Indicative Budget (USD)
Supplementary 2.1: Beneficiaries (female/male) adopting improved and/or new climate-resilient livelihood options	150,000 smallholder farmers, and other local value chain actors, particularly women farmers and value chain actors (50% women).	450,000 smallholder farmers, and other local value chain actors, particularly women farmers and value chain actors (50% women).	(i) Baseline survey (ii) Midline survey (iii) Endline survey (iv) Annual Agricultural Survey by National Institute of Statistics (NIS) and MAFF	(i) Year 1 (ii) Year 3 (iii) Year 6 (iv) Yearly	(i) 60,000 (ii) 60,000 (iii) 60,000 (iv) n/a
Supplementary 2.2: Beneficiaries (female/male) with improved food security	150,000 smallholder farmers, and other local value chain actors, particularly women farmers and value chain actors (50% women).	450,000 smallholder farmers, and other local value chain actors, particularly women farmers and value chain actors (50% women).	(i) Food Insecurity Experience Scale (FIES) questions integrated into baseline survey to set a baseline and monitor changes through midline survey and endline survey. (ii) Qualitative and impact assessment (iii) Annual Agricultural Survey by National Institute of Statistics (NIS) and MAFF	(i) Year 1, Year 3 and Year 6 (ii) Year 5 (iii) Yearly	(i.). Covered by the cost of baseline, midline and endline survey above (ii). (iii). n/a
Supplementary 4.1: Hectares of terrestrial forest, terrestrial non-forest, freshwater and coastal marine areas brought under	2,500 hectares of terrestrial tropical rain forest.	7,600 hectares of terrestrial tropical rain forest.	(i) National Forest Monitoring System (NFMS) by MAFF (ii) National biodiversity database of MoE	(i). Biennially (ii). n/a (iii). Year 5	(i). n/a (ii). n/a (iii).

resoration and/or improved ecosystems			(iii) Qualitative and impact assessment		
<b>TOTAL INDICATIVE BUDGET (GCF OUTCOME LEVEL MONITORING) (A)</b>					USD 180,000

**Project specific indicators (project outcomes and outputs)**

Outcome	Indicator	Data collection mechanism	Frequency	Indicative Budget (USD)
<b>Outcome 1:</b> Farmers' capacities are enhanced to manage climate impacts and related risks.				
Output 1: Availability and access to agrometeorological advisory services tailored to target value chains improved among smallholder farmers and local value chain actors, particularly women farmers and value chain actors.	The necessary institutional arrangements and procedures for harmonized production and dissemination of agrometeorological advisory information through crop-specific standard operating procedures (SOPs) involving public and private partners, including extension providers and NGOs. <b>(Disaggregated levels: Crop &amp; Type of stakeholder - Public-Ministry/Private Extension provider/NGOs)</b>	SOP documents for the target crops, SOP preparation completion report	Year 1	No cost for data collection required
	Percentage of targeted smallholder farmers and other local value chain actors regularly accessing and applying the agrometeorological advisory services in farm management and value addition activities. <b>(Disaggregated levels: Gender, Crop)</b>	Beneficiary feedback and impact surveys; advisory outreach	Yearly	80,000
<b>Outcome 2:</b> Adaptive capacity of smallholder farmers and other local value chain actors, particularly vulnerable women farmers, is increased through market incentives that promote climate-resilient, higher-value, diversified, and sustainable production and processing.				
<b>Output 2.1:</b> Premium market access opportunities for cashew, mango, organic rice, and vegetable producers and	Number of ACs, FAs, PGs, CPAs, CFs, and agricultural unions supported to prepare and implement crop-specific action/business plans in an inclusive and gender-responsive manner, to access	Implementation reports reported in the digital MEAL system	Six months	Part of project M&E staff tasks

processors increased through climate-resilient and high-value certification programs	premium price market opportunities based on specific certification programs. <b>Disaggregated levels (Province, Type of actor, Gender)</b>			
	Percentage increase in the number of contract farming arrangements and direct purchase agreements signed with traders/exporters, and local retailers, hoteliers, and restaurateurs increased through action/business plan implementation. <b>(Disaggregated levels: Type of stakeholder, Province)</b>	Progress reported in the digital MEAL system	Monthly	No cost for data collection required/ Part of project M&E staff tasks
<b>Output 2.2:</b> Access to technologies for climate-resilient agriculture and value chain development improved among smallholder farmers and other local value chain actors, particularly women farmers and value chain actors (linking to Subcomponent 2.1 to support the business plans of ACs, FAs, PGs, CPAs, CFs and agricultural unions).	Number of ACs, FAs, PGs, CPAs, CFs, and agricultural unions supported through FARM to adopt climate-resilient and high-value technologies and have increased access to finance and agricultural insurance.  <b>(Disaggregated levels: Type of stakeholder - cooperatives, associations, producer groups, CPAs, CFs, agricultural unions, Province)</b>	Data from digital Beneficiary Management system	Monthly	Part of project M&E staff tasks
		FARM beneficiary feedback and impact survey for qualitative monitoring	Yearly	80,000
<b>Output 2.3:</b> Awareness and knowledge of climate-resilient and sustainable, high-value agriculture increased among farmers and other local value chain actors, particularly women farmers and value chain actors (linking to	Percentage of targeted smallholder farmers and other local value chain actors with increased knowledge of climate-resilient and high-value farming and processing techniques and successfully incorporated them into their practices. <b>(Disaggregated levels: Types of stakeholders, Crop)</b>	Beneficiary feedback and impact survey for qualitative monitoring	Yearly	Integrated into same survey in indicator of output 2.2.

Subcomponent 2.1 to support the operationalization of business plans by the cooperatives, associations, producer groups, CPAs, CFs and agricultural unions)	Percentage of the climate-resilient and high-value practices promoted through training and demonstration activities tailored to specific needs of female farmers and value chain actors. <b>(Disaggregated levels: Types of stakeholders, Crop)</b>	Training workshop reports and field data collected and reported through the digital MEAL system	Monthly	No cost for data collection required/ Part of project M&E staff tasks
<b>Output 2.4:</b> Improved agro-ecological conditions and connectivity	Extent (hectares) of catchment areas protected and restored. <b>(Disaggregated level: Catchment area, size/area, Province)</b>	Field data collected and reported through the digital MEAL system	Monthly	No cost for data collection required/ Part of project M&E staff tasks
		CPA and CF beneficiary feedback and impact survey for qualitative monitoring.	Yearly	25,000
<b>Outcome 3:</b> Regulatory and institutional frameworks and capacities for climate-resilient agricultural certification, cross-sectoral coordination for increased PSPPs and smallholder financing, and climate-informed investment support are strengthened.				
<b>Output 3.1:</b> Regulatory and institutional arrangements and capacity relevant to developing certification-based value chains strengthened to provide enabling conditions for adopting climate-resilient, high value, and sustainable agriculture and food security.	Number of certification standards with officially adopted supplementary climate-resilience guidelines/tools, online certification registration /traceability tools) to promote climate-resilient and high-value agriculture based on certifications.	Technology practices updated in the CH system.	Yearly	No cost for data collection required/ Part of project M&E staff tasks
	Number of financial institutions adopted a harmonized financial scorecard to consider climate resilience, inclusivity, gender responsiveness, and sustainability as key eligibility criteria in screening loan applications.	Annual survey/study	Yearly	25,000
<b>Output 3.2:</b> Gender-responsive landscape-level agroecology monitoring system (LAMS) developed to crowd in public and private	Number of LAMS users (e.g., value chain investors, financiers, regulators, and policymakers) regularly applying its information for planning and investment decision-making.	LAMS system	Six months	No cost for data collection required/ Part of project M&E staff tasks

investments in climate-resilient, high value and sustainable agriculture.	<b>(Disaggregated levels: Stakeholder type – e.g., policymaker, investor, exporter, and Gender)</b>			
<b>Co-benefits:</b> Agricultural production and processing and agroecological management practices are improved to contribute to GHG emissions reductions	Number of hectares of terrestrial tropical rain forest under sustainable forest management, and cropland under enhanced management, contributing to GHG emission reduction	LAMS system and survey	Year 1, Year 3, and Year 6	180,000
<b><i>Gender and Diversity Inclusion: The MEAL framework includes special attention towards gender and diversity inclusion. Specific capture of the Gender and social inclusive aspects of products, services, and activities will be done in the form of specific disaggregation embedded in the standard data collection tools as in the table.</i></b>				
<b>TOTAL INDICATIVE BUDGET (PROJECT OUTPUTS) (B)</b>				<b>390,000</b>
<b>OTHER EVALUATIVE COSTS (e.g. independent baseline, mid-line and end-line data collection and analysis) (A)</b>				<b>180,000</b>
<b>TOTAL INDICATIVE M&amp;E BUDGET (A+B)</b>				<b>570,000</b>
<b>MEAL STAFF (INTERNATIONAL AND NATIONAL) FOR DEVELOPMENT AND IMPLEMENTATION OF MEAL SYSTEM (C)</b>				<b>495,980</b>
<b>TOTAL M&amp;E AND OTHER EVALUATIVE COSTS (A+B+C)</b>				<b>1,065,980</b>

## **A. Monitoring, Evaluation, Accountability, and Learning (MEAL) Framework**

The project will adopt a gender-inclusive, data-driven, evidence and results-based MEAL framework. The approach will help monitor the progress of the proposed activities, document and learn from successes and failures, and evaluate and understand the project progress in guiding the implementation, evaluation, and foresight planning. The MEAL plan considers the draft recommendations of the recently conducted review of the MEAL process and systems of the seven selected GEF-FAO projects in the Asia Pacific region. The key consideration aspects of the MEAL plan include: incorporating indicators that are SMART (Specific, Measurable, Achievable, Realistic, and Time-bound); adapting digital MEAL Systems; building capacities of the stakeholder; and identification of alternative and innovative methodologies for monitoring, by establishing accountable beneficiary feedback and learning mechanisms.

Departing from the traditional monitoring and evaluation approach, the PEARL project will adopt a modern data-driven MEAL plan that would integrate with project implementation by creating a digital MEAL data exchange hub facilitated through the clearinghouse and LAMS under Outputs 2.3 and 3.2. The data hub will act as the single point of source that would interface and exchange data, including the ingestion of data from multiple sources through pre-defined Application Programming Interfaces (APIs). This will importantly act as the gateway for data re-use, avoiding duplicating data collection efforts from the same sources, primarily when multiple stakeholders work and engage with the same beneficiaries. The field data that is collected through the system can be interlinked and used in other digital systems like SMS advisory platforms, FPO management systems, and seed enabling platforms. This gateway could be used as an entry point for any digital data collection, specifically from beneficiaries and other infrastructure.

The project will adopt a comprehensive, integrated digital MEAL system that is well integrated as a vital component of the program activities contributing to the outcomes and outputs of the project. PEARL MEAL activities will take advantage of the ICRISAT's Digital MEAL system, which will be adjusted to guide the processes around MEAL, including data and information collection, quality assurance, decision-making, beneficiary feedback, and learning. The project will adapt, customize and implement the digital MEAL system that has been co-developed by ICRISAT <sup>1</sup> along with its startup partners for agriculture research for development projects. Data and information will be collected along the entire impact pathway, i.e., inputs, activities, outputs, outcomes, and impacts. The objective will be to track achievements against targets, capture unanticipated changes, and ensure effective learning and adaptive management and successful implementation.

The mobile- and web-based platform enables quality geo-reference-based data collection with real-time tracking and actionable insights that act as a roadmap for timely communication of the project impacts and knowledge dissemination. The customized platform will: (i) through pre-defined templates, enable the collection of geo-tagged data of the communities, producers, farmers, farmland, value-chain actors, interventions, and capacity building activities in real-time from the source of the data; (ii) enable the collection and aggregation of periodic reports, updates, and information from implementing partners, government and research institutions, NGOs, value chains, actors and other stakeholders; (iii) harvest MEAL related information from different secondary sources and other systems of the project (e.g., climate advisory system); (iv) track the indicators and progress in project implementation; (v) provide the spatial distribution of the project intervention sites and its adoption; and (vi) provide a web-based, multi-layered dashboard to visualize the reported data both spatially and temporally for actionable insights and decision making.

Quality data is the basis for successful implementation of the MEAL framework, and this informs the indicators to track the progress and performance of the project. The MEAL data of the PEARL project can be categorized into (i) active – primary data: i.e., data that is generated and captured by the project team and implementing agencies directly as part of the project implementation (e.g., farmer details, farmland details, interventions, capacity building activities, advisory systems); (ii) active – secondary data: i.e., currently relevant data that is available using different sources (e.g., agrometeorological advisory information, value chain system, clearinghouse, LAMS system, extension services, FARM accounts) and (iii) passive data: i.e., data curated from multiple devices and sources which can be used for MEAL (e.g., virtual weather stations, remote sensing data of watersheds, etc.).

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<sup>1</sup> The International Crops Research Centre for the Semi-Arid Tropics.

The robust MEAL framework for the PEARL project will promote learning, data-driven decision-making, and accountability to stakeholders, particularly the project's beneficiaries. The MEAL system will inform Project Steering Committee (PSC) on project governance for adaptation and learning, identify gaps and build the capacity of the PEARL team to deliver impactful results at the highest level of accountability.

## **B. Key components and modules of the MEAL system include:**

**Reporting system:** The basic web-based reporting system enables the aggregation and collation of reports from different stakeholders across the project through a seamless interface.

**Beneficiary Management System:** The module will enable profiling farmers, value-chain producers, and actors and help track the individual beneficiaries and the interventions.

**Real-time field data collection system:** The mobile-based data collection system will be a handy tool for the field staff to update, report, and retrieve information on the project interventions and the beneficiaries

**Activity tracker:** The web-based module allows the project to keep tabs on the progress through the performance dashboards.

**Secondary data ingestion for in-depth analytics:** This module goes beyond the traditional MIS system, allowing secondary data ingestion modules to ingest data from secondary sources like automated weather stations, remote sensing data, and other socio-economic data from pre-defined sources. The secondary data, along with the primary data, will lead to data-driven and need-based implementation of the program interventions.

## **Data Privacy, security, and implementation arrangements**

The ownership of all the data collected through the platform belongs to the project. The high-level privacy standards will be followed to ensure that the sensitive data is valued and safeguarded appropriately. If required, the system can be deployed in a separate cloud service as agreed by IPs, co-EEs (i.e., MAFF and MoE), and the Government of Cambodia.

## **Sustainability and capacity building**

From the beginning of the MEAL implementation, the MAFF, MoE, and IPs will be actively engaged in the design customization of the platform. This will increase the ownership and help deploy a context-specific system usage. Capacities of the MAFF, MoE, and IP teams will be built in using managing the system. This will ensure that the system will continue to use the data and the dashboards even after the project lifecycle.

## **C. Implementation Plan**

### **The key activities of the implementation of the MEAL include:**

Workshops: The MEAL plan will be implanted with the engagement of all project stakeholders. A series of workshops with all stakeholders will be held to adapt the MEAL plan with a focus on (i) indicator agreement, (ii) understanding the targets, (iii) data collection source, mechanism, (iv) responsibilities, (v) reporting structure (vi) adapting the digital MEAL system.

Development of evidence templates: standard evidence templates will be developed to collect data in a specified format with appropriate disaggregation. The templates will be finalized with a due consultation process with the stakeholders.

Configuration of the system: based on the inputs from the workshops, the system will be configured and deployed with the evidence templates for the data collection.

Capacity building and Training: A series of workshops and training sessions will be held to train users at different levels for efficient reporting into the system.

Socialization: The results dashboard, performance dashboards, and other knowledge products will be introduced to the stakeholders for appropriate sharing and dissemination.



The PMU will produce for the Project Steering Committee (PSC), and FAO as the AE: (i) quarterly progress reports in a format compatible with the GCF's Performance Measurement Framework; (ii) annual project performance reports, including a) progress made per outcome and output, measured using performance indicators, b) social and environmental risk monitoring, c) implementation issues and challenges, d) financial tracking and e) an activity plan and budget for the next 12 months; and (iii) annual financial reports on GCF grant and co-finance expenditures.

To ensure the financial viability and sustainability of the project, FAO will perform frequent spot checks and audits to ensure effective and efficient financial management and procurement by the PMU and co-EEs are being conducted in line with agreed standards and practices.

#### **D. Evaluation (interim and final)**

To provide an external viewpoint on the progress of the project and the achievement of its objectives, and in line with the AMA signed with the GCF, two independent project evaluations - interim and final evaluations. In line with the FAO policy on evaluations, the interim evaluation may be decentralized, and carried out by independent consultants. The final evaluation will be overseen by the Office of Evaluation, and also carried out by a team of independent consultants. These evaluations will be performed using a question-driven approach and may include assessments against relevance, effectiveness, and sustainability criteria, among others. Office of Evaluation of FAO will be involved at the design stage of the baseline and impact studies in order to ensure collaboration in the way those evaluations are set up.

Interim evaluation. An interim evaluation will be instrumental in contributing – through operational and strategic recommendations to improve implementation – setting out any necessary corrective measures for the remaining period of the project.

Final evaluation. The final evaluation will assess the relevance of the intervention, its overall performance, sustainability and scalability of results, differential impacts, and lessons learned. The evaluation should also evaluate the extent to which the intervention has contributed to the GCF's higher-level goal of achieving a paradigm shift in adaptation to climate change in the target value chains in the target provinces in Cambodia.

The evaluations will be based on a detailed evaluation methodology, including the use of different evaluation methods and tools. In addition to the primary data collected by evaluators and the secondary national data available, the interim and final evaluations will be based on monitoring activities and reports prepared by project staff, including surveys to be implemented at baseline, inception, and activity completion stages. Careful attention will be paid to the disaggregation of data, results, and outcomes by Gender.

The costs for the interim and final evaluations are budgeted on AE fees (USD 100,000)

Evaluation			
Type	Timing	Independent/self evaluation	Indicative budget
process	Baseline, midline, and endline survey		USD 180,000 (budgeted on project budget)
process	Annual data collections/assessments-beneficiary feedback and impact surveys to generate evaluative data for project specific indicators as defined in the M&E plan		USD 210,000 (budgeted on project budget)
process	Mid-term evaluation	Independent	USD 50,000(budgeted on AE fee)
process	Final evaluation	Independent	USD 50,000(budgeted on AE fee)
Total			490,000 USD