



Save the Children®

Intensification of Agriculture and Agroforestry Technologies (IAAT) for Climate Resilient Food and Nutrition Security: Tombouctou, Gao, Mopti, Koulikoro and Segou Regions of Mali

Annex 11: Monitoring and Evaluation Plan

Accredited Entity: Save the Children Australia

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1. OVERVIEW OF RESULTS FRAMEWORK

The IAAT is designed around the theory of change (ToC) which is linked to the overarching GCF Integrated Results Management Framework¹ (IRMF). The project level results will contribute to GCF outcome level - reduced emissions and increased resilience (core indicators 1-4, quantitative indicators) and systemic change (core indicators 5-8, qualitative indicators) – and GCF impact level – paradigm shift potential (also presented in IAAT Logical Framework). In line with the GCF's IRMF, IAAT will systematically measure the contribution of GCF-funded activities to the paradigm shift through three assessment dimensions- Scale, Depth, and Sustainability. The IAAT paradigm shift goal is that **IF** smallholder farmers in highly vulnerable regions in Mali can access and adopt climate resilient technologies, knowledge, and low carbon agricultural practices, **THEN** their food, nutrition and water security will be improved **BECAUSE** their adaptive and mitigation capacities including improved technical skills, access to finance, markets and sustainable livelihoods, and that of public and private institutions, will be strengthened to respond to and reduce the climate change risk and impacts

The IAAT will contribute to the following GCF outcome level core indicators – core indicator 1 (GHG emissions reduced, avoided, or removed/sequestered), core indicator 2 (direct and indirect beneficiaries reached), core indicator 4 (hectares of natural resources brought under improved low-emission and/or climate-resilient practices), core indicator 5 (the degree to which GCF investments contribute to strengthening institutional and regulatory frameworks for low-emission climate-resilient development pathways), core indicator 6 (the degree to which GCF investments contribute to technology deployment, dissemination, development, or transfer and innovation), core indicator 7 (degree to which GCF Investments contribute to market development at the sectoral, local, or national level), and core indicator 8 (degree to which GCF investments contribute to effective knowledge generation and learning processes, and use of good practices, methodologies, and standards. These core indicators cover GCF's ARA1 (most vulnerable people and communities), ARA2 (health, well-being, food, and water security), MRA1 (energy generation and access), and MRA4 (forestry and land use) result areas. The IAAT will monitor and evaluate these core indicators during the project period. The IAAT project-level indicators include project outcomes and outputs.

Table 1 in the monitoring plan presents 4 outcomes and associated 8 outputs, which are the key performance indicators at the project level. Each outcome represents one component of the project. The three components of the project include extension services and on-farm CSA adoption (Component 1), CSA and agroforestry value chain development (Component 2), and institutional capacity and knowledge (Component 3).

¹ GCF. 2021. Integrated Results Management Framework, GCF/b.28/09.

This initial M&E plan provides an overview of the monitoring and evaluation framework that will be applied to the GCF programming. The full M&E plan for this project will be developed during the project inception phase (within the first six months of project implementation). The plan will be developed with the new project M&E staff in collaboration with M&E staff from the Save the Children support team, government agencies (AEDD and NDA), and local partners. The full M&E plan will include detailed information on the roles and responsibilities for data collection and management, project components' impact chains, information flows and reporting systems, finalized indicators and means of verifications, monitoring protocols and tools, implementation plans and schedules, alignments, and collaborations with existing national M&E systems. This annex outlines some of the key features and provides a skeleton of the M&E plan that will be further developed at the initial stage of the project implementation.

2. MONITORING PLAN

Table 1 presents an initial monitoring plan for the IAAT. The project monitoring plan will cover two levels of performance: GCF-level performance (expected performance against investment criteria) and project-level performance. The IAAT M&E team will be responsible for designing and implementing a study to a) establish baseline levels for GCF core indicators and outcomes, and b) establish baseline levels for project-level results and indicators. This will involve conducting baseline surveys of key natural resources that support food security and livelihoods and household socioeconomic surveys to document resource dependence and important natural resources. Particular attention will be given to ensuring the monitoring of heterogeneous effects by different segments of the population such as sex, age, the status of household head as well as the level of vulnerability. The monitoring structure will allow adjustments and flexibility to accommodate any unforeseen incidents during the project implementation. The project team will ensure that the indicators included in the project results framework are monitored quarterly and annually and will report progress. Project components will be monitored separately as well as about the achievement of higher-level project results and overall GCF goals.

Details of M&E implementation will be negotiated and included in the agreements between the AE, the project Executing Entity- Save the Children Mali. Annual reviews will be led by the Project Management Unit (PMU) with the participation of local partners and other government ministries involved in the project. With 5 regions involved, the annual monitoring reviews may need to be organized at the regional level. Progress against outcomes, including GESI and youth aspects, will be synthesized, and requirements for adaptive management will be identified using a Collaborative Outcomes Reporting approach. The annual review meeting will be led by the PMU in conjunction with the Technical Working Group. Results will be reviewed and approved by the Project Steering Committee. Save the Children Mali will coordinate the input of the NDA Focal Point and other stakeholders to the project review report.

2.1 Monitoring plan for GCF and project-level indicators

Table 1: Indicators, data source, collection tools and frequency

Monitoring					
Indicator	Data/Source	Collection Tool	Frequency	Description	Indicative total Budget (in US\$) ²
	Baseline Study	Survey/questionnaire	Baseline establishment in year 1 before the start of the project	Baseline survey questionnaire to households and communities and baseline report	641,605
GCF Impact Level					
Scale, Replicability, and Sustainability	Evaluation reports	Survey/questionnaire	Mid-term and end-term	Evaluation reports including an assessment of the project's contribution to the paradigm shift by assessing its scale, replicability, and sustainability	Midterm and endterm (final) evaluation: Midterm and final evaluation budget will cover by AE fee and project M&E Budget
	Annual project reporting (output level)	Survey/questionnaire	Annual	Annual project reports including an assessment of progress toward a paradigm shift	Other regular quarterly and annual data collection for indicator monitoring is budgeted under evaluations and outcome/output level monitoring
GCF Outcome Level Reduced emissions and increased resilience (core indicators 1-4, quantitative indicators)					
Core 1: GHG emissions reduced, avoided, or removed/sequestered					Regular quarterly and annual data collection for

² Please note that the information presented in this table is approximated. The M&E plan will be further developed at the project inception phase involving all relevant stakeholders.

	Monitoring				
Indicator	Data/Source	Collection Tool	Frequency	Description	Indicative total Budget (in US\$) ²
MRA1: Energy generation and access	Annual reports	Field staff maintain energy inventory generated by installed sources and locations	Annual	Estimated GHG emissions avoided through the adoption of solar and biodigester systems using the IPCC emission factor for energy category.	indicator monitoring is budgeted under evaluations and outcome/output level monitoring
MRA4: Forestry and land use	Annual reports	Field staff maintain inventory of land use change and tree plantation under the agroforestry systems	Annual	GHG emissions sequestered through the plantation of 93,100 Ha of agroforestry using the IPCC emission factor for land use category.	
Core 2: Direct and indirect beneficiaries reached					
ARA1 Most vulnerable people and communities: Supplementary 2.1: Beneficiaries (female/male) adopting improved and/or new climate-resilient livelihood options.	Annual project reporting (Outcome level), including data collected from surveys, field visits, interviews, and inventories maintained by the project team.	Project baseline, midterm, and end-term surveys Household surveys and prepare an inventory of livelihood options Field visits (including interviews and field surveys)	Annual	# of direct and indirect beneficiaries adopting improved and/or new climate-resilient livelihood options. (disaggregated by sex).	Midterm and endterm (final) evaluation: Midterm and final evaluation budget will be covered by AE fee and project M&E Budget
ARA2 Health, well-being, food, and water security: Supplementary 2.2: Beneficiaries (female/male) with improved food security	Annual project reporting (Outcome level), including data collected from surveys, field visits, interviews, and inventories maintained by the project team.	Project baseline, midterm, and end-term surveys Household food security surveys	Annual	# of direct and indirect beneficiaries with improved food security. (disaggregated by sex).	Regular quarterly and annual data collection for indicator monitoring is

Monitoring					
Indicator	Data/Source	Collection Tool	Frequency	Description	Indicative total Budget (in US\$) ²
		Field visits (including interviews and field surveys)			budgeted under outcome and output level monitoring
ARA1 Most vulnerable people and communities: Supplementary 2.3: Direct beneficiaries (female/male) with more climate-resilient water security	Annual project reporting (Outcome level), including data collected from surveys, field visits, interviews, and inventories maintained by the project team.	Project baseline, midterm, and end-term surveys Inventory of households adopting water management technologies and practices managed by the project team Field visits (including interviews and field surveys)	Annual	# of direct and indirect beneficiaries with more climate-resilient water security. (disaggregated by sex).	
ARA1 Most vulnerable people and communities: Supplementary 2.4: Direct beneficiaries (female/male) covered by new or improved early warning systems.	Annual project reporting (Outcome level), including data collected from surveys, field visits, interviews, and inventories maintained by the project team.	Project baseline, midterm, and end-term surveys Household surveys Field visits (including interviews and field surveys)	Annual	# of direct and indirect beneficiaries covered by new or improved early warning systems. (disaggregated by sex).	
ARA1 Most vulnerable people and communities: Supplementary 2.5: Beneficiaries (female/male) adopting innovations that strengthen climate change resilience.	Annual project reporting (Outcome level), including data collected from surveys, field visits, interviews, and inventories maintained by the project team.	Project baseline, midterm, and end-term surveys Inventory of households adopting CSA and agroforestry technologies and practices managed by the project team	Annual	# of direct and indirect beneficiaries adopting CSA and agroforestry technologies and practices. (disaggregated by sex).	

	Monitoring				
Indicator	Data/Source	Collection Tool	Frequency	Description	Indicative total Budget (in US\$) ²
		Field visits (including interviews and field surveys)			
Core 4: Hectares of natural resources brought under improved low-emission and/or climate-resilient management practice.					
MRA4 Forestry and land use	Annual project reporting (Outcome level), including data collected from surveys, field visits, interviews, and inventories maintained by the project team.	Project baseline, midterm, and end-term surveys Inventory of households adopting CSA and agroforestry technologies and practices managed by the project team Field visits (including interviews and field surveys)	Annual	The area under CSA and agroforestry technologies and practices	
	GCF Outcome level: Enabling environment (core indicators 5-8 as applicable)				
Core 5: Degree to which GCF investments contribute to strengthening institutional and regulatory frameworks for low-emission climate-resilient development pathways	Annual project reporting (Outcome level), including data collected from surveys, field visits, interviews, and inventories maintained by the project team.	Project baseline, midterm, and end-term surveys Inventory of households adopting CSA and agroforestry technologies and practices managed by the project team	Annual	# of institutions and technical staff strengthen their technical capability # of institutions mainstreaming CSA and Agroforestry in the planning process	Midterm and endterm (final) evaluation: Midterm and final evaluation budget will cover by AE fee and project M&E budget

Monitoring					
Indicator	Data/Source	Collection Tool	Frequency	Description	Indicative total Budget (in US\$) ²
		Field visits (including interviews and field surveys)			Regular quarterly and annual data collection for indicator monitoring is budgeted under evaluations and outcome and output level monitoring
Core 6: Degree to which GCF investments contribute to technology deployment, dissemination, development, or transfer and innovation.	Annual project reporting (Outcome level), including data collected from surveys, field visits, interviews, and inventories maintained by the project team.	Project baseline, midterm, and end-term surveys Inventory of households adopting CSA and agroforestry technologies and practices managed by the project team Field visits (including interviews and field surveys)	Annual	# of CSA and agroforestry technologies deployment, dissemination, development, or transfer and innovation by the project	
Core 7: Degree to which GCF Investments contribute to market development/transformation at the sectoral, local, or national level.	Annual project reporting (Outcome level), including data collected from surveys, field visits, interviews, and inventories maintained by the project team.	Project baseline, midterm, and end-term surveys Inventory of households adopting CSA and agroforestry technologies and practices managed by the project team Field visits (including interviews and field surveys)	Annual	# of value chains strengthened in the project locations	
Core 8: Degree to which GCF investments contribute to effective knowledge generation and learning processes, and use of good practices,	Annual project reporting (Outcome level), including data collected from surveys, field visits, interviews, and inventories maintained by the project team.	Project baseline, midterm, and end-term surveys Inventory of households adopting CSA and agroforestry technologies	Annual	# of knowledge products (e.g., blogs, success cases, learnings, reports, and other products) generated and disseminated	

Monitoring					
Indicator	Data/Source	Collection Tool	Frequency	Description	Indicative total Budget (in US\$) ²
methodologies, and standards.		and practices managed by the project team Field visits (including interviews and field surveys)			
Project-specific indicators (project outcomes and outputs)					
Outcome 1: Increased climate-resilient agricultural crop and food production in the targeted regions in Mali.	Quarterly and annual reports including data collected from surveys, field visits, interviews, and inventories maintained by the project team.	Baseline Farm surveys Project activity implementation inventory maintained by the project team. Field inspections	Quarterly and annual	% of direct beneficiaries adopting CSA techniques realized increased farm productivity measure in yield per hectare. (disaggregated by sex).	51,466
Output 1.1 Improved technical capacities and inclusivity of extension services in climate-smart agriculture and agroforestry production	Quarterly and annual reports including pre- and post-training assessment	Pre- and post-training assessment	Quarterly and annual	# of extension agents that increase capacity in CSA training	90,817
Output 1.2 Increased use of climate resilient practices in the production of CSA crops, livestock, and agroforestry by smallholder farmers.	Quarterly and annual reports including data collected from surveys, field visits, interviews, and inventories maintained by the project team.	Baseline, intermediate, and final surveys Project activity implementation inventory maintained by the project team. Field inspections	Quarterly and annual	# of farmers who have attended enhanced and updated training on CSA topics through extension services, (disaggregated by sex). % of direct beneficiaries of training in 1.2 implementing	90,817

Indicator	Monitoring				
	Data/Source	Collection Tool	Frequency	Description	Indicative total Budget (in US\$) ²
				agroforestry and at least one additional CSA technique on-farm. (disaggregated by sex).	
Outcome 2: Enhanced and more sustainable livelihoods for the most vulnerable in targeted communities.	Quarterly and annual reports including data collected from surveys, field visits, interviews, and inventories maintained by the project team.	Baseline Farm surveys Project activity implementation inventory maintained by the project team. Field inspections	Quarterly and annual	% of households below the comparative threshold for the poorest quintile of the asset-based comparative wealth index	51,466
Output 2.1 CSA and agroforestry VCs are more connected and reach more smallholder farmers	Quarterly and annual reports including data collected from surveys, field visits, interviews, and inventories maintained by the project team.	Baseline, intermediate, and final surveys Project activity implementation inventory maintained by the project team. Field inspections	Quarterly and annual	# of farmers connected to online farming. (disaggregated by sex). platform resulting in increased connection to other value chain actors	110,492,
Output 2.2 Smallholder farmers, especially youth and women can more easily overcome barriers to entrepreneurship in CSA and agribusiness.	Quarterly and annual reports including data collected from surveys, field visits, interviews, and inventories maintained by the project team.	Baseline, intermediate, and final surveys Project activity implementation inventory maintained by the project team. Field inspections	Quarterly and annual	# of additional women and youth engaged in VSLAs (access to finance) # of women and youth entrepreneurs who receive business training	110,492
Outcome 3: Reduced GHG emissions from the agricultural system	Annual reports including data collected from surveys, field visits,	Estimation of GHG emissions reduction, avoided, or sequestration	Annual	Amount (Ton CO _{2e}) of GHG emissions reduced, avoided, and	51,466

Monitoring					
Indicator	Data/Source	Collection Tool	Frequency	Description	Indicative total Budget (in US\$) ²
	interviews, and inventories maintained by the project team.	(baseline and after intervention) using model		sequestered from new technology deployment, land management practices, and agroforestry	
Output 1.3 Increased land area under agroforestry (GHG mitigation benefits from component 1)	Quarterly and annual reports including data collected from surveys, field visits, interviews, and inventories maintained by the project team.	Baseline, intermediate, and final surveys Project activity implementation inventory maintained by the project team. Field inspections	Quarterly and annual	Hectares of agroforestry planted	405,617
Output 2.3 Increased adoption of climate-smart agriculture technologies by smallholder farmers (GHG mitigation benefits from component 2)	Quarterly and annual reports including data collected from surveys, field visits, interviews, and inventories maintained by the project team.	Baseline, intermediate, and final surveys Project activity implementation inventory maintained by the project team. Field inspections	Quarterly and annual	# of additional farms utilizing solar irrigation systems # of additional farms utilizing biodigester systems	208,867
Outcome 4: Adaptation and mitigation considerations are embedded in institutional agriculture and agroforestry planning	Annual reports including data collected from surveys, field visits, interviews, and inventories maintained by the project team.	Institutional and stakeholders' surveys integrated into the baseline, intermediate, and final surveys.	Annual	# of institutional actors supported by IAAT that are deploying mitigation and adaptation considerations in planning and development	51,466
Output 3.1 Increased institutional capacity in climate change adaptation	Quarterly and annual reports including data collected from surveys,	Baseline, intermediate, and final surveys	Quarterly and annual	# institutional actors that increase knowledge on	110,492

Monitoring					
Indicator	Data/Source	Collection Tool	Frequency	Description	Indicative total Budget (in US\$) ²
and mitigation planning and best practices to address agriculture-related climate risks	field visits, interviews, and inventories maintained by the project team.	Project activity implementation inventory maintained by the project team. Field inspections		adaptation and mitigation through capacity building	
Output 3.2: Enhanced knowledge sharing and coordination of best practices in CSA and agroforestry across stakeholders	Quarterly and annual reports including data collected from surveys, field visits, interviews, and inventories maintained by the project team.	Baseline, intermediate, and final surveys Project activity implementation inventory maintained by the project team. Field inspections	Quarterly and annual	# of knowledge-sharing events and/or workshops organized dedicated to sharing best practices on CSA arising from IAAT learnings	71,141

Table 2: Scorecard to assess three dimensions of paradigm shift potential of IAAT.

Dimension	Level of evidence of change				Means of verification
	0 (No evidence of change)	1 (Low)	2 (Medium)	3 (High degree of evidence of change)	
Scale	No replication or multiplying effects of IAAT interventions across the population, markets, institutions, sectors, and geographic area	Some emerging signs of a clear pathway to replication or multiplying effects of IAAT interventions across the population, markets, institutions, sectors, and geographic areas	Evidence of replication or multiplying effects of IAAT interventions across populations, markets, institutions, sectors, and geographic areas	Evidence of a significant replication or multiplying effects of IAAT interventions across populations, markets, institutions, sectors, and geographic areas	Baseline, Midline, and endline surveys
	No evidence that the IAAT interventions are contributing towards a behavioral change or decision-making	Some emerging signs that the IAAT interventions contribute towards a behavioral change or decision-	Increasing evidence that the IAAT interventions contribute towards a behavioral change or	Strong and consolidated evidence that the IAAT interventions contribute towards a behavioral change or decision-	Baseline, Midline and endline surveys

Depth	process among beneficiaries or IAAT stakeholders	making process among beneficiaries or IAAT stakeholders	decision-making process among beneficiaries or IAAT stakeholders.	making process among beneficiaries or IAAT stakeholders	
	No evidence that the IAAT intervention is contributing toward a market system change	Some emerging signs that the IAAT interventions are contributing toward a market system change	Increasing evidence that the IAAT interventions are contributing toward a market system change	Strong and consolidated evidence that the interventions are contributing toward a market system change.	
Sustainability	No improvement in organizational capacity across the public and private sectors to deliver effective interventions of IAAT	Examples where there are evidenced improvements in the organizational capacity of either key public or private sector organizations to deliver effective interventions of IAAT	Clear evidence of improvements in the organizational capacity of either key public or private sector organizations to deliver effective interventions of IAAT	Organizational resourcing, staffing, structures, and relationships are designed and resourced to support new ways of working to deliver effective interventions of IAAT	Baseline, Midline and endline surveys
	No increase in regular funding for climate change adaptation in agriculture and natural resource management	There is a noticeably increased budget for climate change adaptation in agriculture and natural resource management	Clear changes in the priorities and resource allocations of key stakeholder groups in both the public and private sectors for climate change adaptation in agriculture and natural resource management	Commercial thriving markets established; Sufficient public finance is available and flowing for climate change adaptation in agriculture and natural resource management	

Note: EE/AE will follow GCF guidelines and share all independently evaluated report with GCF.

Table 3: Total impact of IAAT project

Project/programme results (outcomes/ outputs)	Project/programme specific Indicator	Project Total Impact by output
Output 1.1 Improved technical capacities and inclusivity of extension services in climate-smart agriculture and agroforestry production	# of extension agents that increase capacity in CSA training	Total: 500 Men: 250 (50%) Women: 250 (50%)
	# of farmers who have attended enhanced and updated training on CSA topics through extension services,	Total: 172,680 Men: 86,340 Women: 86,340
	% trained targeted farmers implementing agroforestry and at least one additional CSA technique on-farm	75%
	# of farmers adopting the CSA technologies and practices	64,755 farming households (with a 75% adoption rate) Men: 48,566(75% of male headed households) Women: 16,188 (25% female-headed households) Note: this number will be disaggregated by type of CSA technologies.
Output 1.2 Increased use of climate resilient practices in the production of CSA crops, livestock and agroforestry by smallholder farmers.	Area under CSA adoption (Ha)	32,378 ha cropland (Note: data collection will disaggregate land area by CSA technologies and practices)
	Output 1.3 Increased land area under agroforestry	
	Ha of improved agroforestry planted in private lands	23,400 Ha
	Ha of tree plantation in public lands	69,700 Ha
	# of land use data bases developed to capture increase in CSA and agroforestry interventions	1

Output 2.1 CSA and agroforestry VCs are more connected and reach more smallholder farmers	# of farmers connected to an online farming platform resulting in increased connection to other value chain actors	22,778
	# of local producer groups representing small holder farmers established	240
Output 2.2 Smallholder farming communities, especially youth and women, can more easily overcome barriers to entrepreneurship in CSA and agribusiness.	# of women and youth engaged in VSLAs in targeted regions	Total: 20,000 Women: 17,000 Men: 3,000
	# of women and youth entrepreneurs who receive business training	Women: 4,500 Men: 750
	# of investment guidelines for financial institutions produced to include women and youth entrepreneurs and smallholder farmers	1
	# of new and functioning solar irrigation systems	1,000
Output 2.3 Increased adoption of low-carbon agriculture technologies by smallholder farmers	# of new and functioning biodigester systems	5,000
	“% of targeted farmers successfully trained to adopt low carbon technologies	6,000
	# institutional actors that increase knowledge on adaptation and mitigation through capacity building	58
Output 3.1 Increased institutional capacity in climate change adaptation and mitigation planning and best practices to address agriculture-related climate risks	# of PDESCs updated with climate change adaptation and mitigation related to CSA and agroforestry	48
	# of Community Action Groups strengthen to develop CACs	250
	# of knowledge-sharing events and/or workshops organized dedicated to sharing best-practices on CSA arising from IAAT learnings	2
Output 3.2 : Enhanced knowledge sharing and coordination of best practices in CSA and agroforestry across stakeholders		

3. EVALUATION PLAN

This document presents the evaluation plan for the IAAT that will be used by the AE, the project Executing Entity Save the Children Mali, and local implementing partners to ensure the approach and methodology alignment and quality across baseline, midterm, and final evaluations. The Evaluation Plan will inform the creation of terms of reference (TOR) for external evaluation firms as well as the Project's learning agenda. Externally, it will be used to coordinate learning across partners and stakeholders for the promotion of CSA and agroforestry in Mali. The Evaluation Plan will also set common expectations between the Project and GCF on the knowledge products that will be produced.

3.1 Evaluation Approach and Methodologies

IAAT will be evaluated through performance and impact evaluation. Performance evaluation will be conducted at baseline, midterm, and endline, while impact evaluation will be conducted at baseline and endline. The impact evaluation will rely on quantitative data only and utilize a comparison group. The performance evaluation will use mixed methods and will not feature a comparison group. Fundamentally, impact evaluation will be used to learn about how well the project has worked while performance evaluation will generate lessons about the project which can inform project improvements as per the collaborating, learning, and adapting (CLA)³ approach.

The impact evaluations will utilize a quasi-experimental, repeated cross-sectional design. A randomized control trial is not possible since random assignment of farmers to treatment and control groups is not feasible. The quasi-experimental design that will be used is a difference in difference design (DD). A DD design subtracts differences between treatment and comparison groups at baseline from differences at final evaluation. This design thereby controls pre-existing differences between treatment and comparison groups that are not attributable to project intervention. A short pre-interview screening questionnaire will be administered to ensure comparison group farmers are broadly matched with project beneficiary farmers on key criteria. A weakness of DD is that it assumes parallel trends in explanatory variables for treatment and comparison groups over time. For example, during the project period, the weather may affect treatment and comparison group members differently, violating the assumption of parallel trends over time. These time-varying differences can be controlled with regression analysis. The impact evaluation will compare outcomes for direct and indirect project-supported farmers and a comparison group detailed below.

1. **Direct project farmers.** This group consists of farmers in groups with a project-supported lead farmer. These farmers will receive technical support directly through IAAT. There will be 460,965 direct beneficiaries (92,193 farming households). Direct farmers will be in the 48 communes across the 5 project regions.

³ CLA is a set of systematic and intentional practices that help improve project effectiveness. Strategic collaboration, continuous learning, and adaptive management in the CLA approach link together all components of the Program Cycle.

2. **Indirect project farmers.** This group consists of the remaining 1,221,130 farmers who are in IAAT-targeted regions but not in IAAT-targeted circles within those regions. They will benefit through fairs, other dissemination events, and information dissemination platforms, but not through technical support from IAAT. A detailed M&E plan which will be developed in the beginning of project that will outline the approaches to calculate the number of indirect beneficiaries from the results of each output by using with and without project interventions and/or before and after project intervention methods.
3. **Comparison group.** The selection of the comparison group will follow, as much as possible, the same criteria used to select the IAAT-supported farmers. This group of farmers will not receive any direct or indirect support from the IAAT project. At baseline, the three groups will be checked for “balance”, which is how similar or different they are based on means comparisons and statistical tests of key variables. The impact evaluation will compare both the direct and indirect project farmer groups to the comparison group. Indicators for the impact evaluation are identified in the Performance Indicators section. The impact evaluation will also address the evaluation questions under “Impact” for the final evaluation.

3.2 Performance Evaluation Design

Performance evaluations will utilize quantitative data collected from project beneficiaries (both direct and indirect beneficiaries) but not data from the comparison group. At baseline and endline, data collected for the performance evaluation will be a subset of the data collected for the impact evaluation. In other words, only one survey will be conducted for both impact and performance evaluations. The performance evaluation will also include a survey of supported solar irrigation and biodigester systems.

Qualitative data will also be collected from project beneficiaries and stakeholders in the CSA value chain. Focus group discussions will be used for both direct and indirect beneficiaries. Key informant interviews will be used for other respondents including lead farmers, agrovets, traders, retailers, extension officers and local government, CSA technology suppliers, and project partners and staff. **Table 3** below summarizes the key design features of the impact and performance evaluations.

Table 3: Overview of key features of impact and performance evaluations

	Impact Evaluation	Performance Evaluation
Baseline	Yes	Yes
Midterm	No	Yes
Final	Yes	Yes
Beneficiary survey		
Direct project beneficiaries	Yes	Yes
Indirect project beneficiaries	Yes	Yes
Comparison group	Yes	No
Survey of supported solar irrigation and biodigester systems	Yes	Yes
Qualitative data collection	No	Yes

The sample design for the evaluations will accommodate both the performance and impact evaluations. The sample for the performance evaluation will allow the evaluators to make inferences about project farmers and businesses with an acceptable standard of statistical precision. For the impact evaluation, a comparison group sample is required to give the impact evaluation an acceptable level of statistical power to detect differences with the project group. The MEAL advisor will decide sample sizes for baseline, midterm, and final evaluation in consultation with the technical team. The sampling will be stratified proportionally to ensure the inclusion of important subpopulations. Strata will include women, youth, smallholders, and vulnerable groups.

3.3 Tools, data collection, and data analysis

The impact and performance evaluations will be shared in the same beneficiary questionnaire. This questionnaire will likely be abbreviated for the performance evaluation only midterm. Additionally, there will be a questionnaire developed for the value chain survey. Respondent-type specific interview guides will be developed for the performance evaluations. For quantitative data collection, the evaluation team will be required to collect data on tablets using electronic data collection software such as Kobo Toolbox (consent for participation and data use will be embedded into the Kobo questionnaire). All data cleaning and analysis code will be required to be documented and shared as part of the assignment deliverables. These analysis code files (e.g. .do files in Stata) will allow for replication of results and are vital if a new evaluation team is needed for subsequent evaluations. For qualitative data collection, the focus group discussion and key informant interviews will be documented by note-takers and recorded by phone for backup. Interview notes will be cleaned and uploaded daily, supplemented by recordings as needed.

The evaluation will focus on the utility of both the evaluation process and products to key stakeholders, with the objectives of providing learning, informing decision-making, and improving overall performance. The evaluation will aim to identify and engage primary users at the beginning of the evaluation – and use that input to guide the evaluation. It will also try to engage with GCF stakeholders and evaluation users throughout the evaluation process with the objective of a consultative and participatory process. Findings and conclusions will be written in an appropriately contextualized manner that promotes uptake and facilitates use by a diverse audience. Besides, the evidence base for each finding will be clearly and systematically presented, to ensure credibility. The overall assessment will bring to Save the Children, stakeholders, GCF, and all other involved partners, lessons, and experiences on what is working, how and for whom, while identifying key bottlenecks in ensuring access and commitment to adaptation support.

3.4 Evaluation Management

Save the Children will contract an independent third-party consultant firm for the baseline, midterm, final, and impact evaluations. IAAT staff, led by the PMU MEAL lead, will manage the project's monitoring and evaluation and help facilitate access to respondents for the fieldwork. Save the Children's U.S.-based Food Security and Livelihoods and MEAL technical advisory staff will provide technical input on evaluation design, including questionnaires and sampling. They will also review and provide feedback on draft evaluation reports.

4. Monitoring and Evaluation Budget

The total monitoring and evaluation budget will be \$2,046,204. **Table 4** below provides a breakdown of costs.

Table 4: Evaluation Budget

Budget line	Cost (USD)
Baseline establishment	641,605
Midterm evaluation	395,181
Endline survey	577,256
Monitoring	140,597
SCI quality benchmark monitoring	147,420
Accountability mechanisms	144,145
Total	2,046,204

Note: Annex 4 presents a detailed budget for M&E