

Simplified Approval Process

Annex 2a: Logical framework



GREEN
CLIMATE
FUND

LOGICAL FRAMEWORK TEMPLATE

LOGICAL FRAMEWORK				
This section refers to the project/programme's logical framework in accordance with the GCF's Integrated Results Management Framework to which the project/programme contributes as a whole, including in respect of any co-financing.				
1. GCF Impact level: Paradigm shift potential (max. 300 words)				
This section of the logical framework is meant to help a project/programme monitor and assess how it contributes to the paradigm shift described in section D.2 above by applying three assessment dimensions - scale, replicability, and sustainability.				
Accordingly, for each assessment dimension (see the definition per assessment in the accompanying guidance note), describe the current state (baseline) and the potential scenario (target) and rate the current state (baseline) by using the three-point-scale rating (low, medium, and high) provided in the guidance note. Also describe how the project/programme will contribute to that shift/ transformation under respective assessment dimensions (scale, replicability and sustainability). In doing so, please refer to section D.2 (paradigm shift potential).				
Assessment Dimension	Current state (Baseline)		Potential target scenario (Description)	How the project/programme will contribute (Description)
	Description	Rating		
Scale	There are four climate adapted types of diversified agroforestry systems that are locally known in Marajo and that have demonstrated climate benefits and to be profitable, but their implementation is limited.	<u>Low</u>	Paradigm shift would involve a change to climate resilience land management practices by the transition from monoculture to DAS, benefiting rural and urban population in terms of sustainable livelihoods	The project's intervention is expected to help smallholders adopt diversified agroforestry systems, through providing capacity building, policy instruments that contributes to their implementation, and access to markets and credit for agroforestry-based products. ¹
Replicability	The four climate adapted types of diversified agroforestry systems are not fully adopted in the three municipalities in which the project seeks to intervene.	<u>Low</u>	The establishment of several demonstration sites in the three municipalities will enable peer to peer learning and practice. It is expected that smallholders in the three municipalities share knowledge with neighbouring municipalities in the future, so the	The project will establish demonstration sites, promote peer-to-peer learning experience and develop a knowledge management strategy. Knowledge on DAS is expected to be disseminated within the three municipalities of Marajo, but also the entire Archipelago, the state of Pará and/or other regions of Brazil or Latin America.

¹ Training local smallholders in agroforestry production is the first crucial step in this project. This training is aimed at equipping these farmers with the knowledge and skills they need to effectively implement and manage agroforestry systems. Importantly, this approach creates a pool of local experts who can assist their peers, providing first-hand experience and practical guidance. The significance of this peer-to-peer influence cannot be understated. It leverages the 'imitation effect,' a phenomenon where farmers adopt new practices after observing their success on their peers' farms. Research, such as a study by Bandiera and Rasul (2006) in Mozambique, has shown that farmers are more likely to adopt new practices when they can see them working successfully in their local context. Thus, these trained smallholders, acting as successful models, will provide tangible, local proof of the effectiveness of agroforestry, catalyzing its broader adoption across Marajó. Alongside this training, the project seeks that local policy instruments include DAS as an adaptation solution that encourages the adoption of agroforestry practices and to establish a financing mechanism to help smallholders afford the cost of transitioning to agroforestry, addressing one of the most significant challenges that smallholders face when considering this transition. Finally, the project includes a strategic approach to market access. This will involve developing farmer cooperatives for better negotiation power, building capacities on product processing and in financial management. By securing access to profitable markets, smallholders will have a financial incentive to maintain their agroforestry systems and improve their livelihoods. In conclusion, each of these measures is interrelated and contributes to achieving the project's larger-scale objective. The combination of effective training leveraging the imitation effect, supportive governance, a helpful financing mechanism, and a strategic market approach will not only enable the implementation of agroforestry systems on 800 small family production units in Marajó but also serve as an influential model encouraging other smallholders to adopt these beneficial practices.

			solution could be replicated across all municipalities of Marajo, other highly vulnerable communities in Brazil and other countries of Latin American region dealing with similar threats and challenges, thus allowing paradigm shift.	
Sustainability	<p>There are no local policy instruments in place in the municipalities of Soure, Salvaterra and Cachoeira do Arari to support the implementation and scale of DAS as adaptation measures.</p> <p>In addition, there is limited knowledge on the potential agroforestry-based products have to access markets and provide wider socio-economic opportunities to improve the livelihoods of smallholders in Marajo.</p> <p>There is limited access to credit lines by vulnerable smallholders.</p>	<u>Low</u>	<p>Paradigm shift can be achieved by the adoption of a local governance that promotes climate resilience practices such as DAS, and through enabling access to markets and financial services for agroforestry-based products.</p>	<p>The project will provide technical support to Municipalities in the development/improvement of local adaptation policy instruments that promote diversified agroforestry systems as adaptation measures in the three municipalities of intervention.</p> <p>The project will also increase the number of DAS practitioners; increase household income because of the implementation of DAS; and increase access for smallholders to financial resources and markets through the strengthening of associations and the creation of a Reserve Fund for Community Access to Credit, that will continue its operations after the end of the project.</p>

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

Select appropriate IRMF core and supplementary indicators to monitor project/programme progress. More than one IRMF (core and or supplementary) indicators may be selected as applicable for each GCF results area and project/programme outcome (as defined in the table in section B.2.2). If IRMF indicators are unable to measure any given project/programme outcomes, project/programme-specific indicators should be developed under section 3 ("Project/programme specific indicators").

GCF Result Area	IRMF Core Indicators (1-4) ²	Means of Verification (MoV)	Baseline	Target		Assumptions / Note
				Mid-term	Final ³	
		Sources of information and methods used to collect and report data /information to measure progress against targets	The starting point or current value of the indicators before the implementation of the project	The estimated value of the indicator at the mid-point of the implementation	The estimated value of the indicator at the completion of the implementation	Externalities and factors outside project management's control that may impact the outcomes Data sources and methodologies applied for estimating baseline and targets

² The IRMF Indicators are set out in the [Integrated Results Management Framework](#)

³ The final target means the target at the end of project/programme implementation period. However, for core indicator 1 (GHG emission reduction), please also provide the target value at the end of the total lifespan period which is defined as the maximum number of years over which the impacts of the investment are expected to be effective.

	<u>Core 2: Direct and indirect beneficiaries reached</u>			Direct beneficiaries: 74,499 M: 37,555 W: 36,944 Indirect beneficiaries: 503,291 M: 261,010 W: 242,281	Direct beneficiaries: 74,499 M: 37,555 W: 36,944 Indirect beneficiaries: 503,291 M: 261,010 W: 242,281	
<u>ARA1 Most vulnerable people and communities</u>	<u>Core 2: Direct and indirect beneficiaries reached</u>	DAS implementation plan per household Results reported via RBPS	Direct beneficiaries: 0 M: 0 W: 0 Indirect beneficiaries: 0	Direct beneficiaries: 1826 M: 913 W: 913 Indirect beneficiaries: 11.649	Direct beneficiaries: 3652 M: 1826 W: 1826 Indirect beneficiaries: 23.278	The number of direct beneficiaries are the families managing 800 ha that will implement the systems and the 30 successful smallholders (considering an average of 4,4 people per household). The indirect beneficiaries are the rural population nearby the implemented systems in the three municipalities, calculated according to IBGE population estimations for 2021.
<u>ARA1 Most vulnerable people and communities</u>	<u>Supplementary 2.1: Beneficiaries (female/male) adopting improved and/or new climate-resilient livelihood options</u>	DAS implementation plan per household	0 M: 0 W: 0	1826 M: 913 W: 913	3652 M: 1826 W: 1826	The number of beneficiaries was calculated considering that the average number of people per family is 4,4, and that 800 hectares of systems will be implemented, on average one hectare per family, across the three municipalities. Also, the 30 hectares of successful smallholders is included. 50% of the beneficiaries would be men, and 50% would be women. Some of the externalities that may impact the outcomes are the lack of interest or confidence in the project by the beneficiaries
<u>ARA2 Health, well-being, food and water security</u>	<u>Core 2: Direct and indirect beneficiaries reached</u>	Case studies and testimonials, that involve documenting specific cases and collecting feedback from farmers, community leaders, and other stakeholders to showcase the implementation of public policy instruments for DAS.	Direct beneficiaries: 0	Direct beneficiaries: 74,499 M: 37,555 W: 36,944 Indirect beneficiaries:	Direct beneficiaries: 74,499 M: 37,555 W: 36,944 Indirect beneficiaries: 503,291	We consider the entire population of the three municipalities as direct beneficiaries based on the following considerations: 1) The municipal policy and governance instruments to scale DAS will generate direct benefits to

		<p>Secondary data analysis to conduct comparative analysis and evaluate the impact of public policy instruments on the expansion of DAS, such as the increase in land area dedicated to diversified agroforestry practices compared to previous years.</p>		<p>503,291 M: 261,010 W: 242,281</p>	<p>M: 261,010 W: 242,281</p>	<p>the entire population of the three municipalities, including rural and urban population, as policy measures relate to implementation, production, processing, distribution, and commercialization of DAS products, thereby affecting producers and consumers.</p> <p>2) Açaí, one of the primary products cultivated within the proposed diversified agroforestry plots, constitutes a crucial part of Marajó's residents' dietary intake (Murrieta et al., 1999). Its importance extends beyond mere consumption, as it forms an integral part of the local socio-economic landscape. Many rural inhabitants rely on harvesting açaí palm fruits for their livelihood, given the high demand in the regional urban market as well as river-based trade (Brondizio et al., 1994; Brondizio & Siqueira, 1997; Murrieta et al., 1989). The deployment and expansion of Diversified Agroforestry Systems (DAS) stand to reduce the vulnerability and increase productivity of açaí and other crops, with direct benefits for the local diet as well as the local trade dynamics. The policy instruments to promote DAS will consider different aspects of the value chain, from production, commerce, and consumption in both urban and rural sectors, thereby benefiting all people relying on açaí intake and commercialization in the three municipalities.</p> <p>The estimated number of indirect beneficiaries represents the entire population of the 13 municipalities surrounding the directly intervened ones. These interconnected municipalities, sharing the archipelago ecosystem, face similar vulnerabilities to climate change. Successful interventions in the directly affected</p>
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						municipalities can thus serve as a model, promoting widespread implementation of DAS across the region.
<u>ARA2 Health, well-being, food and water security</u>	<u>Supplementary 2.2: Beneficiaries (female/male) with improved food security</u>	Field visits and surveys	0 M: 0 W: 0	913 M: 456 W: 457	1826 M: 913 W: 913	<p>The project expects to see improved food security in at least 50% of the beneficiaries that will implement DAS.</p> <p>Risk exists that people sell Diversified Agroforestry Products instead of deploying them primarily for their own consumption.</p>
<u>ARA4 Ecosystems and ecosystem services</u>	<u>Core 4: Hectares of natural resources brought under improved low-emission and/or climate-resilient management practice</u>	<p>Results reported via RBPS</p> <p>Geospatial data using drones</p>	0	430	830	<p>The target is the number of hectares that the project will implement with DAS, plus the 30 demonstration sites.</p> <p>Risk exists that some activities can be delayed due to difficulties with weather events.</p>
<u>ARA4 Ecosystems and ecosystem services</u>	<u>Supplementary 4.1: Hectares of terrestrial forest, terrestrial non-forest, freshwater and coastal marine areas brought under resoration and/or improved ecosystems</u>	<p>Results reported via RBPS</p> <p>Geospatial data using drones</p>	0	430	830	<p>The target is the number of hectares that the project will implement with DAS, plus the 30 demonstration sites.</p> <p>Risk exists that some activities can be delayed due to difficulties with weather events.</p>

2.2. GCF Outcome level: Enabling environment (IRMF core indicators 5-8 as applicable)

Select at least two relevant IRMF core (enabling environment) indicators to monitor and elaborate the baseline context and project/programme's targeted outcome against the respective indicators. Rate the current state (baseline) vis-à-vis the target scenario and select the geographical scope of the outcome to be assessed. Describe how the project/programme will contribute towards the target scenario. Refer to a case example in the accompanying guidance to complete this section.

IRMF Core Indicators (5-8) ⁴	Baseline context (Description)	Rating for current state (Baseline)	Target scenario (Description)	How the project will contribute	Coverage
<u>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</u>	There are no regulatory frameworks that foster DAS as an adaptation measure in the three target municipalities.	<u>low</u>	Soure, Salvaterra and Cachoeira do Arari adopt local policy instruments such as Master Plans or Municipality Strategies that foster DAS as an adaptation solution	The project will provide capacity building to local decision makers on local gender-responsive climate relevant information and will provide technical support to the three Municipalities for the development or enhancement of local adaptation policy instruments that foster DAS as an adaptation solution, which will be aligned to climate targets in the State and Federal regulations. Output 2.1. and Activities 2.1.1, 2.1.2, 2.1.3 and 2.1.4 will contribute to this indicator.	<u>Multiple sub-national areas within a country</u>
<u>Core indicator 7: Degree to which GCF Investments contribute to market development/transformation at the sectoral, local, or national level</u>	Smallholders have limited capacities to access markets in the three municipalities when acting as individuals. Also, smallholders have limited access to markets and to financial services in the three target municipalities.	<u>low</u>	Smallholders' associations are strengthened in Soure, Salvaterra and Cachoeira do Arari to access markets. Smallholders capacities are enhanced to access markets and existing financial services, through the creation of a Reserve Fund for Community Access to Credit which will absorb risks associated with access to credit	The project will provide technical support for the strengthening of smallholders' associations/cooperatives to access markets, as well as capacity building for access to markets and available financial services. A Reserve Fund for Community Access to Credit will be established to act as a first loss mechanism to BASA credit for smallholders. Activities 3.1.1., 3.1.2 and 3.1.3 from Output 3.1; 3.2.1, 3.2.2, 3.2.3 and 3.2.4 from Output 3.2; 3.3.1, 3.3.2, 3.3.3 and 3.3.4 from Output 3.3 will contribute to this indicator.	<u>Multiple sub-national areas within a country</u>
<u>Core indicator 8: Degree to which GCF investments contribute to effective knowledge generation and learning processes, and use of good practices, methodologies and</u>	There is limited knowledge on Diversified Agroforestry Systems and its multiple benefits among smallholders in Marajo and the state of Pará	<u>low</u>	Knowledge on Diversified Agroforestry Systems and its multiple benefits is shared in Marajo and the state of Pará	The project will share knowledge on DAS and its multiple benefits through a peer-to-peer approach, as well as through the establishment of demonstration sites in the three municipalities, exchanges between local decision-makers and a knowledge management and sharing strategy.	<u>Multiple sub-national areas within a country</u>

⁴ The IRMF Indicators are set out in the [Integrated Results Management Framework](#)

standards.				Activities 1.1.1, 1.1.2 and 1.1.3 from Output 1.1; 1.2.1 and 1.2.2 from Output 1.2; 1.3.1 and 1.3.2 from Output 1.3; and 2.1.4 from Output 2.1 will contribute to this indicator	
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3. Project/programme specific indicators (project outcomes and outputs)

*This section should list out project/programme-specific performance indicators (outcomes and outputs) that are not covered in sections above (1-2). List down tailored indicators to monitor /track progress against relevant project/programme results (outcomes/outputs). AEs have the freedom to decide against which outcomes they would like to set project/programme specific indicators. If any co-benefits are identified in sections B.2.2, and D.3, AEs are encouraged to add and monitor co-benefit indicators under the “**Project/programme co-benefit indicators**” section in table below. Add rows as needed.*

Please number each outcome and output as shown below to indicate association of outputs to the contributing outcome. The numbering for outputs under this section should correspond to the output numbering in annex 3 (budget plan that provides breakdown by type of expense).

Project/programme results (outcomes/ outputs)	Project/programme specific Indicator	Means of Verification (MoV)	Baseline	Target		Assumptions / Note
				Mid-term	Final	
		<i>Sources of information and methods used to collect and report data/information to measure progress against targets</i>	<i>The starting point or current value of the indicators before the implementation of the project</i>	<i>The estimated value of the indicator at the mid-point of the implementation</i>	<i>The estimated value of the indicator at the completion of the implementation</i>	<i>Externalities and factors outside project management's control that may impact on the Component. Data sources and methodologies applied for estimating baseline and targets</i>
Outcome 1: Improved land management and food security through Diversified Agroforestry Systems	<i>Number of hectares with enhanced productivity</i>	Surveys: Detailed records of the annual surveys conducted across both DAS and non-DAS plots, including raw data of	0	400	800	The productivity will be measured by a "Relative Productivity Index", which compares productivity in US\$/Ha (constant prices) in DAS implemented plots with non-DAS plots. Baseline (Project start): All plots are equal in productivity with an index of 1. Mid-term (2-3 years): With agroforestry

		<p>agricultural outputs and the associated economic value in US\$/Ha. The economic value used in the calculation of the Relative Productivity Index should be adjusted for inflation and expressed in constant prices.</p> <p>Data Analysis Report: containing the calculation of the Relative Productivity Index for each time period (baseline, mid-term and final) showing the comparative productivity of DAS and non-DAS sites.</p>				<p>practices, we aim for a productivity index of 1.2, indicating a 20% increase over the baseline.</p> <p>End of project (5 years): The goal is a productivity index of 1.5, signifying a 50% increase over the baseline.</p>
Output 1.1: Smallholders capacities increased for the implementation of DAS through peer-to-peer experiences	<i>a. Successful smallholders trained as community peer-to-peer disseminators</i>	Signed agreements	0	30 M: 21 W: 9	30 M: 21 W: 9	<p>An externality that could impact the achievement of this output is the lack of interest of successful smallholders in acting as disseminators.</p> <p>Field visits allowed to determine that successful smallholders in the three municipalities have limited opportunities to share their experience of implementing DAS with other smallholders</p>
Output 1.2: Implementation of DAS by smallholders	<i>a. Number of demonstration sites established</i>	Field visits	0	30	30	<p>An externality that could impact the achievement of this output is the lack of interest of successful smallholders in using their landholdings as demonstration sites.</p> <p>Field visits allowed to determine that successful smallholders' landholdings in the three municipalities are not used for sharing knowledge, lessons learned and experience</p>

	<i>b. Number of smallholders (men/women) implementing DAS through the RBPS</i>	Updated record of smallholders implementing DAS through the results-based payment scheme	0	400 M: 200 W: 200	800 M: 400 W: 400	<p>An externality that could impact the achievement of this output is the lack of interest of smallholders in participating in the results-based scheme</p> <p>Field visits allowed to determine that there are limited number of smallholders engaged in DAS in the three municipalities.</p>
	<i>c. Number of hectares with enhanced productivity</i>	Surveys	0	400	800	<p>The productivity will be measured by a "Relative Productivity Index", which compares productivity in US\$/Ha (constant prices) in DAS implemented plots with non-DAS plots.</p> <p>Baseline (Project start): All plots are equal in productivity with an index of 1.</p> <p>Mid-term (2-3 years): With agroforestry practices, we aim for a productivity index of 1.2, indicating a 20% increase over the baseline.</p> <p>End of project (5 years): The goal is a productivity index of 1.5, signifying a 50% increase over the baseline.</p>
Output 1.3: Knowledge about the benefits of DAS locally appropriated	<i>a. Locally-led participatory monitoring system established</i>	Monitoring reports	0	1	1	<p>There is no locally-led participatory monitoring system operating in the three municipalities</p> <p>The system will be used to monitor benefits of DAS in terms of climate adaptation, CO2 capture and socioeconomic and gender aspects, identify risks, promote learning and inform public policy.</p>
	<i>b. Number of smallholders trained to engage in participatory monitoring of DAS</i>	Capacity building records	0	80	80	<p>An externality that could impact the achievement of this output is the lack of interest of smallholders in participating in the monitoring activities</p>
Outcome 2: Local enabling environment for implementing and scaling DAS	Number of local governments that have adopted policies or regulations that support the scaling up of diversified agroforestry systems as adaptation solutions.	Policy instruments adopted	0	0	3	<p>None of the three municipalities has adaptation policies/action plans in place that support the implementation of DAS.</p>
Output 2: Local capacities in place to scale DAS as an adaptation solution	<i>a. Number of local</i>	Participation records	0	100 M: 50 W: 50	210 M: 105 W: 105	<p>Local decision makers as well as technical staff in the three municipalities have limited or no access to climate relevant and comprehensive information and data</p>

through policy instruments	<i>decisionmakers that participate in workshops about climate impacts, adaptation and DAS</i>	Capacity building tools				An externality that could impact this output is the lack of interest or lack of prioritization of the municipalities for participating in the capacity building process
	<i>b. Number of people that benefit from adaptation policies/action plans implemented to support DAS</i>	Number of people in the target municipalities	0	0	74,499 M: 37,555 W: 36,944	None of the three municipalities has adaptation policies/action plans in place that support the implementation of DAS. One of the instruments the project will work on are Master Plans, which is the main legal instrument for land use planning and other general norms of the municipality generated by the Municipal Executive Power, but also in production or commercialization promotion instruments. The number of inhabitants of the municipalities that will benefit from these policy instruments are 74,499
	<i>c. Number of local policy instruments which are gender-responsive, aligned with state and federal regulations, and include DAS as an adaptation solution.</i>	Policy instrument created or strengthened	0	0	3	An externality that could impact this output is the lack of interest or lack of prioritization of the municipalities for adopting policy instruments for the implementation of DAS
Outcome 3: Diversified income for smallholders through the implementation of DAS	Number of smallholders (men/women) with increased income sources	Surveys/Questionnaires: Conducting surveys or questionnaires among the smallholders to collect self-reported data on their income sources. This would include asking about the nature and amount of their income before and after project implementation.	0 with more than one income source	400 with at least three income sources M: 200 W: 200	800 with at least five income sources M: 400 W: 400	Initially, smallholders rely mostly on one product as source of income through monoculture, without taking into account the source of income from the state, such as Bolsa Familia. Midway, the aim is to have three productive income sources, promoting diversification. By project completion, the target is for smallholders to have five sources of productive income, enhancing resilience. Income diversification reduces vulnerability to risks and market fluctuations. Strategies will include introducing new crops through the DAS and promoting access to new markets. Ongoing support and capacity building are essential for successful income diversification.

Output 3.1: Smallholders' associations are strengthened to access markets, including structuring women-oriented productive associations or cooperatives.	<i>a. Number of collaboration agreements established</i>	Signed agreements	0	3	6	<p>There are limited collective actions of smallholders to access markets for agroforestry-based products. Through collaboration agreements, smallholders can move towards effective access to markets.</p> <p>The externalities that could impact this output are the lack of interest of market partners in entering into collaboration agreements with associations</p>
Output 3.2: Smallholders, especially women, with enhanced capacities to access markets for agroforestry-based products	<i>a. Number of smallholders (men/women) trained in financial management and processing techniques</i>	Participation records Pre and post training assessments	0	240 M: 120 W: 120	240 M: 120 W: 120	<p>Smallholders, especially women, have limited capacities for financial management and processing techniques for agroforestry-based products</p> <p>Pre and post training tests or quizzes can provide a concrete measure of the knowledge gained by smallholders during the training. This data would offer direct evidence of enhanced capacities.</p> <p>The externalities that could impact this output are limited participation by women-led households, as well as the lack of facilities that can be used for hosting the capacity building activities</p>
Output 3.3: Reserve Fund for Community Access to Credit in operation to support access to credit	<i>a. Reserve Fund for Community Access to Credit created</i> <i>b. Number of smallholders (men/women) supported to access financial resources</i>	Reserve Fund for Community Access to Credit contract Registry of credit applications	0 0	0 0	1 40 M: 20 W: 20	<p>No Reserve Fund for Community Access to Credit exists in the municipalities</p> <p>Smallholders, in particular women, have limited access to financial resources for agroforestry-based products</p> <p>The externalities that could impact this output are: lack of interest of financial institutions in the fund; inflation rates that could make access to credit less interesting (negative real rates); difficulties in risk measurement; few local financial institutions established or with access to the area.</p> <p>It is expected that 40 smallholders will access financial resources during the implementation of the project, but it is expected that many more will access after project completion</p>

Project/programme co-benefit indicators						
CB1: Carbon sequestration	<i>Tons of CO₂eq (environmental indicator)</i>	Baseline, mid-term and final reports containing information on CO ₂ sequestration, measured on an annual basis.	75,333 tCO ₂	210,898 tCO ₂	301,274 tCO ₂	As part of our project, we plan to utilize allometric equations to determine the volume of carbon stored within forests and, consequently, the potential CO ₂ emission reductions that can be achieved through the implementation of DAS. Trees naturally absorb CO ₂ as they grow, storing carbon within their biomass. Allometric equations allow us to estimate this total biomass, and by extension, the tree's carbon content, which is generally taken to be around 50% of the total biomass. Now, to estimate the reduction of CO ₂ emissions, we need to monitor these changes in carbon stocks over time and convert these changes into CO ₂ equivalents.
CB2: Enhanced access to information on climate matters	<i>Number of smallholders and policymakers (men/women) with knowledge on climate matters (social indicator)</i>	Registry of participation in capacity buildings, demonstration sites visits and technical assistance activities Surveys to assess the use of information	0	920	920	The target includes policymakers that participate in capacity building activities, smallholders acting as peer-to-peer disseminators and smallholders participating in the implementation of DAS
CB3: Increased leadership of women	<i>Number of women that implement DAS through RBPS (gender indicator)</i>	Updated record of smallholders implementing DAS through the results-based scheme	0	200	400	It is expected that at least 400 women will lead the implementation of DAS through a Results Based Payment Scheme
4. Project/programme activities and deliverables						
<p>All project activities should be listed here with a description and sub-activities. Significant deliverables should be also reflected in the project/programme Timetable (Annex 5). Add rows as needed.</p> <p>Please number the activities as shown below to indicate association of activities to the related outputs provided above in section 5. Similarly, please number sub-activities as shown below to associate to the related activity.</p>						
Output	Activities	Description	Deliverables			
<i>Please number each Output (Output 1.1, Output 1.2)</i>	<i>List of the project activities below.</i>	<i>Provide a brief description of each of the activity listed in the previous column.</i>				

<p>Output 1.1: <i>Smallholders capacities increased for the implementation of DAS through peer-to-peer experiences</i></p>	<p>Activity 1.1.1: Select the 30 most experienced and successful smallholder producers of agroforestry products in the target municipalities of Marajo to be peer-to-peer community disseminators.</p> <p>Activity 1.1.2: Develop, together with the selected smallholders, a capacity building program to increase knowledge of selected smallholders to assist their peer smallholders in the implementation of DAS</p> <p>Activity 1.1.3: Implement the peer-to peer capacity building program.</p>	<p>30 smallholders will be selected to be peer-to-peer community disseminators.</p> <p>A capacity building program to increase knowledge of the community disseminators will be developed to increase technical knowledge on the implementation of diversified agroforestry systems. The disseminators will be selected from the most successful smallholders that already implement DAS in the three target municipalities. Women will be prioritized.</p>	<p>30 smallholders selected (at least 30% women)</p> <p>Capacity Building Program and materials developed</p> <p>30 smallholders trained to act as peer-to-peer disseminators</p>
<p>Output 1.2: Implementation of DAS by smallholders</p>	<p>Activity 1.2.1: Establish 30 demonstration sites of one hectare each in the landholdings of the community disseminators.</p> <p>Activity 1.2.2: Conduct visits for smallholder beneficiaries to the demonstration sites in the three municipalities, with a gender-responsive approach.</p> <p>Activity 1.2.3: Develop a short market study to help inform and advise the species selection for the agroforestry systems.</p> <p>Activity 1.2.4: Select beneficiaries with landholdings that sum up to 800 hectares across the three municipalities for the implementation of climate resilient DAS according to the Results-based Payment Scheme.</p> <p>Activity 1.2.5: Establish up to 800 hectares of climate resilient DAS in the landholdings of the selected beneficiaries.</p> <p>Activity 1.2.6: Provide technical assistance throughout the overall implementation of DAS to smallholder beneficiaries.</p>	<p>Demonstration sites are crucial for increasing practical knowledge about the implementation of DAS. But also to share lessons learned as well as to review challenges faced when implementing systems. Thus, most successful smallholders' landholdings will be used as sites for learning and sharing experiences with other smallholders.</p> <p>Demonstration sites will also work as a seedlings-nursery demonstration site.</p> <p>The project will select vulnerable smallholder beneficiaries to receive technical assistance and materials to implement DAS. The beneficiaries will be distributed along the three target municipalities and payment will be based on results. Beneficiaries will have existing knowledge on agriculture and agroforestry. A market study will be developed to help inform the implementation of the DAS</p>	<p>30 demonstration sites established</p> <p>Market study on species selection developed</p> <p>Smallholders (at least 50% women) engaged in RBPS, with landholdings that sum up to 800 ha</p> <p>800 ha of DAS implemented</p> <p>Technical assistance to 800 ha of DAS provided</p>

Output 1.3: Knowledge about the benefits of DAS locally appropriated	<p>Activity 1.3.1: Co-create knowledge about DAS implementation and its ecosystem impact through a locally-led participatory monitoring system.</p> <p>Activities 1.3.2: Produce and share knowledge on DAS and climate adaptation with key stakeholders from the 3 municipalities, Marajó and Pará state.</p>	<p>Smallholders will be engaged in collecting data about the climate impact of DAS, strengthening their understanding about the benefits and further supporting adherence to the practice.</p> <p>A participatory monitoring system will be put in place, with emphasis in providing opportunities for women leadership</p> <p>Data will be systematized and knowledge about DAS as an adaptative solution to climate change will be shared with key stakeholders from the three municipalities, Marajó and Pará state through workshops and knowledge products, like publications or multimedia material.</p>	<p>Participatory monitoring system established</p> <p>At least 80 people trained in DAS participatory monitoring (at least 60% women)</p> <p>Data set for benefits of DAS in 80 hectares</p> <p>At least 12 workshops on DAS and climate adaptation implemented</p> <p>5 knowledge management products produced and shared</p>
Output 2.1: <i>Local capacities in place to scale DAS as an adaptation solution through policy instruments</i>	<p>Activity 2.1.1: Promote knowledge building workshops with local decision makers in Marajo to provide climate information about the three municipalities and prepare them for the re-evaluation of current local policy instruments that foster DAS implementation as adaptation solutions.</p> <p>Activity 2.1.2: Conduct knowledge building activities for local authorities in the three municipalities on the benefits and role of DAS in providing adaptation solutions to climate change and the need for these issues to be integrated into local policy frameworks.</p> <p>Activity 2.1.3: Provide technical and legal support to local authorities of the three municipalities for the creation and strengthening of local policy instruments that foster DAS as an adaptation solution to climate change and the importance of establishing and supporting cooperative structures, in line with State and Federal policy and climate adaptation.</p> <p>Activity 2.1.4: Conduct knowledge building activities for local authorities on existing Federal and State adaptation to climate change relevant regulations, to increase knowledge on adaptation priorities and their importance to align with local policy that foster adaptation solutions proposed in Marajo such as DAS.</p>	<p>Information on the impacts of climate change in the municipalities as well as the benefits ad role of DAS as an adaptation solution are important for local decision-makers at the municipality level. Having access to this type of information through knowledge building workshops is crucial to guide the development and improvement of local policy instruments. Once capacity building activities are conducted, it is necessary to provide technical support for the development of local policy instruments that mainstream adaptation measures, including the use of DAS. The project will provide ongoing support to local authorities during the formulation of policy instruments.</p> <p>Additionally, the project will bring state and national representatives to facilitate the knowledge transfer for the implementation of these policies at the local level in the three municipalities.</p>	<p>16 workshops on climate information, adaptation and policy instruments for decision makers implemented</p> <p>Local decision makers supported to implement policies</p> <p>Policy instruments to implement and scale DAS in place</p> <p>Exchanges with other Marajó and Pará State decision makers on DAS</p>

Output 3.1: Smallholders' associations, especially the ones led by women, strengthened to access markets for agroforestry-based products	<p>Activity 3.1.1: Provide technical and legal support to local productive associations and cooperatives for enabling better conditions of access to markets for agroforestry-based products.</p> <p>Activity 3.1.2: Identify and facilitate collaboration agreements between local productive associations and cooperatives and key market partners interested in buying agroforestry-based products from the region, including key information on requirements for conducting businesses.</p> <p>Activity 3.1.3: Increase capacities of local productive associations and cooperatives in Marajo on the financial management for their organizations and activities.</p>	<p>Highly vulnerable smallholders in Marajo have limited capacities to adopt associative processes to improve their opportunities to access markets for their agroforestry-based products. The reasons vary, from limited knowledge to limited capacities and cultural constraints to increase associativity processes.</p> <p>Furthermore, the empowerment of smallholder women as a consequence of associative processes is evident as shown in the gender assessment conducted for this project.</p> <p>Therefore, the project proposal will seek to increase capacities of highly vulnerable smallholders productive associations in Marajo, in particular involving women, to increase knowledge on the opportunities, benefits and barriers associated to associativity processes, market opportunities and potential market partners.</p> <p>The project will also provide technical support to ensure that associations can move towards effective access to markets in practice while sustaining and scaling up such initiatives, including signing collaboration agreements for market access.</p>	<p>Technical and Legal support provided</p> <p>Collaboration agreements established</p>
Output 3.2: Smallholders, especially women, with enhanced capacities to access markets for agroforestry-based products	<p>Activity 3.2.1: Develop a financial management kit for selected smallholders in the three target municipalities.</p> <p>Activity 3.2.2: Provide capacity building in financial management to smallholders in the three target municipalities, on how to calculate production costs and utilities, and organization for financial capital for their agroforestry-based products.</p> <p>Activity 3.2.3: Identify processing techniques for agroforestry-based products in a participatory and gender-responsive manner that require capacity-building support and that have the potential to generate enhanced income.</p> <p>Activity 3.2.4: Conduct capacity-building activities on the selected processing techniques for smallholders in the three target municipalities.</p>	<p>One of the main barriers highly vulnerable smallholders have in Marajo, whether associated or not, is knowledge on the overall management, including economic inputs and outputs, of their food production. Incorporating this type of knowledge is essential for their wellbeing and to ensure their livelihood conditions improve in a measurable manner.</p> <p>Thus, the project proposal will seek to increase capacities of highly vulnerable smallholders, women in particular, to increase their capacities on financial management. Smallholders that receive this knowledge will be able to replicate it to other smallholders.</p> <p>On the other hand, given the geographic constraints the Marajo region face in relation to other regions in Brazil, barriers related to transportation and distance need to be considered when seeking access to markets. With extreme weather conditions, access through basic road infrastructure can be limited. Often it is not possible to transport food production outside Marajo, representing a high risk for highly vulnerable smallholders. Acquiring knowledge on techniques to process and preserve agroforestry-based products would help reduce risks associated to distance and transportation. Besides, it may also add value to smallholders' production and generate more income. Thus, the project will provide capacity building support for smallholders engaging in associative processes, women in particular, to learn on different techniques that are suited to</p>	<p>Financial management kit developed</p> <p>At least 240 smallholders trained in financial management (at least 50% women)</p> <p>At least 240 smallholders trained in processing techniques (at least 50% women)</p>

		their needs and interests.	
Output 3.3: Reserve Fund for Community Access to Credit in operation to support access to credit	<p>Activity 3.3.1: Conduct capacity building activities for highly vulnerable smallholders on requirements to access PRONAF financial products for their agroforestry-based product's needs.</p> <p>Activity 3.3.2: Provide technical and legal support to highly vulnerable smallholders in Marajo to facilitate access to financial products identified.</p> <p>Activity 3.3.3.: Create, structure, and implement a Reserve Fund for Community Access to Credit to support smallholders associated in local cooperatives and associations to access microcredit.</p> <p>Activity 3.3.4: Provide monitoring support for the adequate use of the financial resources provided via PRONAF and supported by the Reserve Fund for Community Access to Credit</p>	<p>Highly vulnerable smallholders in Marajo have limited capacities to access existing financial products and services offered by government programs and local financial institutions. The access to PRONAF credits for agricultural activities is very low in the three municipalities: the total contract values in Cachoeira do Arari represent a mere 0.33% of the total contracts values issued in Marajó, and 0.08% of all of Pará; for Salvaterra the percentages are 0.68% when compared with Marajó, and 0.16% of all of Pará; and in the case of Soure the corresponding percentages rise to 0.73% and 0.17% respectively. Thus, the project will provide capacity building for smallholders to apply to available financial products and services and meet the financial requirements to effectively access those resources.</p> <p>On the other hand, a Reserve Fund for Community Access to Credit will be fundamental to overcoming barriers that hinder smallholders' access to credit, namely lack of appropriate documentation regarding land ownership and lack of financial history, which are fundamental to banks when calculating risks to provide credits to these beneficiaries.</p> <p>The project will also monitor the effective access to resources from beneficiaries.</p>	<p>At least 40 smallholders trained in access to finance (at least 50% women)</p> <p>Reserve Fund for Community Access to Credit operational</p> <p>Report on smallholders' PRONAF applications</p>