

# GEF-8 PROJECT IDENTIFICATION FORM (PIF)

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## General Project Information

### Project Title

Accelerating the Sustainable Transformation of Ecuadorian Banana Industry (Ecuador Green Footprint Project)

### Region

Ecuador

### GEF Project ID

11923

### Country(ies)

Ecuador

### Type of Project

MSP

### GEF Agency(ies):

FAO

### GEF Agency ID

755893

### Executing Partner

Ministry of Environment, Water and Ecological Transition  
MAATE

### Executing Partner Type

Government

### GEF Focal Area (s)

Multi Focal Area

### Submission Date

3/27/2025

### Project Sector (CCM Only)

AFOLU

### Taxonomy

Land Degradation, Focal Areas, Strengthen institutional capacity and decision-making, Influencing models, Convene multi-stakeholder alliances, Demonstrate innovative approaches, Stakeholders, Local Communities, Beneficiaries, Communications, Strategic Communications, Awareness Raising, Behavior change, Civil Society, Non-Governmental Organization, Private Sector, SMEs, Large corporations, Individuals/Entrepreneurs, Type of Engagement, Participation, Information Dissemination, Partnership, Consultation, Gender Mainstreaming, Gender Equality, Sex-disaggregated indicators, Capacity, Knowledge and Research, Learning, Targeted Research, Knowledge Generation, Innovation, Knowledge Exchange, Training, Workshop, Indicators to measure change, Capacity Development, Sustainable Land Management, Improved Soil and Water Management Techniques, Sustainable Agriculture, Income Generating Activities, Sustainable Livelihoods, Integrated and Cross-sectoral approach, Land Productivity, Land Degradation Neutrality, Sustainable Development Goals, Transform policy and regulatory environments, Climate Change Mitigation, Climate Change, Agriculture and agrobiodiversity, Mainstreaming, Biodiversity

### Type of Trust Fund

GET

### Project Duration (Months)

36

### GEF Project Grant: (a)

1,776,484.00

### GEF Project Non-Grant: (b)

0.00

### Agency Fee(s) Grant: (c)

168,766.00

### Agency Fee(s) Non-Grant (d)

0.00

### Total GEF Financing: (a+b+c+d)

1,945,250.00

### Total Co-financing

7,087,214.00

PPG Amount: (e)	PPG Agency Fee(s): (f)
50,000.00	4,750.00
PPG total amount: (e+f)	Total GEF Resources: (a+b+c+d+e+f)
54,750.00	2,000,000.00
Project Tags	
CBIT: No NGI: No SGP: No Innovation: No	

## Project Summary

Provide a brief summary description of the project, including: (i) what is the problem and issues to be addressed? (ii) what are the project objectives, and if the project is intended to be transformative, how will this be achieved? (iii), how will this be achieved (approach to deliver on objectives), and (iv) what are the GEBs and/or adaptation benefits, and other key expected results. The purpose of the summary is to provide a short, coherent summary for readers. The explanation and justification of the project should be in section B “project description”. (max. 250 words, approximately 1/2 page)

Ecuador's banana industry, the largest exporter globally, faces significant sustainability challenges due to its intensive use of agroplastics, agrochemicals, synthetic fertilizers, pesticides, and fossil fuels, leading to environmental degradation and high carbon and water footprints. Compliance with new international sustainability standards, such as the European Commission's Corporate Sustainability Due Diligence Directive (CSDDD) and Corporate Sustainability Reporting Directive (CSRD), is essential for market access. The primary objective of this project is to support the sustainable transformation of Ecuador's banana industry by reducing its environmental footprint and ensuring compliance with these international standards. The project will address this issue by targeting barriers to sustainable production and implementing advanced practices and technologies that align with evolving sustainability frameworks. Specifically, the project will: (1) Strengthen Institutional Operative Framework and Instruments by enhancing MAATE and MAG's policy coherency, integration, updating frameworks for environmental monitoring and reporting, increasing stakeholder participation in decision-making, and developing sustainable financing mechanisms to support long-term strategic actions; (2) Enhance and Integrate Advanced Monitoring, Reporting, and Verification (MRV) Systems for Environmental Impact Assessment by updating the FAO's Carbon and Water Footprint (CWF) system and integrating it with the country's National Carbon Footprint Program: Ecuador Carbon Zero Program (Programa Ecuador Carbono Cero-PECC) to ensure precise measurement, monitoring, and verification of carbon and water footprints and extending the CWF tool to other value chains such as cocoa and coffee; and (3) Strengthen Stakeholder Capacity to Comply with EU Standards and Implement Sustainable Practices by providing technical support, a comprehensive knowledge management strategy, and capacity-building initiatives to equip smallholders, medium-scale growers, large producers, and banana companies with the skills and tools for accurate measurement, reporting, and verification of carbon and water footprints. Stakeholders will engage in climate change mitigation training, EU regulatory compliance, and sustainable practices through technical roundtables, consultations, extensive training sessions, e-learning courses, and continuous support. Additionally, the project will identify and promote alternatives to the intensive use of agroplastics, agrochemicals, synthetic fertilizers, pesticides and fossil fuels leading to the Implementation of Sustainable Practices and Compliance Strategies aligning practices with EU regulatory frameworks, international standards, and Ecuador's Carbon Zero Program. The project will leverage existing frameworks, experiences, and lessons learned from other projects; enhance national policy instruments; build on established tools, and directly supports Ecuador's Nationally Determined Contributions (NDCs) to the Paris Agreement. In addition, Ecuador is moving towards the creation of a Technical Standard for a deforestation-free green label, which will facilitate access to differentiated markets. Commitments to

sustainable production and GHG reduction are also reflected in the National Climate Change Strategy, the National Biodiversity Strategy and National plan for climate change mitigation so this initiative and its approach are priority for the country. These components will establish a foundation for long-term sustainability in Ecuador's agricultural sector.

The project will deliver global environmental benefits (GEBs) by reducing emissions by 14,696,789 tCO<sub>2</sub>e, improving water usage efficiency and increasing the area of landscapes under improved practices by 150,000 ha. Key expected results include enhanced market access for Ecuadorian bananas, compliance with international sustainability standards, and the replication of successful strategies in other agricultural value chains, significantly advancing Ecuador's NDC emission reduction targets and promoting broader agricultural sustainability.

## Indicative Project Overview

### Project Objective

Promote the sustainable transformation of Ecuador's banana industry by reducing its environmental footprint and ensuring compliance with international standards.

### Project Components

#### Component 1: Strengthening Institutional Operative Framework for Sustainable Banana Production

Component Type	Trust Fund
Technical Assistance	GET
GEF Project Financing (\$)	Co-financing (\$)
307,891.00	1,223,961.00

#### Outcome:

Outcome 1: Strengthened enabling environment that supports sustainable banana production and maintains or improves access to markets

*Indicator 1: Number of public policy instruments created and/or updated related to carbon and water footprint management.*

*Indicator 2: Based on baseline, Percentage of participation of stakeholders (by gender and sector-typology) in the definition of strategies and alternatives for improved banana production and reducing carbon and water footprints*

*Indicator 3: Number of sustainable financing mechanisms or incentives developed*

#### Output:

Output 1.1: Strengthened and Updated Ecuador Carbon Zero Program (PECC) Framework and Technical Standard (related to organizations and products) or Monitoring and Reporting Carbon and Water Footprints in the Banana Value Chain

Output 1.2: Improvement of stakeholder participation in dialogues and decision-making processes regarding the review and update of policy frameworks

### Output 1.3:

Development of sustainable financing mechanisms and/or incentives in coordination with the government; private sector; private and public banks and international organisms to ensure effective long-term implementation of strategic productive actions and the measurement and reporting of carbon and water footprints

## Component 2: Strengthened National Systems for Comprehensive Monitoring, Reporting and Verification of Environmental Indicators related to NDC/LDN, CWF and Cero-PECC

Component Type	Trust Fund
Technical Assistance	GET
GEF Project Financing (\$)	Co-financing (\$)
534,128.00	2,126,164.00

### Outcome:

#### Outcome 2

Improved accuracy and transparency in carbon and water footprint assessment through enhancement of measure, monitoring, reporting and verification of institutional systems and instruments

*Indicator 4: Number of new environmental indicators related to the agricultural sector integrated into the CWF framework to comprehensively assess impacts across the banana production lifecycle, ensuring robust and transparent reporting and monitoring of carbon and water footprints*

*Indicator 5: Number of automated data integration processes implemented in the CWF system, reducing reliance on manual input*

*Indicator 6: Number of value chains with CWF tools developed and/or adapted*

*Indicator 7: Number of MAG and MAATE personnel trained on the management of the CWF tool*

*Indicator 8: Number of national programs and MRV systems integrating and implementing the CWF Tool*

### Output:

Output 2.1: Development and integration of advanced modules into the CWF tool to address upstream and downstream emissions, along with the inclusion of functionalities for new user categories (auditors and traders), tailored to align with the specific requirements of the national regulatory framework and context

#### Output 2.2

Strengthened automation for data collection, data analysis, reporting and evaluation of the results of Carbon and Water Footprint (CWF) System

Output 2.3 Adaptation of the Carbon and Water Footprint (CWF) Tool for other value chains

#### Output 2.4:

Training program for MAATE and MAG regarding the management of the CWF tool at national level, update of factors and identification of practices to reduce carbon and water footprints

#### Output 2.5:

CWF Tool Integration with the Ecuador Carbon Zero Program, the national agricultural policy (2024-2034) and MRV systems

### Component 3: Capacity development for compliance with international standards through the Implementation of Sustainable Practices

Component Type	Trust Fund
Technical Assistance	GET
GEF Project Financing (\$)	Co-financing (\$)
287,000.00	1,138,736.00

#### Outcome:

Outcome 3.1 Stakeholders enhance their capacities to comply with EU frameworks and other international standards

*Indicator 9: Number of beneficiaries participating in (disaggregated by gender and typology) training sessions regarding the measurement of carbon and water footprints and international regulatory standards including comprehensive Training Materials and e-Learning Courses*

*Indicator 10: Percentage increase in sustainable agricultural practices adopted by stakeholders assessed through pre- and post-training evaluations and knowledge assessments.*

#### Output:

Output 3.1.1: Development and implementation of knowledge management and capacity building strategy for industry and other stakeholders of banana value chain regarding the measurement of carbon and water footprints and international regulatory standards including comprehensive Training Materials and e-Learning Courses

### Component 3: Capacity development for compliance with international standards through the Implementation of Sustainable Practices

Component Type	Trust Fund
Investment	GET
GEF Project Financing (\$)	Co-financing (\$)
362,465.00	1,438,177.00

#### Outcome:

Outcome 3.2 Widespread adoption of sustainable practices including Carbon and Water Footprints reduction and compliance with EU regulatory standards and regulations

#### Indicator 11:

*Core Indicator 4: Number of hectares implementing innovative practices and technologies to enhance climate resilience, Carbon and Water Footprints reduction practices and meet EU regulatory standards, validated through case studies and field assessments (Target of 150,000 ha)*

**Indicator 12:**

*Core Indicator 6: Reduction in greenhouse gas emissions*

*Indicator 13: Number of farmers and banana producing companies that have been certified and/or awarded the distinction for quantifying Carbon Footprint and/or certified reduction of Carbon Footprint in products under the PECC program.*

*Indicator 14: Increment in investment per unit of production achieved through project interventions*

**Output:**

Output 3.2.1: Field validation and cost-benefit evaluation of practices and alternatives to be implemented with a gender-sensitive approach by Smallholders, Medium-Scale Growers, and Large Producers to reduce carbon and water footprints

Output 3.2.2 Smallholders, Medium-Scale Growers, and Large Producers and banana-producing companies increase investment in sustainable banana production systems aligning their practices with EU regulatory frameworks, international standards and the country's Ecuador Carbon Zero Program

**M&E**

Component Type	Trust Fund
Technical Assistance	GET
GEF Project Financing (\$)	Co-financing (\$)
125,000.00	515,949.00

**Outcome:**

Outcome 4.1: Effective gender-responsive project implementation based on adaptive management

*Indicator 15: Recommendations from operational M&E system (including from PSC and PIRs) fed back into project implementation*

**Output:**

Output 4.1.1 Baseline Establishment for Project Indicators

Output 4.1.2: Establishment of a Comprehensive Monitoring and Evaluation System

Output 4.1.3: Mid-term Review and Terminal Evaluation carried out

**Component Balances**

Project Components	GEF Project Financing (\$)	Co-financing (\$)



Component 1: Strengthening Institutional Operative Framework for Sustainable Banana Production	307,891.00	1,223,961.00
Component 2: Strengthened National Systems for Comprehensive Monitoring, Reporting and Verification of Environmental Indicators related to NDC/LDN, CWF and Cero-PECC	534,128.00	2,126,164.00
Component 3: Capacity development for compliance with international standards through the Implementation of Sustainable Practices	287,000.00	1,138,736.00
Component 3: Capacity development for compliance with international standards through the Implementation of Sustainable Practices	362,465.00	1,438,177.00
M&E	125,000.00	515,949.00
<b>Subtotal</b>	<b>1,616,484.00</b>	<b>6,442,987.00</b>
Project Management Cost	160,000.00	644,227.00
<b>Total Project Cost (\$)</b>	<b>1,776,484.00</b>	<b>7,087,214.00</b>

Please provide justification

## PROJECT OUTLINE

### A. PROJECT RATIONALE

Briefly describe the current situation: the global environmental problems and/or climate vulnerabilities that the project will address, the key elements of the system, and underlying drivers of environmental change in the project context, such as population growth, economic development, climate change, sociocultural and political factors, including conflicts, or technological changes. Describe the objective of the project, and the justification for it. (Approximately 3-5 pages) see guidance here

Food systems are a major driver of environmental degradation globally, contributing to deforestation, biodiversity loss, land degradation, freshwater resource depletion, agricultural nutrient pollution, and approximately 35% of global greenhouse gas (GHG) emissions<sup>[1]</sup>. Recognizing the significant impact of agriculture on environmental degradation, the Ecuadorian government has designated the agricultural sector as one of the main focuses of intervention in their Nationally Determined Contribution (NDC) to the Paris Agreement. This decision is based on the fact that agriculture accounts for 18.17% of the country's total emissions<sup>[2]</sup>.

To support GHG emission reduction in the country, the Ministry of Environment, Water, and Ecological Transition (MAATE) manages the Ecuador Carbon Zero Program (PECC for its abbreviation in Spanish) [\[3\]<sup>3</sup>](#). This program aims to encourage the productive and service sectors to act against climate change by managing their carbon footprint. It facilitates the reporting of their commitments and provides access to environmental and tax incentives. The program promotes the implementation of actions by the productive and service sectors to change towards sustainable production and consumption patterns, and recognizes the quantification, reduction and offset of its greenhouse gas emissions through certifications using internationally validated methodologies and based on principles of environmental integrity, transparency and governance.

Bananas are the most exported fresh fruit globally, both in terms of volume and economic value, significantly contributing to global food security and international trade. Ecuador stands as the largest exporter of bananas, with 87% of its banana production destined for export. In 2021, these exports were valued at USD 3.5 billion, representing 18.1% of the value of Ecuador's non-oil exports. The primary export destinations include Russia, the United States, Turkey, the Netherlands, Germany, Italy, Chile, Argentina, Algeria, Saudi Arabia, China, Belgium, and Ukraine[\[4\]<sup>4</sup>](#). The banana industry is a critical employment provider in Ecuador, supporting approximately 115,698 people directly and contributing to 2.5 million direct and indirect jobs[\[5\]<sup>5</sup>](#) across its comprehensive production and associated sectors in the country. Of those directly employed, 7% are producers and family members, 38% are casual workers, and 55% are permanent workers[\[6\]<sup>6</sup>](#).

Banana production in Ecuador is mainly concentrated in the Costa region, where 150,316 hectares are planted, and 94% of the bananas produced in the country are harvested. In 2023, 184,034 hectares of bananas were distributed across 15,461 banana plantations in 19 provinces located in the Costa, Sierra, and Amazonas regions. However, the provinces of Los Ríos, El Oro, and Guayas produce 92.3% of the bananas in the country. Los Ríos is the leading province with 2,571,356 tons of bananas produced, followed by Guayas with 2,098,275 tons and El Oro with 1,502,098 tons. Notably, Cañar province in the Sierra region has the highest yield in the country with 48.8 tons/ha[\[7\]<sup>7</sup>](#).

Banana production in Ecuador has shown variability over the years. From 2017 to 2021, there was an increasing trend in production until 2020 when both planted areas and production decreased. In 2021, banana production more than recovered, achieving the highest number of bananas harvested and the highest yield (40.74 tons/ha) in the last five years despite a lower planted area. Areas planted with bananas correspond to 11.8% of Ecuador's agricultural land, highlighting the significant role the banana sector plays in the country's agriculture and economy. The banana sector accounted for 17.4% of the agricultural value added in 2021.

The European Union recently approved the Corporate Sustainability Due Diligence Directive (CSDDD) and the draft reporting requirements of the Corporate Sustainability Reporting Directive (CSRD). These regulations will mandate companies operating in Europe to disclose human rights and environmental

aspects of their value chains, including Scope 3 emissions<sup>[8]<sup>8</sup>,<sup>[9]<sup>9</sup></sup>. Similar regulatory frameworks are being developed in other significant markets, such as the United Kingdom<sup>[10]<sup>10</sup></sup> and China<sup>[11]<sup>11</sup></sup>. To maintain and expand their market presence, producing countries integrated into global supply chains must comply with these requirements by establishing Carbon and Water Footprint and traceability systems.</sup>

Banana production in Ecuador relies heavily on the intensive use of pesticides through aerial fumigation, agricultural plastics, synthetic fertilizers and fossil fuels for off-grid electricity generation and irrigation systems with these practices being the main sources of greenhouse gas emissions from banana plantations<sup>[12]<sup>12</sup></sup>. The current baseline in Ecuador's banana sector is characterized by intensive monocultural practices that have resulted in significant environmental degradation. Specifically, unsustainable use of agrochemicals and reliance on conventional production methods have contributed to deforestation, diminished water quality in natural channels, and loss of biodiversity across adjacent landscapes<sup>[13]<sup>13</sup></sup>.

Significant challenges related to environmental management and climate change mitigation are faced by the banana industry in the country including fragmented land-use planning frameworks, limited institutional capacity for integrated environmental management, insufficient standardized data on chemical runoff and water impacts, and economic incentives that favor expansion over sustainable intensification. Those are largely due to limitations in technical and institutional capacities. Many smallholder producers lack the expertise and resources needed to accurately measure and manage their carbon and water footprints<sup>[14]<sup>14</sup></sup>. Additionally, broader institutional hurdles, such as gaps in technical knowledge and inadequate support systems, impede the effective monitoring and compliance of new regulations.

A further barrier is resistance to adopting new sustainable practices and technologies. Producers accustomed to traditional methods may be hesitant to embrace innovative practices due to perceived costs, knowledge gaps, uncertainties, or a lack of immediate benefits. This resistance can hinder the widespread adoption of effective environmental management strategies and technologies. As a result, efforts to maximize outputs have in some cases driven the conversion of mixed-use areas into continuous banana plantations, thereby intensifying pressure on water bodies and natural vegetation. Overcoming this barrier requires targeted outreach, clear demonstrations of the benefits of new practices, and incentives to encourage change, ensuring that all stakeholders are motivated and equipped to contribute to the project's goals.

Although Ecuador has made strides with the Ecuador Carbon Zero Program, there remains a need for a more robust framework and mechanisms to support comprehensive environmental management. The existing incentives and regulatory structures may not be sufficient to drive widespread adoption of

sustainable practices across all levels of banana production. The absence of stringent enforcement mechanisms and financial support hampers the effective implementation of environmental standards and practices, especially for smallholders, thereby impeding progress towards reduced carbon and water footprints and land degradation.

Inconsistent data collection and reporting practices among producers pose a challenge for accurate environmental monitoring. Variability in how data is recorded and reported can lead to discrepancies and reduce the reliability of environmental assessments. Standardizing data collection methods and ensuring consistency in reporting practices are essential for effective monitoring and evaluation of environmental impacts. Without reliable data, it is difficult to measure progress, identify areas for improvement, and demonstrate compliance with environmental standards.

In order to address these issues, the World Banana Forum (WBF) has supported around 400 banana producers (approximately 25,000 ha) in 9 countries on measuring and reducing their carbon and water footprints since 2017. Through close collaboration with key stakeholders in the global banana value chain, the WBF has developed and validated a standardized methodology, and an automated Carbon and Water Footprint (CWF) tool specifically designed to measure, monitor, and verify the carbon and water footprints in banana related operations. This tool enables a precise assessment of the industry's environmental impacts<sup>[15]</sup>15.

The WBF's CWF Tool is considered essential for banana stakeholders in the country aiming for reduced environmental impact and compliance with environmental frameworks. It ensures transparency and accuracy in reporting greenhouse gas emissions and water footprints, which are crucial for meeting new environmental guidelines and standards.

The primary objective of this project is to reduce land degradation and GHG emissions through the sustainable transformation of Ecuador's banana industry by reducing its environmental footprint and ensuring compliance with international sustainability standards. By enhancing the World Banana Forum's CWF tool, adapting it to the national context and integrating it with Ecuador Carbon Zero Program, the project aims to enable accurate measurement, monitoring, and verification of carbon and water footprints. This initiative will empower producers, including smallholders, to identify critical emission areas including those crop management practices which contribute more, and incorporate sustainable practices to reduce land degradation and emissions, improve water and resource management, and develop effective strategies for climate change adaptation and mitigation, thus contributing to Ecuador's Nationally Determined Contributions (NDCs) to the Paris Agreement and to national land degradation neutrality targets.

Additionally, aligning with the European Union's new CSDDD and CSRD will help assure continued market access and export opportunities for Ecuadorian bananas. While initially focusing on the banana value chain, the project will also extend its impacts and identify opportunities for other productive sector such as the cocoa and coffee value chains, promoting broader impact within Ecuador's agricultural sector.

The project will achieve its goals through a multi-faceted approach that includes stakeholder engagement, tool enhancement, capacity building, continuous technical support, and knowledge management. Effective stakeholder engagement and coordination are critical for the project's success. The diverse

stakeholders involved in the banana supply chain, from smallholders to large commercial enterprises, necessitate a tailored approach and comprehensive engagement strategy to ensure active participation in defining objectives, implementing strategies, and monitoring progress. Stakeholders such as producer associations, government bodies, traders and value chain actors will collaborate to define the project scope and roadmap. The CWF tool will be updated to incorporate new emission factors and modules, ensuring alignment with recent European guidelines and the Ecuador Carbon Zero Program. Customized training materials and an online course will be developed to support producers on understanding climate change issues and carbon footprint aspects. The online training courses will be hosted on MAATE's website. Extensive training sessions and ongoing technical support will ensure the accurate implementation of mitigation strategies. A robust knowledge management strategy will be implemented to globally showcase the project results and engage buyers enhancing the visibility of the initiative.

As part of its strategy, the project will facilitate the exchange of knowledge on afforestation and reforestation initiatives involving native species in riparian areas and adjacent to banana operations promoting these practices as effective methods for carbon offsetting and the enhancement of soil organic carbon and landscape biodiversity. Agroforestry systems will also be explored within the smallholder context to promote sustainable land management, improve soil health, and increase soil fertility. These integrated practices not only support climate mitigation but also contribute to national biodiversity targets and ecosystem resilience. In case of agricultural area expansion driven by increased market access, the project will promote spatial planning and land-use decisions that prioritize conversion of low-productivity, degraded pasturelands. This targeted transition will be expected to generate net positive impacts on carbon dynamics thereby strengthening the carbon sink function of agricultural landscapes. In alignment with Ecuadorian legislation ('Codificación 2004-13,' Artículo 8), ), the project will support the enforcement of the regulation that requires prior authorization from MAG for any new banana plantations intended for export . Unauthorized plantings are prohibited and subject to significant penalties. By reinforcing these legal requirements, the project will ensure compliance with national laws and sustainable land-use principles.

The project will deploy a comprehensive water footprint analysis using the CWF tool which embeds the USEtox and ReciPe approaches and extends beyond mere quantification of water use by evaluating ecotoxicity, human toxicity and eutrophication potential. This advanced assessment will inform targeted measures to reduce the release of toxic substances and improve water quality at both the local and watershed levels. By protecting adjacent water channels, riparian areas, and other freshwater systems, the project will ensure that enhanced agricultural productivity is achieved through sustainable intensification, thereby reducing pressure on natural habitats and mitigating downstream impacts on national land and water resources.

Complementing these efforts, the project will promote widespread use of management practices to avoid plastic contamination from single use bunch bags and avoid pesticide drift from aerial spraying. Soil conservation protocols will be integrated to minimize erosion, curtail runoff, and prevent eutrophication in nearby water bodies, thereby safeguarding the quality of ecosystems over extensive areas. Collectively, these integrated interventions will optimize on-farm resource use and also contribute at a national scale by reducing ecosystem degradation, supporting sustainable land-use planning, and reinforcing Ecuador's commitment to environmental conservation and climate resilience.

Finally, a monitoring and evaluation plan will track progress and facilitate the replication of successful strategies in other agricultural industries such as cocoa and coffee, promoting broader sustainability within Ecuador's agricultural landscape. This approach is preferable to other options, as it leverages existing

frameworks, builds on established tools, and directly supports Ecuador's Nationally Determined Contributions (NDCs) to the Paris Agreement.

Additionally, the project will focus on building capacity among governmental actors, including MAATE and MAG, to effectively oversee mitigation strategies in the agricultural sector, to improve or update the mechanisms, instruments or regulatory framework related with the reduction of carbon and water footprints as well as monitoring and reporting sustainable banana production initiatives. This will involve providing technical support and capacity building resources, enhancing their ability to support sustainable practices. A knowledge hub will be established to manage and disseminate cost-effective best practices and lessons learned, ensuring that both technical and strategic insights are accessible to all stakeholders. The project will build on existing investments frameworks and lessons learned, including previous GEF projects such as GEFID 10184 aimed at reducing and reverting land degradation in the country, and aligning with Ecuador's national policies and climate goals, the project leverages past experiences to advance sustainability and resilience in Ecuador's agricultural sector.

The project's approach to overcome the barriers emphasizes collaborative and evidence-based strategies. By fostering strong partnerships among key stakeholders —including producers, smallholders, private sector actors, traders, research institutions and governmental bodies— the project integrates diverse knowledge systems and builds institutional capacities. This collaborative effort ensures that both technical and policy solutions are robust and adaptable, effectively addressing current challenges while preparing for future uncertainties. The project focuses not only on immediate technical and regulatory needs but also on supporting better allocation of public and private investments and strengthening the capacity of stakeholders to continuously adapt and respond to evolving environmental standards and market demands. It is expected that the project intervention with farmers will foster sustainable management on 150,000 hectares of agricultural land, contribute to mitigate 14,696,789 ton of CO<sub>2</sub>eq, and benefit directly at least 80,000 farmers and value chain actors (50% women).

[1] [https://www.thegef.org/sites/default/files/2023-05/GEF\\_IP\\_FoodSystems\\_2023\\_05.pdf](https://www.thegef.org/sites/default/files/2023-05/GEF_IP_FoodSystems_2023_05.pdf)

[2] Ecuador (2019) [Primera Contribución Determinada A Nivel Nacional Para el Acuerdo De París Bajo La Convención Marco De Naciones Unidas Sobre Cambio Climático](#)

[3] [Acuerdo Ministerial Nro. MAATE-2021-018](#); [Acuerdo Ministerial MAATE-2021-046](#); [Acuerdo Ministerial MAATE-2021-047](#); [Acuerdo Ministerial MAATE-2023-053](#)

[4] BCE (Banco Central Ecuatoriano). (2022). Boletín de Análisis Agropecuario: Resultados al cuarto trimestre de 2021

[5] MCE (Ministerio de Comercio Exterior). (2017) Informe Sector Bananero Ecuatoriano 2017

[6] MAG (Ministerio de Agricultura y Ganadería). (2022). Boletín Situacional Cultivo de Banano 2021

[7] INEC (Instituto Nacional de Estadística y Censos). (2022 y 2023). Encuesta de Superficie y Producción Agropecuaria Continua - ESPAC.

[https://unfao-my.sharepoint.com/personal/lorenzo\\_camposaguirre\\_fao\\_org/Documents/Desktop/GEF/ECU/banano/PIF%20revision/PORTAL/1st%20RESUBMISSION/16May25\\_GEF-8\\_PIF\\_Banana%20Ecuador.docx](https://unfao-my.sharepoint.com/personal/lorenzo_camposaguirre_fao_org/Documents/Desktop/GEF/ECU/banano/PIF%20revision/PORTAL/1st%20RESUBMISSION/16May25_GEF-8_PIF_Banana%20Ecuador.docx) - [ftnref8<sup>\[8\]</sup> Corporate Sustainability Due Diligence and amending Directive \(EU\) 2019/1937](#)

[9] EFRAG (2022) [\[Draft\] ESRS E1 Climate change](#)

[10] <https://www.gov.uk/government/publications/green-finance-strategy/mobilising-green-investment-2023-green-finance-strategy-annexes>

[11] Ministry of Finance of the People's Republic of China (2024). [Draft Explanation of the 'Corporate Sustainability Disclosure Standards - Basic Principles \(Draft for Comments\)](#)

[12] Espinoza & Martínez (2022) “Huella de carbono del cultivo de banano (*Musa paradisiaca*) en la Hacienda La Victoria, provincia de El Oro, “*Pro Sciences: Revista de Producción Ciencias e Investigación* no. 45: 167-178

[13] UC DAVIS (2020) [Assessment Report: Benchmarking Sustainability for Banana Production in Ecuador](#)

[14] FAO (2016) [Ecuador’s banana sector under climate change. An economic and biophysical assessment to promote a sustainable and climate-compatible strategy](#)

[15] Lima MCF & Prada V. (2024) *Mitigando el impacto climático en la industria bananera: la herramienta de medición de huellas de carbono y agua del foro mundial bananero de la FAO*. Acorbat Revista de Tecnología y Ciencia 1(1): 79

## B. PROJECT DESCRIPTION

### Project description

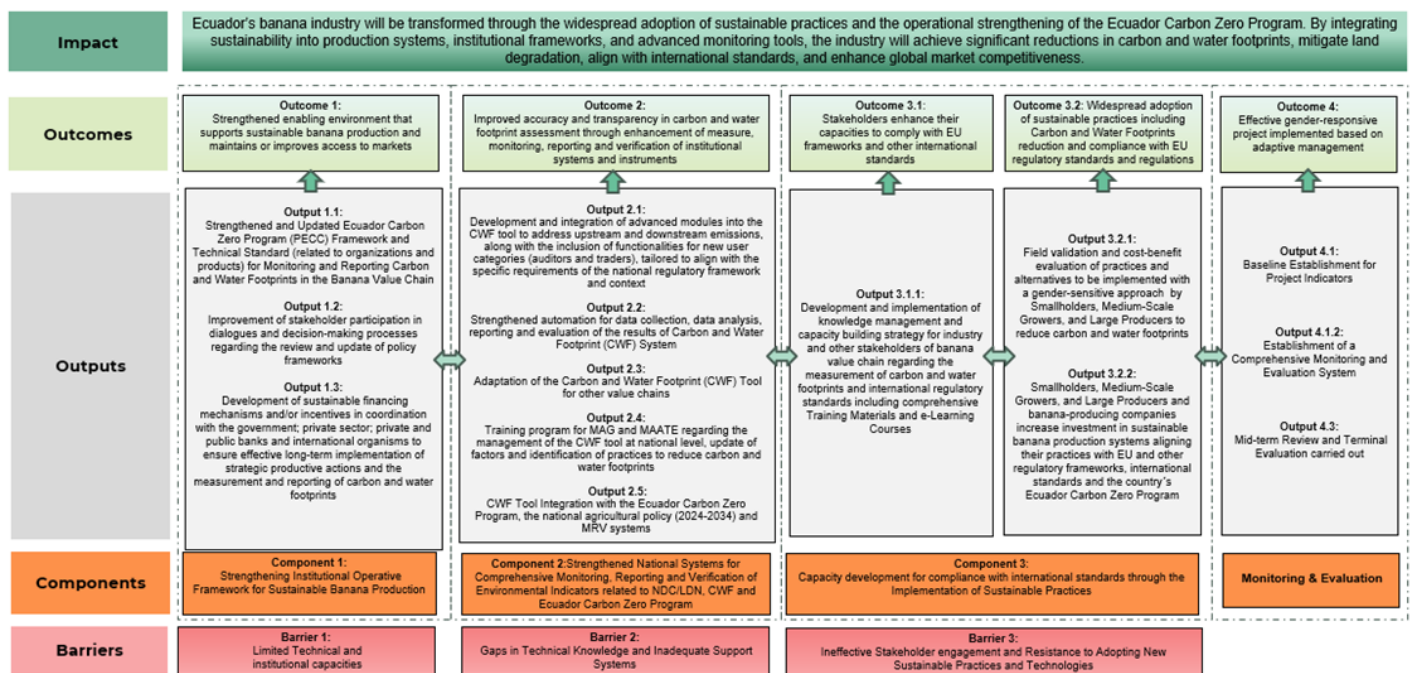
This section asks for a theory of change as part of a joined-up description of the project as a whole. The project description is expected to cover the key elements of good project design in an integrated way. It is also expected to meet the GEF’s policy requirements on gender, stakeholders, private sector, and knowledge management and learning (see section D). This section should be a narrative that reads like a joined-up story and not independent elements that answer the guiding questions contained in the PIF guidance document. (Approximately 3-5 pages) see guidance here

### Project approach and Theory of Change

The overall project objective is to transform Ecuador's banana industry by embedding sustainability into production practices and policies, reducing land degradation, carbon and water footprints, and aligning the industry practices with international standards through sustainable soil management practices and the responsible use of agroplastics, agrochemicals, synthetic fertilizers, pesticides and fossil fuels. The project’s Theory of Change (see graphic below) rests on overcoming the key barriers (identified above) that hinder the sustainable transformation of the banana industry. These barriers include limited technical and institutional capacities, ineffective stakeholder engagement and coordination, and resistance to adopting sustainable practices and technologies.

The project comprises four components with a total of 15 outputs, which collectively aim to deliver 5 key project outcomes. These are detailed in the Indicative Project’s Theory of Change below.





**Figure 1 – Project's Theory of Change Diagram**

## Component 1: Strengthening institutional operative framework and instruments for sustainable banana production

This component is focused on strengthening the institutional and policy framework for sustainable banana production by updating the Ecuador Carbon Zero Program (PECC), aligning national agricultural and environmental strategies with international standards, and enhancing monitoring of carbon and water footprints. In the context of the project, policy coherence will be addressed through targeted inter-ministerial coordination and multi-stakeholder consultations that facilitate the harmonization of the approaches of MAATE and MAG. Moreover, the project will align these technical standards with the national agricultural strategy (2024–2034) and complementary climate and environmental policies, including Ecuador's Nationally Determined Contributions (NDCs), the National Action Plan to Combat Desertification and Drought (PAND), the forthcoming National LDN Action Plan, and the National Forest Restoration Plan (2019–2030), while also developing tailored green financing mechanisms to support farmer implementation. These efforts will ensure that all policy instruments are mutually reinforcing, contributing to a more sustainable and resilient banana value chain while meeting both domestic and international market requirements.

## Outcome 1 Strengthened enabling environment that supports sustainable banana production and maintains or improves access to markets



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***Output 1.1: Strengthened and Updated Ecuador Carbon Zero Program (PECC) Framework and Technical Standard (related to organizations and products) for Monitoring and Reporting Carbon and Water Footprints in the Banana Value Chain***

This output focuses on strengthening and updating the PECC Framework and Technical Standard (related to organizations and products) to enhance the regulatory and operative instruments within MAATE and MAG addressing environmental degradation and carbon and water footprints in Ecuador's agricultural exporting industry, by updating and refining institutional monitoring systems and instruments to monitor and report carbon and water footprints specifically within the banana value chain. The information generated by institutional monitoring systems is the basis for promoting the participation of stakeholders of banana value chain; strengthening planning and decision-making processes; redesigning production systems and for suitable identification of incentives and alternatives tailored to the typology of farmers. In addition, the project will align national policies including the national agricultural strategy (2024-2034) with international environmental standards, thereby fostering more sustainable agricultural practices and supporting continued market access. The improved instruments will provide clear guidelines and procedures, ensuring that environmental impacts and risks are systematically identified and mitigated. This will lead to more efficient implementation of sustainability measures, ultimately contributing to the long-term environmental and economic benefits of the banana and broad agricultural sector.

Activities will include:

- Strengthen and update the Ecuador Carbon Zero Program (PECC) Organizational Framework and Technical Standard to enhance its organizational and product-level scope, aligning with sustainable production and consumption policy instruments under MAATE. Conduct a comprehensive review of existing policies, national agricultural strategies and operational frameworks, monitoring systems and instruments related to environmental management, with emphasis on water and carbon footprints and NDC/LDN, within MAATE and MAG to identify areas for improvement.
- Establish inter-ministerial working groups between MAATE and MAG to ensure coordination and alignment of policies, strategies, and technical approaches for monitoring and reducing carbon and water footprints in the banana value chain.
- Organize policy development workshops with stakeholders, including government officials, industry experts and representatives of different typologies of farmers and private sector, to discuss and validate the findings of policies and operational review and the proposal to update regulatory and operative instruments aimed at reducing environmental degradation and carbon and water footprints.
- Provide targeted support for MAATE and MAG to refine and update processes, tools, policies, and mechanisms for stakeholder participation and intersectoral coordination, focusing on integrating CWF indicators into PECC.

- Facilitate capacity-building workshops and technical training sessions for MAATE and MAG staff emphasizing the application of the updated PECC Technical Standard, effective use of CWF tools, and advanced data analysis to inform decision-making and sustainability planning.

### ***Output 1.2: Improvement in Stakeholder Participation and Decision-Making regarding the Review and Update of Policy Frameworks***

This output focuses on organizing and conducting technical roundtables and consultations with key stakeholders in the banana value chain, including producer associations, smallholders, traders, large producers, AEBE (Association of Exporters of Bananas of Ecuador), ACORBANEC (Association of Banana Marketing and Export), AGROBAN (Regional Corporation of Banana Producers), ASOEXPLA (Association of Plantain Exporters of Ecuador), Agricultural Chamber of Zone II, MAATE, MAG and AGROCALIDAD. AEBE, ACORBANEC, AGROBAN, ASOEXPLA and the Agricultural Chamber of Zone II are members of the Ecuadorian Cluster of Banana Producers. Also, private and public banks are going to be integrated seeking sensitivity to the need for suitable green financial products for the banana sector, considering the typology of farmers and gender approach. The goal is to collaboratively define better policies, better and useful reporting, investment priorities definition and enable financing conditions for reducing carbon and water footprints and land degradation. Regular technical roundtables will be held to ensure broad stakeholder participation and incorporate diverse perspectives. These sessions will allow stakeholders to identify key challenges and opportunities, their roles and responsibilities, share best practices, and develop national policies that can support complying with EU regulations and other international standards. Importantly, these consultations will facilitate alignment between MAATE and MAG, fostering ownership of the project across both ministries.

Activities will include:

- Organize regular technical roundtables and consultations with stakeholders, including producer associations, smallholders, traders, large producers, Ecuadorian Cluster of Banana Producers, public and private banks, MAATE, AGROCALIDAD and MAG.
- Conduct a participatory analysis to optimize the Climate Change Strategy, PECC, and the 2024–2034 Agricultural Policy, identifying and addressing gaps in policy and regulatory frameworks to enhance alignment of socio-environmental objectives, sustainability, and coherence in climate action and sustainable agriculture.
- Document outcomes and agreements from each roundtable to ensure clarity and accountability.
- Develop policy recommendations and best practice guidelines based on stakeholder feedback.
- Implement a transparent accountability mechanism to regularly monitor project progress and assess the contributions of different actors toward achieving project and national goals.

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***Output 1.3: Development of sustainable financing mechanisms and/or incentives in coordination with the government; private sector; private and public banks and international organisms to ensure effective long-term implementation of strategic productive actions and the measurement and reporting of carbon and water footprints***

This output aims to create sustainable financial services and suitable requirements based on the typology of producers that encourage eco-friendly practices across Ecuador's banana value chain by shifting financial support away from environmentally harmful inputs towards sustainable alternatives. A feasibility study will be prepared to assess how and what kind of green financial services and products can be redirected or designed to fund the transition to sustainable practices, reducing negative environmental impacts while promoting climate resilience and consequently, reducing the risk on credits. In collaboration with government agencies and private banks, the project will support the design of targeted financial incentives, such as tax credits, subsidies, and low-interest loans, to make sustainable practices financially attractive and accessible for producers and exporters. Additionally, partnerships with financial institutions will be established to enhance access to green financing, particularly benefiting smallholders, cooperatives, and larger producers, by providing the resources needed to transition to environmentally responsible production methods.

Activities will include:

- Conduct a financial feasibility study to assess the potential for redirecting existing or designing new financial services and products.
- Support the development of a suite of financial incentives (such as tax credits, subsidies, or low-interest loans) in collaboration with government bodies, private banks and other financial organisms to promote sustainable practices among banana producers and exporters.
- Establish partnerships with financial institutions to facilitate access to green financing for smallholders, cooperatives, and larger producers.

**Component 2: Strengthened National Systems for Comprehensive Monitoring, Reporting and Verification of Environmental Indicators related to NDC/LDN, CWF and Ecuador Carbon Zero Program**

This component focuses on strengthening national MRV systems as well as updating and adapting the Carbon and Water Footprint (CWF) tool for the Ecuadorian context. It integrates the tool with key national platforms—including the Ecuador Carbon Zero Programme and agroclimate databases—to ensure seamless data exchange and robust monitoring. The enhanced tool will also be expanded to support other value chains, such as coffee and cocoa, thereby promoting wider environmental sustainability. Furthermore, targeted capacity-building initiatives will empower stakeholders with the skills and knowledge needed to effectively manage and utilize the tool in alignment with Ecuador's regulatory and environmental priorities.

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## **Outcome 2: Improved Accuracy and Transparency in Carbon and Water Footprint Assessment through enhancement of measure, monitoring, reporting, and verification institutional systems and instruments**

### ***Output 2.1: Development and integration of advanced modules into the CWF tool to address upstream and downstream emissions, along with the inclusion of functionalities for new user categories (auditors and traders), tailored to align with the specific requirements of the national regulatory framework and context***

This output focuses on enhancing the existing CWF system by integrating new modules - as a result of the recent consultation processes with Ecuadorian producers - and strengthening data collection and reporting capabilities. The goal is to provide a comprehensive and accurate assessment of the environmental impacts across the banana production lifecycle, thereby improving transparency and supporting regulatory compliance. The integration of new features will enable the CWF system to capture detailed data on carbon and water footprints associated with various stages of banana production, including input manufacturing, transport emissions, ripening chambers, and distribution networks. By incorporating these additional data points, the system will offer a more holistic view of the environmental impact, facilitating better decision-making and targeted interventions to reduce emissions. In addition to the new emission factors, the CWF system will be enhanced with auditor-specific modules designed to facilitate the accurate certification of emissions and removals data.

Activities will include:

- Identify and integrate new emission factors relevant to various stages of the banana production lifecycle, including input manufacturing, transport emissions, ripening chambers, and distribution networks.
- Develop and incorporate auditor-specific modules within the CWF system to facilitate accurate certification of emissions and removals data.
- Integrate comprehensive databases on upstream and downstream emissions associated with registered fertilizers and pesticides, as well as emissions from maritime transport.
- Integrate national climate datasets to enhance the accuracy of hydric balance calculations and water footprint assessments within the CWF system. This integration will provide real-time, location-specific climate data, supporting precise water resource management.
- Enhance reporting capabilities to ensure transparency and accountability in environmental impact assessments in line with EU frameworks, and other international frameworks.

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***Output 2.2: Strengthened automation for data collection, data analysis, reporting and evaluation of the results of Carbon and Water Footprint (CWF) System***

This output emphasizes the automation of data workflows within the CWF system to enhance efficiency, accuracy, and reliability in measuring and reporting carbon and water footprints. The system will incorporate new national databases, such as those containing emission factors, climate data, and registered agricultural products. Additionally, the tool will explore interconnection with other platforms, including meteorological systems and national regulatory databases. Automated processes will streamline the collection, analysis, and reporting of emissions and water footprint data across the banana production value chain, reducing manual errors and improving the timeliness of environmental impact assessments.

Activities will include:

- Incorporate comprehensive emission factor databases, climate datasets, and agricultural product registries (e.g., Agrocalidad, CEGINA) into the CWF system.
- Ensure the databases are regularly updated.
- Explore potential integration with meteorological systems to provide real-time climate data for precise water footprint calculations.
- Design and implement automated data pipelines to streamline the collection of emissions factors for upstream and downstream operations.

***Output 2.3: Adaptation of the Carbon and Water Footprint (CWF) Tool for other value chains***

This output aims to expand the scope of the existing Carbon and Water Footprint (CWF) tool by adapting it for its use in other value chains such as coffee and cocoa. By extending the tool's applicability beyond the banana industry, the project seeks to promote broader sustainability and environmental management across multiple key agricultural value chains in Ecuador. The adaptation process will involve customizing the CWF tool to address the specific production processes, environmental impacts, and regulatory requirements of the coffee and cocoa sectors. This will include incorporating modules relevant to these crops, as well as reporting characteristics necessary to comply with EU Regulation on Deforestation-free products. To ensure the adapted tool meets the needs of stakeholders in the coffee and cocoa industries, the project will engage with producers, industry experts, and relevant governmental bodies throughout the development process.

Activities will include:

- Customize the existing CWF tool to address the specific production processes, environmental impacts, and regulatory requirements of the coffee and cocoa sectors.
- Engage with coffee and cocoa producers, industry experts, and relevant governmental bodies to ensure the tool meets their needs.
- Conduct training and capacity-building sessions for coffee and cocoa producers on the use of the adapted CWF tool.
- Conduct pilot tests and refine the tool based on feedback from stakeholders.

***Output 2.4: Training program for MAATE and MAG regarding the management of the CWF tool at national level, update of factors and identification of practices to reduce carbon and water footprints***

This output focuses on building the technical capacity of MAATE and MAG to effectively manage the CWF tool at a national level. Through comprehensive training, MAATE and MAG staff will be equipped to update databases and emission factors, analyze results as well as identify tailored mitigation practices based on CWF results. The tailored approach ensures that identified practices are data-driven, facilitating precise and effective interventions that align with both national and international sustainability standards. These data-driven practices will target areas such as soil recarbonization and the optimized or alternative use of agroplastics, agrochemicals, synthetic fertilizers, pesticides, and fossil fuels, among other sources of emission.

Activities will include:

- Implement targeted training sessions for MAATE and MAG staff on using and managing the CWF tool, with emphasis on national-level application, integration with national systems and analysis of results.
- Identify and tailor best practices for reducing carbon and water footprints based on the specific results of the CWF analysis, ensuring that reduction strategies are data-driven and context-specific.

***Output 2.5: CWF Tool Integration with the Ecuador Carbon Zero Program, the national agricultural policy (2024-2034) and national MRV systems***

This output aims to ensure that the enhanced CWF system and associated sustainability practices are fully aligned with Ecuador's MRV system and Ecuador Carbon Zero Program. This alignment is crucial for maintaining regulatory compliance, supporting national climate goals, and enhancing the global market competitiveness of Ecuadorian agricultural products. By aligning the CWF system with national sustainability priorities, the project will ensure that the environmental impacts of banana production are accurately

measured and reported in accordance with Ecuador's climate commitments. This integration will facilitate the alignment of the banana industry's sustainability efforts with the country's broader environmental goals.

Activities will include:

- Align the CWF system with the objectives and requirements of the Ecuador Carbon Zero Program and national MRV systems.
- Align the CWF system with the objectives and requirements of the National Agricultural Policy (2024-2034)
- Facilitate workshops and meetings with stakeholders to ensure the integration process is transparent and inclusive.
- Develop guidelines and protocols for using the CWF system in alignment with the Ecuador Carbon Zero Program.
- Explore and establish API connections between the CWF system, Ecuador's MRV system, and the Ecuador Carbon Zero Program to ensure seamless data exchange and potential interoperability.

### **Component 3: Capacity development for Compliance with international Standards through the Implementation of Sustainable Practices**

#### **Outcome 3.1 Stakeholders enhance their capacities to comply with EU frameworks and other international standards**

##### ***Output 3.1.1: Development and implementation of knowledge management and capacity building strategy for industry and other stakeholders of banana value chain regarding the measurement of carbon and water footprints and international regulatory standards including comprehensive Training Materials and e-Learning Courses***

This output focuses on the creation of comprehensive training materials and e-learning courses tailored to the unique realities and practices of the Ecuadorian banana sector. Developed in close collaboration with industry experts, these resources will cover critical areas such as carbon and water footprint assessment, the Ecuador Carbon Zero Program, climate change impacts in banana production, sustainable banana production techniques, adaptation, mitigation, biodiversity conservation and compliance with EU regulations. The aim is to equip stakeholders with practical tools that address their specific needs. These materials will be designed to be user-friendly and accessible to all stakeholders, including smallholders, medium-scale growers, large producers and workers within the banana value chain. Furthermore, it will include strategies for informing

consumers about sustainability efforts, enhancing transparency and market appeal. Comprehensive materials for trainers will be developed, providing them with the necessary tools and resources to effectively train others and ensure the continuity of knowledge transfer. Moreover, the output will focus on creating and maintaining a knowledge management platform to collect, manage, and share information on sustainable banana production practices. The platform will serve as a repository for resources such as manuals, case studies, best practice guidelines, and training materials, making them easily accessible to all stakeholders.

Activities will include:

- Conduct capacity-building sessions through in-person and virtual workshops led by expert trainers, focusing on practical knowledge and skills related to sustainable practices, compliance with EU and international regulations, and methodologies for measuring and mitigating environmental impact.
- Develop training materials in various formats (manuals, e-learning, interactive modules, case studies).
- Create comprehensive materials for trainers to ensure effective knowledge transfer.
- Develop a communication plan to inform the project achievements to relevant stakeholders in importing countries.
- Formulate a strategy for national stakeholder engagement aimed at scaling sustainable practices, implementing alternative approaches, and communicating mitigation achievements.
- Develop (or strengthen) an online knowledge management platform to collect, manage, and share information on sustainable banana production practices.
- Regularly update the platform with new information and resources to ensure it remains accurate and up to date.
- Conduct webinars and workshops to share knowledge and promote the use of the platform among stakeholders.
- Identify and promote best practices for reducing carbon and water footprints within the banana value chain.
- Conduct workshops and training sessions to educate stakeholders on the importance of accurate measurement, reporting, and verification (MRV) of carbon and water footprints.

**Outcome 3.2: Widespread adoption of sustainable practices and compliance with Carbon and Water Footprints reduction and EU regulatory standards and regulations**



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***Output 3.2.1: Field validation and cost-benefit evaluation of practices and alternatives to be implemented with a Gender-Sensitive Approach by Smallholders, Medium-Scale Growers, and Large Producers to reduce carbon and water footprints.***

This output involves organizing and conducting demonstrative plots in farmer fields of smallholder producers, medium-scale growers, and large producers within Ecuador's banana sector to evaluate the cost–benefit of alternatives proposed, including the water and carbon footprint measure. In addition, it will provide participants with hands-on knowledge and skills in CWF accounting and reporting, compliance with EU and other regulations, climate adaptation and mitigation strategies, biodiversity conservation and best practices for reducing carbon and water footprints. Emphasis will be placed on the intersection between climate change, NDC/LDN, banana production, green financing and responsible trade, detailing methods to accurately measure carbon and water footprints, and implementing targeted field interventions to reduce these emissions effectively. These will also include information regarding the Ecuador Carbon Zero Program. The training sessions will be delivered by FAO through in-person workshops, Farmer Field Schools, complemented by virtual training materials that will be hosted on MAATE servers. This dual approach ensures accessibility and continuous learning opportunities for all stakeholders. Special consideration will be given to gender inclusion, ensuring that women's groups and organizations are actively engaged in the project. The outcomes and outputs of this component will directly support the activities of the remaining components, thereby ensuring a cohesive and integrated approach to achieving the overall project objectives.

This output focuses on advising and assisting stakeholders in the development and implementation of effective adaptation, mitigation measures and compliance strategies. The goal is to align actions with EU regulatory frameworks, and international standards as well as the requirements of the Ecuador Carbon Zero Program and national frameworks, ensuring that stakeholders can reduce their environmental impacts and meet sustainability requirements supporting the country on achieving its NDC/LDN goals. This output aims to provide continuous technical support to stakeholders for the accurate measurement, reporting, and verification of their carbon and water footprints. By equipping stakeholders with the necessary skills and tools, the project will ensure that environmental impacts are monitored effectively, supporting the implementation of sustainable practices.

Activities will include:

- Field validation of practices or alternatives proposed for reducing carbon and water footprints within the banana value chain, supported by greenhouse gas emissions measurements and field trials.
- Emphasize gender and smallholder inclusion by actively engaging women's groups and organizations in all capacity-building and field-level activities.
- Conduct thorough cost-benefit analyses of various sustainable innovations to identify the most effective and economically viable practices for farmers and banana-exporting companies.

- Promotion of alternatives validated.
- Conduct trainings, provide technical assistance and one-to-one support to smallholders, medium-scale growers, and large producers for implementing the Carbon and Water Footprint (CWF) system and adopting sustainable practices.
- Collaborate with stakeholders to develop tailored action plans for achieving compliance with EU regulations, international sustainability standards, and the requirements of the Ecuador Carbon Zero Program.
- Establish a support desk to assist stakeholders with CWF systems and compliance strategies.

**Output 3.2.2: Smallholders, Medium-Scale Growers, and Large Producers and banana-producing companies increase investment in sustainable banana production systems aligning their practices with EU regulatory frameworks, international standards and the country's Ecuador Carbon Zero Program.**

By fostering investment in advanced practices and technologies, the project seeks to reduce environmental footprints, enhance productivity, and ensure compliance with international market standards. This approach will secure market access and bolster the competitiveness of Ecuador's banana industry.

Activities will include:

- Identify and promote best financing practices for reducing carbon and water footprints within the banana value chain.
- Collaborate with financial analysis for achieving update and designing new suitable products and financial services as well as requirements to access financial opportunities.
- Provide ongoing support and monitoring to ensure the successful adoption of financial solutions.
- Conduct workshops and training sessions on financing education for stakeholders.
- Develop and distribute user-friendly guides and manuals on best financing practices tailored to the banana, cocoa and coffee industries.
- Provide one-on-one technical assistance and support to smallholders, medium-scale growers, and large producers for implementing financing support aligned with CWF systems.
- Establish a support desk to assist stakeholders with finance CWF-related queries and challenges.
- Establish collaborations with financial institutions to create tailored products supporting sustainable practices and participation in the Ecuador Carbon Zero Program.

- Facilitate engagement with international buyers to negotiate premium pricing for bananas that meet CSDDD and CSRD compliance standards and the ones that have obtained the label and/or certification of the Carbon Zero Program.
- Identify and promote best financing practices for reducing carbon and water footprints within the banana value chain.
- Carry out stakeholder engagement sessions to ensure alignment between Private Sector investments and project initiatives.

## Monitoring & Evaluation

### **Outcome 4: Effective Gender-Responsive Project Implementation Based on Adaptive Management**

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#### ***Output 4.1 Baseline Establishment for Project Indicators***

This output is focused on establishing a comprehensive baseline of key indicators to accurately measure project impact and progress. By setting up initial data points, the project will create a foundation for evaluating success in areas such as carbon and water footprint reduction, regulatory improvements, and alignment with EU, international and national sustainability standards. The baseline will capture critical environmental, economic, and social indicators, providing benchmarks for tracking progress in the banana sector.

Activities will include:

- Identify and collect data for baseline indicators relevant to carbon and water footprints across different producer scales (small, medium, and large), establishing a clear starting point for measuring reductions over time and other indicators based on result chain, gender approach and typology.
- Gather baseline data to assess current levels of sustainable practices, gender inclusion, and smallholder participation in sustainable production within the banana value chain, including means of verification.
- Set baseline values for institutional and regulatory frameworks, focusing on the current capacity within MAATE and MAG including means of verification.
- Establish baseline benchmarks for compliance indicators regarding EU standards, including means of verification.

#### ***Output 4.2: Establishment of a Comprehensive Monitoring and Evaluation System***

This output focuses on the design and implementation of a robust M&E system. The system will be gender-responsive, using data disaggregated by sex, age, and ethnicity to ensure inclusive tracking of project impacts. It will develop key performance indicators (KPIs) to measure progress, conduct mid-term and final project reviews to assess progress and identify challenges, and collect and analyze feedback from stakeholders to continuously improve project implementation. Regular communication with European authorities will also be established to provide updates on project milestones, demonstrate compliance with CSDDD and CSRD, and seek feedback for continuous improvement.

Activities will include:

- Design and implement a comprehensive M&E system that is gender-responsive and in line with FAO and GEF requirements.
- Develop key performance indicators (KPIs) that are disaggregated by sex, age, and ethnicity to ensure inclusive tracking of project impacts.
- Implement mid-term and final project reviews to assess progress, identify challenges, and make necessary adjustments.
- Establish regular communication with European authorities to provide updates on project milestones, demonstrate compliance with CSDDD and CSRD, and seek feedback for continuous improvement.

FAO through the World Banana Forum will provide technical expertise, including capacity building and the enhancement of the CWF tool, to ensure effective measurement and management of carbon and water footprints. FAO will also provide technical assistance, develop methodologies and tools to measure and manage the carbon and water footprints of coffee and cacao and facilitate dialogue and consultation among actors on the adoption of nature-positive practices, alignment with international sustainability standards, and compliance with regulatory frameworks such as EU directives. MAATE- will support the Project in aligning with the Ecuador Carbon Zero Program and will consider the project as an initiative for the development of public policies related to the project's objectives.

Additionally, MAATE will provide assistance to facilitate access to environmental incentives and will lead the implementation of monitoring systems, data generation, and evaluation, ensuring the collection, analysis, and dissemination of reliable environmental data that contribute to supporting informed decision-making and the adoption of sustainable practices. MAG will ensure that the project integrates with national agricultural policies and practices, supporting outreach and engagement within the agricultural community to promote widespread adoption of sustainable production systems and

compliance with international standards. Together, these entities will coordinate efforts, make strategic decisions, and guide the project towards achieving its sustainability objectives. The Association of Banana Exporters of Ecuador (AEBE) is another important stakeholder and will work closely with FAO, MAATE, and MAG to ensure private sector buy-in and ownership, catalyzing investment in sustainable practices. This collaboration will strengthen sector-wide commitment to project goals, aligning project interventions with private sector investments and advancing the banana industry's broader environmental and sustainability objectives. Producers, smallholders, private sector actors, traders, and international buyers will play crucial roles in the project's implementation. Traders and exporters will actively engage their smallholder suppliers in the project, promoting the adoption of sustainable practices across the supply chain. This collaboration ensures that sustainability measures are implemented at the grassroots level, driving alignment with project goals and maximizing impact. By fostering this integration, the project will establish a comprehensive approach that actively involves all key stakeholders, from smallholder suppliers to larger industry players, ensuring their collective commitment to long-term sustainability objectives. Small, medium and large producers will benefit from targeted capacity-building activities, investments and technical assistance. These efforts will strengthen their ability to implement sustainable practices, effectively utilize the CWF tool, and achieve compliance with international sustainability standards, enhancing their competitiveness in global markets.

Private sector actors, traders and financial institutions will benefit from these initiatives as they invest in, adopt and enforce new environmental practices, thereby facilitating smoother market access. Local NGOs will play a crucial role in community-level outreach, bridging the gap between technical knowledge and practical application. International buyers will support verification and compliance with global standards, reinforcing the project's effectiveness in maintaining market access.

The project implementation will be supported by: (a) national governmental structures that have competence in environmental, rural development planning, social, and productive issues, such as the ones maintained by MAATE and MAG, (b) the private sector, including producers, traders, financial institutions and other key stakeholders in the banana value chain; (c) civil society organizations that contribute to the country's institutional framework, including local NGOs involved in community-level outreach and capacity building; and (d) FAO initiatives associated with land degradation, biodiversity conservation, and climate change mitigation.

To ensure coordination and interaction among these diverse stakeholders, a Project Steering Committee (SC) and Technical Committee (TC), will be established. The main tasks of the SC will be to: (a) provide strategic direction to project implementation and approve progress and financial reports; (b) ensure institutional commitments for the operation of the project and the incorporation of resources and results generated by the project (strategies, plans, programs, policy proposals); (c) support the dissemination of project results within all spheres, and (d) facilitate the dissemination of project results to private sector organizations, financial systems, and governance areas related to natural resources. The main tasks of the TC will be to: (a) advise about local initiatives, projects under implementation, will provide data and information about their sectors, (b) present to the PSC comments about the main documents that the project will develop and (c) support the process of scaling up the lessons learned, providing advice on priorities and strategies for this purpose. This structure will ensure that all stakeholders are integrated into the strategic decision-making of the project, enhancing its overall impact and sustainability.

The project emphasizes adopting innovative technologies and sustainable productive and financing practices, ensuring compliance with international standards and mitigating risks related to strategic and policy changes. The technical design leverages established tools and includes capacity-building and stakeholder engagement components, ensuring effective implementation. Institutional capacity risks are low, given the involvement of experienced institutions like FAO, AEBE, MAATE, and MAG, with additional components to enhance institutional capacities further.

The project will deliver significant global environmental benefits that would not be achievable without GEF's engagement, underscoring its strong additionality. GEF support is crucial for transforming Ecuador's banana industry by facilitating the introduction, adoption and scale up of sustainable practices that reduce reliance on agrochemicals and fossil fuels, optimize resource use, and enhance soil management. Without GEF's backing, these practices would likely remain fragmented and limited to small-scale initiatives, unable to collectively address the emissions reduction goals set forth in Ecuador's NDCs, specifically, in agriculture line 2, which proposes to develop and implement sustainable agricultural production systems with low greenhouse gas emissions (agriculture and forestry) at the national level.

Moreover, GEF's financial assistance will enable the establishment of robust Sustainable Land Management (SLM) practices that effectively combat land degradation, erosion, and resource depletion—issues that are critical to the sustainability of Ecuador's agricultural sector. Such comprehensive implementation of SLM would be challenging without GEF's support, as the project ensures that these practices are scaled across the entire sector rather than confined to isolated efforts.

Additionally, GEF funding is essential for deploying advanced MRV systems, which provide the tools necessary for precise tracking of carbon and water footprints, enabling Ecuador to meet international reporting standards. These systems will enable accurate emissions reporting and integration of biodiversity-related indicators into decision-making, directly supporting multiple targets of the Kunming-Montreal GBF. Furthermore, GEF's role in promoting knowledge sharing ensures that Ecuador's methodologies and practices can serve as a replicable model on regional and global scales, amplifying the project's impact and contributing to agricultural resilience beyond Ecuador's borders.

### **Coordination and Cooperation with Ongoing Initiatives and Project.**

Does the GEF Agency expect to play an execution role on this project?

No

If so, please describe that role here. Also, please add a short explanation to describe cooperation with ongoing initiatives and projects, including potential for co-location and/or sharing of expertise/staffing

Coordination with on-going initiatives

The proposed project will work closely with the following GEF-funded activities:

- Regarding agrochemicals use, the proposed project will coordinate with the “Financing Agrochemical Reduction and Management (FARM) program in Ecuador” (GEFID 10901). The FARM program in Ecuador seeks to reduce the use of agrochemicals in the country, including the banana sector by supporting farmers access to finance, sustainable production practices and support consumer markets.
- Similarly, the project will coordinate with the LDN Target-Setting and Restoration of Degraded Landscapes in Western Andes and Coastal areas (GEFID 10184) which seeks to avoid, reduce and reverse land degradation processes by promoting the sustainable development of rural communities. Land degradation processes linked to deforestation in Ecuador are driven in part by export commodities such as bananas, cocoa and palm oil.
- Promoting the mainstreaming of biodiversity and the protection of ecosystem services through regenerative and deforestation-free livestock practices in the provinces of Manabí, Pichincha, and Morona Santiago project.
- Finally, the proposed project will coordinate activities with the Food Systems Integrated Program led by FAO and IFAD (GEFID 11215) and Ecuador’s Child project (GEFID 11369). While the bananas sector is not one of the target value chains in the program, the FSIP will explore best practices to reduce the use of agrochemicals and plastics in the agriculture sector.

## Core Indicators

### Indicator 4 Area of landscapes under improved practices (hectares; excluding protected areas)

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
150000	0	0	0

### Indicator 4.1 Area of landscapes under improved management to benefit biodiversity (hectares, qualitative assessment, non-certified)

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)

### Indicator 4.2 Area of landscapes under third-party certification incorporating biodiversity considerations

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)

## Type/Name of Third Party Certification

### Indicator 4.3 Area of landscapes under sustainable land management in production systems

Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)
150,000.00			

### Indicator 4.4 Area of High Conservation Value or other forest loss avoided

Disaggregation Type	Ha (Expected at PIF)	Ha (Expected at CEO Endorsement)	Ha (Achieved at MTR)	Ha (Achieved at TE)

#### Indicator 4.5 Terrestrial OECMs supported

Name of the OECMs	WDPA-ID	Total Ha (Expected at PIF)	Total Ha (Expected at CEO Endorsement)	Total Ha (Achieved at MTR)	Total Ha (Achieved at TE)
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#### Documents (Document(s) that justifies the HCVF)

Title
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#### Indicator 6 Greenhouse Gas Emissions Mitigated

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO <sub>2</sub> e (direct)	14696789	0	0	0
Expected metric tons of CO <sub>2</sub> e (indirect)	0	0	0	0

#### Indicator 6.1 Carbon Sequestered or Emissions Avoided in the AFOLU (Agriculture, Forestry and Other Land Use) sector

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO <sub>2</sub> e (direct)	14,696,789			
Expected metric tons of CO <sub>2</sub> e (indirect)				
Anticipated start year of accounting	2026			
Duration of accounting	20			

#### Indicator 6.2 Emissions Avoided Outside AFOLU (Agriculture, Forestry and Other Land Use) Sector

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO <sub>2</sub> e (direct)				
Expected metric tons of CO <sub>2</sub> e (indirect)				
Anticipated start year of accounting				
Duration of accounting				

#### Indicator 6.3 Energy Saved (Use this sub-indicator in addition to the sub-indicator 6.2 if applicable)

Total Target Benefit	Energy (MJ) (At PIF)	Energy (MJ) (At CEO Endorsement)	Energy (MJ) (Achieved at MTR)	Energy (MJ) (Achieved at TE)
Target Energy Saved (MJ)				

#### Indicator 6.4 Increase in Installed Renewable Energy Capacity per Technology (Use this sub-indicator in addition to the sub-indicator 6.2 if applicable)

Technology	Capacity (MW) (Expected at PIF)	Capacity (MW) (Expected at CEO Endorsement)	Capacity (MW) (Achieved at MTR)	Capacity (MW) (Achieved at TE)
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## Indicator 11 People benefiting from GEF-financed investments

	Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
<b>Female</b>	40,000			
<b>Male</b>	40,000			
<b>Total</b>	<b>80,000</b>	<b>0</b>	<b>0</b>	<b>0</b>

Explain the methodological approach and underlying logic to justify target levels for Core and Sub-Indicators (max. 250 words, approximately 1/2 page)

Core Indicator 4: Area of landscapes under improved practices:

The project will implement targeted initiatives on 150,000 hectares of banana plantations, aiming to foster sustainable agricultural practices and reduce environmental impacts, representing a conservative yet impactful approach, covering more than 80% of the total banana cultivation area in the country. The farms will be selected based on integration with international markets, prioritizing small and medium-scale growers and ensuring gender balance. Consultations will be conducted with MAATE and MAG to ensure representativeness and scalability potential.

Core Indicator 6: Greenhouse Gas Emissions Mitigated

Estimates have been calculated through the EX-Ante Carbon-balance Tool (EX-ACT v9.0), with a direct carbon-benefit of 14,696,789 tCO<sub>2</sub>e for a total period of 20 years (3 years of implementation and 17 years of capitalization). Estimations were considered based on the implementation of improved practices (15% less inputs and increased soil management practices in 150,000 ha). Indirect carbon benefits will be estimated during PPG, when a precise upscaling approach has been defined.

Core Indicator 11: Number of direct beneficiaries disaggregated by gender as co-benefit of GEF investment

The project will directly benefit 80 000 farmers and workers thanks to investments made on capacity building and knowledge management outputs. This is a conservative figure considering that the project will reach less than 85% of the banana producing areas in the country.

## Key Risks

	Rating	Explanation of risk and mitigation measures
<b>CONTEXT</b>		
Climate	Low	Climate risks are not considered due to the project's focus on sustainability and climate adaptation strategies, which inherently mitigate such risks.
Environmental and Social	Moderate	The environmental and social safeguards screening identified as potential risk the management of pesticides, which are intensively used in the banana industry in Ecuador (ESS 2.4). The project considers an output 2,4 focus on training stakeholders in international standards on sustainable practices, including responsible use of pesticides and in identifying alternatives to their utilization. In general, the project is designed to enhance environmental

		management and social sustainability, thereby reducing environmental and social risks.
Political and Governance	Low	Ecuador has stable political conditions and strong governance structures supporting environmental initiatives. The involvement of key government bodies such as MAATE in the steering committee ensures alignment with national policies and reduces political risks. The involvement of the Cluster of Banana Producers of Ecuador will ensure proper articulations between different stakeholders.

#### INNOVATION

Institutional and Policy	Low	The project aligns with existing national strategies and policies, including the Ecuador Carbon Zero Program and NDC commitments and National CC mitigation plan. The strong policy alignment and government support mitigate risks related to strategic and policy changes. Furthermore, the project emphasizes the identification and adoption of better alternatives, such as innovative technologies and sustainable practices. This focus will drive new investments and ensure compliance with international standards, reducing the risk associated with potential shifts in strategies and policies. By proactively aligning with both national and international frameworks, the project enhances its resilience to policy changes and secures its long-term sustainability and success.
Technological	Low	The project's technical design is robust, leveraging established tools like the WBF's CWF tool and integrating it with national initiatives. The inclusion of capacity-building, improving enabling conditions for accountability of the practices implemented by producers, and stakeholder engagement components ensure effective implementation. Also, as mentioned before, the project will emphasize the identification and adoption of innovative technologies that will drive new investments, while ensuring compliance with international standards, reducing the risk associated with potential shifts in strategies and policies.
Financial and Business Model	Moderate	The macro-economic environment in Ecuador is stable, with significant government support for the agricultural sector. The project aligns with national economic priorities, reducing the risk of macro-economic fluctuations affecting project implementation. However, part of the business model relies on the participation of public and private banks and investments from producers. This introduces a potential risk, as the model may not fully align with their financial interests. To mitigate this, the project prioritizes investments in small producers while facilitating technical assistance for larger producers to ensure their involvement and alignment with the project's sustainability goals. This dual approach aims to balance stakeholder engagement while minimizing the risk of disengagement from key actors.

#### EXECUTION

Capacity	Low	The involvement of experienced institutions like the WBF, MAATE, and MAG ensures strong institutional capacity for project implementation and
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		sustainability. The project also includes components to enhance institutional capacities further.
Fiduciary	Low	The project will follow established financial management and procurement procedures, with oversight from the steering committee.
Stakeholder	Low	The project includes comprehensive stakeholder engagement strategies to ensure active participation and buy-in from all relevant parties. Regular consultations and capacity-building activities will maintain strong stakeholder engagement.
Other		
Overall Risk Rating	Moderate	The overall risk rating for the project is moderate, considering all the above identified risks.

### C. ALIGNMENT WITH GEF-8 PROGRAMMING STRATEGIES AND COUNTRY/REGIONAL PRIORITIES

Describe how the proposed interventions are aligned with GEF- 8 programming strategies and country and regional priorities, including how these country strategies and plans relate to the multilateral environmental agreements.

Confirm if any country policies that might contradict with intended outcomes of the project have been identified, and how the project will address this.

For projects aiming to generate biodiversity benefits (regardless of what the source of the resources is - i.e., BD, CC or LD), please identify which of the 23 targets of the Kunming-Montreal Global Biodiversity Framework the project contributes to and explain how. (max. 500 words, approximately 1 page)

As discussed above, the banana sector has significant environmental impacts due to its production methods, including monoculture production, land degradation linked to soil depletion and land clearing, and significant use of agrochemicals. The proposed project is aligned with the GEF Land Degradation Focal Area, particularly with Objective 1: Avoid and reduce land degradation through sustainable land management (SLM). In order to achieve a lower environmental footprint of the sector, the proposed project will promote the application and scaling of SLM interventions that improve productivity and maintain or improve flow of agro-ecosystem services that underpin food production and livelihoods.

Investing in SLM has been shown to be a cost-effective way to deliver multiple GEBs related to agro-ecosystem functions. In particular, by investing in the banana sector under component 3, the proposed project is expected to produce benefits such as improved soil health and reduced soil erosion, reduced pollution risks, and reduced degradation and fragmentation of water resources; reduced emission of greenhouse gases by improving vegetation cover and accumulation of soil organic matter; and increased sustainability and resilience of agro-ecosystem services.

The project proposes a comprehensive set of interventions that enhance carbon sequestration and reduce emissions through sustainable land use practices in alignment with the GEF Climate Change Focal Area – Pillar I, Objective 1.4: Promote Nature-based Solutions with high mitigation potential. Core interventions include improved soil carbon management, optimized nutrient and energy use, effective agrochemical and waste management, and the transition to climate-smart production systems. These are complemented by exploring the potential of afforestation and reforestation in designated buffer zones, and the foment of agroecosystems that may serve as carbon sinks. The project will collaborate with the Global Soil Doctor

Programme of FAO to explore its application to disseminate the good practices identified across the banana sector in the country.

The project directly supports Ecuador's legal and policy framework for land degradation and LDN through the integration of Sustainable Land Management (SLM) practices across 150,000 ha, contributing to the objectives of the National Constitution (Art. 409–410), Organic Environmental Code, and the Organic Law on Rural Lands. It will support the operationalization of the updated Programa de Acción Nacional de Lucha contra la Desertificación y la Sequía (PAND – National Action Program to Combat Desertification and Drought) by implementing integrated interventions to address key degradation drivers, while contributing to the National Forest Restoration Plan (2019–2030) targets via afforestation of degraded lands and riparian buffers adjacent to banana production areas. The enhanced MRV system and CWF tool align with MAATE's obligations under the PAND and LDN Target Setting Program, enabling consistent monitoring of land productivity, soil organic carbon, and land cover—core UNCCD LDN indicators. The project also contributes to the forthcoming National LDN Action Plan by demonstrating field-level restoration in banana landscapes and scaling SLM incentives for smallholder's in line with Articles 12 and 13 of the Rural Lands Law. Through integration into national land-use planning, co-financing mechanisms, and institutional capacity building, the project enables MAATE and MAG to fulfil their mandates as outlined in Acuerdo Ministerial 045 and Ecuador's commitments under SDG 15.3 and the UNCCD.

The project directly supports Ecuador's NDC/LDN commitments by prioritizing sustainable practices and emissions reduction within the banana industry. It will strengthen MRV systems and data management tools to enhance traceability and transparency, while advancing initiatives to track emissions and resource efficiency. These actions align with Ecuador's objectives to mitigate agricultural emissions and meet the NDC/LDN action line to “strengthen climate change management through research and the development of information systems within the agricultural sector”.

Moreover, the project supports several targets of the Kunming-Montreal Global Biodiversity Framework (GBF). By implementing alternatives to the intensive use of agroplastics, agrochemicals, synthetic fertilizers, and pesticides, it contributes to Target 7: Reducing Pollution to Levels Not Harmful to Biodiversity. Through the promotion of sustainable agricultural practices and production frameworks, the project supports Target 10: Enhance Biodiversity and Sustainability in Agriculture, Aquaculture, Fisheries, and Forestry.

By strengthening National MRV systems and providing farmers with impact measurement tools it supports Target 14: Integrate Biodiversity in Decision-Making at Every Level, enabling data-driven, climate-informed decisions. Additionally, by facilitating compliance with international standards like the CSDDD and CSRD, the project enables industry actors to assess, disclose, and mitigate biodiversity-related risks, contributing to Target 15: Businesses Assess, Disclose, and Reduce Biodiversity-Related Risks and Negative Impacts. Finally, by promoting transparency and traceability along the banana supply chain, the project contributes to Target 16: Enable Sustainable Consumption Choices to Reduce Waste and Overconsumption, empowering consumers and stakeholders to make informed, sustainable choices based on detailed environmental impact data.

#### D. POLICY REQUIREMENTS

##### **Gender Equality and Women's Empowerment:**

We confirm that gender dimensions relevant to the project have been addressed as per GEF Policy and are clearly articulated in the Project Description (Section B).

Yes

## Stakeholder Engagement

We confirm that key stakeholders were consulted during PIF development as required per GEF policy, their relevant roles to project outcomes and plan to develop a Stakeholder Engagement Plan before CEO endorsement has been clearly articulated in the Project Description (Section B).

Yes

### Were the following stakeholders consulted during project identification phase:

Indigenous Peoples and Local Communities: Yes

Civil Society Organizations: Yes

Private Sector: Yes

### Provide a brief summary and list of names and dates of consultations

Date	Institution	Participants
29 November 2024	MAG	Ms Tatiana Paredes (Focal Point - Subsecretary of Agricultural Innovation Networks, Ministry of Agriculture); Ms Cecilia Raquel Ponce (Project Inception Coordinator, FAO); Ms Maria Belén Herrera (REDD+ Specialist, Latin America, FAO)
22 November 2024	MAATE	Ms. Carolina Tenorio (Director of Production and Sustainable Development); Ms Cecilia Raquel Ponce (Project Inception Coordinator, FAO); Ms Maria Belén Herrera (REDD+ Specialist, Latin America, FAO)
17 July 2024	MAATE, AEBE	Mr Edgar Fabricio Heredia Salazar (Vice Minister of Environment); Mr Angel Javier Sandoval Torres (Subsecretary of Climate Change); Ms

		Carolina Tenorio (Director of Production and Sustainable Development); Mr Jose Antonio Hidalgo Molina (Executive Director of AEBE); Mr Victor Prada (Secretary of the WBF-FAO); Mr Matheus Lima (Environment and Sustainability Specialist of the WBF-FAO)
5 July 2024	MAATE, AEBE	Mr Angel Javier Sandoval Torres (Subsecretary of Climate Change); Ms Carolina Tenorio (Director of Production and Sustainable Development); Mr Hugo Viteri (MAATE); Mr Jose Antonio Hidalgo Molina (Executive Director of AEBE); Mr Augustin Delgado (Legal Coordinator of AEBE); Mr Victor Prada (Secretary of the WBF-FAO); Mr Matheus Lima (Environment and Sustainability Specialist of the WBF-FAO)
17 June 2024	MAATE, AEBE	Mr Jose Antonio Hidalgo Molina (Executive Director of AEBE); Mr Augustin Delgado (Legal Coordinator of AEBE), Mr Daniel Donoso (MAATE); Mr Victor Prada (Secretary of the WBF-FAO); Mr Matheus Lima (Environment and Sustainability Specialist of the WBF-FAO)
9 May 2024	World Banana Forum	43 organizations members of the WBF Steering Committee; Mr Victor Prada (Secretary of the WBF-FAO); Mr Matheus Lima (Environment and Sustainability Specialist of the WBF-FAO)
12 March 2024	MAG	Mr Danilo Palacios (Minister of Agriculture of Ecuador); Mr Victor Prada (Secretary of the WBF-FAO); Mr Matheus Lima (Environment and

		Sustainability Specialist of the WBF-FAO)
26 October 2023	Cluster of Banana Producers of Ecuador	Several representants of the banana exporting companies' members of the Ecuadorian Banana Cluster; Mr Victor Prada (Secretary of the WBF-FAO); Mr Matheus Lima (Environment and Sustainability Specialist of the WBF-FAO)
21 October 2023	Association of Smallholders El Guabo (ASOGUABO)	Several smallholder producers that are part of ASOGUABO; Mr Victor Prada (Secretary of the WBF-FAO); Mr Matheus Lima (Environment and Sustainability Specialist of the WBF-FAO)

(Please upload to the portal documents tab any stakeholder engagement plan or assessments that have been done during the PIF development phase.)

## Private Sector

Will there be private sector engagement in the project?

Yes

And if so, has its role been described and justified in the section B project description?

Yes

## Environmental and Social Safeguard (ESS) Risks

We confirm that we have provided indicative information regarding Environmental and Social risks associated with the proposed project or program and any measures to address such risks and impacts (this information should be presented in Annex D).

Yes

## Overall Project/Program Risk Classification

PIF	CEO Endorsement/Approval	MTR	TE
Medium/Moderate			

## E. OTHER REQUIREMENTS

### Knowledge management

We confirm that an approach to Knowledge Management and Learning has been clearly described in the Project Description (Section B)

Yes

## ANNEX A: FINANCING TABLES

### GEF Financing Table

Indicative Trust Fund Resources Requested by Agency(ies), Country(ies), Focal Area and the Programming of Funds

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Programming of Funds	Grant / Non- Grant	GEF Project Grant(\$)	Agency Fee(\$)	Total GEF Financing (\$)
FAO	GET	Ecuador	Land Degradation	LD STAR Allocation: LD-1	Grant	1,065,890.00	101,260.00	1,167,150.00
FAO	GET	Ecuador	Climate Change	CC STAR Allocation: CCM- 1-4	Grant	710,594.00	67,506.00	778,100.00
<b>Total GEF Resources (\$)</b>						<b>1,776,484.00</b>	<b>168,766.00</b>	<b>1,945,250.00</b>

### Project Preparation Grant (PPG)

Is Project Preparation Grant requested?

true

PPG Amount (\$)

50000

PPG Agency Fee (\$)

4750

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Programming of Funds	Grant / Non- Grant	PPG(\$)	Agency Fee(\$)	Total PPG Funding(\$)
FAO	GET	Ecuador	Land Degradation	LD STAR Allocation: LD-1	Grant	30,000.00	2,850.00	32,850.00
FAO	GET	Ecuador	Climate Change	CC STAR Allocation: CCM-1- 4	Grant	20,000.00	1,900.00	21,900.00
<b>Total PPG Amount (\$)</b>						<b>50,000.00</b>	<b>4,750.00</b>	<b>54,750.00</b>



Please provide justification

### Sources of Funds for Country Star Allocation

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Sources of Funds	Total(\$)
FAO	GET	Ecuador	Biodiversity	BD STAR Allocation	2,000,000.00
<b>Total GEF Resources</b>					<b>2,000,000.00</b>

### Indicative Focal Area Elements

Programming Directions	Trust Fund	GEF Project Financing(\$)	Co-financing(\$)
LD-1	GET	1,065,890.00	4252328
CCM-1-4	GET	710,594.00	2834886
<b>Total Project Cost</b>		<b>1,776,484.00</b>	<b>7,087,214.00</b>

### Indicative Co-financing

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount(\$)
GEF Agency	Food and Agriculture Organization FAO	In-kind	Recurrent expenditures	500000
Private Sector	Asociación de Exportadores de Banano del Ecuador AEBE	In-kind	Recurrent expenditures	763000
Private Sector	AEBE	Grant	Investment mobilized	50000
Private Sector	Reybanpac, Rey Banano del Pacifico, C.L	In-kind	Recurrent expenditures	186984
Private Sector	Reybanpac	Grant	Investment mobilized	4120606
Recipient Country Government	Ministry of Environment, Water and Ecological Transition MAATE	In-kind	Investment mobilized	113292
Recipient Country Government	Ministry of Agriculture MAG	In-kind	Recurrent expenditures	932280

Recipient Country Government	MAG	Public Investment	Investment mobilized	421052
<b>Total Co-financing</b>				<b>7,087,214.00</b>

Describe how any "Investment Mobilized" was identified

The investment mobilized identified corresponds to ongoing projects from AEBE on climate monitoring and baseline studies on productive areas, as well as investments on sustainability infrastructure and conservation of forests by Reybanpac. The identified contribution from MAG corresponds to a project in diversification of agriculture.

## ANNEX B: ENDORSEMENTS

### GEF Agency(ies) Certification

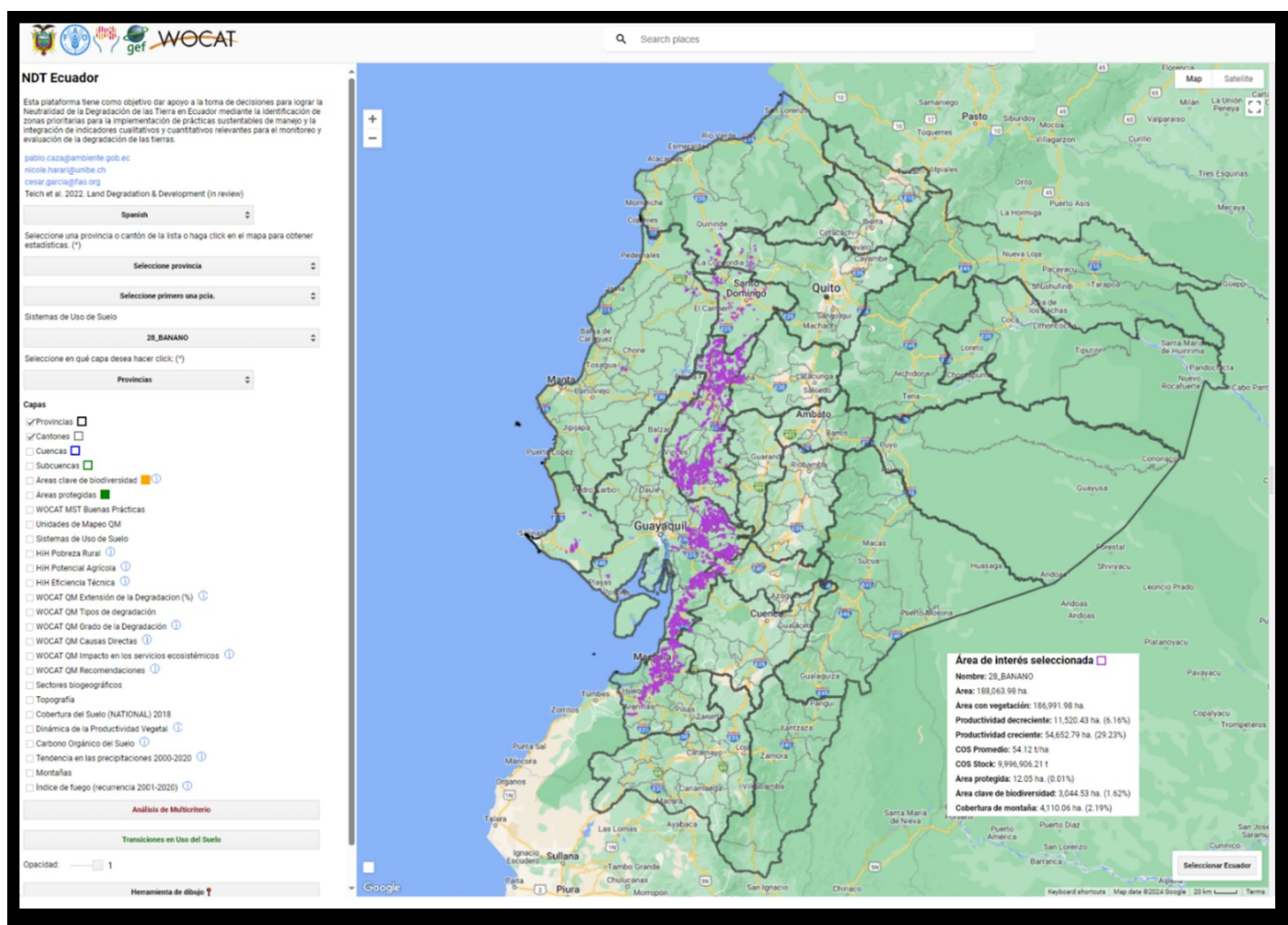
GEF Agency Type	Name	Date	Project Contact Person	Phone	Email
GEF Agency Coordinator	Lorenzo Campos	2/14/2025	Lorenzo Campos		lorenzo.camposaguirre@fao.org

### Record of Endorsement of GEF Operational Focal Point (s) on Behalf of the Government(s):

Name	Position	Ministry	Date (MM/DD/YYYY)
Mireille Vásquez	Director of International Cooperation	Ministry of Environment, Water and Ecological Transition of Ecuador (MAATE)	11/5/2024

## ANNEX C: PROJECT LOCATION

Please provide geo-referenced information and map where the project interventions will take place



## ANNEX D: ENVIRONMENTAL AND SOCIAL SAFEGUARDS SCREEN AND RATING

(PIF level) Attach agency safeguard screen form including rating of risk types and overall risk rating.

Title

Full ES Risk Screening checklist for project 755893

## ANNEX E: RIO MARKERS

Climate Change Mitigation	Climate Change Adaptation	Biodiversity	Land Degradation
Principal Objective 2	No Contribution 0	No Contribution 0	Principal Objective 2

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ANNEX F: TAXONOMY WORKSHEET

Level 1	Level 2	Level 3	Level 4
<input checked="" type="checkbox"/> Influencing models			
	<input checked="" type="checkbox"/> Transform policy and regulatory environments		
	<input checked="" type="checkbox"/> Strengthen institutional capacity and decision-making		
	<input checked="" type="checkbox"/> Convene multi-stakeholder alliances		
	<input checked="" type="checkbox"/> Demonstrate innovative approaches		
<input checked="" type="checkbox"/> Stakeholders			
	<input checked="" type="checkbox"/> Private Sector		
		<input checked="" type="checkbox"/> Large corporations	
		<input checked="" type="checkbox"/> SMEs	
		<input checked="" type="checkbox"/> Individuals/Entrepreneurs	
	<input checked="" type="checkbox"/> Beneficiaries		
	<input checked="" type="checkbox"/> Local Communities		
	<input checked="" type="checkbox"/> Civil Society		
		<input checked="" type="checkbox"/> Non-Governmental Organization	
	<input checked="" type="checkbox"/> Type of Engagement		
		<input checked="" type="checkbox"/> Information Dissemination	
		<input checked="" type="checkbox"/> Partnership	
		<input checked="" type="checkbox"/> Consultation	
		<input checked="" type="checkbox"/> Participation	
	<input checked="" type="checkbox"/> Communications		
		<input checked="" type="checkbox"/> Awareness Raising	
<input checked="" type="checkbox"/> Capacity, Knowledge and Research			
	<input checked="" type="checkbox"/> Capacity Development		
	<input checked="" type="checkbox"/> Knowledge Generation and Exchange		
	<input checked="" type="checkbox"/> Innovation		
	<input checked="" type="checkbox"/> Knowledge and Learning		
<input checked="" type="checkbox"/> Gender Equality			
	<input checked="" type="checkbox"/> Gender Mainstreaming		
		<input checked="" type="checkbox"/> Beneficiaries	
		<input checked="" type="checkbox"/> Sex-disaggregated indicators	
	<input checked="" type="checkbox"/> Gender results areas		
		<input checked="" type="checkbox"/> Capacity development	
		<input checked="" type="checkbox"/> Knowledge generation	
<input type="checkbox"/> Focal Areas/Theme			
	<input type="checkbox"/> Biodiversity		
		<input checked="" type="checkbox"/> Mainstreaming	
			<input checked="" type="checkbox"/> Agriculture & agrobiodiversity
			<input checked="" type="checkbox"/> Certification (National Standards)
			<input checked="" type="checkbox"/> Certification (International Standards)
	<input checked="" type="checkbox"/> Land Degradation		
		<input checked="" type="checkbox"/> Sustainable Land Management	
			<input checked="" type="checkbox"/> Integrated and Cross-sectoral approach
			<input checked="" type="checkbox"/> Sustainable Livelihoods
			<input checked="" type="checkbox"/> Income Generating Activities
			<input checked="" type="checkbox"/> Sustainable Agriculture
			<input checked="" type="checkbox"/> Improved Soil and Water Management Techniques
		<input checked="" type="checkbox"/> Land Degradation Neutrality	
	<input checked="" type="checkbox"/> Climate Change		<input checked="" type="checkbox"/> Land Productivity
		<input checked="" type="checkbox"/> Climate Change Mitigation	

