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Report No: PADHP00124

INTERNATIONAL BANK FOR RECONSTRUCTION AND DEVELOPMENT

PROGRAM APPRAISAL DOCUMENT
ON A
PROPOSED LOAN

IN THE AMOUNT OF US$120 MILLION IBRD

TO THE

REPUBLIC OF COSTA RICA

FOR A

PROGRAM FOR SUSTAINABLE AND COMPETITIVE AGRICULTURE IN COSTA RICA

(P504033)

February 4, 2024

Agriculture and Food
Latin America and Caribbean

CURRENCY EQUIVALENTS

(Exchange Rate Effective {Dec 15, 2024})

Currency Unit =		
	=	US$1
US$ =		SDR 1

FISCAL YEAR
January 1 - December 31

Regional Vice President:	Carlos Felipe Jaramillo
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ABBREVIATIONS AND ACRONYMS

AM	Accountability Mechanism
ASP	Agriculture Sector Plan of the Ministry of Agriculture of Costa Rica
CCBs	Climate Co-benefits
CE	Citizen Engagement
CNP	*Consejo Nacional de Producción* (National Production Council)
CONAC	*Consejo Nacional de Clubes 4-S* (National Council of 4-S Clubs)
CPF	Country Partnership Framework
CSA	Climate-Smart Agriculture
DRAT	*Distrito de Riego de Arenal Tempisque* (Arenal Tempisque Irrigation District)
DLI	Disbursement-linked indicator
DNEA	*Dirección Nacional de Extensión Agropecuaria* (National Directorate of Agricultural Extension)
E&S	Environment & Social
ESSA	Environmental and Social Systems Assessment
EU	European Union
FDI	Foreign Direct Investment
FAO	Food and Agriculture Organization of the United Nations
FM	Financial Management
FONAFIFO	*Fondo Nacional de Financiamiento Forestal* (National Forest Financing Fund)
FONADE	*Fondo Nacional para el Desarrollo* (National Fund for Development)
FSA	Fiduciary Systems Assessment
GDP	Gross Domestic Product
GHG	Green-house Gas
GoCR	Government of Costa Rica
GRM	Grievance Redress Mechanism
GRS	Grievance Redress Service
IBRD	International Bank for Reconstruction and Development
IFC	International Finance Corporation
HLO	High Level Objectives
ICAFE	*Instituto del Café de Costa Rica* (Costa Rica Coffee Institute)
IFAD	International Fund for Agriculture Development
INA	Institución Nacional de Aprendizaje (National Learning Institute)
INCOPESCA	*Instituto Costarricense de Pesca y Acuicultura* (Costa Rican Institute of Fisheries and Aquaculture)
INDER	*Instituto de Desarollo Rural* (Rural Development Institute)
INTA	*Instituto Nacional de Innovación y Transferencia en Tecnología Agropecuaria* (National Institute of Innovation and Transfer in Agricultural Technology)
IPF	Investment Project Financing
IFAD	International Fund for Agricultural Development
LAC	Latin America and the Caribbean
LAICA	*Liga Agrícola Industrial de la Caña de Azúcar* (Sugar Cane Industrial Agricultural League)
LGCP	*Ley General de Contratación Pública* (General Public Procurement Law)
M&E	Monitoring and evaluation
MAG	*Ministério de Agricultura y Ganaderia* (Ministry of Agriculture and Livestock)
MINAE	Ministerio de Ambiente y Energía (Ministry of Environment and Energy)
MoC	Memorandum of Collaboration
MRV	Monitoring, Reporting and Verification

NAMAs	Nationally Appropriate Mitigation Actions
NDC	Nationally Determined Contribution
ND-GAIN	Notre Dame Global Adaptation Initiative
OECD	Organisation for Economic Co-operation and Development
OHS	Occupational Health and Safety
OIRSA	*Organismo Internacional Regional de Sanidad Agropecuaria* (Regional Organization for Animal and Plant Health)
ONS	*Oficina Nacional de Semillas* (National Seed Office)
OPRC	Operations Procurement Review Committee
PAP	Program Action Plan
PCU	Project Coordination Unit
PDO	Project development objective
PES	Payments for Environmental Services
PforR	Program for Results
PIMA	*Programa Integral de Mercadeo Agropecuario* (Integrated Agricultural Marketing Program)
PYMPA	Small- and medium-scale farmer
RA	Results Area
REFRINA	*Red Frigorífica Nacional* (National Refrigerated Network)
RLGCP	*Reglamento de la Ley General de Contratación Pública (*Regulations of the General Public Procurement Law)
SBD	*Sistema de Banca para el Desarrollo* (Development Banking System of Costa Rica)
SENARA	*Servicio Nacional de Aguas Subterráneas, Riego y Avenamiento* (National Groundwater, Irrigation and Drainage Service)
SENASA	*Servicio Nacional de Salud Animal* (National Animal Health Service)
SEPSA	*Secretaría Ejecutiva de Planificación Sectorial Agropecuaria* (Executive Secretariat of Agricultural Sector Planning)
SFE	*Servicio Fitosanitario del Estado* (State Phytosanitary Service)
SIAC	*Sistema Integrado de la Actividad Contractual* (Integrated Contract Activity System)
SICOP	*Sistema Integrado de Compras Públicas* (Integrated Public Procurement System)
SIGAF	*Sistema Integrado de Gestión de Administración Financiera* (Integrated Financial)
SME	Information System of Costa Rica Small and Medium Enterprise
SORT	Systematic Operations Risk Rating Tool
TA	Technical assistance
TFP	Total Factor Productivity
TSA	Treasury Single Account
UA	Universally Aligned, per the Universally Aligned List of Activities of the Agriculture Sector Toolkit of the World Bank
WBG	World Bank Group

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DATASHEET

BASIC INFORMATION

Project Beneficiary(ies)	Operation Name		
Costa Rica	Program for Sustainable and Competitive Agriculture in Costa Rica		
Operation ID	Financing Instrument	Does this operation have an IPF component?	
P504033	Program-for-Results Financing (PforR)	No	

Financing & Implementation Modalities

[ ] Multiphase Programmatic Approach (MPA)	[ ] Fragile State(s)
[ ] Contingent Emergency Response Component (CERC)	[ ] Fragile within a non-fragile Country
[ ] Small State(s)	[ ] Conflict
[ ] Alternative Procurement Arrangements (APA)	[ ] Responding to Natural or Man-made Disaster
[ ] Hands-on Expanded Implementation Support (HEIS)	

Expected Approval Date	Expected Closing Date
10-Mar-2025	27-May-2031
Bank/IFC Collaboration	Joint Level
Yes	Joint Project – involving co financing with IFC (loan, equity, budget, other) or staffing

Proposed Program Development Objective(s)

To improve the sustainability, competitiveness, and economic participation of selected small and medium agriculture producers in Costa Rica.

Organizations

Borrower:	Ministry of Finance		
Contact	Title	Telephone No.	Email
Implementing Agency:	Ministerio de Agricultura y Ganadería (MAG)		
Contact	Title	Telephone No.	Email
Victor Carvajal	Minister of Agriculture and Livestock	50683442299	vcarvajal@mag.go.cr

COST & FINANCING (US$, Millions)

Maximizing Finance for Development

Is this an MFD-Enabling Project (MFD-EP)? No

Is this project Private Capital Enabling (PCE)? Yes

SUMMARY

Government program Cost	**1,100.00**
Total Operation Cost	**695.00**
Total Program Cost	694.70
Other Costs (Front-end fee,IBRD)	0.30
Total Financing	**695.00**
Financing Gap	**0.00**

Financing (US$, Millions)

World Bank Group Financing	
International Bank for Reconstruction and Development (IBRD)	120.00
Non-World Bank Group Financing	
Other Sources	20.00
International Fund for Agriculture Development	20.00

Counterpart Funding	555.00
Borrower/Recipient	555.00

Expected Disbursements (US$, Millions)

WB Fiscal Year	2025	2026	2027	2028	2029	2030	2031
Annual	0.00	20.00	20.00	30.00	30.00	15.00	5.00
Cumulative	0.00	20.00	40.00	70.00	100.00	115.00	120.00

PRACTICE AREA(S)

Practice Area (Lead)

Agriculture and Food

Contributing Practice Areas

Finance, Competitiveness and Innovation

CLIMATE

Climate Change and Disaster Screening

Yes, it has been screened and the results are discussed in the Operation Document

SYSTEMATIC OPERATIONS RISK- RATING TOOL (SORT)

Risk Category	Rating
1. Political and Governance	Moderate
2. Macroeconomic	Moderate
3. Sector Strategies and Policies	Substantial
4. Technical Design of Project or Program	Substantial
5. Institutional Capacity for Implementation and Sustainability	Substantial
6. Fiduciary	Moderate
7. Environment and Social	Moderate
8. Stakeholders	Substantial

9. Overall	Substantial

POLICY COMPLIANCE

Policy

Does the project depart from the CPF in content or in other significant respects?

[✓] Yes [ ] No

Does the project require any waivers of Bank policies?

[ ] Yes [✓] No

LEGAL

Legal Covenants

Sections and Description

Conditions

Type	Citation	Description	Financing Source

I. STRATEGIC CONTEXT

A. Program Strategic Context

1. **Costa Rica has sustained solid economic performance post-pandemic.** The COVID-19 pandemic caused a severe economic downturn in 2020 contracting by 4.1 percent, delaying the fiscal adjustment under the spending-based fiscal rule introduced in 2018. However, the normalization of domestic economic activities and subsequently robust export growth supported an average GDP growth of 5.8 percent in 2021-2023, driven by strong recovery in domestic and external demand.

2. **However, progress in reducing inequality has been limited for well over a decade and Costa Rica has lost its ranking as one of the most egalitarian countries in Latin America and the Caribbean (LAC)**. From 2010 to 2021, the country's Gini Coefficient of per capita income significantly increased from 0.507 to 0.524, the highest increase in the last decade. Monetary poverty remains particularly high among groups such as Afro-descendants, Indigenous populations, and migrants. The country faces a number of structural challenges that need to be addressed if growth is to translate into reductions in poverty and inequality.

3. **Costa Rica also faces significant climate challenges, and the Government of Costa Rica (GoCR) is committed to advancing the country's climate agenda to enhance resilience and reduce emissions**. Costa Rica is highly vulnerable to natural disasters (ranking 61 in 182 countries in the 2022 ND-GAIN Index), with approximately seventy-eight percent of the population and eighty percent of GDP at high risk from multiple hazards.[1] Droughts and floods due to *El Niño* and *La Niña* are of particular concern, triggering national emergency declarations on a frequent basis. Going forward, temperatures by 2070 are expected to increase by 3-6 degrees Celsius compared to average temperatures recorded between 1961-1990.[2] At the same time, national green-house gas (GHG) emissions are expected to increase by 69 percent between 2015-2050 in the absence of climate reforms (and pollution levels are expected to rise proportionally).

4. **To address these challenges, Costa Rica has anchored its development strategy in environmentally sustainable models of growth and enacted national and sectoral climate policies**. GoCR's National Strategic Plan (*Plan Estratégico Nacional*) 2050 and National Development and Public Investment Plan (*Plan Nacional de Desarrollo e Inversión Pública*) 2023-2026 aim to promote sustainable growth models across seven key areas: economic growth, public debt, unemployment, poverty, inequality, public safety and decarbonization. GoCR has also introduced the National Decarbonization Plan (NDP) and the 2020 Nationally Determined Contribution (NDC), which aim to reach zero net emissions by 2050 and promote adaptation in vulnerable sectors, including agriculture.

B. Sectoral (or Multi-Sectoral) and Institutional Context

5. **The Costa Rican agriculture sector is globally recognized for its high-value and export-oriented products; it is also an important contributor to rural livelihoods and to local food security.** Over the past 30 years Costa Rica's agriculture production and exports have remained important contributors to the country's economy, accounting for about 13 percent of GDP (4 percent in primary production and 9 percent in agro-industrial production) and about 41.5 percent of total exports respectively in 2022.[3] The total agricultural area – including pastures – is currently around 31 percent of

[1] World Bank Climate Change Knowledge Portal (2020).
[2] Costa Rica National Meteorological Institute (IMN).
[3] SEPSA 2023.

total land area (47 percent when forest area on farmland is included). Key agriculture exports include coffee, bananas, pineapple, and palm oil. The sector also produces livestock (milk, beef, poultry & eggs, pork), rice, beans, fruits, roots and tubers, vegetables, sugar, and honey, both for export and domestic consumption. The agriculture sector provides livelihoods for Costa Rica's rural population (about 20 percent of the country's five million people), generating an estimated 13.4 percent of total national employment in 2022.[4] Still, poverty rates in rural areas remain higher than in urban areas; in 2023, rural poverty rates were 26.4 percent (compared to 20.1 percent in urban areas) and extreme poverty rates were 8.6 percent (compared to 5.4 percent in urban areas).[5]

6. **While Costa Rica is also well-recognized for its sustainable agriculture agenda, the agriculture sector today faces significant sustainability challenges that adversely affect the natural environment and constrain productive potential.** Competition for agricultural land has become a challenge in recent decades, given the increase in land area dedicated to forest and pressure to convert farmland to urban development. The country has therefore placed emphasis on intensifying agricultural land use in existing productive areas; this has intensified pressures on natural resources in those areas. A key challenge for example is water availability, due not only to the impacts of climate change (increasing variability in rainfall) but also due to increased agricultural groundwater use, the limited surface water storage capacity, and the low efficiency in its use. Notably, more than 90 percent of water concessions (by volume) are granted to the agriculture sector (85 percent to agriculture and 6 percent to agroindustry).[6] These challenges are tightly linked to the sector's productive potential; the coffee subsector for example has suffered from water deficits due to El Niño phenomena in the last decade, resulting in more erratic growth cycles, loss of fruit, and higher incidence of pests and disease.[7] Such losses in productivity are compounding the already declining trend in the rate of agriculture sector total factor productivity growth – which today is below the Central American and the LAC region averages – observed since the 1960s.[8] Another key challenge is that the agriculture sector is the country's second-largest emitter of greenhouse gas emissions (accounting for 21 percent of emissions nationally) after transport (accounting for 43 percent). Important emissions sources include livestock production, fertilizer (over)use, and unsustainable land practices e.g. burning of crops such as sugar cane. Finally, while Costa Rica shows an overall declining trend in pesticide use per hectare of cropland over the period 2017 to 2023, continuing this downward trend is critical for safeguarding the country's soil, water, and biodiversity.

7. **In addition, fragmented traceability systems limit transmission of environmental and (phyto)sanitary information to agricultural markets, constraining many producers' market access and competitiveness – especially for small- and medium-scale farmers (*Pequeños y medianos productores agrícolas* – PYMPAs"[9])**. The sector's existing traceability systems are fragmented, cover a limited number of agriculture products, and do not convey the (phyto)sanitary and environmental information favored and / or required by domestic and international markets. This also constrains producers' ability to demonstrate compliance with existing (phyto)sanitary and environmental certifications considered key for both domestic and international market access. Lack of environmental traceability and product certifications poses further constraints to producers' readiness to compete in European markets once the new European Union (EU) Deforestation Regulations are in effect. More broadly, it also constrains the sector's ability to demonstrate the environmental benefits that it generates (e.g. emission reductions, use of agro-chemicals), which is critical for retaining Costa Rica's position as a global leader in sustainable agriculture going forward. Finally, many PYMPAs are poorly linked even to domestic markets due to a lack of cold chain and other market infrastructure. This challenge is especially

[4] World Bank Development Indicators.
[5] INEC 2023.
[6] DNA 2013, OECD 2017, WB 2015 Costa Rica Country Partnership Framework 2015-2020.
[7] WRI 2020 Building a Climate Resilient Future for Costa Rica's Coffee Farming Communities: A Case Study of the Coto Brus Region.
[8] Internal WB analysis using Fuglie 2015 and online ERS-USDA data.
[9] Costa Rican small- and medium-scale producers ("PYMPAS", per the Spanish acronym) are classified under article 9 of Decree No. 37911-MAG (Norma para certificar la condición de pequeño y mediano productor agropecuario – PYMPA) according to farm size (see Annex 2 Table 2).

pronounced in remote areas, in particular for coastal fishing communities that historically are poorer and underserved.

8. **The sector also faces economic inclusion challenges for vulnerable groups, with PYMPAs – especially women – lacking the technical and financial capacity to adopt more sustainable and competitive production models and thus failing to capture the sector's livelihood and income benefits as well as adapt adequately to climate change**. Historically, spillover from the successful export market to the domestic market (mostly PYMPAs) has been limited, resulting in uneven economic performance across the sector.[10] The capacity of PYMPAs to adopt more sustainable and competitive production models and capture more of the sector's benefits is constrained by low access to finance[11] and considerable needs for technical assistance (TA). Women face particular challenges, with lower rates of access to finance (about 5 percent) than men as well as lower rates of land tenure (about 8 percent of women own productive land[12]). Additional barriers for women include their assignment to domestic and care task roles at home, which may limit their opportunities to participate in and benefit from extension services and training. Overall, these factors constrain women's access to economic resources, credit, technical training, information and technology, decision-making, in the sector (see further details in the Technical Assessment Annex 5 Gender Assessment).

9. **The economic inclusion of young farmers (younger than 35 years of age) is also a challenge for the sector and an important opportunity for contributing to the agriculture sustainability agenda.** A generalized aging within the farmer population is taking place in Costa Rica, with the average farmer about 54 years of age and approximately 22 percent of farmers older than 65.[13] This trend is understood to stem from a perceived lack of economic opportunities in the sector and in rural areas in general, as well as the result of current farmers working into old age.[14] Within farming families, non-succession by youths may jeopardize the survival of the farm, potentially disincentivizing investment in sustainable production models that generally have longer term payoffs. Moreover, literature suggests that younger farmers are more likely to adopt sustainable agricultural practices given these long payoff periods, whereas older farmers tend to be more resistant to adopting new production models.[15] Increased inclusion of youth is thus also an important pathway toward addressing the sector's environmental challenges.

10. **GoCR introduced the Agriculture Sector Plan 2023-2027 (ASP) to foster the sector's sustainable economic growth; but to address the sector's challenges, the ASP will have to be significantly rebalanced and augmented**. The ASP operationalizes the Public Policy of the Costa Rican Agricultural Sector 2023-2032 over two phases (covering the periods 2023-2027 and 2027-2032) and serves as GoCR's core agriculture sector program. The ASP sets forth a broad range of interventions to enhance the economic, social, and environmental sustainability of the sector (see more detail in section II.A below). The ASP also includes key interventions promoted under other agriculture sector policies targeting specific themes, such as the Nationally Appropriate Mitigation Actions (NAMAs) for coffee, livestock, and sugar cane, which target climate change mitigation and adaptation outcomes from these value chains.[16] However, several of the ASP's key proposed interventions are considerably underbudgeted, including interventions critical for contributing to the sector's sustainability, competitiveness, and economic inclusion. These include scaling up adoption of the NAMAs, in particular by PYMPAs, women, and youth. Barriers to scaling the NAMAs among PYMPAs have been considerable (see Technical Assessment Box 1), and include (i) limited farmer access to finance to adopt new agriculture technologies and practices,

[10] OECD 2017.
[11] The percentage of men who borrowed to start, operate, or expand a farm or business is approximately 7% in 2017 (WB WDI/Global Findex).
[12] WBG, MINAE, REDD+, FCPF. Costa Rica. Gender Action Plan of the National REDD+ Strategy.
[13] INEC 2015.
[14] Rodriguez-Lizano et al. 2023 Drivers and actions that determine the choice of young farmers in Costa Rica to stay on the family farm.
[15] Leonard et al. 2017.
[16] NAMAs are policies with actions and targets that countries commit to taking to reduce emissions, under the United Nations Framework Convention on Climate Change (UNFCCC). See the key practices promoted in Costa Rica's coffee, livestock, and sugar cane NAMAs in Annex 2 Section B.

in particular among women, and youth (see Technical Assessment Box 2) and (ii) inefficiencies and limited resources (human and financial) within agriculture sector public institutions, in particular in the areas of public agriculture information systems, agriculture research and development, and public-private partnerships. To achieve the ASP's objectives, in particular given Costa Rica's ambition to retain its position as a global leader in sustainable agriculture development in the face of increasing climate challenges, GoCR will need to rebalance and augment significantly the ASP's budget.

II. PROGRAM DESCRIPTION

A. Program Development Objective(s) (PDO)

PDO: To improve the sustainability, competitiveness, and economic participation of selected small and medium agriculture producers in Costa Rica.

Clarification of terms included in the PDO:

- "Sustainability" refers to aspects of environmental sustainability including greenhouse gas emissions, resilience to climate change, and broader natural resource management (water, soils, biodiversity).
- "Competitiveness" refers to the ability of producers to compete in domestic and international markets.
- "Economic participation" refers to the ability of vulnerable groups (small- and medium-scale agricultural producers or *pequeños y medianos productores agrícolas* – PYMPAS, including women and youth PYMPAs in particular) to benefit from agriculture sector development.
- "Agriculture" refers to crops and livestock as well as fisherfolk and aquaculture.

B. Theory of Change and PDO Indicators

11. The Theory of Change (ToC) (see Figure 1 below) of the PforR ("the Program") shows the relationships between the three themes of the PDO (sustainability, competitiveness, economic participation), the four Results Areas (RAs), and the activities, outputs and outcomes expected from the Program. Moving from left to right in the ToC:

- The "challenges" summarize the main difficulties facing Costa Rica's efforts to improve the competitiveness (blue, upper half), sustainability (green, lower half), and economic participation of vulnerable groups (dark blue text, integrated into the sustainability and competitiveness themes to reflect the cross-cutting nature of this challenge).
- The "activities and outputs" outline the key interventions and their (bulleted) outputs of the Program, which aim to address the identified challenges. These are organized by RA. RA1 (gray), as it underpins activities in all three of the sustainability, competitiveness, and economic participation themes, cuts across the other RAs. RA2 consists in those activities supporting the competitiveness theme, and RA3 consists in those supporting the sustainability theme. RA4 includes one key intervention that closely supports the sustainability theme; hence, it is grouped together with RA3 (sustainable production).
- The "PDO-level outcomes" map to the following three **PDO-level results indicators**, and ultimately aim to result in the "long-term outcomes" in the ToC's last column.
    - Number of PYMPAs who adopt NAMA models of production. Disaggregated by: women, youth.
    - Number of agriculture producers registered in the agriculture sector traceability system. Disaggregated by: PYMPA, women, youth.
    - Total number of PYMPAs benefitting under the program. Disaggregated by: women, youth.

- Throughout the ToC, dark blue text indicates elements of the competitiveness and sustainability themes intended to contribute to improving economic participation of vulnerable groups (PYMPAs, women, youth) in the sector.

12. The Theory of Change relies on several assumptions about the relationships between the activities and their intended outcomes:

- Assumption 1 (A1): Improved market information and implementation of a sector traceability system improves access to international markets for producers, including PYMPAs.
- Assumption 2 (A2): Provision of TA and improved access to finance adequately incentivizes PYMPAs to adopt more sustainable models of production in the form of NAAMs.
- Assumption 3 (A3): TA, financing, and knowledge and capacity building activities tailored to vulnerable groups enhances their economic participation in the agriculture sector.

C. PforR Program Scope

13. **Summary of on-going government program.** GoCR's core agriculture sector program is the Agriculture Sector Plan 2023-2027 (ASP), the objective of which is to enhance economic, social and environmental sustainability through the implementation of tools and mechanisms that contribute to the development and well-being of the population linked to the Costa Rican Agricultural Sector. Its first phase sets out 55 interventions and 68 indicators mapped across 4 axes: Axis 1: Modernization of the institutions of the Agricultural Sector, Axis 2: Promotion of Competitiveness, Axis 3: Productivity and Sustainability, and Axis 4: Added Value and Marketing. These interventions are to be undertaken through collaborations among the sector's 11 public institutions (including the Ministry of Agriculture and Livestock – *Ministerio de Agricultura y Ganaderia* – MAG)) as well as with partners such as the National Development Fund (*Fondo Nacional de Desarrollo* – FONADE), a fund of Costa Rica's Development Banking System (*Sistema de Banca para el Desarollo* – SBD). [17] Together, the ASP's interventions are expected to attain GoCR's "vision" that by 2032, the agriculture sector becomes a "competitive, productive, well-linked, technified, inclusive, and sustainable sector that stimulates the economy and generates opportunities and benefits for the sector."

14. **It is estimated that the total budget necessary to implement both phases of the ASP will be approximately US$1.1 billion.** The estimated total budget for ASP phase 1 is US$520 million over five years; MAG is currently undergoing a planning process to budget the second phase, which is expected to be about the same amount as the first phase. The budget lines supporting the ASP are structured by institution such that each intervention may be mapped to one budget line (if only one institution is assigned budget for implementing it) or to multiple budget lines (if multiple institutions are assigned budget for collaborating to implement it) (Technical Assessment, Table 5, Expenditure Framework and, the Summary Fiduciary Assessment).

15. **Program Boundary and Results Areas**. Table 1 summarizes the boundary between the GoCR program (ASP), the prioritized Program supported by the PforR, and the any reasons for non-alignment between the two. As shown in Table 4, the total financing for the prioritized Program will be US$695 million, of which GoCR will provide US$555 million, IBRD will finance US$120 million, and IFAD will co-finance US$20 million.

[17] The 11 institutions are: MAG, INTA, ONS, CONAC, SFE, SENASA, SENARA, INCOPESCA, CNP, PIMA, and INDER.

Figure 1: Theory of change of the PforR

<table>
<tr><th>Challenges</th><th colspan="2">Activities & Outputs</th><th></th><th>Project-level Outcomes (A = assumption)</th><th>PDO-level outcomes</th><th>Long-term outcomes</th></tr>
<tr><td rowspan="5">Competitiveness:

Lack of verifiable sanitary & environmental market information limits access to int'l markets and recognition of product sustainability.

→ Economic participation:
Limited market access among vulnerable producers.</td><td colspan="2">RA2: Promotion of Competitiveness</td><td rowspan="5">RA1: Institutional Modernization (Cross-cutting)

Develop & implement a digital producer information platform to improve extension services, especially for vulnerable groups (1.11.1).

• digital producer information platform is developed
• # outreach campaigns to register and guide producers
• # producers registered in the digital platform (% PYMPAs, women, youth)

Update & improve the knowledge & capacity of extensionists in key sustainability, competitiveness, and inclusion themes (2.2.1).

• # extensionists</td><td rowspan="2">Access to international markets is improved, including for vulnerable producers. (A1)

Food safety and environmental benefits of agriculture production are enhanced and verifiable.

Greater market access for vulnerable fisherfolk.</td><td rowspan="5">Agriculture competitive-ness is improved through increased access to markets.

Adverse environment-al impacts of agricultural production are reduced.

Economic participation PYMPAs, women, and youth in the agriculture sector is enhanced. (A3)</td><td rowspan="5">Producer livelihoods are improved, including for vulnerable groups.

Natural resources (including the global climate) are utilized more sustainably.</td></tr>
<tr><td>Improve market information through agriculture sector traceability (2.14.1).</td><td>• traceability system is developed, # producers registered (% PYMPAs, women, youth)
• # producers provided with ID devices for cattle traceability
• # producers with certifications key for market access (% PYMPAs, women, youth)</td></tr>
<tr><td>Improve food safety of animal products (3.9.3).</td><td>• # analyses completed of food safety of animal origin, veterinary drug quality, and veterinary diagnostics by SENASA.</td></tr>
<tr><td>Promote bioinputs as an alternative to agrochemicals (2.15.1, 2.16.1, 3.5.2).</td><td>• Public Policy & Action Plan for Agriculture Pesticide Use are published
• regulation for the use of bioinputs is published
• # waste, pesticide, and nutrient molecules analyzed by SFE</td></tr>
<tr><td>Improve market linkages for vulnerable fisherfolk (2.8.3).</td><td>• cold storage warehouse in the Central Pacific Region is constructed and operating, as part of the National Refrigerated Network (REFRINA)</td></tr>
<tr><td rowspan="8">Sustainability & productivity:

Producers have limited TA & financing to adopt more sustainable and productive practices and technologies, including NAMA models.

→ Economic participation:
Low technical & financial capacity among vulnerable producers.</td><td colspan="2">RA3: Sustainable production</td><td rowspan="8">Producers adopt more sustainable models of production. (A2)

Vulnerable producers are able to capture livelihood benefits from sustainable agriculture production.

Agriculture producers are rewarded (economically) for sequestering carbon.</td></tr>
<tr><td>Support producers with TA to adopt NAMAs (3.7.2).</td><td>• # producers who adopt NAMA models (% PYMPAs, women, youth)
• # hectares with NAMA models (% PYMPAs, women, youth).</td></tr>
<tr><td>Improve livestock NAMA knowledge transfer (3.7.7).</td><td>• # demonstration farms for the livestock NAMA established.</td></tr>
<tr><td>Improve access to finance for the adoption of NAMAs (2.7.2), including for vulnerable producers (3.7.9).</td><td>• amount ($) credit and guarantees allocated for the adoption of NAMAs by % PYMPAs, women, youth (FONADE)
• # producers who access financial services (guarantees, credit) for NAMA adoption (% PYMPAs, women, youth)
• # vulnerable producers receiving economic incentives (grants) for adopting NAMAs (% PYMPAs, women, youth)
• # producers trained in financial education (% PYMPAs, women, youth)</td></tr>
<tr><td>Improve MRV of NAMA adoption (3.7.5, 3.7.6).</td><td>• GHG baselines for livestock, coffee and sugar cane (INTA)
• # producers with soil, organic carbon, & GHG analyses (INTA)</td></tr>
<tr><td>Promote sustainable irrigation in dry, climate vulnerable areas (3.3.1).</td><td>• Cartago Irrigation District feasibility study & design plans
• # irrigation works in Cartago modernized
• Chorotega DRAT gates and monitoring & control center are automated</td></tr>
<tr><td>Improve availability of resilient crop varieties (3.7.8).</td><td>• kg seed produced and certified by INTA/ONS
• # seedlings produced and certified by INTA/ONS</td></tr>
<tr><td colspan="2">RA4: Added Value & Marketing</td></tr>
<tr><td>Design and implement a PES program for productive landscapes (4.9.1).</td><td>• PES mechanism for carbon capture in agricultural soils is designed
• # producers receiving PES payments</td></tr>
</table>

Table 1: GoCR agriculture sector program versus the PforR boundary

	GoCR program (Agriculture Sector Plan – ASP)	Program supported by the PforR (prioritized Program)	Reasons for non-alignment
Objective	To enhance economic, social and environmental sustainability through the implementation of tools and mechanisms that contribute to the development and well-being of the population linked to the Costa Rican Agricultural Sector.	To improve the sustainability, competitiveness, and economic participation of selected small and medium agriculture producers in Costa Rica.	The PforR will support a subset of the ASP interventions considered most critical for sustainability and competitiveness, given the critical nature of addressing these challenges in the sector.
Duration	2023-2027 (Phase I) and 2027-2032 (Phase II)	2025-2031 (6 years)	Supporting part of Phase I and part of Phase II
Geographic coverage/ Subsector coverage	National coverage, all value chains	National coverage. A portion of RA3 activities will provide support only to the coffee, livestock and sugar NAMA value chains.	RA3 will focus on value chains with existing NAMAs and draw lessons to be replicated to other value-chains.
Results areas	4 axes: (i) Modernization of the institutions of the Agricultural Sector, (ii) Promotion of Competitiveness, (iii) Productivity and Sustainability, and (iv) Added Value and Marketing.	Each axis roughly corresponds to an RA, such that the 4 RAs are: (i) Modernization of the institutions of the Agricultural Sector, (ii) Sustainable production, (iii) Promotion of Competitiveness, and (iv) Added Value and Marketing.	The PforR will support all 4 Axes/RAs. Most of the resources will be concentrated in Axes/RA 2 and 3.
Overall Financing	An estimated US$ 1.1 billion over the period 2023-2032	IBRD Loan: US$120 million IFAD co-financing: US$20 million GoCR: US$555 million Total: US$695 million	None.

16. **Results Area 1**. The objective of Results Area 1 (RA1) is to modernize the public agriculture extension services critical for supporting producers to improve their sustainability, competitiveness, and economic inclusion. RA1 is thus considered to be a "cross-cutting" results area, as it supports achievement of the other three results areas (see Figure 1 Theory of Change). RA1 will yield two main results:

(i) *Development and implementation of a digital producer information platform to improve extension services, especially for vulnerable groups (DLI 1)*. MAG's agricultural extension information system is *SisDNEA*, a database managed by DNEA. However, *SisDNEA* contains only basic information of registered producers (e.g. location, type of productive activity); it also does not link to the systems of other institutions that also provide inputs and services to producers (e.g. the National Production Council (*Consejo Nacional de Producción* – CNP), the Rural Development Institute (*Instituto de Desarrollo Rural* – INDER)). This results in a lack of coordination among the institutions supporting producers, as well as limited capacity to tailor support effectively to PYMPAs and other vulnerable groups according to the specific risks they face (for example, the platform will include climate vulnerability information to help coordinate support to the farmer on building resilience to climate change). RA1 will support MAG's efforts to develop *SisDNEA* into a digital platform that will function as a central repository of producer information linked to the systems of other institutions, to conduct five information campaigns to raise awareness among producers of the platform, and to register 30,000 producers in the platform (80 percent of them PYMPAs, 40 percent women, and 15 percent youth). The collection, use and processing (including transfers to third parties) of any personal data collected for the platform – and for all activities of the Program – will be done in accordance with Costa Rica's Law No. 8968: Law on the Protection of Individuals with regard to the Processing of Personal Data, and the best international practice, ensuring legitimate, appropriate, and proportionate treatment of such data.

(ii) *Increased knowledge & capacity of extensionists in key sustainability, competitiveness, and inclusion themes (DLI*

2). The extension curriculum that extensionists currently use is outdated and does not contain guidance for delivering extension on critical sustainability, competitiveness, or inclusion themes. In addition, MAG is increasing its presence in the field and thus needs to train new extensionists. RA1 will support MAG's efforts to train 320 extensionists in a set of key areas to include: adoption of low-emission and climate resilient models of production (NAMAs); registration and use of the digital producer information platform (above), the agriculture sector traceability system (see RA2), and other digital resources (including aspects related to personal data privacy and protection); tailoring extension to vulnerable groups; and general business management.

17. **Results Area 2**. The objective of Results Area 2 (RA2) is to promote the competitiveness of agriculture producers through improving access to markets (domestic and international). This will be achieved through improving market information and traceability, increasing institutional capacity to undertake select environmental and (phyto)sanitary analysis and diagnostics, and – for particularly vulnerable groups – improving basic market linkages to domestic markets. RA2 will generate the below six results:

(i) *Development and implementation of agriculture sector traceability and certification of participating producers (DLI 3)*. Costa Rica currently is collaborating with the International Regional Organization for Animal and Plant Health (*Organismo Internacional Regional de Sanidad Agropecuaria* – OIRSA) to develop a Costa Rican national cattle traceability module under OIRSA's Harmonized Regional System of Agricultural Traceability (*Trazar-Agro*), widely used in Central America.[18] RA2 will support MAG's efforts to continue developing cattle traceability in collaboration with OIRSA under *Trazar-Agro* by providing digital ear tags for an estimated 15,940 producers. RA2 will also support the expansion of *Trazar-Agro* to eight additional products (one module will be developed for each additional product) considered critical for either exports or domestic consumption: pork, coffee, oil palm, sugar cane, onion, potato, fishing & aquaculture, and honey. For these products, *Trazar-Agro* will cover key (phyto)sanitary, environmental (including deforestation and other land use change impacts), and other key market information that will enable i.a. demonstration of compliance with various standards imposed by national regulations and international markets (such as the EU), early (phyto)sanitary warnings and alerts, product certifications (such as deforestation-free, organic), and decision-making at farm and regional levels. This activity will then aim to register 20,000 producers in *Trazar-Agro* (80 percent of them PYMPAs, 40 percent women, and 15 percent youth) and, based on the information captured for each farm in *Trazar-Agro,* support an estimated 15,000 producers to obtain at least one of four certifications or recognitions considered key for enhancing market access and competitiveness: (i) the Livestock Transport Control Digital Guide, the (ii) Certificate of Veterinary Operation, (iii) the Agriculture Best Practice Certification (TICO-BPA), and (iv) the Recognition for Organic Environmental Benefits (RBAO).[19]

(ii) *Completion of at least 387 analyses to improve food safety and compliance with sanitary standards*. RA2 will also support Costa Rica's National Animal Health Service (*Servicio Nacional de Salud Animal* – SENASA) to provide an increased portion of the total national cattle herd with certain analyses considered critical for improving animal health and livestock product competitiveness in international markets. These are: analyses of the food safety of

[18] OIRSA is a foundation formed in 1953 that aims to support Member States' efforts to strengthen animal health, plant health, food safety plans, and agricultural quarantine.

[19] (i) The Livestock Transport Digital Control Digital Guide (issued by MAG-SENASA) is mandatory for the movement of cattle, swine, horses, and poultry within Costa Rica, e.g. to marketing auctions and slaughterhouses. It indicates the origin of movement, ownership, number of animals in the shipment, individual or group (flock or herd level) identification, and the transport vehicle. (ii) The Certificate of Veterinary Operation (issued by MAG-SENASA) contains information about the ownership, premises location, and the species type(s) and number of animals on the premises. The information must be updated once a year with changes in production activities and/or livestock populations. (iii) The Agriculture Best Practice Certification (TICO-BPA) (issued by MAG-SFE) demonstrates reduced use of pesticides and contamination from chemicals and packaging. (iv) The Recognition for Organic Environmental Benefits (RBAO) is a benefit received by organic producers or producers in transition, who are endorsed by the SFE, and is an official mechanism of the MAG.

animal origin, veterinary drug quality, and veterinary diagnostics. Specifically, RA2 will support SENASA with staff and laboratory supplies to conduct 387 such analyses.

(iii) *Development and publication of a policy to promote the proper use of pesticides*. Continuing to reduce Costa Rica's pesticide use is critical not only for safeguarding its natural resources and human health, but also for maintaining its reputation as a global leader in sustainable agriculture and complying with the environmental standards of high-value international markets. To this end, RA2 will support the development and publication of a Public Policy for Agriculture Pesticide Use 2024-2034 and its Action Plan 2024-2028.

(iv) *Development and publication of regulations for the use of bioinputs as alternatives to synthetic pesticides and other agrochemicals*. Promoting bioinputs (biological elements used to control pests and improve soil fertility, such as using insects to combat other insects or using animal manure as fertilizer) is a key complementary strategy for reducing hazardous inputs and GHG emissions. *Bioinsumos* are often also less costly to producers than synthetic agrochemicals, and their use fulfills certain steps of the organic product certification of State Phytosanitary Service (*Servicio Fitosanitario del Estado – SFE)* . RA2 will thus support the elaboration and publication of regulations for the use of bioinputs. The objective of the regulations will be to promote the effectiveness and safety of bioinputs as a viable alternative to agrochemicals, and ultimately to reduce the chemical load in agricultural production.

(v) *Completion of at least 375 analyses to improve agrochemical registration and control services*. RA2 will also support SFE to improve analytical capacities considered critical for registering and controlling agrochemical use. These include scaling up the equipment, methods and number of individual analyses performed by SFE's Pesticide Residue Analysis Laboratory and Agrochemical Quality Control Laboratory to assess agriculture products, wastes, pesticides, and fertilizers. Specifically, RA2 will support SFE with staff and laboratory supplies to 375 such analyses.

(vi) *Construction of a refrigerated warehouse to improve market linkages for vulnerable fisherfolk (DLI 4)*. RA2 will improve the competitiveness of a particularly vulnerable group – fisherfolk in Puntarenas – through strengthening their linkages to domestic markets. Historically, fisherfolk in Costa Rica have been poor, underserved, and excluded; in addition, the coastal fishing area of Puntarenas suffers from violence and conflict due to drug trafficking centered around the port. To bolster fishing livelihoods in this area, RA2 will support the design and construction of a refrigerated warehouse as part of the National Refrigerated Network (*Red Frigorífica Nacional* – REFRINA). The warehouse is a critical element of the cold chain between port and markets that fisherfolk rely on to store and transport their wares; an estimated 668 fisherfolk are estimated to benefit from the warehouse. The warehouse will be constructed in collaboration with the Comprehensive Agricultural Marketing Program (Programa Integral de Mercadeo Agropecuario – PIMA), which manages the REFRINA, and the Costa Rican Institute of Fisheries and Aquaculture (Instituto Costarricense de Pesca y Acuicultura – INCOPESCA).

18. **Results Area 3**. The objective of Results Area 3 (RA3) is to improve the environmental sustainability of agriculture production of vulnerable groups (including climate vulnerable, see paragraph 8 above) through scaling up adoption of three agriculture sector NAMAs[20] and promoting sustainable water resource management in dry, climate vulnerable areas to address critical resilience challenges. The three NAMAs are for the livestock, coffee, and sugar cane value chains, selected due to their readiness for scaling. Each NAMA includes a list of practices identified by a range of public and private Costa Rican stakeholders using five criteria: mitigation potential, adaptation potential, impact on productivity, costs, and implementation barriers (see lists of NAMA practices for each value chain in the Technical Assessment, Annex 2, section B). Support for NAMA scaling (consisting in the below eight interventions) will include providing PYMPAs with TA and financing to adopt NAMAs as well as improving emissions monitoring, reporting, and verification (MRV) for NAMA models.

[20] NAMAs are policies with actions and targets that countries commit to taking to reduce emissions, under the United Nations Framework Convention on Climate Change (UNFCCC). See the key practices promoted in Costa Rica's coffee, livestock, and sugar cane NAMAs in Annex 2 Section B.

(i) *Delivery of TA to support 10,500 PYMPAs to adopt NAMAs (DLI 5)*. Barriers to scaling the NAMAs have been considerable (see Technical Assessment Box 1); one key barrier has been limited resources within agriculture sector public institutions to provide specialized support for NAMA adoption. To address this, RA3 will support MAG to deliver specialized TA to an estimated 10,500 PYMPAs working in livestock, coffee, and sugar cane to adopt NAMAs.[21] Most of these producers are completely new to the NAMA models; some have taken initial steps of the graduation process for NAMA adoption such as adopting one or two of the full packages of practices required for MAG to qualify them as NAMA producers. MAG extensionists will accompany 10,500 PYMPAs (30 percent women, 15 percent youth) along the graduation process until they attain the necessary criteria for their productive activity to be qualified as NAMA. Women PYMPAs will be offered technical assistance approaches tailored to women, e.g. capacity building events designed for women and led by women trainers, as well as support services including scheduling of such events on days / times appropriate for women participants, transport and logistics to and from capacity building events, and childcare during capacity building events.

(ii) *Establish four demonstration farms to improve knowledge transfer for the livestock NAMA model.* NAMA demonstration farms have proven critical for MAG's efforts to consolidate and transfer knowledge on NAMA models, in complement with the TA provided on-farm to producers. For the coffee and sugar cane value chains, demonstration plots have been established in coordination with the MAG and the Sugar Cane Industrial Agricultural League (Liga Agrícola Industrial de la Caña de Azúcar – LAICA), but no such farms exist for the livestock NAMA. RA3 accordingly will support MAG in collaboration with the National Institute of Innovation and Transfer in Agricultural Technology (*Instituto Nacional de Innovación y Transferencia en Tecnología Agropecuaria* – INTA) to establish four demonstration farms for the livestock NAMA.

(iii) *Provision of tailored access to finance for 3,000 PYMPAs to adopt NAMAs (DLI 6)*. Another key barrier to NAMA scaling has been limited producer access to finance to adopt new agriculture technologies and practices, in particular among PYMPAS, women, and youth (see Technical Assessment, Box 2). RA3 will help to address this through creating a NAMA financing facility tailored to and accessible only to PYMPAs. This includes the allocation of US$30 million in credit for NAMA adoption through FONADE,[22] which will allocate a portion of these resources to a minimum number of women and youth producers. In addition, for those producers who may not be able to use assets as guarantees, RA3 will support the creation of a loan portfolio guarantee scheme specifically for financing NAMA adoption. The guarantee scheme will be backed by a guarantee fund, financed by SBD on behalf of FONADE and INDER, and designed specifically for PYMPAs adopting NAMAs (targeting 3,000 PYMPAs including 30 percent women and 15 percent youth). Both the financing facility and the guarantee scheme will be housed within FONADE. RA3 will also support the delivery of trainings to producers in financial education to improve their knowledge and capacity to make better use of their financial resources and available financing opportunities. These trainings will be given by the National Learning Institute (*Institución Nacional de Aprendizaje* – INA) in collaboration with MAG and the financial operators participating in the NAMA financing. Women accessing credit to adopt NAMAs will be offered financial education approaches tailored to women, e.g. trainings designed for women and led by women trainers, as well as support services including scheduling of trainings on days / times appropriate for women participants, transport and logistics to and from training events, and childcare during the trainings. For PYMPAs who may not have the capacity or means to access the abovementioned NAMA financing options, RA3 will also provide grant resources for NAMA adoption, awarded by MAG.

(iv) Reform of the Blue Flag Program to recognize NAMA producers. To provide an additional (non-economic)

[21] The initial phase of NAMA adoption planning will require about 4 farm visits, the investment phase will require 1-2 farm visits per month, and once the investments are completed follow-up visits may occur approximately every 2 months.

[22] The National Development Fund (*Fondo Nacional de Desarrollo* – FONADE) is a fund of Costa Rica's Development Banking System (*Sistema de Banca para el Desarollo* – SBD) which includes both public and private banks as well as producer cooperatives.

incentive to adopt NAMAs, a specific "NAMA Star" ("*Estrella NAMA*") subcategory will be added by Executive Decree to the existing MAG Blue Flag Program ("*Bandera Azul*"), which recognizes producers who adopt sustainable practices.

(v) *Completion of GHG emission baselines of NAMA farms*. An additional barrier to NAMA scaling has been limited recognition in both domestic and international markets of the environmental benefits generated by NAMA products. RA3 will help to address this through enhancing MRV of the GHG emission reductions achieved by NAMA models. To this end, this activity will support INTA to undertake baseline emission assessments for livestock, coffee and sugar cane NAMA models.

(vi) *Completion of soil, organic carbon, and GHG analyses of NAMA producers*. To complement the GHG baselines, RA3 will also support INTA to undertake soil, organic carbon, and GHG emissions assessments on NAMA farms. The sampling methodology will ensure a diversity of regions and farm size. The results will be utilized to inform other key activities supported by the Program including the digital producer information platform (RA1) and the traceability system (RA2), allowing GHG analyses to be recorded for those farms included in the sample, as well as the Payments for Environmental Services (PES) mechanism to be developed to incentivize soil carbon capture on productive landscapes (RA4, below).

(vii) *Modernization of irrigation works and infrastructure to improve irrigation sustainability in dry, climate vulnerable areas.* RA3 will support sustainable irrigation activities in two important agricultural areas of the country suffering from water scarcity. In both activities, the energy for irrigation will be provided through hydropower and solar panels. In the North Zone of the Cartago province, a key horticulture production area, only 20 percent of the agriculture area has on-farm access to water. The existing irrigation infrastructure in this area (covering about 605 hectares[23]) it is maintained by eight Water User Societies, with the technical and organizational support of the National Service of Groundwater, Irrigation and Drainage (SENARA) or by one of the Water User Societies themselves. This infrastructure, in operation since the 1990s, is inefficient and in poor condition, resulting in poor water flows even during the rainy season. RA3 will accordingly support a feasibility study for the Cartago Irrigation District (covering market, technical, environmental, legal and administrative, and risk analysis, as well as the design plans for the modernization of select irrigation works), trainings and strengthening of the Water User Societies' management capacities, and the modernization of 14 existing irrigation works maintained by the Water User Societies (DLI 7). These activities aim overall to improve the sustainability of water resource management in the Cartago area. This will be achieved through: (a) implementing measurement and control systems in water sources, (b) optimizing the storage capacity and modernizing the conduction and distribution systems, (c) improving the efficiency of water use at the farm level by establishing a telemetric measurement and control system that allows the application of water according to the real needs of the crops, and (d) strengthening the capacities of the Water User Societies and of the users of irrigation systems through trainings and a technology transfer program in the efficient use of water for irrigation. This activity is expected to benefit an estimated 673 producers. RA3 will also support efforts to promote sustainable irrigation in the Arenal Tempisque Irrigation District (*Distrito de Riego de Arenal Tempisque* – DRAT) near Chorotega. The DRAT, part of the Central American Dry Corridor, faces both water scarcity and – for example in El Niño / La Niña years – intense flooding. Currently, the floodgates of its irrigation system can only be operated manually, thus requiring approximately two weeks to open or close all of the gates. This results in inefficient and poor regulation of water flows, adversely impacting the producers of livestock, sugar cane, and other crops in this area. RA3 will support SENARA's efforts to automatize the District's floodgates and the center that monitors and controls them, thus optimizing water flows and improving water use efficiency.

[23] The currently irrigated area of 605 hectares is divided among 6 projects built by SENARA and 8 Water User Societies as follows: 270 hectares benefitting 320 families under SENARA, and 335 hectares benefiting 239 families under the Water User Societies.

(viii) *Certification of resilient crop varieties*. RA3 will also strengthen the capacities of INTA and the National Seed Office (*Oficina Nacional de Semillas* – ONS) to produce and certify crop varieties shown to be resilient in the face of water scarcity. The crops selected (including beans, corn, banana, potato, and cassava) are important for local diets and considered critical for food security.

19. Finally, RA3 will support MAG to conduct an evaluation of existing NAMA financing incentives, with the aim to assess their effectiveness and identify potential adjustments to reduce their fiscal costs. The evaluation will define a strategy to (a) transition lending for profitable borrowers and activities to programs that do not incur fiscal costs and operate on commercial terms, (b) better target subsidies to benefit women, youth, farmers in remote areas, and those with smaller farms, and (c) facilitate access for participating farmers to available payments for environmental services. This evaluation will be conducted as part of the Program's Mid-term Review and included in the Program Action Plan (PAP).

20. **Results Area 4**. The objective of Results Area 4 (RA4) is to add value for the environmental benefits generated by NAMA models of production through Payments for Environmental Services (PES). RA4 will support one intervention:

(ix) *Design and implementation of a Payments for Environmental Services (PES) program for agricultural soils*. Costa Rica's current Payments for Environmental Services program is financed by the National Forest Financing Fund (*Fondo Nacional de Financiamiento Forestal* – FONAFIFO) of the Ministry of Environment and Energy (*Ministerio de Ambiente y Energía* – MINAE) and governed by the Forestry Law Nº 7575. RA4 will support the joint efforts of MAG and MINAE to expand the PES program (through designing a new payment scheme within the Forestry Law) from its current focus on forested areas to also cover carbon sequestration in agricultural soils. To this end, it will support the design of the PES program, the design of its anchoring (funding) mechanism, and the launch of the program to an initial set of 1,000 NAMA producers (100 percent PYMPAs including 30 percent women and 15 percent youth) who will receive payments for certified carbon capture attributed to their adoption of the NAMAs.

21. **Program Beneficiaries**. The direct beneficiaries of the PforR will be an estimated 10,500 PYMPAs and their families (31,500 individuals based on an average household size of 3) receiving technical assistance and / or financing (see Table 2). Within these direct beneficiaries, an estimated 30 percent will be women, and 15 percent will be youths. The PforR will also provide indirect benefits to 30,000 producers who register in the digital producer information platform and / or in the agriculture sector traceability system (see Table 2). Within these indirect beneficiaries, an estimated 80 percent will be PYMPAs, 40 percent will be women, and 15 percent will be youths. Indirect beneficiaries also include the 8 public agriculture sector institutions[24] involved in implementing the Program and benefitting from institutional modernization and strengthening, as well as the producers and agricultural SMEs more broadly benefitting from the improved goods and services provided by these institutions.

22. **Program Expenditure Framework**. The Program's total financing is US$695 million, with the Government contributing approx. US$555 million (80%), the World Bank contributing US$120 million (17%) and the International Fund for Agricultural Development (IFAD) providing US$20 million (3%) (see Table 4). The breakdown of these figures by budget line is shown in the Expenditure Framework (Table 3). GoCR budget lines are structured by institution; accordingly, each of the PforR's interventions is mapped either to one budget line (if only one institution is assigned budget for implementing it) or to multiple budget lines (if multiple institutions are assigned budget for collaborating to implement it).

[24] The institutions are: MAG, SFE, SENARA, PIMA, SENASA, INTA, SBD, ONS.

Table 2: Beneficiaries of the PforR

Program benefits	**Number of producers benefitting**	
Direct beneficiaries: 10,500		
Producers receiving TA for adopting NAMAs (RA3)	10,500 (31,500 including family members)	100% PYMPAs 30% women 15% youth
Producers accessing financing for NAMA adoption (RA3)	3,000 (within the above 10,500)	
Producers receiving PES payments (RA4)	1,000 (within the above 10,500)	
Indirect beneficiaries: 30,000		
If we Producers registered in the digital producer information platform (RA1)	30,000 (90,000 including family members; includes the above 10,500 direct beneficiaries)	80% PYMPAs 40% women 15% youth
Producers registered in the agriculture sector traceability system (RA2)	20,000 (within the above 30,000)	
Total direct and indirect beneficiaries, considering overlap between them: 30,000 producers (90,000 individuals including family members)		
Total PYMPAs: 24,000 (72,000 including their families)	Total women: 12,000 (36,000 including their families) Total youth: 4,500 (13,500 including their families)	

Table 3: Program Expenditure Framework (approximate values)

Institution	**Budget program**	**Budget code**	**Government contribution**	**PforR**	**Total Program financing**
		Totals US$:	**$555,000,000**	**$140,000,000**	**$695,000,000**
MAG	169	0.01.01	$147,443,469	$0	$147,443,469
MAG	169	7.01.06	$0	$30,000,000	$30,000,000
MAG	169	7.05.01	$0	$3,380,000	$3,380,000
MAG	169	1.04.04	$104,550	$356,523	$461,073
MAG	169	1.05.02	$19,500	$0	$19,500
MAG	169	1.03.03	$19,500	$0	$19,500
MAG	170	0.01.01	$140,000	$0	$140,000
MAG	170	1.05.02	$30,000	$0	$30,000
MAG	170	1.03.03	$30,000	$0	$30,000
SFE	171-01	1.04.03	$1,639,016	$750,000	$2,389,016
SFE	171-01	5.01.04	$1,639,016	$750,000	$2,389,016
SFE	171-01	5.01.05	$1,639,016	$750,000	$2,389,016
SFE	171-01	5.01.06	$1,639,016	$750,000	$2,389,016
SFE	171-01	0.01.01	$32,463,416	$0	$32,463,416
SENASA	171-02	2.99.99	$260,668	$1,278,579	$1,539,247
SENASA	171-02	5.01.06	$0	$3,000,000	$3,000,000
INTA	172	5.01.06	$0	$8,000,000	$8,000,000
INTA	172	0.01.01	$13,245,608	$1,000,000	$14,245,608
INTA	172	1.05.02	$0	$1,000,000	$1,000,000
INTA	172	1.03.03	$0	$1,000,000	$1,000,000
DNEA	175-01	7.05.01	$0	$635,000	$635,000
DNEA	175-01	1.07.01	$255,604	$248,778	$504,382
DNEA	175-01	0.01.01	$88,492,242	$325,000	$88,817,242
DNEA	175-01	1.03.03	$1,782	$0	$1,782
DNEA	175-01	7.05.01	$0	$9,509,433	$9,509,433
DNEA	175-01	1.04.99	$8,310,617	$330,112	$8,640,729

DNEA	175-01	7.02.01	$5,532,109	$3,652,830	$9,184,939
DNEA	175-01	1.04.99	$0	$6,250,000	$6,250,000
DNEA	175-01	1.05.02	$1,305,615	$10,000,000	$11,305,615
PIMA	1	1.08	$6,800,519	$8,000,000	$14,800,519
SENARA	3	5.02.07	$239,312,722	$44,000,000	$283,312,722
INDER	3	6.01.06	$3,861,003	$6,000,000	$9,861,003

23. **Program Financing**.

Table 4: Program financing

Source	Amount (US$, Millions)	% of Total
Cofinancing – Other Sources (IFIs, Bilaterals, Foundations)	**20.0**	**3.0%**
International Fund for Agriculture Development (IFAD)	20.0	3.0%
International Bank for Reconstruction and Development (IBRD)	**120.0**	**17.0%**
Government of Costa Rica	**555.0**	**80.0%**
Total Program Financing	**695.0**	**100.0%**

24. **Private capital mobilization.** The Program will leverage private capital for the adoption of sustainable agriculture production models from two primary sources. First, an estimated 3,000 producers are expected to access finance for NAMA adoption including credit offered by FONADE. Second, producers are expected to leverage their own resources (cash) to adopt NAMAs. Complementing this activity, during implementation IFC will support MAG to conduct an evaluation of the existing NAMAs financing incentives, with the aim to assess their effectiveness and identify potential adjustments to reduce their fiscal costs (see RA3). This, together with the Program's support for producers to participate in commercial lending schemes, will help to identify key actions to enhance private sector-led, sustainable economic growth of the agriculture sector in the longer term.

D. Disbursement Linked Indicators

Purpose of DLIs	DLIs, DLRs, and IBRD disbursement amounts (US$). Total IBRD disbursements: 120.0 million	
Improve the coordination and impact of the sector's institutions supporting producers, especially for vulnerable groups.	**DLI 1**: Number of producers registered and active in the digital producer information platform (80% PYMPAs, 40% women, 15% youth). **Total: 15.48 million**	DLR 1.1: The digital producer information platform is developed and launched. **4.3 million, yes / no.**
		DLR 1.2: 5 information campaigns to raise awareness of the digital producer information platform are completed. **0.86 million, scalable: US$ 0.172 million / campaign.**
		DLR 1.3: 30,000 producers are registered and active in the digital producer information platform. **10.32 million, scalable: US$ 344 / producer.**
Increase the knowledge & capacity of extensionists to support producers in key sustainability, competitiveness, and inclusion themes.	**DLI 2**: Number of extensionists trained in key areas related to sustainability, competitiveness, and inclusion: 320. **Total: 4.76 million, scalable: 14,875 / extensionist.**	
Increase producer access to markets through improved agriculture	**DLI 3**: Number of producers with at least one of four certifications key for market access obtained and reflected	DLR 3.1: 8 new modules of the traceability system *Trazar-Agro* are developed and launched. **6.88 million, scalable: US$ 0.86 million / module.**

sector market information and traceability.	in *Trazar-Agro* (80% PYMPAs, 40% women, 15% youth). **Total: 17.2 million**	DLR 3.2: 20,000 producers are registered in *Trazar-Agro*. **5.16 million, scalable: US$ 258 / producer.**
		DLR 3.3: 15,000 producers have obtained at least one of four certifications key for market access and reflected the certification(s) in *Trazar-Agro.* **5.16 million, scalable: US$ 344 / producer.**
Increase market access for vulnerable fisherfolk through improved market linkages.	**DLI 4**: The cold storage warehouse in the Pacific Central Region is constructed and operating. **Total: 5.16 million, yes / no.**	DLR 4.1: The warehouse design plan is finalized. **0.86 million, yes / no.**
		DLR 4.2: The warehouse construction is completed according to the design plan. **2.58 million, yes / no.**
		DLR 4.3: The warehouse is operating. **1.72 million, yes / no.**
Support PYMPAs with tailored TA to adopt more sustainable models of production (NAMAs).	**DLI 5**: Number of PYMPAs who adopt NAMAs (30% women, 15% youth): 10,500. **Total: 17.2 million, scalable.**	DLI 5.1: 10,500 PYMPAs receive technical assistance to adopt NAMAs. **8.127 million, scalable: US$ 774 / PYMPA.**
		DLI 5.2: 10,500 PYMPAs adopt NAMAs. **8.127 million, scalable: US$ 774 / PYMPA.**
		DLI 5.3: 30% of PYMPAs adopting NAMAs (3,150) are women. **0.473 million, yes / no.**
		DLI 5.4: 15% of PYMPAs adopting NAMAs (1,575) are women. **0.473 million, yes / no.**
Improve access to finance for PYMPAs to adopt more sustainable models of production (NAMAs).	**DLI 6**: Number of PYMPAs who access finance (credit, guarantees) to adopt NAMAs (30% women, 15% youth). **Total: 25.8 million, scalable.**	DLR 6.1: The NAMA financing program of SBD is operating. **10.32 million, yes / no.**
		DLR 6.2: 3,000 PYMPAs access finance to adopt NAMAs. **15.48 million, scalable: US$ 5,160 / PYMPA**.
Improve the sustainability of irrigation activities in dry, climate vulnerable areas.	**DLI7**: Number of existing irrigation works modernized to improve the sustainability of water resource management in Cartago: 14. **Total: 20.64 million**	DLR 7.1: The Cartago Irrigation District feasibility study and design plans are completed. **8.6, yes / no.**
		DLR 7.2: 14 existing irrigation works are modernized according to the design plans. **12.04 million, scalable: US$ 0.86 million / irrigation work.**
Incentivize producers to sequester carbon in agriculture soils.	**DLI 8**: Number of PYMPAs who receive payments under a PES mechanism for carbon sequestration in agricultural soils (100% PYMPAs, 30% women, 15% youth). **Total: 13.76 million**	DLR 8.1: The PES mechanism for carbon sequestration in agricultural soils is designed. **4.3 million, yes / no.**
		DLR 8.2: The PES funding mechanism is designed. **4.3 million, yes / no.**
		DLR 8.3: 1,000 PYMPAs receive payments under the PES mechanism. **5.16 million, scalable: US$ 5,160 / PYMPA.**

E. Role of Partners

Name of Partner	Nature of Involvement /Description
International Fund for Agriculture Development (IFAD)	IFAD contributions to the Program includes a co-financing in the amount of US$20.0 million as well as IFAD's experience and value added in implementing pro-poor approaches and support programs for women, young people and smallholder farmers in diversification, gender empowerment and improving climate and economic resilience.

F. Lessons Learned and Reflected in the Program Design

25. The Costa Rica PforR integrates technical insights from the Bank's global experience with similar programs in

countries like Morocco and Jordan, as well as from Costa Rica's own implementation and disbursement practices. For example, the Morocco Green Generation Program-for-Results (P170419) aims to boost economic inclusion for rural youth and improve the marketing efficiency and environmental sustainability of agri-food value chains. Similarly, the Costa Rica program will focus on enhancing conditions for youth in agriculture, recognizing their crucial role in the sector's sustainability. By adopting models from the Morocco program, Costa Rica aims to provide better access to new technologies and more efficient systems to support youth involvement and success in agriculture.

26. In Jordan, the Agriculture Resilience, Value Chain Development, and Innovation (ARDI) Program-for-Results (P167946) tackles challenges similar to those in the Costa Rica PforR, such as improving the business environment and competitiveness, enhancing agricultural financing, and building skills in modern technologies. These elements are crucial in designing the Costa Rica program, aiming to modernize institutions, improve competitiveness and sustainability in the agriculture sector, and boost economic growth by adding value and enhancing competitiveness.

27. Additionally, the program leverages lessons from Costa Rica's Strengthening Universal Health Insurance PforR (P148435), particularly in implementation and disbursement arrangements, using the same fund flow through Ministry of Finance as the proposed program.

III. PROGRAM IMPLEMENTATION

A. Institutional and Implementation Arrangements

28. **The Program will be implemented and supervised at the national level using the regulations and capacities of MAG and the other institutions participating in implementation.** MAG will be responsible for carrying out the supervision of Program implementation, including coordination with the other institutions involved in the implementation of the Program according to their respective mandates: SBD, SFE, SENARA, PIMA, SENASA, INTA, ONS, and OIRSA. For those institutions with existing framework and / or cooperation agreements with MAG (SFE, SENASA, INTA, SBD), their participation in Program implementation will be governed by these agreements; in addition, letters of understanding will be prepared and signed among each institution and MAG detailing their roles and responsibilities specifically for the implementation of the Program. For the institutions that do not have existing agreements with MAG, such agreements will be generated together with letters of understanding detailing their roles and responsibilities specifically for the implementation of the Program. MAG will also collaborate with specialized entities of the productive sectors (e.g. CORFOGA, LAICA) through existing framework agreements. Finally, MAG will be responsible for delivering the technical and fiduciary monitoring reports stipulated in the legal agreement and the disbursement and financial information letter and will ensure that the Program is carried out in accordance with the provisions of the Bank's "Guidelines on Preventing and Combating Fraud and Corruption in Program-for-Results Financing."

29. **Program Coordination Unit**. The Executive Secretariat of Agricultural Sector Planning (*Secretaría Ejecutiva de Planificación Sectorial Agropecuaria* – SEPSA) of MAG will maintain throughout program implementation a Program Coordination Unit (PCU) housed within SEPSA. The PCU will have the responsibility of ensuring adequate monitoring and management of compliance with the results referenced in the Program's Legal Agreement and for coordinating and monitoring implementation of the Program Action Plan (PAP). The PCU will be composed of adequate staff with the profiles and responsibilities required to support the implementation of the Program. The PCU will include: a Program Coordinator, who will serve as the main focal point for communications between the World Bank and the Program; specialists to manage Environment & Social, Fiduciary, and M&E themes; a focal point form MAG's Financial Administration Directorate to liaise with the Ministry of Finance and manage Program disbursements; and focal points for

the Program within each of the institutions involved in implementation. The WBG will provide analytical, administrative, and technical support to the PCU based on the Implementation Support Plan (see Technical Assessment, Annex 8).

30. **Verification entity**. The independent agency responsible for conducting the external verification and reporting of DLI compliance for the Program is expected to be the Inter-American Institute for Cooperation on Agriculture (IICA).[25] If IICA is selected to serve as the verification entity, an Agreement will be signed between MAG and IICA the tasks and deliverables required for the external verification, the verification protocols, and the payment amounts and schedules. If IICA is not selected, an identification and selection process will be undertaken during early Program implementation to engage another institution.

31. **IFAD collaboration and co-financing**. The collaboration of IFAD will be enabled either by an appointment letter or a partner's agreement. The cofinancing will be undertaken according to the existing Co-Financing Agreement between the World Bank Group and IFAD.

B. Results Monitoring and Evaluation, and Verification Arrangements

32. The monitoring of indicators in the Results Framework and management of evaluations will be carried out by reliable internal and public entities. The progress of indicators related to regulatory changes will be verified in the *Diario Oficial la Gaceta*, the official journal of Costa Rica that publishes legal acts and public notices of the President, Congress, and GoCR agencies, as well as in other official sources, such as MAG's internal resolutions. Both quantitative and qualitative indicators will be monitored according to the verification of milestones and processes described in the verification protocols (Section II.E). The responsibility for assessing indicator progress lies with MAG. The verification of the achievement of DLIs will be undertaken by the verification entity.

C. Disbursement Arrangements

33. The disbursement arrangements of the Program will follow Costa Rica's established fund flow mechanisms through its National Budget framework and Treasury Single Account (TSA). The National Treasury will oversee the flow of funds from the TSA to MAG and the participating entities in line with the budget approved by the Legislative Assembly. The disbursements to the institutions will flow through the national budget, either in an ordinary or extraordinary manner, with a preference for the ordinary budget. This requires that in May of each year, the institutions project the budget for the activities established in the Program for Results. Consequently, the budget law, which must be approved in November, includes the resources of the Program. These resources are then transferred to the institutions in January for implementation in the corresponding fiscal year, which runs from January 1 to December 31. If the funds are not transferred from the regular budget, the extraordinary budget procedure will be activated.

34. **World Bank financing** will be disbursed on a results basis, contingent upon the achievement of Disbursement-Linked Indicators (DLIs). Following independent verification of DLI achievement, the Ministry of Finance will submit disbursement requests to the World Bank, which will process these requests after confirming compliance with the Loan Agreement and reviewing the Results Verification Report certifying DLI achievement. Funds will be transferred from the World Bank Loan Account to the TSA managed by the National Treasury at the Central Bank of Costa Rica. Upon receipt, funds will be administered through Costa Rica's Integrated Financial Information System (*Sistema Integrado de Gestión*

[25] IICA is a specialized agency of the Inter-American System established in 1942, focused on promoting agricultural development and rural well-being in the Americas. IICA has significant experience designing and implementing M&E frameworks for agricultural projects and programs, ensuring that development efforts are effectively tracked, assessed, and adjusted.

de Administración Financiera – SIGAF), which centralizes and standardizes budget, treasury, and cash management processes across government entities.

35. **IFAD co-financing** will follow the same arrangements as those for World Bank financing. IFAD resources will be provided on a pro-rata basis across each Program DLI. Disbursement amounts will be drawn from IFAD resources until the cumulative disbursement reaches US$20 million. Disbursements will be contingent upon the Government providing satisfactory evidence to the Bank that the respective DLIs have been achieved and verified by the independent verification agency. Withdrawal applications for IFAD financing will be submitted through the Bank, once the Bank has notified the Government in writing of its acceptance of the evidence for the achievement of the DLIs. The Bank will review each withdrawal application and advise IFAD to proceed with the necessary payments. The withdrawal amount against achieved DLIs will not exceed the financing confirmed for the specific DLIs. All withdrawals from the IFAD credit account will be deposited into the TSA in the Central Bank of Costa Rica in U.S. dollars.

IV. PROGRAM ASSESSMENTS SUMMARY

A. Technical, financial, and economic assessment

36. **Technical analysis**. Please see an analysis of the Program's technical soundness in the Technical Assessment. Regarding the **Paris Alignment and Climate Change**, the Program is fully aligned with the mitigation and adaptation goals of the Paris Agreement (see the Technical Assessment). In addition, an ex-ante analysis (see Technical Assessment, Annex 4) shows that the total estimated net carbon balance resulting from GHGs emitted or sequestered/reduced due to the Program's implementation and capitalization period (15 years) would generate a mitigation benefit of -1,509,018 tons of CO2 equivalent (tCO2-e) compared to a business-as-usual baseline scenario.

37. The **financial analysis** of the Program constructed models of the adoption of the practices supported directly and indirectly throughout the results areas of the Program. All models produced positive net present values through productivity gains – coffee and yields, and pasture carrying capacity. Renovating coffee farms results in decreased annual net margins and return to family labor during the first few years, depending on the region of production. Coffee replantation needs to be implemented in phases and credit mechanisms need to be designed for the specific growing conditions of each region. Sugar cane productivity increases require an increase in input use but working capital credit lines are deemed sufficient to address this need. Models for cattle showed a positive response to the adoption of new practices from the second year of adoption. Although credit needs for the first year of implementation will vary depending on farm size and adopted husbandry practices, it is estimated that investment loans can be repaid in five years with one year of grace period.

38. For the **economic analysis**, cash flows across all NAMA models were converted into economic prices, aggregated and scaled to match the project targets in terms of adoption. The produced model projects a net present value (NPV) of $33 million and an internal rate of return (IRR) of 12 percent before accounting for carbon mitigation benefits. The program demonstrates financial robustness, with sensitivity analyses affirming its viability under varying scenarios. See the full Technical Assessment in the Program files.

B. B. Fiduciary

39. **A Fiduciary Systems Assessment (FSA) of the financial management (FM), procurement arrangements and anti-corruption aspects of the Program for Sustainable and Competitive Agriculture in Costa Rica, was carried out during**

the last quarter of 2024. The Program is led by the Ministry of Agriculture and Livestock (MAG) as the primary implementing entity, in collaboration with nine affiliated and decentralized participating entities. The FSA examines the fiduciary capacity and performance of the executing entities over the three fiscal years from 2021 to 2023. It evaluates the Program's PFM cycle and public procurement system, identifies key actions to support its implementation, and determines risk mitigation measures to address key fiduciary risks. The conclusion of the assessment is that, overall, the Program fiduciary systems' capacity and performance, with the implementation of the proposed risk mitigation measures, are adequate to provide reasonable assurance that Program funds will be used for their intended purposes, with due attention to the principles of economy, efficiency, effectiveness, transparency, and accountability.

40. **Financial management (FM). The Implementing entities of the Program operate under Costa Rica's Public Financial Management (PFM) country system, which the latest PEFA assessment deemed generally well-aligned with international best practices**. This FSA focuses on assessing the performance of the Program's fiduciary system, as it directly impacts fiduciary risk. Key FM areas such as planning and budgeting, treasury management, funds flow, as well as accounting, financial reporting, and auditing, will comply fully with the laws, policies, and procedures governing Costa Rica's PFM system. Financial processes will be managed through the Government's Financial Information System (SIGAF) and the systems used by the implementing entities. Institutional controls for the Program include robust internal control procedures, external audits performed by a private firm, and anti-corruption mechanisms, all of which are addressed in this Fiduciary Systems Assessment (FSA) to ensure the effective use of country systems.

41. **The procurement procedures followed by MAG and other executing agencies are comprehensive and ensure adherence to standardized regulations and promoting competition.** The assessment of the procurement systems shows that Costa Rica has a long-established legal framework. The procurement procedures are regulated by the national procurement framework which includes both the General Public Procurement Law #9986 (*Ley General de Contratación Pública – LGCP*) and its implementing regulations *Decreto Ejecutivo* 43808-H (*Reglamento de la Ley General de Contratación Pública*). The framework was modified in 2021 to align the country's system with the norms of the Organisation for Economic Co-operation and Development (OECD) and improve efficiency in procurement and expenditure management. The reform unified the different procurement regulations under a same framework; established competitive processes and the ruling methodology, introduced a more unified procurement governance, introduced value for money and sustainability as a guiding principle, and incorporated strategic procurement and strengthened e procurement tools through the enhancement of Integrated Public Procurement System (*Sistema Integrado de Compras Públicas* – SICOP) and the integration of a price repository. The LGCP created the *Direccion de Contratación Publica* as the ruling entity for the public procurement system. The SICOP serves as online platform for e-procurement and the General Controller of the Republic (*Contraloría General de la República* – CGR) manages the Integrated Contract Activity System (*Sistema Integrado de la Actividad Contractual* – SIAC) for monitoring, audit, and oversight purposes of all government contracts, although the general procurement framework has a limited approach to contract management as it only regulates procedures for contract modifications and contract termination. Procurement processes allow for competitive national or international biddings, and non-competitive mechanisms such as direct purchase, simplified bidding, and special contracting. Since 2016, it is mandatory for all contracting authorities and bidders to use SICOP, which is an efficient end-to-end procurement system that can be used by contracting agencies to carried out all their procurement transactions electronically with due respect to transparency, integrity, value-for-money, competition, and openness.

42. **There are no potential high-value contracts identified under the Program at this stage.** The proposed Program is not expected to finance any contract at or above prevailing Operations Procurement Review Committee (OPRC) thresholds considering the estimated activity costs under Substantial risk, which are at (i) US$75 million for works; (ii) US$50 million for goods, information technology and non-consulting services; and (iii) US$20 million for consulting

services.

43. **Risk Assessment.** The overall integrated fiduciary systems risk (including the risk of fraud and corruption) to the achievement of the PDO is assessed as Moderate. The Program implementing entities are governed by the Public Financial Management (PFM) country system, which has been assessed in the latest Public Expenditure and Financial Accountability (PEFA) assessment[26] as generally well-aligned with international best practices. With regards to Procurement, all entities involved in project implementation are subject to the recently approved General Public Procurement Law and Regulation. The Procurement system framework was reformed to align with international best practices as part of the process to join the OECD and is deemed acceptable to the Bank. Additionally, the OECD Methodology for Assessing Procurement Systems (MAPS) for Professionalization was finalized in 2024[27]. The following key factors, identified in the FSA present moderate risks that may prevent the achievement of Program objectives: (i) Risk that the Program's budget execution reports are inaccurate and fail to include data from all implementing entities; (ii) Lack of transparency, accountability, and responsiveness due to inadequate channels for receiving complaints and claims; and (iii) Risk of delays, cost overruns, and failure to achieve desired outcomes may occur due to weak contract management.

44. **The proposed systems and capacity strengthening and/or mitigation measures to address the above risks include the following:** (i) MAG to enforce the full utilization of budget reporting tools by all implementing entities, complemented by regular training, workshops, and periodic data validation checks to improve the reliability of budget execution reports; (ii) updating procedures in the *Contralorías de Servicios* of MAG and participating entities to strengthen their system for receiving complaints and claims, along with introducing periodic follow-up reports to evaluate and improve the system's performance; and (iii) MAG must introduce monitoring tools and controls to ensure contract performance oversight is in compliance with contractual obligations including product deliveries and timely payments. Additionally, the Government should prepare a Program Operations Manual (POM) that must include all fiduciary requirements and procedures including key internal controls, roles and responsibilities, and financial reporting and audit arrangements.

C. Environmental and Social

45. Costa Rica has a strong environmental and social system, underpinned by extensive legislation and a culture of protection. The system features a comprehensive legal framework that effectively regulates environmental and social impacts. The challenges associated with the agricultural sector range from climate vulnerability and insufficient agricultural practices to reverse environmental degradation, to limited institutional capacity to implement agricultural sector regulations and policies, as well as to comply with international commitments related to the promotion of sustainable, competitive agriculture with inclusive economic participation. In this sense, the Program can represent a positive response to these problems, as long as it considers the environmental and social risks involved in implementing the actions proposed in the PforR.

46. The Environmental and Social Systems Assessment (ESSA) includes a list of investments that are excluded from financing through the PforR: (i) Conversion or significant degradation of critical natural habitats or critical cultural

[26] The PEFA 2022, highlighted that Costa Rica's PFM system is generally well-aligned with international best practices as outlined by the PEFA methodology. However, significant improvements are still required in key areas, including the performance of procurement and human resource management systems, as well as the recording and preparation of budgetary, accounting, and financial information. These enhancements are necessary to support the delivery of public goods and services transparently, timely, and in line with the expectations and demands of the population.
[27] https://www.mapsinitiative.org/assessments/Costa_Rica_MAPS_assessment_prof_vol_I.pdf

heritage sites; (ii) Air, water, or soil pollution that results in significant adverse impacts on the health or safety of individuals, communities, or ecosystems; (iii) Working conditions that expose workers to significant risks to personal health and safety; (iv) Land acquisition and/or resettlement of a scale or nature that will have significant adverse impacts on affected people, or the use of forced evictions; (v) Large-scale changes in land use or access to land and/or natural resources; (vi) Adverse environmental and social impacts covering large geographic areas, including trans-boundary impacts or global impacts such as GHG emissions; (vii) Significant cumulative, induced, or indirect impacts; (viii) Activities involving the use of forced or child labor; (ix) Activities that may lead to conflict within or between social groups (including ethnic and racial groups); and (x) Activities that have adverse impacts on land and natural resources subject to traditional ownership or under customary use or occupation, their natural resources, or cultural heritage. This list will be reflected in the Program Operations Manual and could be further detailed.

47. To carry out the environmental and social analysis, an ESSA was prepared, which assesses the institutional competencies and capacity of the Costa Rican sector related to the PforR, to achieve the environmental and social objectives set out in the Program, without causing significant adverse environmental and social impacts. The ESSA identifies potential risks and makes recommendations to avoid or at least mitigate them. The evaluation of the Program and the systems is framed within the six principles of the World Bank, which seek to protect natural habitats and physical-cultural resources, ensure the safety of citizens and workers, address remaining challenges related to vulnerable groups, and avoid social conflicts. The ESSA also proposes several actions for inclusion in the Program Action Plan to improve environmental and social management and increase sustainability and impact.

Environmental Risks and Impacts

48. The Program's Environmental Risk is Moderate. Despite the strengths of Costa Rica's environmental and social system, there are institutional gaps that must be addressed to ensure the sustainability of the Program for Results (PforR). The most relevant environmental risks and impacts are related to the management of agrochemicals, water, and energy. The limited institutional capacity of environmental and social entities, including MAG, hinders the effective application of legislation and the supervision of compliance with regulations. Additionally, the weak capacity and awareness of agricultural producers to comply with environmental regulations, especially in the use of agrochemicals and optimal water management, can generate adverse impacts on water, soil, air, flora, and fauna, as well as on the health of staff and the community. The lack of sufficient capacity to monitor and enforce agricultural sector regulations and policies could further exacerbate these problems. Regarding the potential inclusion of the Hydro Development Program in the PforR, preliminary findings by MAG indicate that the promotion of efficiency in water use and increased land productivity are not expected to have substantial impacts in the lower parts of the watershed in terms of water quantity and quality. Nor is it expected that significant physical or economic displacement or impacts on ancestral cultures will occur as a result of this potential activity or other activities of the PforR. However, the intensification of value chains, horticultural crops, and livestock may lead to increased use of fertilizers and pesticides. The final ESSA will further elaborate on the associated risks and impacts.

Social Risks and Impacts

49. The Social Risk of the Program is classified as Moderate. The country in general, and the agricultural sector in particular, have a robust legal and policy framework that guides institutional work towards the economic and social inclusion of groups in greater conditions of vulnerability. The Costa Rican system is consistent with the World Bank's policies. In terms of information, public consultations, and management of complaints, concerns, and claims, the mechanisms established for citizen participation are moderately effective, so it is necessary to strengthen them to avoid potential dissatisfaction of the target population. The evaluation identified a series of aspects to improve, mainly in the

institutional area; these are reflected in the recommendations for PAP. Addressing these areas will help improve the effectiveness and inclusiveness of the Program.

50. **Proposed Actions**: This ESSA proposes to strengthen Costa Rica's Environmental and Social Management Systems by reinforcing the capacities of the institutions in charge of providing technical assistance to producers. This includes: a) Develop and implement a capacity development program for extension workers that addresses: a.i) Providing E&S related technical assistance to producers; a.ii) Building capacity and awareness among agricultural producers; and a.iii) Training producers on environmental regulations, particularly regarding agrochemicals and water use, and promoting sustainable practices like integrated pest management; b) Develop and implement a plan to optimize and strengthen communication and citizen engagement strategies, and inclusion, including: b.i) Developing a clear stakeholder engagement strategy for implementing a comprehensive approach for gender and youth inclusion, including other vulnerable groups in the programs; b.ii) Increasing resources for gender and youth actions, including the inclusion of other vulnerable groups; and b.iii) Refining activities to better address the needs of vulnerable groups, and to strengthen the sector's capacity for improving conflict management. c) Develop and implement a program to strengthen the sector's Environmental and Social Management System, including: c.i) Gradual staff increases; c.ii) Necessary materials and equipment; c.iii) Farm-based planning and effective interinstitutional coordination; c.iv) Strengthening the capacity of institutions to monitor and enforce environmental and social regulations and policies; c.v) Enhancing E&S auditing capabilities, c.vi) Increasing staff and resources for the GRM, including its strengthening to address sexual abuse and exploitation and sexual harassment-related complaints, and c.vii promoting the use of the GRM, especially in regional offices.

51. **ESSA Consultation and Dissemination.** The preparation of the ESSA has been carried out broadly, with the participation of key stakeholders from the productive sector, government, and non-governmental organizations. The World Bank team collected relevant information for the assessment and conducted field visits and workshops to interact with authorities and the private sector related to coffee and livestock NAMAs. A first draft of the ESSA was shared with MAG on October 18, and a first version of the ESSA was published on November 12, 2024, on the World Bank website https://documentsinternal.worldbank.org/Search/34420975 and on November 15, 2024 on the MAG website http://www.sepsa.go.cr/documents/Documento_ESSA_consulta_2024_Nov.pdf for broad dissemination. The World Bank is organizing public consultations to be held during the week of November 25, 2024, with support from MAG and IFAD, involving various stakeholders from government, international organizations, academia, producer organizations, women's organizations, civil society organizations, and vulnerable groups. The final version of the ESSA will incorporate the input and concerns of the stakeholders participating in the various consultations carried out at national and regional levels. The final version of the ESSA will be published on the external websites of the World Bank and MAG prior to the negotiation of the Program.

52. ***Grievance* Redress.** Communities and individuals who believe that they are adversely affected as a result of a Bank supported PforR operation, as defined by the applicable policy and procedures, may submit complaints to the existing program grievance mechanism or the Bank's Grievance Redress Service (GRS). The GRS ensures that complaints received are promptly reviewed in order to address pertinent concerns. Project affected communities and individuals may submit their complaint to the Bank's independent Accountability Mechanism (AM). The AM houses the Inspection Panel, which determines whether harm occurred, or could occur, as a result of Bank non-compliance with its policies and procedures, and the Dispute Resolution Service, which provides communities and borrowers with the opportunity to address complaints through dispute resolution. Complaints may be submitted at any time after concerns have been brought directly to the Bank's attention, and Bank Management has been given an opportunity to respond. For information on how to submit complaints to the Bank's Grievance Redress Service (GRS), visit https://www.worldbank.org/GRS. For information on how to submit complaints to the Bank's Accountability Mechanism, visit

https://accountability.worldbank.org.

D. E. Program Action Plan

Action Description	Source	DLI#	Responsibility	Timing		Completion Measurement
Develop an Environmental and Social Management System	Environmental and Social Systems	NA	MAG	Other	Within six months after effectiveness	Develop an E&S Management System to including: gradual staff increases, necessary materials & equipment, farm-based planning & coordination, strengthening the capacity of institutions, auditing, and GRM management, and promoting GRM use.
Implement the Environmental and Social Management System	Environmental and Social Systems	NA	MAG	Recurrent	Continuous	Implement the above Environmental and Social Management System.
Develop a program to optimize and strengthen communication, citizen engagement strategies, and inclusion	Environmental and Social Systems	NA	MAG	Other	Within six months after effectiveness	Develop a program to include: stakeholder engagement strategy covering gender & youth, increasing resources for gender & youth

						actions, refining activities to address needs of vulnerable groups and improve sector capacity for conflict management.
Implement the program to optimize and strengthen communication, citizen engagement strategies, and inclusion	Environmental and Social Systems	NA	MAG	Recurrent	Continuous	Implement the above program to optimize and strengthen communication, citizen engagement strategies, and inclusion.
Develop a capacity development program for extension workers and producers	Environmental and Social Systems	NA	MAG	Other	Within six months after effectiveness	Develop a program to include: E&S technical assistance to producers, strengthening E&S capacity & awareness among producers, and training producers on sustainable practices and environmental regulations (particularly for agro-chemicals).
Implement the capacity development program for	Environmental and Social Systems	NA	MAG	Recurrent	Continuous	Implement the above capacity development program for

extension workers and producers						extension workers and producers.
Ensure that all implementing entities fully utilize the budget reporting tools by enforcing compliance with standardized reporting requirements	Fiduciary Systems	NA	MAG	Recurrent	Monthly	Implementing entities submit accurate and timely budget reports.
The Comptroller's Offices for Services of MAG and participating entities update their procedures to strengthen their existing system for receiving complaints and claims	Fiduciary Systems	NA	MAG	Other	To be completed within the first year of Program implementation	The relevant procedures are updated.
Carry out an evaluation of NAMA financing mechanisms	Other	NA	MAG	Other	Program Mid-term Review (MTR)	An evaluation of NAMA financing mechanisms is completed, proposing a strategy to: transition NAMA financing to commercial lenders, focus interest rate subsidies on vulnerable producers, and

						help producers access payments for environmental services.
Develop guidance on managing data processed and stored in the producer platform in accordance with Law 8968 and its bylaws and good international practices.	Other	NA	MAG	Other	Delivered as part of the training of MAG extensionists.	The guidance is published by MAG and delivered as part of the training of MAG extensionists.

V. KEY RISKS

53. **The proposed Program's Overall risk to achieve the PDO has been defined as Substantial.** This is due to GoCR's relatively limited experience with the PforR financing instrument and the fact that several of the below individual risks are rated Substantial. The Overall risk will be assessed and revised as appropriate during the preparation and implementation stages. Identified risk categories rated substantial or higher are described below:

54. **Sector Strategies and policies risk is rated Substantial**. The Program will support the ASP (GoCR's core agriculture sector program) and further key sector policies e.g. the NAMAs. Program implementation thus depends on continued GoCR support and budget for these policies. To mitigate this risk, the task team will stay closely abreast of national or sectoral developments affecting the ASP and the NAMAs and in the case of any such developments, will work readily with MAG to make any needed adjustments to the Program design to facilitate meeting its development objectives.

55. **Technical design of program risk is rated Substantial.** The focus of the Program will revolve around the adoption by family farmers of innovative climate-smart technologies and practices. Even if MAG has developed strong capacities in the implementation of NAMAs, farmers' willingness to adopt innovative technologies and practices remains largely uncertain, absent the implementation of financial incentives and extension services. To mitigate this risk, the task team will work closely with MAG on the design of incentive schemes to ensure widespread adoption.

56. **Institutional capacity for implementation and sustainability risks are rated Substantial.** GoCR has only implemented one PforR operation to date, and MAG does not have experience implementing WB operations overall. MAG and the other agriculture sector institutions responsible for implementing the proposed Program will have to enhance the

interinstitutional and coordination capacities. The proposed Program design inherently mitigates this risk, given that it supports institutional strengthening under results areas. Moreover, the proposed Program will provide training and capacity building activities as needed to support implementation.

57. **Stakeholders risk is rated Substantial.** The Program will engage with a large range of stakeholders from the public and private sectors on potentially sensitive themes such as environmental sustainability and economic inclusion. To mitigate the risks that stakeholders' views on these themes and on the Program itself are not considered, public consultations on the Program was carried out (week of November 25, 2024) involving various stakeholders from government, international organizations, academia, producer organizations, women's organizations, civil society organizations, and vulnerable groups. The Program also includes indicators to monitor beneficiary satisfaction with the Program support and services received. Once implementing, a robust Stakeholder Engagement Strategy and action plan will be implemented and a GRM put into place. In addition, actions to strengthen MAG's capacity to reach vulnerable groups are included in the PAP.

Risk Categories	**Rating: High (H), Substantial (S), Moderate (M), Low (L)**
1. Political and governance	**M**
2. Macroeconomic	**M**
3. Sector strategies and policies	**S**
4. Technical design of program	**S**
5. Institutional capacity for implementation and sustainability	**S**
6. Fiduciary	**M**
7. Environment and social	**M**
8. Stakeholders	**S**
9. Other	-
Overall	**S**

ANNEX 1. RESULTS FRAMEWORK

Program Development Objective(s)

To improve the sustainability, competitiveness, and economic participation of selected small and medium agriculture producers in Costa Rica.

PDO Indicators by Outcomes

Baseline	Period 1	Period 2	Period 3	Period 4	Period 5	Closing Period
Improved sustainability of selected, small and medium farmers in Costa Rica						
Number of PYMPAs who adopt NAMAs (scalable) (Text) DLI						
Mar/2025	May/2026	May/2027	May/2028	May/2029	May/2030	May/2031
0	900	1,800	4,800	7,300	9,800	10,500
➢Number of women PYMPAs who adopt NAMAs (Number) DLI						
Mar/2025						May/2031
0						3,150
➢Number of youth PYMPAs who adopt NAMAs (Number) DLI						
Mar/2025						May/2031
0						1,575
Improved competitiveness of selected, small and medium farmers in Costa Rica						
Number of producers with at least one of four certifications key for market access obtained and reflected in Trazar-Agro (Text) DLI						
May/2029	May/2026	May/2027	May/2028	May/2029	May/2030	May/2031
0	2,000	4,000	7,000	10,000	13,000	15,000
➢Number of PYMPAS with at least one of four certifications key for market access obtained and reflected in Trazar-Agro (Number) DLI						
Mar/2025						May/2031
0						12,000
➢Number of women producers with at least one of four certifications key for market access obtained and reflected in Trazar-Agro (Number) DLI						
Mar/2025						May/2031
0						6,000
➢Number of youth producers with at least one of four certifications key for market access obtained and reflected in Trazar-Agro (Number) DLI						

Mar/2025						May/2031
0						2,250
Improved economic participation of small and medium farmers in Costa Rica, including vulnerable groups (women, youth)						
Total number of PYMPAs benefitting under the Program (Number)						
Mar/2025	May/2026	May/2027	May/2028	May/2029	May/2030	Mar/2031
0	1,800	6,000	12,000	18,000	24,000	24,000
➢Total number of women PYMPAs benefitting under the Program (Number)						
Mar/2025						May/2031
0						12,000
➢Total number of youth PYMPAs benefitting under the Program (Number)						
Mar/2025						May/2031
0						4,500

Intermediate Indicators by Results Areas

Baseline	Period 1	Period 2	Period 3	Period 4	Period 5	Closing Period
3. Sustainable production						
Number of hectares on which NAMAs are adopted due to Program support (Number)						
Mar/2025	May/2026	May/2027	May/2028	May/2029	May/2030	May/2031
0	900	1,800	4,800	7,300	9,800	10,500
Number of PYMPAs receiving economic incentives (grants) for adopting NAMAs (Number)						
Mar/2025	May/2026	May/2027	May/2028	May/2029	May/2030	May/2031
0	400	800	1,200	1,600	2,000	2,000
➢Number of women PYMPAs receiving grants for adopting NAMAs (Number)						
Mar/2025						May/2031
0						600
➢Number of youth PYMPAs receiving grants for adopting NAMAs (Number)						
Mar/2025						May/2031
0						300
Number of PYMPAs who access finance to adopt NAMAs (scalable) (Text) DLI						
Mar/2025	May/2026	May/2027	May/2028	May/2029	May/2030	May/2031
0	300	750	1,800	2,550	3,000	3,000
➢Number of women PYMPAs who access finance to adopt NAMAs (Number) DLI						
Mar/2025						May/2031

0						900
➢Number of youth PYMPAs who access finance to adopt NAMAs (Number) DLI						
Mar/2025						May/2031
0						450
Number of PYMPAs who receive technical assistance to adopt NAMAs (Number)						
Mar/2025	May/2026	May/2027	May/2028	May/2029	May/2030	May/2031
0	1,800	4,800	7,300	9,800	10,500	10,500
➢Number of women PYMPAs who receive technical assistance to adopt NAMAs (Number)						
Mar/2025						May/2031
0						3,150
➢Number of youth PYMPAs who receive technical assistance to adopt NAMAs (Number)						
Mar/2025						May/2031
0						1,575
Number of PYMPAs with soil, organic carbon, and GHG analyses of NAMA practices (Number)						
Mar/2025	May/2026	May/2027	May/2028	May/2029	May/2030	May/2031
0	1,800	4,800	7,300	9,800	10,500	10,500
Number of existing irrigation works modernized to improve the sustainability of water resource management in Cartago (scalable) (Text) DLI						
Mar/2025	May/2026	May/2027	May/2028	May/2029	May/2030	May/2031
0	1	9	12	14	14	14
Number of women PYMPAs receiving gender-sensitive support services under the Program (Number)						
Mar/2025	May/2026	May/2027	May/2028	May/2029	May/2030	May/2031
0	260	525	1,050	1,575	2,360	3,150
1. Institutional modernization						
Number of producers registered and active in the digital producer information platform (scalable) (Text) DLI						
Mar/2025	May/2026	May/2027	May/2028	May/2029	May/2030	May/2031
0	0	0	7,500	15,000	22,500	30,000
➢Number of PYMPAs registered and active in the digital producer information platform (Number) DLI						
Mar/2025						May/2031
0						24,000
➢Number of women producers registered and active in the digital producer information platform (Number) DLI						
Mar/2025						May/2031
0						12,000
➢Number of youth producers registered and active in the digital producer information platform (Number) DLI						
Mar/2025						May/2031
0						4,500
Number of extensionists trained in key areas related to sustainability, competitiveness, and inclusion (scalable) (Number) DLI						

Mar/2025	May/2026	May/2027	May/2028	May/2029	May/2030	May/2031
0	66	132	198	264	320	320
4. Added value & marketing						
Number of PYMPAs who receive payments under a PES mechanism for carbon sequestration in agricultural soils (scalable) (Text) DLI						
Mar/2025	May/2026	May/2027	May/2028	May/2029	May/2030	May/2031
0	0	0	200	500	750	1,000
➢Number of women PYMPAs who receive payments under a PES mechanism for carbon sequestration in agricultural soils (Number) DLI						
Mar/2025						May/2031
0						300
➢Number of youth PYMPAs who receive payments under a PES mechanism for carbon sequestration in agricultural soils (Number) DLI						
Mar/2025						May/2031
0						150
2. Promotion of competitiveness						
Number of producers provided with ID devices for cattle traceability (Number)						
Mar/2025	May/2026	May/2027	May/2028	May/2029	May/2030	May/2031
0	0	3,400	6,800	10,200	12,400	15,940
Number of analyses completed of food safety of animal origin, veterinary drug quality, and veterinary diagnostics by SENASA (Number)						
Mar/2025	May/2026	May/2027	May/2028	May/2029	May/2030	May/2031
0	115	240	387	387	387	387
Number of waste, pesticide, and nutrient molecules analyzed by SFE (Number)						
Mar/2025	May/2026	May/2027	May/2028	May/2029	May/2030	May/2031
0	2	170	264	322	375	375
The cold storage warehouse in the Pacific Central Region is constructed and operating (yes / no) (Text) DLI						
Mar/2025	May/2026	May/2027	May/2028	May/2029	May/2030	May/2031
No	No	No	Yes	Yes	Yes	Yes
Cross-cutting						
Total number of Program beneficiaries (including family members) (Number)						
Mar/2025	May/2026	May/2027	May/2028	May/2029	May/2030	May/2031
0	5,400	22,500	45,000	67,500	90,000	90,000
Percentage of producers satisfied with the technical and financial assistance received under the Program (Percentage)						
Mar/2025	May/2026	May/2027	May/2028	May/2029	May/2030	May/2031
0	0	0	80	0	0	80

Disbursement Linked Indicators (DLI)

Period	Period Definition
Period 1	FY 2026
Period 2	FY 2027
Period 3	FY 2028
Period 4	FY 2029
Period 5	FY 2030
Period 6	FY 2031

Baseline	Period 1	Period 2	Period 3	Period 4	Period 5	Period 6
1:Number of producers registered and active in the digital producer information platform (scalable) (Text)						
0		The digital producer information platform is developed and launched (yes / no)			5 information campaigns to raise awareness of the digital producer information platform are completed (scalable: US$ 0.172 million / campaign)	30,000 producers are registered and active in the digital producer information platform (scalable: US$ 344 / producer)
0.00	0.00	4,300,000.00	0.00	0.00	860,000.00	10,320,000.00
DLI allocation		15,480,000.00		As a % of Total DLI Allocation		12.9%
➢ 1.1:Number of PYMPAs registered and active in the digital producer information platform (Number)						
0						24,000
0.00	0.00	0.00	0.00	0.00	0.00	0.00
DLI allocation		0.00		As a % of Total DLI Allocation		0%
➢ 1.2:Number of women producers registered and active in the digital producer information platform (Number)						
0						12,000
0.00	0.00	0.00	0.00	0.00	0.00	0.00
DLI allocation		0.00		As a % of Total DLI Allocation		0%
➢ 1.3:Number of youth producers registered and active in the digital producer information platform (Number)						
0						4,500

0.00	0.00	0.00	0.00	0.00	0.00	0.00
DLI allocation		0.00		As a % of Total DLI Allocation		0%
2:Number of extensionists trained in key areas related to sustainability, competitiveness, and inclusion (scalable) (Number)						
0					320 (scalable: US$ 14,875 / extensionist)	
0.00	0.00	0.00	0.00	0.00	4,760,000.00	0.00
DLI allocation		4,760,000.00		As a % of Total DLI Allocation		3.97%
3:Number of producers with at least one of four certifications key for market access obtained and reflected in Trazar-Agro (Text)						
0				8 new modules of the traceability system Trazar-Agro are developed and launched (scalable: US$ 0.86 million / module)	20,000 producers are registered in the traceability system (scalable: US$ 258 / producer)	15,000 producers have obtained at least one of four certifications key for market access and reflected the certification(s) in Trazar-Agro (scalable: US$ 344 / producer)
0.00	0.00	0.00	0.00	6,880,000.00	5,160,000.00	5,160,000.00
DLI allocation		17,200,000.00		As a % of Total DLI Allocation		14.33%
➢ 3.1:Number of PYMPAS with at least one of four certifications key for market access obtained and reflected in Trazar-Agro (Number)						
0						8,000
0.00	0.00	0.00	0.00	0.00	0.00	0.00
DLI allocation		0.00		As a % of Total DLI Allocation		0%
➢ 3.2:Number of women producers with at least one of four certifications key for market access obtained and reflected in Trazar-Agro (Number)						
0						4,000
0.00	0.00	0.00	0.00	0.00	0.00	0.00
DLI allocation		0.00		As a % of Total DLI Allocation		0%
➢ 3.3:Number of youth producers with at least one of four certifications key for market access obtained and reflected in Trazar-Agro (Number)						
0						1,500
0.00	0.00	0.00	0.00	0.00	0.00	0.00
DLI allocation		0.00		As a % of Total DLI Allocation		0%
4:The cold storage warehouse in the Pacific Central Region is constructed and operating (yes / no) (Text)						
No	The warehouse design plan is finalized (yes / no)	The warehouse construction is completed according	The warehouse is operating (yes / no)			

		to the design plan (yes / no)				
0.00	860,000.00	2,580,000.00	1,720,000.00	0.00	0.00	0.00
DLI allocation		5,160,000.00		As a % of Total DLI Allocation		4.3%
5:Number of PYMPAs who adopt NAMAs (scalable) (Text)						
0					10,500 PYMPAs receive technical assistance to adopt NAMAs (scalable: US$ 774 / PYMPA)	10,500 PYMPAs adopt NAMAs (scalable: US$ 774 / PYMPA)
0.00	0.00	0.00	0.00	0.00	8,127,000.00	8,127,000.00
DLI allocation		16,254,000.00		As a % of Total DLI Allocation		13.54%
➢ 5.1:Number of women PYMPAs who adopt NAMAs (Number)						
0						3,150 women PYMPAs adopt NAMAs (yes / no)
0.00	0.00	0.00	0.00	0.00	0.00	473,000.00
DLI allocation		473,000.00		As a % of Total DLI Allocation		0.39%
➢ 5.2:Number of youth PYMPAs who adopt NAMAs (Number)						
0						1,575 youth PYMPAs adopt NAMAs (yes / no)
0.00	0.00	0.00	0.00	0.00	0.00	473,000.00
DLI allocation		473,000.00		As a % of Total DLI Allocation		0.39%
6:Number of PYMPAs who access finance to adopt NAMAs (scalable) (Text)						
0	The NAMA financing program of SBD is operating (yes / no				3,000 PYMPAs access finance to adopt NAMAs (scalable: US$ 5,160 / PYMPA)	
0.00	10,320,000.00	0.00	0.00	0.00	15,480,000.00	0.00
DLI allocation		25,800,000.00		As a % of Total DLI Allocation		21.5%
➢ 6.1:Number of women PYMPAs who access finance to adopt NAMAs (Number)						
0				900		
0.00	0.00	0.00	0.00	0.00	0.00	0.00
DLI allocation		0.00		As a % of Total DLI Allocation		0%
➢ 6.2:Number of youth PYMPAs who access finance to adopt NAMAs (Number)						

0				450		
0.00	0.00	0.00	0.00	0.00	0.00	0.00
DLI allocation		0.00		As a % of Total DLI Allocation		0%
7:Number of existing irrigation works modernized to improve the sustainability of water resource management in Cartago (scalable) (Text)						
0		The feasibility study and design plans are completed (yes / no)		14 existing irrigation works are modernized according to the design plan (scalable: US$ 0.86 million / irrigation work)		
0.00	0.00	8,600,000.00	0.00	12,040,000.00	0.00	0.00
DLI allocation		20,640,000.00		As a % of Total DLI Allocation		17.2%
8:Number of PYMPAs who receive payments under a PES mechanism for carbon sequestration in agricultural soils (scalable) (Text)						
0	The PES mechanism for carbon sequestration in agricultural soils is designed (yes / no)	The PES funding mechanism is designed (yes / no)				1,000 PYMPAs receive payments under the PES mechanism (scalable: US$ 5,160 / PYMPA))
0.00	4,300,000.00	4,300,000.00	0.00	0.00	0.00	5,160,000.00
DLI allocation		13,760,000.00		As a % of Total DLI Allocation		11.47%
➢ 8.1:Number of youth PYMPAs who receive payments under a PES mechanism for carbon sequestration in agricultural soils (Number)						
0						300
0.00	0.00	0.00	0.00	0.00	0.00	0.00
DLI allocation		0.00		As a % of Total DLI Allocation		0%
➢ 8.2:Number of women PYMPAs who receive payments under a PES mechanism for carbon sequestration in agricultural soils (Number)						
0						150
0.00	0.00	0.00	0.00	0.00	0.00	0.00
DLI allocation		0.00		As a % of Total DLI Allocation		0%

Monitoring & Evaluation Plan: PDO Indicators by PDO Outcomes

Improved sustainability of selected, small and medium farmers in Costa Rica	
Number of PYMPAs who adopt NAMAs (scalable) (Number) DLI	
Description	This indicator captures the number of PYMPAS across coffee, livestock (beef and dairy) and sugar cane value chains who adopt production models consistent with the Nationally Appropriate Mitigation Actions (NAMAs) that Costa Rica has developed for these value chains. "PYMPAS" refer to small and medium agriculture producers in Costa Rica. Costa Rican small- and medium-scale producers (“PYMPAS”, per the Spanish acronym) are classified under article 9 of law No. 37911-MAG (Norma para certificar la condición de pequeño y mediano productor agropecuario – PYMPA) according to farm size. NAMAs are intended to generate outcomes for adaptation / resilience as well as mitigation. A producer is considered to have adopted a NAMA once a portion of the farm area is documented by MAG as complying with NAMA practices. This activity maps to ASP intervention 3.7.2.2.
Frequency	Quarterly
Data source	MAG-DNEA
Methodology for Data Collection	MAG-DNEA will prepare and submit a report to MAG-SEPSA documenting the results.
Responsibility for Data Collection	MAG-DNEA
Improved competitiveness of selected, small and medium farmers in Costa Rica	
Number of producers with at least one of four certifications key for market access obtained and reflected in *Trazar-Agro* (Text) DLI	
Description	This indicator captures the number of producers who have obtained at least one of four certifications considered key for market access and have the certification(s) reflected in their *Trazar-Agro* profile: (i) the Livestock Transport Control Digital Guide, the (ii) Certificate of Veterinary Operation, (iii) the Agriculture Best Practice Certification (TICO-BPA), and (iv) the Recognition for Organic Environmental Benefits (RBAO) (see the PAD main text for details). MAG is the entity that awards these certifications. Producers are considered to be certified when documentation of the certification is reflected in *Trazar-Agro*.
Frequency	Quarterly
Data source	OIRSA, MAG, SFE, SENASA
Methodology for Data Collection	OIRSA will prepare and submit a report to MAG-SEPSA documenting the results.
Responsibility for Data Collection	OIRSA
Improved economic participation of small and medium farmers in Costa Rica, including vulnerable groups (women, youth)	
Total number of PYMPAs benefitting under the Program (Number)	
Description	"PYMPAS" refer to small and medium agriculture producers in Costa Rica. Costa Rican small- and medium-scale producers (“PYMPAS”, per the Spanish acronym) are classified under article 9 of law No. 37911-MAG (Norma para

	certificar la condición de pequeño y mediano productor agropecuario – PYMPA) according to farm size. The target of 24,000 PYMPAs benefitting under the Program is explained in Table 2 of the PAD main text.
Frequency	Quarterly
Data source	MAG, SBD, SFE, SENARA, PIMA, SENASA, INTA, ONS, OIRSA
Methodology for Data Collection	MAG-SEPSA will consolidate infomraiton from all institutions participating in Program implementation and consolidate it into a harmonized report.
Responsibility for Data Collection	MAG-SEPSA

Monitoring & Evaluation Plan: Intermediate Results Indicators by Results Areas

3. Sustainable production	
Number of hectares on which NAMAs are adopted due to Program support (Number)	
Description	This indicator tracks the area (hectares) on which coffee, livestock, and sugar cane NAMAs are adopted.
Frequency	Quarterly
Data source	MAG-DNEA
Methodology for Data Collection	MAG-DNEA will prepare and submit a report to MAG-SEPSA documenting the results.
Responsibility for Data Collection	MAG-DNEA
Number of PYMPAs receiving economic incentives (grants) for adopting NAMAs (Number)	
Description	This indicator tracks the number of PYMPAs - who may not have the capacity or means to access NAMA financing options - who receive grant resources, awarded by MAG, to adopt NAMAs. This activity maps to ASP intervention 3.7.9.2.
Frequency	Quarterly
Data source	MAG-DNEA
Methodology for Data Collection	MAG-DNEA will prepare and submit a report to MAG-SEPSA documenting the results.
Responsibility for Data Collection	MAG-DNEA
Number of PYMPAs who access finance to adopt NAMAs (scalable) (Text) [DLI]	
Description	PYMPAs are considered to “access finance” when they receive a credit and / or guarantee from a financial operator of SBD (through the SBD NAMA financing program) to support NAMA practice adoption. This activity maps to ASP intervention 2.7.2.4.
Frequency	Quarterly

Data source	MAG-DNEA
Methodology for Data Collection	MAG-DNEA will prepare and submit a report to MAG-SEPSA documenting the results.
Responsibility for Data Collection	MAG-DNEA
Number of PYMPAs who receive technical assistance to adopt NAMAs (Number)	
Description	This indicator tracks the number of PYMPAs who receive technical assistance to adopt NAMAs. All 10,500 producers expected to adopt NAMAs will receive technical assistance.
Frequency	Quarterly
Data source	MAG-DNEA
Methodology for Data Collection	MAG-DNEA will prepare and submit a report to MAG-SEPSA documenting the results.
Responsibility for Data Collection	MAG-DNEA
Number of PYMPAs with soil, organic carbon, and GHG analyses of NAMA practices (Number)	
Description	This indicator tracks the number of PYMPAs adopting NAMAs for which INTA undertakes farm-level soil, organic carbon, and GHG emissions assessments. This activity maps to ASP intervention 3.7.6.4.
Frequency	Quarterly
Data source	INTA
Methodology for Data Collection	INTA will prepare and submit a report to MAG-SEPSA documenting the results.
Responsibility for Data Collection	INTA
Number of existing irrigation works modernized to improve the sustainability of water resource management in Cartago (scalable) (Text) DLI	
Description	The 14 existing irrigation works are considered “modernized” when the design plans for their modernization have been fully executed. This activity maps to ASP intervention 3.3.1.2.
Frequency	Quarterly
Data source	SENARA
Methodology for Data Collection	SENARA will prepare and submit a report to MAG-SEPSA documenting the results.
Responsibility for Data Collection	SENARA
Number of women PYMPAs receiving gender-sensitive support services under the Program (Number)	
Description	This indicator tracks the number of women who receive technical and / or financial support services under the Program designed specifically to improve their economic participation in the sector. These will include at minimum the provision

	of transport and logistics to and from training and capacity building activities (e.g. financial education trainings under RA3) and the offer of childcare during such activities. These gender-sensitive support services are intended ultimately to facilitate women's access to knowledge, capacity building, and finance under the Program.
Frequency	Quarterly
Data source	MAG-DNEA
Methodology for Data Collection	MAG-DNEA will prepare and submit a report to MAG-SEPSA documenting the results.
Responsibility for Data Collection	MAG-DNEA
1. Institutional modernization	
Number of producers registered and active in the digital producer information platform (scalable) (Text) DLI	
Description	Producers are considered "registered" when their profile is created in the platform and "active" when their information is accessible to platform users. This activity maps to ASP intervention 1.11.1.
Frequency	Quarterly
Data source	MAG-DNEA
Methodology for Data Collection	MAG-DNEA will prepare and submit a report to MAG-SEPSA documenting the results.
Responsibility for Data Collection	MAG-DNEA
Number of extensionists trained in key areas related to sustainability, competitiveness, and inclusion (scalable) (Number) DLI	
Description	Extensionists are considered "trained in key areas" when they have completed trainings in the following 4 areas and their participation is documented by MAG-DNEA: adoption of low-emission and climate resilient models of production (NAMAs); registration and use of the digital producer information platform (above), the agriculture sector traceability system (see RA2), and other digital resources (including aspects related to personal data privacy and protection); tailoring extension to vulnerable groups; and general business management. This activity maps to ASP intervention 2.2.1.3.
Frequency	Quarterly
Data source	MAG-DNEA
Methodology for Data Collection	MAG-DNEA will prepare and submit a report to MAG-SEPSA documenting the results.
Responsibility for Data Collection	MAG-DNEA
4. Added value & marketing	
Number of PYMPAs who receive payments under a PES mechanism for carbon sequestration in agricultural soils (scalable) (Text) DLI	
Description	PYMPAS are considered to "receive payments" once payment documentation (e.g. receipt) is provided.

Frequency	Quarterly
Data source	MAG-DNEA
Methodology for Data Collection	MAG-DNEA will prepare and submit a report to MAG-SEPSA documenting the results.
Responsibility for Data Collection	MAG-DNEA
2. Promotion of competitiveness	
Number of producers provided with ID devices for cattle traceability (Number)	
Description	The ID devices are digital ear tags that track cattle location and movements. This activity maps to ASP intervention 2.14.1.4.
Frequency	Quarterly
Data source	OIRSA, MAG
Methodology for Data Collection	OIRSA will prepare and submit a report to MAG-SEPSA documenting the results.
Responsibility for Data Collection	OIRSA
Number of analyses completed of food safety of animal origin, veterinary drug quality, and veterinary diagnostics by SENASA (Number)	
Description	These analyses are considered critical for improving cattle health and product competitiveness in international markets. This activity maps to ASP interventions 3.9.3.1, 3.9.3.2, and 3.9.3.3.
Frequency	Quarterly
Data source	SENASA
Methodology for Data Collection	SENASA will prepare and submit a report to MAG-SEPSA documenting the results.
Responsibility for Data Collection	SENASA
Number of waste, pesticide, and nutrient molecules analyzed by SFE (Number)	
Description	These analyses are considered critical for registering and controlling agrochemical use. This activity maps to ASP interventions 2.16.1.1, 2.16.1.2, and 2.16.1.3.
Frequency	Quarterly
Data source	SFE
Methodology for Data Collection	SFE will prepare and submit a report to MAG-SEPSA documenting the results.
Responsibility for Data Collection	SFE
The cold storage warehouse in the Pacific Central Region is constructed and operating (yes / no) (Text) [DLI]	

Description	The warehouse is considered to be "constructed" when the warehouse construction design plan is fully executed. The warehouse is considered “operating” when documentation (e.g. receipt) of fisherfolk using it is provided. This activity maps to ASP intervention 2.8.3.1.
Frequency	Quarterly
Data source	INCOPESCA, PIMA
Methodology for Data Collection	PIMA will prepare and submit a report to MAG-SEPSA documenting the results.
Responsibility for Data Collection	PIMA
Cross-cutting	
Total number of Program beneficiaries (including family members) (Number)	
Description	This indicator is required by FIDA. The calculation of direct beneficiaries of the Program is explained in Table 2 of the main text of the Program Document.
Frequency	Quarterly
Data source	MAG, SBD, SFE, SENARA, PIMA, SENASA, INTA, ONS, OIRSA
Methodology for Data Collection	MAG-SEPSA will consolidate infomraiton from all institutions participating in Program implementation and consolidate it into a harmonized report.
Responsibility for Data Collection	MAG-SEPSA
Percentage of producers satisfied with the technical and financial assistance received under the Program (Percentage)	
Description	This indicator is required by FIDA.
Frequency	Quarterly
Data source	MAG, SBD, SFE, SENARA, PIMA, SENASA, INTA, ONS, OIRSA
Methodology for Data Collection	MAG-SEPSA will consolidate infomraiton from all institutions participating in Program implementation and consolidate it into a harmonized report.
Responsibility for Data Collection	MAG-SEPSA

Verification Protocol Table: Disbursement Linked Indicators

1 : Number of producers registered and active in the digital producer information platform (scalable) (Text)	
Formula	DLR 1.1: The digital producer information platform is developed and operational. 5.0 million, yes / no. (ASP 1.11.1) DLR 1.2: 5 information campaigns to raise awareness of the digital producer information platform are completed. 1.0 million, scalable: US$ 0.2 million x campaign. (ASP 1.11.1.3) DLR 1.3: 30,000 producers are registered and active in the digital producer information platform. 12.0 million, scalable: US$ 400 x unitary increase in the cumulative number of producers registered and active. (ASP 1.11.1.4)
Description	DLR 1.1: The platform is considered "developed" when it demonstrates integration between the MAG, SENASA, and SFE systems. The platform is considered "operational" when it is demonstrated that users can access and navigate it. DLR 1.2: An information campaign is considered "completed" when a report documenting the campaign activities and etsimated number of individuals reached is completed. DLR 1.3: Producers are considered "registered" when their profile is created in the platform and "active" when their information is accessible to platform users.
Data source/ Agency	DLR 1.1: MAG-DNEA DLR 1.2: MAG-DNEA DLR 1.3: MAG-DNEA
Verification Entity	To be confirmed
Procedure	MAG-DNEA will prepare and submit a report to MAG-SEPSA documenting the results. MAG-SEPSA will validate the report and submit it to the verification agency. The agency will verify the results and submit a verification report to the Bank. The verification report will be submitted to the Bank at least 2 months before the associated disbursement request is sent.
2 : Number of extensionists trained in key areas related to sustainability, competitiveness, and inclusion (scalable) (Number)	
Formula	6.0 million, scalable: US$ 18,750 x unitary increase in number of extensionists trained. (ASP 2.2.1.3)
Description	Extensionists are considered "trained in key areas" when they have completed trainings in the following 4 areas and their participation is documented by MAG-DNEA: (i) adoption of low-emission and climate resilient models of production (NAMAs), (ii) registration and use of the agriculture sector traceability system and other digital resources ("agromatica"), (iii) tailoring extension to vulnerable groups, and (iv) general business management.
Data source/ Agency	MAG-DNEA
Verification Entity	To be confirmed
Procedure	MAG-DNEA will prepare and submit a report to MAG-SEPSA documenting the results. MAG-SEPSA will validate the report and submit it to the verification agency. The agency will verify the results and submit a verification report to the Bank. The verification report will be submitted to the Bank at least 2 months before the associated disbursement request is sent.
3 : Number of agricultural producers with at least one of four certifications key for market access obtained and reflected in *Trazar-Agro* (scalable) (Text)	
Formula	DLR 3.1: 8 new modules of the traceability system *Trazar-Agro* are developed and launched. 9.0 million, scalable: US$ 1.25 million / module. (ASP 2.14.1.1) DLR 3.2: 20,000 producers are registered in *Trazar-Agro*. 5.0 million, scalable: US$ 250 x unitary increase in cumulative number of producers registered in the traceability system. DLR 3.3: 15,000 producers have obtained at least one of four certifications key for market access and reflected the certification(s) in *Trazar-Agro*. 5.0 million, scalable: US$ 500 x unitary increase in cumulative number of producers with at least one of four certificates reflected in *Trazar-Agro*.
Description	DLR 3.1: The 8 new modules will be for: pork, coffee, oil palm, sugar cane, onion, potato, fishing & aquaculture, and honey. Modules are considered "developed" when their technical and operational development plans are completed and "launched" when they are officially announced as functional at a launch event. DLR 3.2: Producers are considered "registered" when their profile is created in *Trazar-Agro*. DLR 3.3: The four key certifications are: (i) the Livestock Transport Control Digital Guide, the (ii) Certificate of Veterinary Operation, (iii) the Agriculture Best Practice Certification (TICO-BPA), and (iv) the Recognition for Organic Environmental Benefits (RBAO) (see the PAD main text for details). Producers are considered to be certified when documentation of the certification is reflected in *Trazar-Agro.*
Data source/ Agency	OIRSA, MAG, SFE, SENASA
Verification Entity	To be confirmed

Procedure	OIRSA will prepare and submit a report to MAG-SEPSA documenting the results. MAG-SEPSA will validate the report and submit it to the verification agency. The agency will verify the results and submit a verification report to the Bank. The verification report will be submitted to the Bank at least 2 months before the associated disbursement request is sent.
4 : The cold storage warehouse in the Pacific Central Region is constructed and operating (scalable) (Text)	
Formula	DLR 4.1: The warehouse design plan is finalized. 1.0 million, yes / no. DLR 4.2: The warehouse construction is completed according to the design plan. 3.0 million, yes / no. (ASP 2.8.3.1) DLR 4.3: The warehouse is operating. 2.0 million, yes / no. (ASP 2.8.3.1)
Description	DLR 4.1: The design plan is considered "finalized" when they it is approved through official decree by MAG. DLR 4.2: The warehouse construction is considered completed upon submission of a completion report documenting (i) implementation of the construction elements proposed in the design plan, and (ii) compliance with local laws and regulations for warehouse facilities. DLR 4.3: The warehouse is considered "operating" when documentation is provided of fisherfolk using the warehouse (e.g. receipt of transaction).
Data source/ Agency	INCOPESCA, PIMA
Verification Entity	To be confirmed
Procedure	PIMA will prepare and submit a report to MAG-SEPSA documenting the results. MAG-SEPSA will validate the report and submit it to the verification agency. The agency will verify the results and submit a verification report to the Bank. The verification report will be submitted to the Bank at least 2 months before the associated disbursement request is sent.
5: Number of PYMPAs who adopt NAMAs (scalable) (Number)	
Formula	DLR 5.1: 10,500 PYMPAs receive technical assistance to adopt NAMAs. 9.45 million, scalable: US$ 900 x unitary increase in number of PYMPAs. DLR 5.2: 10,500 PYMPAs adopt NAMAs. 9.45 million, scalable: US$ 900 x unitary increase in cumulative number of PYMPAs. (ASP 3.7.2.2) DLR 5.3: 30% of PYMPAs adopting NAMAs (3,150) are women. 0.55 million, yes / no. DLR 5.4: 15% of PYMPAs adopting NAMAs (1,575) are women. 0.55 million, yes / no.
Description	DLR 5.1: Technical assistance is considered delivered once the first in-person farm visit is conducted. DLR 5.2: A producer is considered to have adopted a NAMA once a portion of the farm area is documented by MAG as complying with NAMA practices. It will also be noted whether the producer is a women (DLR 5.3) or youth (DLR 5.4).
Data source/ Agency	MAG-DNEA
Verification Entity	To be confirmed
Procedure	MAG-DNEA will prepare and submit a report to MAG-SEPSA documenting the results. MAG-SEPSA will validate the report and submit it to the verification agency. The agency will verify the results and submit a verification report to the Bank. The verification report will be submitted to the Bank at least 2 months before the associated disbursement request is sent.
6 : Number of PYMPAs who access finance to adopt NAMAs (scalable) (Text)	
Formula	DLR 6.1: The NAMA financing program of SBD (*Programa de Financiamiento para el Fortalecimiento de Prácticas Productivas Sostenibles en los Sectores de Ganadería Bovina, Café y Caña de Azúcar de Costa Rica*) is operational. 12.0 million, yes no. DLR 6.2: 3,000 PYMPAs access finance to adopt NAMAs through the SBD NAMA financing program. 18.0 million, scalable: US$ 6,000 x unitary increase in number of PYMPA. (2.7.2.4)
Description	DLR 6.1: The program is considered "operational" once it is accessible to the public (e.g. online) and documentation of its first credit and / or guarantee to a producer is provided. DLR 6.2: PYMPAs are considered to "access finance" from the SBD NAMA financing program when they receive a credit and / or guarantee from a financial operator of SBD to support NAMA practice adoption.
Data source/ Agency	MAG-DNEA
Verification Entity	To be confirmed
Procedure	MAG-DNEA will prepare and submit a report to MAG-SEPSA documenting the results. MAG-SEPSA will validate the report and submit it to the verification agency. The agency will verify the results and submit a verification report to the Bank. The verification report will be submitted to the Bank at least 2 months before the associated disbursement request is sent.
7 : Number of existing irrigation works modernized to improve the sustainability of water resource management in Cartago (scalable) (Text)	
Formula	DLR 7.1: The Cartago Irrigation District feasibility study and design plans are completed. 10.0, yes / no. (ASP 3.3.1.2)

	DLR 7.2: 14 existing irrigation works are modernized according to the design plans. 14.0 million, scalable: US$ 1.0 million per irrigation work completed. (ASP 3.3.1.2)
Description	DLR 7.1: The feasibility study and design plans are considered "finalized" when they are approved through official decree by MAG. DLR 7.2: The 14 existing irrigation works are considered "modernized" upon submission of a completion report documenting (i) implementation of the modernization elements proposed in the design plans, and (ii) compliance with local laws and regulations for irrigation works.
Data source/ Agency	SENARA
Verification Entity	To be confirmed
Procedure	SENARA will prepare and submit a report to MAG-SEPSA documenting the results. MAG-SEPSA will validate the report and submit it to the verification agency. The agency will verify the results and submit a verification report to the Bank. The verification report will be submitted to the Bank at least 2 months before the associated disbursement request is sent.
8: Number of PYMPAs who receive payments under a PES mechanism for carbon sequestration on agricultural land (scalable) (Text)	
Formula	DLR 8.1: The PES program for carbon sequestration in agricultural soils is established. 5.0 million, yes / no. (ASP 4.9.1.1) DLR 8.2: The PES funding mechanism is established. 5.0 million, yes / no. (ASP 4.9.1.2) DLR 8.3: 1,000 PYMPAs receive payments under the PES mechanism. 6.0 million, scalable: US$ 6,000 x unitary increase in number of PYMPA. (ASP 4.9.1.4)
Description	DLR 8.1: The program is considered "established" when a PES category for carbon sequestration in agriculture soils is created through the enaction of an ammendment to the Forestry Law No 7575. DLR 8.2: The funding mechanism is considered "established" once it is is capitalized. DLR 8.3: PYMPAS are considered to "receive payments" once payment documentation (e.g. receipt) is provided.
Data source/ Agency	MAG-DNEA
Verification Entity	To be confirmed
Procedure	MAG-DNEA will prepare and submit a report to MAG-SEPSA documenting the results. MAG-SEPSA will validate the report and submit it to the verification agency. The agency will verify the results and submit a verification report to the Bank. The verification report will be submitted to the Bank at least 2 months before the associated disbursement request is sent.