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MULTILATERAL INVESTMENT FUND

ECUADOR

BIOECONOMY REGIONAL HUB NAPO, PASTAZA AND MORONA SANTIAGO

(EC- T1535 EC- T1536)

DONORS MEMORANDUM

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EXECUTIVE SUMMARY

ECUADOR BIOECONOMY REGIONAL HUB NAPO, PASTAZA AND MORONA SANTIAGO (EC-T1535 EC- T1536)

The Ecuadorian Amazon faces a significant threat of deforestation and degradation, with 16% of the region already undergoing a process of transformation and deforestation. The pressure on forest ecosystems is intensifying due to the growing competition for land use, driven by extractive and agricultural activities. Nonetheless, deforestation rates in Indigenous territories in the Amazon are roughly half of what they are in similar adjacent areas. The objective of this project is to foster the development of pioneering value chains for Amazonian products and strengthen local bio-enterprises through capacity building, research, acceleration, and connection with local and international markets to ensure their future sustainability. This project will consolidate a regional hub in the Amazon Region fostering a local ecosystem where entrepreneurs find a space for the development and enhancement of their capabilities. It will establish a model for a regional institutional framework for other bioeconomy hubs in the Amazon region that contributes to a strengthened forest governance and will provide an enabling environment to support bio-enterprises and advocate for the development of favorable public policies conducive to the growth of the bioeconomy. The project will be developed in three provinces of the Ecuadorian Amazon: Napo, Pastaza and Morona Santiago. The main beneficiaries of this project will be 1,000 families from local communities and indigenous territories. The beneficiaries would be local producers, associations, and community enterprises that are involved in the prioritized Amazon value chains and will receive training, technical, and financial support to ensure economically viable and sustainable solutions for community welfare. They will strengthen their capacities related to value chains of Amazonian products based on bioeconomy, conservation, and biodiversity principles, improving their income. The executing agency will be Fundación Pachamama (FP), a non-profit organization created in 1997, operating in Ecuador with 30 employees. FP's objective is to contribute to the well-being of indigenous peoples and nationalities through the conservation and sustainable use of Amazon forests.

FP's work has been based on strengthening indigenous organizations, conserving, and titling ancestral lands, promoting alternative development models, supporting the implementation of management plans for the sustainable use of natural resources, and guaranteeing the rights of indigenous peoples. The project has a total cost of \$2,000,000, of which US\$400,000 (20%) will be provided by core funding from Amazon Bio-Builders Facility Bio-Business RG-O1711 from Green Climate Fund (GRN) US\$700,000 (35%) by Amazon Bioeconomy and Forest Management Fund (AMZ), and US\$900,000 (45%) by the local counterpart. The project is part of Amazonia Forever program, which is dedicated to accelerating the sustainable, inclusive and resilient development of the Amazon region. It is also well aligned with the IDB Group Country Strategy with Ecuador (2022-2025), which aims to support the productive development of Ecuador's Amazon region, supporting the development of financing mechanisms to fund ecosystem restoration and conservation and improve natural capital assets, supporting efforts to combat climate change and natural resource degradation, and supporting biodiversity and conservation and to channel climate finance to those efforts.

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ABBREVIATIONS

AEI	Alianza por el Emprendimiento y la Innovación (Alliance for entrepreneurship and Innovation)
AFD	Agence Française de Développement (French Development Agency)
AMZ	Amazon Bioeconomy and Forest Management Fund
CSD/CCS	Climate Change Division at the Interamerican Development Bank (IDB)
CO ₂	Carbon dioxide
CONAFIPS	Ecuadorian National Corporation of Popular and Solidarity Finances
CRF	Corporate Results Framework
DICI	Integrity and Institutional Capacity Diagnostic
ESPF	Environmental and Social Policy Framework
FP	Fundación Pachamama
GRN	Green Climate Fund
GMP	Good Manufacturing Practices
IDB	Interamerican Development Bank
IDB Lab	Multilateral Investment Fund
IFD/CMF	Competitiveness, Technology and Innovation Division at IDB
INEC	Instituto Nacional de Estadísticas y Censos
IPLCs	Indigenous People and Local Communities
IPM	Integrated Pest Management
IRF	Innovation Results Framework
MDB	Multilateral Development Banks
NESsT	Nonprofit Enterprise and Self-sustainability Team
NICFI	Norway's International Climate & Forests Initiative
SARAS	Environmental and Social Risk Management Systems (in spanish Sistemas de Administración de Riesgos Ambientales y Sociales)
SIG Chakra	Geographic Information Systems Platform
CSD/RND	Environment, Rural Development and Risk Management Division at the IDB

PROJECT INFORMATION

ECUADOR BIOECONOMY REGIONAL HUB NAPO, PASTAZA, AND MORONA SANTIAGO (EC- T1535 - EC- T1536)

Country and geographic location:	Ecuador		
Executing Agency:	Fundación Pachamama (FP)		
Focus area:	Climate Change, Natural resources, Natural capital		
Coordination with other donors/Bank operations:	Amazon Bioeconomy and Forest Management Fund (AMZ), Amazon BioBuilders from Green Climate Fund (GRN)		
Project beneficiaries:	1,000 direct beneficiaries from local communities and indigenous territories in Napo, Pastaza, and Morona Santiago provinces. This includes 100 biobusinesses that will be involved.		
Financing:	Technical Cooperation - Facility Bio-Business RG-O1711 - Green Climate Fund (GRN)	US\$400,000	
	Total GRN funding:	US\$400,000	20%
	Technical cooperation Amazon Bioeconomy and Forest Management Fund (AMZ)	US\$700,000	
	Total AMZ funding	US\$700,000	35%
	Counterpart:	US\$900,000	45%
	Total project budget:	US\$2,000,000	100%
Execution and disbursement periods:	36 months for execution and 42 months for disbursement.		
Special contractual conditions:	The following will be conditions precedent to first disbursement: (i) selection of the project coordinator; (ii) presentation of the first annual work plan; (iii) and verification of counterpart contributions.		
Environmental and social impact review:	This operation was screened and classified in accordance with the IDB's Environmental and Social Policy Framework (document GN-2965-21) on April 8, 2024. Given the impacts and risks, the project has been proposed as a category B operation. This operation was also screened for Paris Alignment by the project team and is deemed to be aligned with BB1, BB2.		
Unit responsible for disbursements:	Country Office Ecuador DIS/CEC		

I. BACKGROUND AND PROBLEM

A. Problem description

- 1.1 The Ecuadorian Amazon faces a significant threat of deforestation and degradation, with 16% of the region already undergoing a process of transformation and deforestation¹. The pressure on forest ecosystems is intensifying due to the growing competition for land use, driven by extractive and agricultural activities. Interestingly, deforestation rates in indigenous territories in the Amazon are roughly half of what they are in similar adjacent areas, a fact supported by satellite imagery. Indigenous peoples manage more than 30% of the Amazon rainforest and typically practice sustainable forest management through agroforestry and low-impact agriculture.
- 1.2 Indigenous people and local communities (IPLCs) in the Ecuadorian Amazon depend primarily on agriculture as a central economic activity for both sustaining their families and ensuring food security. Production models are based on traditional agroforestry systems, such as the *chakra*² or *aja* system, which integrate productive landscapes that preserve biodiversity and ancestral knowledge. Despite this model, several key challenges persist across the Amazon, including the reduction of agricultural diversity within these productive areas, a lack of added-value products, low productivity, poor management practices, and limited alternatives for generating sufficient income sources for local communities. In many cases, products coming from the agroforestry systems are sold as raw materials in nearby markets or to intermediaries who transport them to different cities in the country. Despite the good quality of Amazonian products, they are sold at very low prices locally, and local initiatives have strong limitations to access international markets, financial mechanisms, and investments for competitive growth.
- 1.3 The main beneficiaries of this project will be 1,000 families from local communities and indigenous territories in Napo, Pastaza, and Morona Santiago provinces. The project aims to strengthen their capacities related to value chains of Amazonian products based on bioeconomy, conservation, and biodiversity principles, thereby improving their income. The beneficiaries would be local producers, associations, and community enterprises that are involved in the prioritized Amazon value chains and will receive training, technical, and financial support to ensure economically viable and sustainable solutions for community welfare. The Amazonian provinces of Napo, Pastaza, and Morona Santiago historically have the highest percentages of people living in poverty in Ecuador. At the same time, these provinces have a higher percentage of indigenous peoples. For example, in Napo, the percentage of indigenous population reaches 56.75%, in Morona 48.36%, and in Pastaza 39.79%. Regarding poverty, in Morona Santiago, it reaches 58.7% of the population, in Napo 54.2%, and in Pastaza 44.7%³. The indigenous population in the country continues to have the highest rate of multidimensional poverty in the country at

¹ Quintanilla, M.; Guzmán A.; Josse, C. 2022. The Amazon against the clock: a Regional Assessment on Where and How to protect 80% by 2025. <http://amazonia80x25.earth/>

² The Amazonian Chakra is a polyculture cropping system with a high level of biodiversity present in its different elements, one of which is the existence of a large number of timber and fruit trees both within farms and often outside the forested area. For more information, see: <https://www.fao.org/giahs/giahsaroundtheworld/designated-sites/latin-america-and-the-caribbean/amazon-chakra/detailed-information/en/>.

³ INEC-ENEMDU report (2022)

71.9%; a rate that is increasing in the last 3 years according to the National Statistics Institute (INEC, 2024)⁴. Families have an average of 5 to 6 people, and the main sources of income are daily labor, small-scale agriculture, and temporary employment.

- 1.4 In Ecuador, rural women face 20% more economic challenges compared to their urban counterparts, while indigenous women experience poverty rates 30% higher than the national average. Rural Amazonian women heavily rely on agriculture and livestock farming for their livelihoods and are crucial in the sustainable use and conservation of rainforest land. By expanding alternative livelihood opportunities for rural Amazonian women, grounded in local bioeconomies, this project will not only benefit local families, but also reduce gender disparities. This process will be enriched by ancestral knowledge, while also promoting technical capacity, sustainable practices, leadership, and inclusive governance within their communities and organizations. Moreover, it will enhance environmental stewardship and conservation efforts across various scales.
- 1.5 According to studies by Sierra et al (1999), it is estimated that 88% of the territory of what is now Ecuador was originally occupied by native forests. In 1990, the remnant of native forests was 68% and between 1990 and 2018, forests in Ecuador were reduced to 56%. Of this remnant, the best preserved was always the Amazon, where at the end of this period about 83% of its original forest area was still standing. Currently, the major drivers of deforestation are linked to cattle ranching, the expansion of the agricultural frontier for agribusiness, urban growth and extractive activities, mainly mining (legal and illegal) and fossil fuel exploitation. The provinces of Napo, Pastaza and Morona Santiago belong to the Central-South of the Ecuadorian Amazon, which throughout history have been the least affected compared to the North where in addition to oil activity, agrarian reform led to extensive areas of land to have permanent changes, while, in the South of the country, the mining activity (legal and illegal) has generated high rates of deforestation over time. According to information generated by MapBiomass (2022), by 2017 Napo province had 913,791 hectares of native forest, where over the course of 4 years, to 2021, it lost 25,076 hectares of forest with a deforestation rate of 0.7% per year. The province of Pastaza is the territory with the largest forest area in the country and, between 2017 and 2021 had a loss of native forest of 9,953 hectares, with a deforestation rate of 0.09%. Morona Santiago showed accelerated deforestation in this same period, going from 1,931,855 to 1,880,790 hectares, representing a loss of 51,065 hectares of forest and an annual deforestation rate of 0.67%.
- 1.6 As mentioned previously, the Amazonian provinces of Napo, Pastaza and Morona Santiago have the highest percentages of people living in poverty in Ecuador⁵. Among the factors contributing to the high poverty rates are rapid population growth, lack of access to finance and technical training and fewer sustainable economic opportunities, particularly for women in rural areas, and especially indigenous women. These problems are exacerbated by inadequate social services and little coordination between subnational planning and indigenous territories authorities.
- 1.7 The promotion of unsustainable agriculture and livestock practices creates additional pressures on forests, and also on IPLCs who depend primarily on forest resources. IPLCs are forced to change their traditional models from diversified and rotational agriculture to single-crop farming and less sustainable economic activities. Additionally, the lack of

⁴ INEC-ENEMDU report (2024)

⁵ [INEC-ENEMDU report \(2022\)](#)

value-added processes and poor management practices reduce alternatives for meaningful income for IPLCs.

- 1.8 The bioeconomy, as defined by the recent White Paper on Sustainable Bioeconomy by Ecuador, is “the production of goods and services based on the sustainable use of biological resources and their derivatives, including ecosystem services”⁶. In the country, it is the second largest generator of wealth⁷. According to information from 2017, USD \$13.8 billion and 1.5 million jobs were generated, with a stable participation in the generation of taxes, with an average participation of 12.22%. Currently the contribution of the bioeconomy to the country's GDP is estimated at 20%⁸.

II. THE INNOVATION PROPOSAL

A. Project description

- 2.1 The objective of this project is to foster the development of pioneering value chains for Amazonian products and strengthen local bio-enterprises through capacity building, research, acceleration, and connection with local and international markets to ensure their future sustainability. Fundación Pachamama (“FP” or the “Executing Agency”), will promote associativity and innovation to consolidate a regional hub from the Amazon Region fostering a local ecosystem where entrepreneurs find a space for the development and enhancement of their capabilities. FP will also work together with local credit cooperatives to assist in effectively allocating resources for supporting this regional strategy for bioeconomy and sustainable forest management.
- 2.2 In the Amazon region of Ecuador, FP in coordination with local producers and associations has already developed and implemented deforestation-free value chains of non-timber products, based on bio-enterprises and respecting traditional knowledge⁹. FP has experience in the development and promotion of value chains like vanilla, guayusa, and Amazonian cinnamon to produce essential oils, natural cosmetics, and inputs for the food industry. They are also developing new value chains for products that have high potential and have not yet been developed, such as morete, wild cocoa, and macambo.
- 2.3 As part of the initiative to further expand and consolidate the bioeconomy in the Ecuadorian Amazon, a key next step involves establishing a regional institutional framework that contributes to a strengthened forest governance. This framework will provide an enabling environment to support bio-enterprises and advocate for the development of favorable public policies conducive to the growth of the bioeconomy. Additionally, it will create conditions that facilitate access to specific national and international markets that value and pay fair prices for these products. It is important to

⁶ García, J.M.(coord). (2024). Libro blanco de la bioeconomía sustentable de Ecuador. Quito: Ministerio de Ambiente, Agua y Transición Ecológica, Ministerio de Producción, Comercio Exterior, Inversiones y Pesca, Fondo de Asistencia Técnica en Bioeconomía.

⁷ Ortega-Pacheco, D.; Castro, P.; Mendoza-Jimenez, M.J.; Almeida, E.; y Castro, M.P. 2020. Social and economic contribution of the bioeconomic sector in Ecuador: A methodological approach. Ramanan, V.V., Shah, S. & Prasad, R. (Eds.). In “Sustainable Bioeconomy - Pathways to Sustainable Development Goals. Switzerland: Springer. p. 35-65

⁸ Ibid

⁹ <https://www.pachamama.org.ec/en/what-we-do/forest-economies/>.

note that the Amazonian enterprises and their unique production models need a framework adapted to their reality, rather than a direct emulation of traditional chambers of commerce found in larger urban centers.

- 2.4 The Project will be developed in three provinces of the Ecuadorian Amazon: Napo, Pastaza and Morona Santiago. In Napo, work will be carried out in Kichwa territory, mainly in areas where allied organizations of FP already have a great involvement, such as the Kallari and Wiñak Kichwa Associations that are part of Corporación Chakra. In the province of Pastaza focus will be in the municipalities of Arajuno, Santa Clara and Pastaza and the territories of the Andwas, Achuar, Kichwa, Sapara, Shiwar, Shuar and Waorani indigenous nationalities. Finally, within the province of Morona Santiago, work will be in the municipalities of Logroño, Morona, Sucúa, and Taisha in Shuar and Achuar territories.
- 2.5 The proposed solution is based on the development of new value chains of innovative Amazonian products through specialized technical assistance, access to financing and productive and forestry monitoring. The development of value chains is linked to a strategy that involves starting from market needs to connect it with raw material producers, generating product value addition processes and supporting bio-enterprises that are in different stages of development. A regional hub will be created to incubate and support the development of Amazonian entrepreneurs, and also move towards acceleration processes to connect products with markets and producers and entrepreneurs with sources of financing. This hub is proposed to carry out long-range efforts for capacity building, not only in business related aspects but also to develop financial management capabilities. FP will work with local financial institutions to adapt new lines of financing accessible to producers and entrepreneurs. Finally, FP will develop monitoring systems to measure the impact of the intervention, both at the productive level and on the forest cover of the project area.
- 2.6 The innovative aspect of the project is that FP will create the first Amazonian Regional Hub that allows advising entrepreneurs and producers on best practices in the productive, operational (value addition), administrative and commercial fields. This hub will operate in a physical space in the city of Puyo, due to its strategic location between the provinces of Napo and Morona Santiago. The development of innovative value chains for vanilla, macambo and morete will be supported, with high development potential and generating new products with added value. Another key and transversal aspect of the innovative model is the monitoring of agroforestry production systems and forest cover in the intervention area. This seeks to provide tools that ensure that the development of productive chains does not cause deforestation or reduction of forest cover, and to generate precise information on the chacras of Amazonian producers, to know about product availability, quantity and periodicity of cultivation. FP will work with remote information analysis systems and data will also be collected locally with monitors and producers who periodically update the georeferenced information.
- 2.7 **Component I: Promotion of value chains of Amazon products with high productive and commercial potential**, and development of associativity and innovation strategies to improve the economic situation of Amazonian families and businesses. The objective of this component is for the Executing Agency to identify and strengthen existing crop production and co-design commercially viable products.
- 2.8 The activities to be carried out in this component by the Executing Agency include: i) developing an Amazon Regional (organizational) Hub as a space for innovation, research and permanent advice for the bioeconomy sector in the provinces of Napo, Pastaza and

Morona Santiago; ii) advising local producers on techniques for improving the productivity of their chakras/ajas, including new products such as solid compost and liquid organic fertilizers (biols) for soil nutrient richness, recovering chakras biodiversity and integrated pest management (IPM) avoiding the use of synthetic pesticides; iii) improving the productive capacity of prioritized value chains through technical assistance, investment in machinery and strengthening the operational processes; iv) improving the commercial capacity of prioritized value chains through the generation of administrative, sales and marketing capabilities, and the development of positioning strategies to improve access to national and international markets; v) supporting the processes to obtain certifications and labels (such as organic certifications, Good Manufacturing Practices (GMP), Certification of Good Agricultural Practices and Deforestation-Free production) to promote the competitiveness of Amazonian products; the latter together with the advice of the Ministry of the Environment, Water and Ecological Transition; vi) developing new product prototypes with high commercial potential. Given the nature of this component, close collaboration with the Environment Rural Development and Risk Management at the IDB (CSD/RND) is foreseen.

2.9 **Component I Outputs/Results:**

- a. One Amazon Regional Hub created and operating to advise and support local producers and entrepreneurs. This hub will be linked to the National Technical Table for Bioentrepreneurship and also aligned to national and local public policies from the provincial governments of Napo, Pastaza and Morona Santiago. For instance, FP will be working in the development of the public policies regarding Bioeconomy in the province of Pastaza. In addition, FP has been participating in the process of updating the Ministerial Agreement 034 from the Ministry of Environment, regarding the guidelines for the promotion of bio-enterprises as a strategy for the conservation of natural heritage, through the sustainable use of biodiversity.
- b. Support at least six different value chains (vanilla, ishipingo/amazonian cinnamon, morete, macambo, guayusa, camu camu, essential oils, among others), improving local productivity and adding value to products coming from chakras/ajas.
- c. Strengthen the capacities of one thousand families to improve their income related to value chains of Amazonian products based on bioeconomy, conservation, and biodiversity principles via training that includes certifications such as deforestation-free production. Capacity building will also take into account trainings to align operations with human rights and sustainability to avoid child labor, improve occupational health, among others considered in IDB's Environmental and Social Policy Framework (ESPF).
- d. Develop at least fifteen new added value products related to the prioritized value chains. Products will be selected based on minimizing pressure on forest ecosystems and promoting polyculture systems that enhance resilience by diversifying production.
- e. Public Catalog of Amazon products to promote the supported bioenterprises that will be periodically updated.

2.10 **Component II: Improvement of access to financing for producers and enterprises that work in prioritized Amazonian value chains, through local financial institutions.**

The objective of this component is to increase accessibility to financial products for smallholders based on their commercial potential. The activities of this component to be carried out by the Executing Agency include: i) building capacities on financial management for individuals and organizations beneficiaries of the project; ii) working with local financial institutions to develop methodologies and procedures that facilitate access to credit for producers and entrepreneurs of the Amazonian bioeconomy; iii) developing a model for monitoring and collecting information that allows financial institutions to follow up on the productive and commercial situation of credit recipients. This component has synergies with a loan operation by the IDB targeting bio-businesses financed by Amazon Bioeconomy Fund: Unlocking Private Capital by Valuing Bioeconomy Products and Services with Climate Mitigation and Adaptation Results in the Amazon – Program with the Green Climate Fund¹⁰. This project could be the initial pilot tested with local credit cooperatives and then could be scaled up with the loan operation through Ecuadorian National Corporation of Popular and Solidarity Finances (CONAFIPS). Given the nature of this component, close collaboration with the Connectivity, Markets and Finance division at the IDB (IFD/CMF) is foreseen.

2.11 **Component II Outputs/Results:**

- a. Curriculum developed to train producers and bio businesses about financial management.
- b. Methodologies and procedures developed with local financial institutions to facilitate access to credit for bioeconomy small producers and entrepreneurs. These methods will take into account IDB's ESPF, in accordance with the Ecuadorian equivalent system SARAS that must be adopted by all financial institutions that participate in this program.
- c. Monitoring reports about credit recipients to follow up their financial situation, including tax benefits and other incentives obtained through other sources.
- d. Loans made to local businesses to promote new value chains.
- e. Competitive funds created for bio enterprises that successfully completed stages of technical assistance leading to sustainable business governance models.
- f. Improved family income through the strengthening of prioritized value chains

2.12 **Component III: Monitoring of agroforestry production systems and forest cover in the intervention area, through teams of local monitors and remote geographic information systems.** The objective of this component is to foster local capacity to guarantee no-deforestation and agroforestry production that will be a key portion of the value proposition of Amazonian products attached to the hub. This component includes the following activities to be carried out by the Executing Agency: i) developing baseline studies of selected productive chakras/ajas in the provinces of Napo, Pastaza and Morona Santiago; ii) training local monitors to collect information on productive chakras/ajas; iii) developing an integrated system of geographic information SIG-CHAKRA that allows to know periodically the situation of each productive system; iv) analyzing the forest cover of the intervention area annually to assess impacts and threats to forest conservation; v)

¹⁰ IDB Loan Operation EC-L1286 - BASE Program - Biobusiness Financing for a Sustainable Amazon in Ecuador with GCF Amazon Bioeconomy program's resources

assistance to bio enterprises, so that they can apply for the benefit of double deductibility, including capacity building processes together with the Ministry of Environment and the Internal Revenue Service. Given the nature of this component, close collaboration with the Climate Change Division at the IDB (CSD/CCS) is foreseen.

2.13 Component III Outputs/Results:

- a. Baseline studies for selected chakras/ajas.
- b. Local monitors (primarily female) trained and equipped to gather information from chakras/ajas.
- c. Geographic Information System for analyzing and monitoring chakras developed.
- d. Maps of deforestation and threats in the project area to define and deploy an early alert system in case of deforestation concerns.
- e. Overall final report documenting learnings from the project including the actions taken in case of deforestation threats.
- f. Annual report on the impact of the monitoring system usage.

2.14 Gender focus: At least 60% of the project's beneficiaries will be women from rural and urban areas of the provinces of Napo, Pastaza and Morona Santiago. To achieve this, FP has devised a methodology aimed at fostering the development of value chains with gender equity. This means that women participating in the value chain should have equal opportunities to access, control and fairly distribute the economic benefits arising from their involvement. Additionally, these women will be supported so that they can possess the administrative, financial, commercial, and productive capacities to establish and maintain equitable relationships with other value chain stakeholders, aligned with their interests and needs. Furthermore, local monitors of land use cover and change will be primarily female.

2.15 Entrepreneurs and innovators - startups, small and medium businesses: FP will work with at least 100 bio enterprises that will be beneficiaries of technical advice and support that will allow them to improve their administrative, financial, and operational capacities, and will also seek to facilitate their access to new national and international markets. Additionally, work will be done with representative organizations of bio enterprises and associations to promote joint actions that improve their capacities to obtain certifications and to be able to increase production volumes and pricing, in an associative way, for prioritized value chains.

2.16 Producers from IPLCs: Indigenous peoples (such as the Achuar, Andwa, Kichwa, Sapara, Shiwar, Shuar, Waorani), local communities, and other under-represented groups, such as women, are the main beneficiaries for developing capacities to improve and monitor the productivity of their chakras/ajas, create new agricultural and commercial associations and entrepreneurship, add value to different new products, and have access to new sources of funds.

B. Project results, measurement, monitoring, and evaluation

2.17 The project's key indicators include the improvement of livelihoods of 1,000 families that will benefit from greater family income as a result of taking advantage of sustainable economic opportunities, at least 60% of beneficiaries are expected to be women. This

result is related with IDB CRF Indicator 2.11. This will also lead to the improvement of agricultural practices and the inclusion of low-emission practices for 5,000 hectares of indigenous territories. (IDB CRF Indicator 2.21 and IRF indicator AG.OC1103). In addition, 100 bio-enterprises will receive technical support to improve their capabilities and also their economic income from sales (IDB CRF Indicator 2.10 and IRF indicator AG.OC1104).

- 2.18 Results for component I also include the creation of one Amazon Regional Hub to advise and support local producers and entrepreneurs; the strengthening of 6 Amazon value chains through improving local productivity and adding value to products coming from chakras/ajas; and the development of 15 new added value products related to the prioritized value chains. In addition, results for component II include training 300 families about financial management and facilitating financial access for 100 small producers and entrepreneurs. Finally, results for component III include monitoring 200 agroforestry family production areas; primarily monitored by local women that will be trained and equipped to gather information from chakras/ajas and upload that information into a Geographic Information System for analyzing and monitoring chakras developed (SIG-Chakra).
- 2.19 FP has developed a Planning, Monitoring, Evaluation and Learning Program that is constantly improving to track accurately the results of the different projects. FP works on results-based management, building bottom-up participatory processes that promote internal and collective learning. The teams of the different programs, based on the Annual Plan, meet weekly to work on a detailed planning process for every project, also on a monthly, quarterly and semestral basis to track progress and measure results. For the current project, FP is developing a system with concrete measures and mechanisms in case the monitoring system identifies a negative impact on forest cover.
- 2.20 Since 2022, the Executing Agency is using a tool called Kobo Toolbox (open source) to collect information related to chakra beneficiaries, entrepreneurship, vanilla and reforestation, the data is processed and reported using the R programming language¹¹. Within this project, the Executing Agency will develop an online platform through online ARC-GIS called SIG-CHAKRA that will be used for open data visualization of beneficiary chakra data and will also have information on the current and future distribution of species used in chakras, in the context of climate change. Furthermore, the Executing Agency will explore a software to connect production information from producers with financial information from loans to generate accurate and updated information for different stakeholders.
- 2.21 Additionally, forest cover and the main drivers of deforestation will be measured using Sentinel 1 and 2 satellite images, with a resolution of 20 meters, using the Google Earth Engine platform. This information will also be validated by a team of local monitors (mostly women).
- 2.22 FP will ensure that the guidelines established by the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity are followed whenever applicable.
- 2.23 Through alliances and access to low-cost licenses as a non-profit organization, the Executing Agency has the capacity to use specialized software and PlanetScope satellite images (5 m spatial resolution) from the Satellite Data Program developed by Norway's International Climate & Forests Initiative (NICFI). FP team has the technical capabilities

¹¹ <https://fundacionpachamama.shinyapps.io/Reforestacion/>

to carry out these processes and has already set up a GIS structure that could be expanded and fed through their field monitors. This component will coordinate with existing initiatives like INABIO to monitor the sustainable use of biodiversity, in order to contribute to this pilot process, adaptation, and validation of the methodology that benefits all biodiversity chains.

III. ALIGNMENT WITH THE IDB GROUP, SCALABILITY, AND RISKS

A. Alignment with the IDB Group

- 3.1 The project is part of Amazonia Forever, a holistic umbrella program that aims to scale up financing, share strategic knowledge for decision-makers, and enhance regional coordination to accelerate the sustainable, inclusive, and resilient development of the Amazon region. Specifically, this project will address the priority areas of sustainable agriculture and forestry and bioeconomy. It also will promote inclusion of women and indigenous people that are fundamental for Amazonia Forever program.
- 3.2 The project is well aligned with the IDB Group Country Strategy with Ecuador (2022-2025), in supporting the productive development of Ecuador's Amazon region, supporting the development of financing mechanisms to fund ecosystem restoration and conservation and improve natural capital assets, supporting efforts to combat climate change and natural resource degradation, and supporting biodiversity and conservation and to channel climate finance to those efforts. The project is aligned with IDB Lab's business plan and its vertical priorities to develop new and innovative business lines that contribute to climate resilience, and mitigation and adaptation.
- 3.3 In terms of the climate crisis, the project supports actions prioritized in the IDB Climate Change Action Plan by contributing to the mitigation of climate change through the reduction of CO₂ emissions by conserving forests and acting as a carbon sink and to adaptive capacities by strengthening ecosystems through conservation, biodiversity, and bioeconomy activities. The project also supports increasing productivity and income of poor and vulnerable populations by leveraging natural capital to create employment and revenue that will be shared among local communities.
- 3.4 It is aligned to international treaties related to Biodiversity and in preparation post 2020 framework, including MDBs joint statement "Nature, People and Planet" which was led by IDBG and demonstrates our common commitment to ensuring that natural capital becomes a core pillar in our work and in the design of new financial instruments that will support conservation, restoration, and sustainability. The project is additionally aligned with the IDB's Climate Change Goals.
- 3.5 **Paris Agreement Alignment.** The project actively contributes to Ecuador's national decarbonization efforts while ensuring that adopted solutions, including standards and guidelines, and will take into consideration matters related to the area's and the final beneficiaries' resilience to the physical impacts of climate change, in line with and not opposing in any way the State Policy on the National Strategy on Climate Change (2013); the Environment's Organic Code (2017); and Ecuador's First NDC (2019). The project is, therefore, considered aligned with both mitigation and adaptation (BB1 and BB2).
- 3.6 The project is also aligned with the sustainable development goals (SDGs), particularly the following goals: (i) SDG 15, Life on land, with target 15.2 "By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation,

restore degraded forests and substantially increase afforestation and reforestation globally.”; and 15.a “Mobilize and significantly increase financial resources from all sources to conserve and sustainably use biodiversity and ecosystems.”; (ii) SDG 13, Climate Action with target 13.3 “Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction and early warning”; (iii) SDG 12, Sustainable Consumption and Production with target 12.2, “Achieve the sustainable management and efficient use of natural resources”; (iv) SDG 8, Decent Work and Economic Growth with target 8.2 “Achieve higher levels of economic productivity through diversification, technological upgrading and innovation”; (v) SDG 5, Gender Equality with target 5.5 “Ensure women’s full and effective participation and equal opportunities for leadership at all levels of decision-making in political, economic and public life”; and (vi) SDG 1, No Poverty with target 1.1 “Eradicate extreme poverty for all people everywhere”, and target 1.2 “Reduce at least by half the proportion of men, women and children of all ages living in poverty in all its dimensions”.

- 3.7 The project is also aligned with multiple core fund indicators of the AMZ, including halting deforestation and improving practices to contribute to livelihoods via bioeconomy value chains (Impact 2); strengthening the capacities of IPLCs and women to govern and monitor their territories with the implementation of SIG Chakra (Impact 3); fostering enabling conditions building the bioeconomy entrepreneurial ecosystem (Impact 4); and mobilizing funds via direct co-financing of bio enterprises (Impact 5).
- 3.8 Approximately 100% of the total IDB funding for this project will be invested in climate change mitigation and adaptation activities, according to the [joint MDB methodology for estimating climate finance](#). This contributes to the IDB Group’s goal of increasing the financing of projects related to climate change. Given the large scope of this operation, actions will be coordinated with other MDBs, as well as internally in IDB with CSD/CCS, CSD/RND and IFD/CMF.

C. Scalability

- 3.9 A scale-up of this project is possible by replicating the hub model to other Amazonian provinces according to the opportunities and needs encountered. The development of the first Amazonian hub can serve as a driver for sustainable entrepreneurship and bioeconomy activities. On the other hand, the diversity of products from the traditional agroforestry systems of the region offers good prospects for increasing the number of value chains as well as for positioning high-potential value-added products on the market. Furthermore, the number of beneficiaries can be increased by continuing to work cooperatively and synergistically with associative, financial, commercial, and institutional partners.
- 3.10 Some strategies have been analyzed to ensure the long-term sustainability of the hub and its business model. Firstly, FP will develop a strategy to reach for alliances from the academic, private, and public spheres. The objective will be to have specialized personnel, adequate equipment, and mainly to have sufficient market demand so that both producers and enterprises can make the most of the capabilities and services offered by the hub. In the future, a laboratory focused on the research and development of value-added products will be developed in a complementary manner to support the business model of the regional Hub. Once consolidated, FP will analyze charging for specific services to different businesses to ensure the self-sustainability of the Hub.

- 3.11 Apart from the extension and the numerous possibilities of growth related to the hub model, FP monitoring and data collection methodology is an important source for working on broader impact scenario analyses. For example, sharing data with relevant institutions to reduce deforestation in Amazonian territories but also helping to promote local sustainable agricultural models while promoting beneficial agricultural, commercial, and financial framework for local producers.
- 3.12 The scalability plan to reach a wide range of beneficiaries through the Amazon region, includes the involvement of strong private and public actors. There have been initial approaches with experienced regional actors like Nonprofit Enterprise and Self-sustainability Team (NESsT) and the Alliance for Entrepreneurship and Innovation (AEI) to support the regional hub. Also in 2023, the Executing Agency renewed a four-year agreement with the Provincial Government of Pastaza that includes the promotion of Bioeconomy and the support for local entrepreneurs and producers. In addition, FP has been asked to lead the process of developing public policies in the province of Pastaza regarding Bioeconomy to create incentives and regulations to foster bio-entrepreneurship and forest conservation. The hub will spearhead sustainable strengthening of Amazon value chains with different actors through innovative processes, creating incentives and investment opportunities. The main objective is creating future market demand for Amazon products. During the implementation, FP will engage new partners to strengthen capacities and increase the regional impact. Consolidating a market for financing bioeconomy through local cooperatives will also add to the scalability of the project.

D. Project and institutional risks

- 3.13 **Risk of political instability:** The current situation in Ecuador is marked by political instability, the effective governance of the country in the coming months is expected to confront considerable challenges including priority changes and budget reallocation that may affect the Amazon region. Mitigation action: the project will aim to enhance collaboration and foster the involvement of decentralized autonomous local governments which were elected in February 2023 with a 4-year term. Mitigating the risk of political instability is crucial as many planned programs in the components will also be done in collaboration with local officials even though no public funding is being used.
- 3.14 **Logistics Risk:** Logistics and transportation could be affected due to heavy rains leading to landslides and roadblocks on the route connecting the project area to the cities where clients are located which could lead to a loss of sales. Mitigation Action: Certain investments in essential infrastructure will be prioritized to ensure product quality, such as storage, packaging, refrigeration, and good manufacturing practices. A contingency plan will be developed in collaboration with project-participating associations and bioeconomy entrepreneurs, with a focus on identifying alternative logistics routes.
- 3.15 **Operational Risk:** Local farmers might hesitate to invest in new regenerative agricultural practices due to high implementation costs which may inhibit the recruitment of beneficiaries. Mitigation action: The Executing Agency will proactively invest to assume the initial risk instead of the farmers for example setting up demonstration parcels by providing local farmers with inputs and knowledge to test new regenerative farming practices until their effectiveness is demonstrated, like Casa Vanilla. Following this, farmers will be more inclined to bear these costs.

IV. INSTRUMENT AND BUDGET PROPOSAL

- 4.1 The project has a total cost of US\$2,000,000, of which US\$400,000 (20%) will be provided by the Facility Bio-Business RG-O1711 funded by Green Climate Fund (GRN), US\$700,000 (35%) by Amazon Bioeconomy and Forest Management Fund (AMZ), and US\$900,000 (45%) as local counterpart by the Executing Agency.
- 4.2 The instrument to be used is a non-reimbursable technical cooperation. This project requires this initial investment to demonstrate the climate and economic benefits of a bioeconomy hub with the strong potential of being self-sustaining via bio-enterprises services and to be replicated in other areas of the Amazon region. Semi-annual reporting on development indicators will be in an online format provided by IDB Lab Project Status Report (PSR), which will reflect progress towards the indicators noted above.
- 4.3 **Retroactive recognition of counterpart funds.** Expenses made with local contribution resources from December 8, 2023, until the date of approval of this project will be retroactively recognized for a maximum amount of US\$150,000.
- 4.4 The budget, disaggregated by component, is presented in the table below. A detailed budget can be found in Annex II.
- 4.5 **Resource Mobilization:** The project will be open for additional contributions from external donors as long as these donors accept the conditions outlined in this document or any other conditions established by the IDB and/or GRN in accordance with (GN-3081-1). The approval of these resources will follow IDB procedures.

Table 1: Summary Budget

Project components	IDB		Local Counterpart for EC-T1535		Local Counterpart for EC-T1536		Total
	GRN EC-T1535	AMZ EC-T1536	In kind	Cash	In kind	Cash	
Component 1: Promote value chains of Amazon products with high productive and commercial potential	204,000	323,000	74,000	86,000	157,000	208,000	1,052,000
Component 2: Improve access to financing for producers and enterprises that work in prioritized Amazonian value chains	106,000	170,400	45,000	60,000	0	0	381,400
Component 3: Monitoring of agroforestry production systems and forest cover	0	206,600	0	0	43,000	92,000	341,600
Project administration	51,000	0	81,000	54,000	0	0	186,000
Audited financial statements	9,000	0	0	0	0	0	9,000
Contingencies	30,000	0	0	0	0	0	30,000
Total	400,000	700,000	200,000	200,000	200,000	300,000	2,000,000

% of financing	20%	35%	10%	10%	10%	15%	100%
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Note: Amount expressed in United States dollars

V. EXECUTING AGENCY AND IMPLEMENTATION STRUCTURE

A. Executing agency description

- 5.1 Fundación Pachamama will be the executing agency of this project and will sign the agreement with the Bank. FP is a non-profit organization created in 1997, operating in Ecuador, it currently has 30 employees. FP's objective is to contribute to the well-being of conservation and sustainable use of Amazon forests indigenous peoples and nationalities through the conservation and sustainable use of Amazon forests. FP's work has been based on strengthening indigenous organizations, conserving, and titling ancestral lands, promoting alternative development models, supporting the implementation of management plans for the sustainable use of natural resources, and guaranteeing the rights of indigenous peoples. The Executing Agency has historically supported the conservation of the central and southern Ecuadorian Amazon, including the territories of Achuar, Shuar, Sapara, Shiwar, Kichwa, Sarayaku, Andwa, and Waorani indigenous nationalities. As of 2017, FP has expanded its actions to the entire Amazon of Ecuador and the northern Amazon of Peru in the regions of Amazonas and Loreto, through its role as Regional Secretariat of the Sacred Headwaters Initiative. In 2019, FP started the Forest Economies Program to consolidate innovative economic initiatives based on the use of local biodiversity, to dignify the lives of Amazonian peoples, contribute to the eradication of poverty, global climate stability, as well as strengthen the economic rights of men and women.
- 5.2 Currently, the Executing Agency has a team working in the following programs: Forest Economies, Organizational Strengthening, Forests and Climate Change, Ikiama Nukuri (maternal health care), Human and Nature Rights and Climate Finances.
- 5.3 The project will build upon the experience of FP over the last 25 years working to contribute with the well-being of indigenous peoples and nationalities through the conservation and sustainable use of Amazon forests. FP seeks strategic alliances under cooperation agreements with experienced associations of producers in the area whose products are already reaching the national and international markets, such as Kallari and Wiñak, subnational governments, universities, government institutions like the Ministries of Environment, Production and Agriculture, and with the private sector.

E. Implementation structure and mechanism

- 5.4 Fundación Pachamama will establish an execution unit and the necessary structure to execute project activities and manage project resources effectively and efficiently. FP will also be responsible for submitting progress reports on project implementation.
- 5.5 Current partners of FP that will be key allies for this project include: i) AJE Group, which is a company that specializes in drinks and food and have a business interest in developing the value chain of morete, guayusa and camu-camu; ii) Kallari Association, which is a Kichwa indigenous producers' association that specializes in harvesting organic cocoa, vanilla, and guayusa to create high quality added-value products marketed nationally and internationally; and iii) Wiñak Association, a Kichwa indigenous producers' association, that specializes in training and giving technical assistance to small farmers that produce cacao and guayusa. FP also has current agreements with local governments

that are promoting bioeconomy and the strengthening of local production systems such as the Province of Pastaza and the Municipality of Arajuno. Finally, local financial institutions will also be fundamental for the promotion of a regional strategy to fund bioeconomy related projects.

- 5.6 The project promotes amazon-positive value chains and sustainability while empowering IPLCs to reduce the pressure on high-biodiversity forest ecosystems. Innovation in forest and biodiversity monitoring related with the implementation of bioeconomy also works as a strategy for reducing threats to these valuable ecosystems. Given the significant synergies with the ProAmazonía program and BioValor (GIZ) already identified with value chains such as morete, FP will coordinate with these and other agencies when relevant. FP has developed a new program called Climate Finances and Biodiversity that works on monitoring national public policies regarding carbon markets and other mechanisms to address climate change through finance. FP will look for opportunities and alliances to facilitate access for Amazon communities to this type of funds. Currently, studies about carbon measuring in forests and also in chakras are being conducted by the FP team in the Achuar and Kichwa territories.

VI. FULFILLMENT OF MILESTONES AND SPECIAL FIDUCIARY ARRANGEMENTS

- 6.1 **Disbursement by results and fiduciary arrangements.** The Executing Agency will adhere to the standard IDB Lab arrangements relating to disbursement by results, Bank procurement and financial management policies¹²
- 6.2 The level of risk as a result of the Diagnosis of Integrity and Institutional Capacity (DICI) was low. The policies of the executing agency will be used to carry out the procurement. An annual planning of acquisitions necessary for the execution of the project and fulfillment of the milestones will be presented, together with the Annual Operating Plan (POA). IDB Lab may review, ex ante, the technical aspects of the acquisitions that, in its opinion, require it, in particular those considered critical.
- 6.3 The Executing Agency must prepare and keep its annual financial statements available to the Bank. With resources from the Contribution, the Bank will be able to review the financial statements and carry out reviews of the use of the resources applied to the project, verifying financial practices and acquisitions.
- 6.4 **Integrity Review.** The project team, with the support of OII, conducted integrity due diligence (IDD) on the Project and found that that it presents integrity and related reputational risk that merit disclosure but are considered to be within the risk tolerance of IDB Lab, as well as mitigating factors. For more details see Annex VII “Integrity Annex”.

VII. ACCESS TO INFORMATION AND INTELLECTUAL PROPERTY

- 7.1 **Access to information.** This document is public under the Bank’s Access to Information Policy.

¹² Link to the Policies for the [Procurement of Goods and Works financed by the Inter-American Development Bank](#).

- 7.2 **Intellectual property.** The intellectual property of the work and outcomes achieved under the project will be divided in the following manner:

Products belonging to the Bank	Products belonging to the Executing Agency
Manual for bioeconomy investments for financial institutions	Algorithm to identify areas prone to deforestation
Technical assistance manual	Satellite images for morete to guarantee deforestation-free value chains
Public Catalog of Amazon products to promote the supported bioenterprises that will be periodically updated.	Models for the distribution of species in value chains using scenarios of climate change
	Geographic Information System for analyzing and monitoring chakras, developed and functioning (SIG-Chakra).
	Models for the distribution of species for reforestation using scenarios of climate change

- 7.3 The outcomes or products not identified in the table will be considered as products that belong to the Bank.
- 7.4 The Bank will grant a free, nonexclusive license to the executing agency, including the rights of dissemination, reproduction, and publication of any output in any medium for the products belonging to the bank. Dissemination, reproduction, and publication must indicate that the output has been financed by the MIF. Any use of the name or logo of the Inter-American Development Bank or the Multilateral Investment Fund by the Executing Agency for any purpose will require prior written authorization from the Bank. Sublicensing to third parties by the Executing Agency is allowed in the Latin America and Caribbean region.
- 7.5 The Executing Agency will also grant a free, nonexclusive license to the Bank, including the rights of dissemination, reproduction, and publication of any output in any medium for the products belonging to the Executing Agency. The Bank may disseminate, reproduce and publish any information regarding this project and include the name and logo of the Executing Agency. Sublicensing to third parties by the Bank is allowed in the Latin America and Caribbean region.