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REGIONAL

**LAC E-COOP: PILOTING GREEN FINANCE TO PROMOTE PRODUCTIVE
COMMUNITY-BASED CLEAN ENERGY SOLUTIONS**

(RG-T4357, RG-O1718)

DONORS MEMORANDUM

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PROJECT SUMMARY

REGIONAL LAC E-COOP: PILOTING GREEN FINANCE TO PROMOTE PRODUCTIVE COMMUNITY-BASED CLEAN ENERGY SOLUTIONS (RG-T4357, RG-O1718)

Approximately 73.5 million people live in rural areas of Brazil, Colombia, El Salvador, Honduras, Mexico, and Peru, where high rates of poverty and economic vulnerability are concentrated. The rural population is largely dependent on agricultural activities and food supply chains for their income. Yet they have limited access to electricity and quality energy for those productive activities.

The transition and access to renewable energy sources is an urgent challenge for the region and the agricultural activities of small-scale farmers. One of the main problems for developing energy projects is their high cost and lack of access to adequate financing. At the same time, financing entities lack knowledge, technical capacity, and experience offering products tailored to these communities. Additionally, small agricultural production units that are unincorporated and have no assets are not eligible to receive credit. There is a lack of knowledge of energy technologies and how to implement and maintain such projects, economic limitations for investment, administrative and bureaucratic barriers, and concerns about returns and effectiveness.

Responding to these challenges, and in collaboration with [Deutscher Genossenschafts- und Raiffeisenverband e.V. \(German Confederation of Cooperatives\) \(DGRV\)](#), this project seeks to promote access to sources of clean energy for productive activities in rural organizations through financial services and training. The project will work on three innovations, namely adoption of green energy generation technologies through productive projects with local providers, implementation and piloting of community energy projects, and the development of green credit lines by credit unions, known as “cooperativas de ahorro y crédito” (CACs), or “savings and loan cooperatives,” that are tailored to productive activities and rural beneficiaries.

IDB Lab will contribute US\$1,000,000 to the regional project from resources of the Multilateral Investment Fund (MIF). That financing includes US\$400,000 in contingent recovery investment grant (CRIG) funding and US\$600,000 in nonreimbursable technical cooperation (NRTC) funding. The CRIG will be targeted to CACs that finance energy projects in rural producer organizations through green credit lines. The project also anticipates additional cofinancing of at least US\$500,000 from the Global Energy Alliance for People and Planet (GEAPP) through the Low Carbon Energy Fund for People and Planet (LCE).

The expected outcomes are access to clean energies by 42 rural producer organizations made up of approximately 2,100 low-income farmers, who are considered direct beneficiaries. The project will indirectly benefit 8,000 individuals (family members and other members of the organization) with average monthly income of around US\$524 per family. To achieve these objectives, at least five CACs are expected to implement green credits tailored to the project beneficiaries.

ABBREVIATIONS

CAC	Cooperativa de ahorro y crédito (credit union)
CIF	Climate Investment Fund
CRIG	Contingent recovery investment grant
CTF	Clean Technology Fund
DGRV	Deutscher Genossenschafts- und Raiffeisenverband e.V. (German Confederation of Cooperatives)
DPSP	Dedicated Private Sector Program
ECLAC	United Nations Economic Commission for Latin America and the Caribbean
ENE	Energy Division of the IDB
GEAPP	Global Energy Alliance for People and Planet
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit (German Agency for International Cooperation)
IPSE	Instituto de Planificación y Promoción de Soluciones Energéticas (Institute of Planning and Promotion of Energy Solutions)
kWp	Kilowatt peak
LAC	Latin America and the Caribbean
LCE	Low Carbon Energy Fund for People and Planet
NRTC	Nonreimbursable technical cooperation
OCB	Organização das Cooperativas Brasileiras (Organization of Brazilian Cooperatives)
ORP	Office of Outreach and Partnerships
PAR90	Portfolio at risk over 90 days past due
SCAP	Sociedad cooperativa de ahorro y préstamo (credit union)
SDG	Sustainable Development Goal
tCO ₂	Tons of carbon dioxide

PROJECT INFORMATION

REGIONAL

LAC E-COOP: PILOTING GREEN FINANCE TO PROMOTE PRODUCTIVE COMMUNITY-BASED CLEAN ENERGY SOLUTIONS (RG-T4357, RG-O1718)

Country and geographic location:	Brazil, Colombia, El Salvador, Honduras, Mexico, Peru		
Executing agency:	Deutscher Genossenschafts- und Raiffeisenverband e.V. (German Confederation of Cooperatives) (DGRV) and IDB Lab ¹		
Focus area:	Energy, Climate Change, Financial Inclusion		
Coordination with other donors/Bank operations:	The regional project is managed internally by IDB Lab, with the Energy Division (ENE) and Office of Outreach and Partnerships (ORP) of the IDB as internal partners. Efforts will be made to mobilize new funds, as well as to develop and scale the green credit products designed and promoted along with the region's credit unions, known as "cooperativas de ahorro y crédito" (CACs), or "savings and loan cooperatives,". Synergies will be developed with ENE's rural electrification pipeline and with IDB Lab's current projects, such as operation CO-L1297, "Sunco: Electrifying Development in Dispersed Rural Areas."		
Project beneficiaries:	The beneficiaries of this initiative will be 46 organizations of low-income rural producers, equivalent to approximately 2,450 producers ² and 8,800 individuals. ³ This includes rural communities engaged in agricultural activities, such as coffee, fruit, and vegetable growing, dairy cattle, and other small-scale family farming activities. The project will target individuals with incomes of US\$14/day or less. For example, in the case of Colombia, these communities fall mainly within socioeconomic strata 1, 2, and 3 with monthly average incomes of around US\$524 per family.		
Financing:	Nonreimbursable technical cooperation (NRTC), operation RG-T4357:	US\$600,000	40%
	Contingent recovery investment grant (CRIG), operation RG-O1718: ⁴	US\$400,000	27%

¹ The regional project (RG-T4357) is executed by DGRV but includes US\$125,000 to be managed by IDB Lab as Bank-executed operational work (BEO) for coordination and monitoring of projects under the facility (RG-O1718) with CRIG resources and third-party financing allocated for at least six operations with credit unions. Two of those operations were approved in parallel (CO-G1052 and CO-G1053), and at least four additional operations are to be approved from 2024 onwards. Donor approval will be sought for each operation.

² "Producers" are defined as individual users of the project with productive units or producer organization participants that benefit from access to clean energy technology (either directly or indirectly through technologies within the organization).

³ The estimated size of each producer family is four in Colombia and three in Brazil.

⁴ Funds are allocated to the RG-O1718 facility to be managed by the IDB through IDB Lab with the objective of funding approximately six operations. The CACs that will receive CRIG resources to deploy the green credit portfolios will be selected during the first year of the regional program. Those operations will have a structure similar to the operations with the two CACs already selected in Colombia (CTF-financed sister operations), and four additional "daughter" operations of the facility.

	Total IDB Lab financing:	US\$1,000,000	67%																								
	Counterpart: ⁵	US\$502,429	33%																								
	Total project budget:	US\$1,502,429	100%																								
Core mobilization:	The project is expected to have nonreimbursable cofinancing of at least US\$500,000 from the Low Carbon Energy Fund for People and Planet (LCE).⁶ The RG-O1718 facility is expected to mobilize at least US\$500,000 in additional “core” resources to finance more projects with CRIG resources and beneficiary CACs trained by the DGRV-led regional program. Additional resources will be mobilized from the following funds and partnerships: Korean Private Sector Development Fund, Green Climate Fund (projects in the Amazon region), Global Energy Alliance for People and Planet, and the European Union.																										
Sister operations: ⁷	The regional project is being approved with the first two sister operations associated with the LAC e-Coop facility. Through the aforementioned funds, both operations form part of the portfolio of the LAC Green Innovation Hub (GreenHub) 1.0 facility (operation RG-O1700), which manages the CRIG resources from the Clean Technology Fund (CTF) of the Climate Investment Fund (CIF) under a DPSP III regional program: IDB Lab/CTF Climate Finance Program for Industry, MSMEs, and Households in Latin America and the Caribbean. The operations will be financed with 50% from the CTF and 50% from the CAC counterpart, as follows: <table><tr><th colspan="3">Operation CO-G1052 / Cooperativa Financiera de Antioquia</th></tr><tr><td>CRIG</td><td>US\$200,000</td><td>50%</td></tr><tr><td>Counterpart</td><td>US\$202,214</td><td>50%</td></tr><tr><td>Total project budget:</td><td>US\$402,214</td><td>100%</td></tr></table> <table><tr><th colspan="3">Operation CO-G1053 / Crediservir</th></tr><tr><td>CRIG</td><td>US\$300,000</td><td>50%</td></tr><tr><td>Counterpart</td><td>US\$302,071</td><td>50%</td></tr><tr><td>Total project budget:</td><td>US\$602,071</td><td>100%</td></tr></table>			Operation CO-G1052 / Cooperativa Financiera de Antioquia			CRIG	US\$200,000	50%	Counterpart	US\$202,214	50%	Total project budget:	US\$402,214	100%	Operation CO-G1053 / Crediservir			CRIG	US\$300,000	50%	Counterpart	US\$302,071	50%	Total project budget:	US\$602,071	100%
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Total project budget:	US\$602,071	100%																									

⁵ The remainder of the counterpart up to 50% of the project total will come from expected contributions of the CACs under the LAC e-Coop Facility (RG-O1718) and from external donors.

⁶ Nonreimbursable financing from the LCE (document GN-3073-1), with resources contributed by the Global Energy Alliance for People and Planet (GEAPP). In 2021, the IDB, acting through ENE and IDB Invest, jointly arranged for creation of the LCE with resources provided by GEAPP. The fund's objective is to reduce energy poverty and support the low-carbon energy transition in Latin America and the Caribbean by financing technical cooperation and/or investment grant operations.

⁷ The sister operations to be financed with CTF funds (RG-O1700) were approved on 6 December 2023. The conditions precedent to disbursement of the CRIGs for those operations are tied to the results of the technical assistance under this project.

Execution and disbursement periods:	36 months for execution and 36 months for disbursement
Special contractual conditions:	As conditions precedent to the first disbursement of the NRTC, the following will be presented to the Bank's satisfaction: (i) appointment of the project coordinator; (ii) the plan of operations and procurement plan for the project; (iii) establishment and notice of meeting of the LAC e-Coop oversight committee; and (iv) the project Operating Regulations. ⁸
Environmental and social impact review:	This operation was reviewed on 17 October and classified according to the IDB's Environmental and Social Policy Framework (document GN-2965-21). Given that the impacts and risks are limited, the proposed classification for the project is category "C."
Unit with disbursement responsibility:	The Bank's Country Office in Costa Rica (CID/CCR).

⁸ Document 5 lists the section headings for the Operating Regulations: project management and governance system, project roles and responsibilities, project selection criteria, project technical criteria, and monitoring, evaluation, and learning methodologies.

I. THE PROBLEM

A. Description of the problem

- 1.1 Rural areas of Latin America and the Caribbean (LAC) have the highest rates of poverty and economic vulnerability, with poverty and extreme poverty rates of 45% and 22%, respectively, which is up to three times higher than in urban areas.⁹ Approximately 73.5 million people in Brazil, Colombia, El Salvador, Honduras, Mexico, and Peru live in rural areas, or around 25% of the population in each country.¹⁰
- 1.2 Production activities, agricultural activities, and food processing, supply, and selling chains are the main sources of income for the population located in these areas, and also constitute a critical factor for the region's food security.
- 1.3 **Vulnerability due to energy poverty.** Added to the high rates of rural economic poverty is the vulnerability represented by energy poverty,¹¹ which affects both access to electricity for household use and energy with the minimum quality for productive activities, including refrigeration, food processing machinery, pumping of water, and other uses. The impact of energy poverty is closely tied to gender and unpaid work, since it exacerbates unequal access to opportunities for women.¹² In Honduras, for example, 34% of rural households run by women are experiencing energy poverty.¹³
- 1.4 Even though these countries report a high average access to electricity,¹⁴ the statistics hide a high degree of heterogeneity from place to place, particularly when comparing rural versus urban communities and the quality of available energy.
- 1.5 All this affects productive capacity and drives the rural exodus with a resulting increase in migratory flows to cities, thus impacting national food security. The limited appeal of farming life also creates a significant problem of generational renewal. The rural population's vulnerability increases with its reliance on subsistence crops in a primary sector with low profitability amid rising climate and environmental risks, or increased competition for resources and land.
- 1.6 **The inclusive energy transition to renewable sources is a pressing and high priority challenge in the region.**¹⁵ Approximately 17 million people in the region lack access to electricity.¹⁶ There is frequently a high dependency on fossil fuel

⁹ United Nations Economic Commission for Latin America and the Caribbean (ECLAC) (2019). Link: <https://www.ilo.org/americas/temas/sector-rural-y-desarrollo-local/>.

¹⁰ World Bank (2020). Link: <https://datos.bancomundial.org/indicador/SP.RUR.TOTL?end=>.

¹¹ "Energy poverty" means a situation in which an individual or household is unable to perform a basic set of human activities that require an adequate source of quality energy ([Promigas Foundation, 2023](#)).

¹² ECLAC (2021). Desarrollo de indicadores de pobreza energética en América Latina y el Caribe (Development of energy poverty indicators in Latin America and the Caribbean). Link: <http://repositorio.cepal.org/bitstream/handle/>.

¹³ UNAH (2022). National Autonomous University of Honduras. Link: <https://www.tunota.com/honduras>.

¹⁴ However, there are areas with gaps in access, such as Colombia's Pacific region.

¹⁵ In many countries of the region, electrical grids are still almost fully dependent on imported oil for power generation. In the case of Mexico, 66% of energy is produced from fossil fuels (Energy Hub, 2021). Link: <https://hubenergia.org/es/indicadores/>.

¹⁶ ECLAC (2022). Basic water and energy services as key sectors for transformative recovery in Latin America and the Caribbean. Link: <https://www.cepal.org/en/insights/>.

energy sources in the most remote areas, e.g., use of diesel generators. The development of new models for renewables-based power generation¹⁷ in rural areas with producer organizations would make it possible to diversify the energy mix and reduce reliance on fossil fuels, while at the same time including citizen participation. Better access to clean drinking water and electricity service, along with better quality, would help to minimize social inequalities in the region. With this goal in mind, solutions should focus on developing the water-energy-food nexus.¹⁸

- 1.7 **There is a tradition of producer organizations¹⁹ being formed in rural areas, where energy is a critical factor for productive viability.** Latin America and the Caribbean have more than 108,000 cooperatives and business partnerships, around 28,000 of which are related to agriculture and rural areas, with more than 6 million members.²⁰ In the countries listed above, partnering is a notable feature of the agriculture sector.²¹ While many of these producer organizations are large or medium-sized and have a long history in the market and international trade, the vast majority are small and have few members from a highly vulnerable population, who in most cases lease the land they farm. In many instances, they run informal operations from a legal, tax, and/or accounting standpoint. This isolation combined with stiff market competition limits their participation to creating value through product processing, and exposes them to middlemen with asymmetrical bargaining power.
- 1.8 Continuous access to affordable, quality energy sources is a key factor for economic viability and sustainability. In many cases, clean energy²² lowers production costs, while in others it allows the organization to increase production, process or improve the quality of its product, especially when they previously lacked energy access, e.g., pumping water for agricultural production. Criteria for the project will include economic monetization for producers as a result of implementing energy projects.
- 1.9 **Models for distributed generation at the local, productive, and community levels.** Various studies²³ of distributed generation projects have demonstrated the importance of establishing a commitment with the community in order to improve

¹⁷ Energies derived from natural sources, e.g., solar and wind power; these sources are self-replenishing and nonpolluting.

¹⁸ Fluence (2019). Water-Energy-Food Security Nexus (World Economic Forum). Link: <https://www.fluencecorp.com/es/nexo-seguridad-agua-energia-alimentacion/>.

¹⁹ The term “producer organizations” encompasses cooperatives, organizations of campesinos or micro-entrepreneurs, worker cooperatives, community action boards, and other organizations with a collective or common purpose. If they have not been formally incorporated for the required number of years, they will be ineligible for credit.

²⁰ Food and Agriculture Organization (2022). Cooperativas en América Latina y el Caribe: Motor para la transformación de los sistemas agroalimentarios (Cooperatives in Latin America and the Caribbean: A Driver for the Transformation of Food Systems). Link: <https://www.fao.org/3/cc0934es/cc0934es.pdf>.

²¹ The current significance of rural collectivism is evidenced by 1,170 farm cooperatives with 1,024,605 members (Organization of Brazilian Cooperatives (OCB), 2021) in Brazil; 9,036 agriculture sector and campesino organizations (Solidarity Unit, Labor Ministry) in Colombia; 34,281 rural enterprises with varying legal structures (National Agrarian Registry) in Mexico; and 1,245 cooperatives with 2.4 million members in Peru.

²² Clean energy is defined as energy production systems that do not generate any type of pollution, mainly greenhouse gas emissions, like CO₂ (Iberdrola, 2023).

²³ [Mini Grids for Half Billion People – Energy Sector Management Assistance Program, World Bank \(2022\)](#).

the design and sustainability of the project and avoid conflicts. This has given rise to **energy communities**²⁴ and the concept of community distributed generation. This new model enables cost reduction and democratization of access to energy, so that different stakeholders in a single community can install shared generation systems and become co-owners of their own energy. Estimates are that more than 10,000 energy communities in Europe are now playing a key role in making the Hemisphere less carbon intensive, and will be generating 37% of the European Union's energy by 2030.²⁵ Yet this model is still emerging in Latin America and the Caribbean, where not all countries have an adapted regulatory framework in place. For example, Colombia's Institute of Planning and Promotion of Energy Solutions (IPSE) is promoting an innovative project within the framework of the Fair Energy Transition of the Government of Change. With a focus on creating energy communities in the "noninterconnected zones," renewables-based energy generation is being promoted to drive productive development in specific communities, such as Cabo de la Vela – Media Luna in La Guajira and Terán in Nariño.^{26 27}

- 1.10 **One of the main problems in Latin America and the Caribbean for developing energy projects is their high cost.** In order to finance projects, productive units require costly diagnostic assessments of financial and technical viability, and in most cases large subsidies are necessary for capital expenditures. In other cases, producers do not hold title to the land they farm, which makes it difficult to access formal financing. Moreover, many financial institutions do not have knowledge, technical capacity, or experience offering products to access renewable energy technologies. Credit unions, known as "cooperativas de ahorro y crédito" (CACs), or "savings and loan cooperatives," with skills and experience in products tailored to these communities currently exist, but supply is inadequate and insufficient for renewable energy generation because the few forays into green products are primarily for consumption or transportation purposes. Additionally, small agricultural production units that are unincorporated and have no assets are not eligible to receive credit. In short, there is a lack of knowledge of energy technologies and how to implement and maintain such projects, economic limitations for investment, administrative and bureaucratic barriers, and concerns about returns and effectiveness.
- 1.11 **DGRV.** The work of Deutscher Genossenschafts- und Raiffeisenverband e.V. (German Confederation of Cooperatives) (DGRV) focuses on the socioeconomic development of the members of rural and other producer cooperatives and CACs in the region. DGRV has extensive knowledge and experience in the cooperative sector and has been working for more than 30 years in the project's beneficiary

²⁴ "Energy communities" are entities formed by a group of partners who voluntarily seek energy, social, environmental, and economic benefits for the members of a community or third parties. Cooperatives can be a legal form of energy community ([Home – Red de Comunidades Energéticas S.Coop.](#)).

²⁵ [Yale School of the Environment – Can Europe's Community Renewables Compete? \(2021\).](#)

²⁶ [IPSE priorizó las dos primeras Comunidades Energéticas de las zonas no interconectadas de Colombia en 2023](#) (IPSE prioritized the first two Energy Communities in noninterconnected zones in Colombia in 2023) –IPSE (gov.co, 2023).

²⁷ [En ZNI del Pacífico colombiano, en Comunidades Energéticas, se implementará un sistema innovador híbrido solar-diésel inaugurado por Minenergía y FENOGE](#) (An innovative hybrid solar-diesel system, inaugurated by Colombia's Ministry of Mines and Energy and the Unconventional Energies Fund) will be implemented in Energy Communities of the Noninterconnected Zones of Colombia's Pacific region ([minenergia.gov.co](#)).

countries. Its intervention model is deeply rooted in federations and their affiliated CACs, including the Confederation of Cooperatives (CONFECOOP) and the Red Coopcentral transaction and financial services platform in Colombia; the SICREDI financial cooperative and the Organization of Brazilian Cooperatives (OCB) in Brazil; the CONCAMEX confederation of credit unions and FOCOOP deposit guaranty fund in Mexico; the Federation of Credit Unions (FACACH) and CONSUCOOP supervisory authority for CACs in Honduras; the National Federation of Credit Unions (FENACREP) and CIDERURAL umbrella cooperative for CACs in Peru; and the Federation of Credit Unions (FEDECACES) and Federation of Agriculture Sector Cooperatives (FEDECOOPADES) in El Salvador.

- 1.12 DGRV has already worked in several different countries of the region²⁸ to promote energy generation through cooperative structures and transfer the experience of energy cooperatives in Germany.²⁹ The objective is to turn citizens into active participants in the energy transition and to assess the decrease in energy costs for communities, as well as the increase in production or processing of their products. More than 3,000 CACs³⁰ have already been identified that, with support, could develop green credit lines to finance access to clean energy for these groups of producers.

II. THE INNOVATION PROPOSAL

A. Description of the project

- 2.1 The objective of this regional project is to promote access to sources of clean energy for productive activities in rural organizations through financial services and training tailored to the rural population and the agriculture sector in the region.
- 2.2 The project will operate under new, innovative models that address both climate change mitigation and in reducing the carbon intensity of supply chains in rural areas. The initiative will support creation and financial sustainability of community clean energy solutions for productive activities, with a focus on producer cooperatives and organizations, by providing training, advisory services, and finance.
- 2.3 IDB Lab and DGRV will collaborate on this regional initiative together with CACs of Latin America to test green finance that will support these community clean energy initiatives for productive uses and to offer training that will ensure project sustainability. The project will also support the CACs in trial financing of pilot projects in remote rural areas for clean energy generation, including off-grid systems, using batteries where feasible, and through the introduction of green credit lines.
- 2.4 The proposed solution seeks to promote financial inclusion and the transition to clean and sustainable energy, effectively addressing energy and rural development. The transition and access will be supported through collective

²⁸ Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Paraguay, and Peru.

²⁹ DGRV publications on renewable energies in cooperatives. Link: <https://www.dgrv.coop/publications/?select=youth-and-cooperatives>.

³⁰ DGRV (2022). Datos y Ranking de Cooperativas de Ahorro y Crédito en América Latina (Data and Rankings of Savings and Loan Cooperatives in Latin America). Link: <https://www.dgrv.coop/es/publication/datos-y-ranking-de-cacs-en-america-latina-y-el-caribe/>.

construction to solve shared problems or complete shared projects by working together on a voluntary basis. In partnership with producer organizations, solutions related to production and financing, technical advisory support, and training will be sought for the development of on-grid and off-grid distributed energy generation solutions for communities. In this way, the project responds to the aforementioned needs for access to preinvestment and investment, as well as the need to promote community energy models in the region.

- 2.5 This regional project lays the groundwork for the LAC e-Coop Facility, which aims to position itself as IDB Lab's first facility for the promotion of green lines and credit products for the sustainable development of productive energy projects at the community level. To that end, the regional project will raise awareness around the generation and use of clean energies by productive associations through CACs under the leadership of DGRV. The first two operations³¹ of the LAC e-Coop Facility will be approved in Colombia in parallel (operations CO-G1052 and CO-G1053), with CTF resources managed by IDB Lab. Four additional operations with CACs will be approved during execution of the regional project with a combination of IDB Lab funds and third-party resource mobilization.
- 2.6 **Beneficiaries.** The regional project will directly benefit *low-income, small-scale farmers*, at the group and individual level, and indirectly their families, through deployment of the loan portfolio and the awareness-raising and technical assistance activities.³² *Vulnerable, small-scale farmer* means an individual whose main economic activity is agriculture or ranching or a combination of those activities, individually or collectively, and whose income is less than US\$14 per day.³³
- 2.7 In the six countries, the project will focus on rural men and women, members of producer organizations with varying degrees of formalization, and members or affiliates of the project CACs. The beneficiaries will be divided into two groups (Components 2 and 3), with a focus on access to energy for productive uses:
- Component 2: This component will identify and develop pilot projects in remote and hard-to-reach areas, benefiting producers with smaller incomes than those in Component 3. The focus will be nonelectrified zones (isolated from the national grid or supplied solely by fossil energy generators), where beneficiaries have limited repayment capacity.
 - Component 3: LAC e-Coop Facility: Given the orientation toward production and repayment capacity, the rural organizations that can be financed by CACs will be those that, while they may have access to energy for domestic uses, do not have access for productive activities (use of diesel), or if they have access, cannot feasibly use such energy for productive purposes because it is not reliable. The systems currently used to supply energy vary from country to country. In Colombia, 40% of the members of Cooperativa

³¹ Operations CO-G1052 and CO-G1053, financed with CRIG resources of the LAC Green Innovation Hub (GreenHub) 1.0 facility (RG-O1700) with resources from the Clean Technology Fund (CTF) of the Climate Investment Fund, under a DPSP III regional program: IDB Lab/CTF Climate Finance Program for Industry, MSMEs, and Households in Latin America and the Caribbean.

³² The characteristics of the beneficiaries in Colombia (described in the sister operations) and Brazil will be used as a benchmark reference.

³³ As defined by the World Bank in 2022, which considers the vulnerable population (less than US\$14 per day) at high risk of falling into poverty.

Financiera de Antioquia (operation CO-G1052) lack access to energy for productive uses and rely on Pelton combustion plants.

- 2.8 To help the participating CACs focus on products for the poor and vulnerable, they will use data capture methodologies with which they are already familiar. For example, in the case of the sister operation (operation CO-G1053), the levels of income established for Campesino and Community Family Farming will be used, and the beneficiaries will be member producers of the project CAC. In the case of Crediservir, according to the internal database of member monthly incomes, 55% of the target beneficiaries have incomes of less than the official monthly minimum wage in Colombia (less than US\$276 per month per family), 31% have incomes between one and two times the official monthly minimum wage (up to US\$552 per month per family), and 11% have incomes of three to four times the official monthly minimum wage (up to US\$829 per month per family). This last 11% would be the target beneficiary profile for Component 3.
- 2.9 The energy projects are expected to be oriented toward the purchase and installation of clean energy technologies, such as electrical power supply systems, biodigesters, photovoltaic systems for irrigation and for machinery used to process products such as coffee, plantain flour, etc., energy for milk cooling tanks and pumping of water from source to purification plants, and pumping from aqueducts.
- 2.10 An illustrative case of the socioeconomic profile of beneficiaries based on a real life example of an association of small-scale milk producers in a rural area of Colombia shows: families of four with daily incomes per person of between 30,000 and 40,000 pesos (US\$7.50 to US\$10). A family would thus be able to take on a loan for installation of solar panels for milk cooling tanks costing approximately US\$10,000, with a 36-month term and payments of approximately US\$320, or a 48-month term with payments of approximately US\$250, and more expensive facilities or equipment for a 60-month term, while still maintaining a level of debt of less than 30% of the family income.
- 2.11 **Innovation.** This project will promote the development of markets and financing with a focus on three innovations: (i) **access to clean energy technologies** under community distributed energy generation systems (on-grid and off-grid) for productive uses; (ii) **implementation and piloting of the innovative model of energy communities in Latin America and the Caribbean** through the establishment and strengthening of rural organizations engaged in different productive activities; (iii) **development of green finance by CACs** in the region through the promotion of new lending products tailored to the investment needs and model and repayment cycles of rural producer organizations. Importantly, while some CACs have green credit products, they are for investments in more energy-efficient equipment but not for financing clean energy generation, which will represent innovation in their credit product offerings.
- 2.12 **Gender lens.** All activities to identify groups of producers and training for the project will have a focus on attracting women and youth.³⁴ Together with regional unions and the participating CACs, DGRV will design a **gender strategy to increase women's participation** in awareness-raising and training activities for productive groups. Factors shown to be critical in the sector will be considered,

³⁴ The design of the financial products, manuals, and trainings will take the applicable cultural aspects of each region and beneficiary cooperative into account.

such as adapting the location, hours, childcare, and content to the work done in the field by women in the groups. Trainings will be added with a special focus on creating opportunities for women to generate more income. Once these factors have been designed, the CACs will be encouraged to adapt and incorporate and **implement the strategy with an action plan.**

Status summary in participating countries³⁵

Country	Energy regulation status	CAC status
Colombia	Energy communities and the use of renewables promoted.	173 CACs, 5 financial cooperatives, and 2 banks
Brazil	Specific regulations for distributed generation and collective on-farm consumption.	Robust cooperative system with three tiers: 799 CACs, 32 cooperative hubs, 2 cooperative banks
Mexico	Energy reform favoring clean power generation, but no policy to promote collective power generation.	154 authorized and 410 unauthorized SCAPs
El Salvador	Renewable distributed generation and end-user regulations.	6 cooperative banks, 51 unsupervised savings cooperatives, and 613 CACs without oversight
Honduras	Challenges in electrification, regulations on distributed generation. Need for off-grid projects.	334 CACs and 1 cooperative bank
Peru	Regulations on distributed generation and use of renewable energy.	348 CACs supervised by the Superintendency of Banks and Insurance Companies (SBS)

- 2.13 In the project's six countries, DGRV has an intervention presence with producer groups in rural areas through national federations of CACs, and directly with various CACs with which it has had prior strengthening, financial inclusion, and sustainability projects. In the six countries there is also a tradition of cooperative associations in farming production and in financial intermediation through robust cooperative sectors.
- 2.14 The project's technical cooperation component will be executed by DGRV in collaboration with its local partners (see Section V). The LAC e-Coop Facility component will be executed with contingent resources (CRIG)³⁶ by the IDB, acting through IDB Lab, with at least five CACs in the region. Four components are planned, which will ensure access to finance and technical support for producer organizations.

³⁵ Document 3 describes the status of energy regulations, CACs, and DGRV's experience in each of the project's beneficiary countries as the rationale for selection.

³⁶ Two operations are already being designed with CTF funds, at least one operation with funds allocated by IDB Lab, and two additional operations with core resources.

Component 1:³⁷ Awareness-raising on the cooperative energy ecosystem in the region (IDB Lab US\$177,000 (RG-T4357); Counterpart US\$206,000).

- 2.15 The objective of this nonreimbursable technical cooperation component is to promote the participation of producer organizations in the generation of clean energy and to strengthen their capacity to sustainably manage and maintain energy systems, while also promoting financial inclusion and training on green financial products for CACs seeking to develop green credit lines tailored to the needs of producers. These objectives will be achieved through various activities divided into two subcomponents:
- 2.16 **Work with producer organizations – identification, awareness-raising, training, and technical advisory support.** Local producer organizations will be identified, and work done on their organizational, economic, and financial capacity. DGRV will implement proven strengthening methodologies^{38 39} to develop the models at those organizations wishing to improve their productivity and competitiveness under the principles of cooperative enterprise. DGRV will aid in the design, formation, management, and governance of the organizations, as well as in building intercooperation networks.
- 2.17 Using the project's resources, DGRV will have a team of four **social outreach workers**⁴⁰ who will conduct social outreach in the project target areas. The activities of the social outreach workers will include:
- Support research processes: collecting, classifying, and processing data required for social outreach.
 - Identify beneficiary producer organizations and/or individuals and develop the action plan corresponding to the methodological intervention.
 - Design and plan training and strengthening activities, as well as workshops.
 - Provide technical assistance to groups of producers by strengthening the energy communities model using DGRV's methodologies. Participate and support the design and production of informational and awareness-raising materials.
- 2.18 Training offered by the social outreach workers will include preparation and revision of by-laws, democratic decision-making processes, accounting and financial reporting, understanding of relevant legal and tax requirements for the organizations, etc. This will ensure a sound organizational structure and sufficient legal framework for the development of sustainable and effective rural energy projects.
- 2.19 In addition, financial training courses with a focus on green products will be offered through **credit officers**. Those courses will cover such topics as investment in clean energy projects, management of green credit, and understanding of the long-term economic benefits of investments in environmentally-friendly solutions. This

³⁷ Component 1 is expected to have cofinancing of at least US\$73,000 from the LCE.

³⁸ The "[Apoyamos, Buen Vivir Rural](#)" project in Colombia illustrates the experience in methodology building and implementation applied by DGRV's teams and the CFA Foundation.

³⁹ [My.Coop Methodology of the International Labor Organization](#).

⁴⁰ Descriptions of all the project's technical profiles are found in the Technical File: Document 5 – Operating Regulations.

financial training will enable rural communities to not only implement renewable energy technologies, but also to effectively manage their resources and financial assets for sustainable development.

- 2.20 **Awareness-raising and training of CACs.** Efforts will be made to develop new green financial products so that producer organizations and individual producers, particularly members of the organizations supported by the project, can finance their energy projects. The main objective of this component is to ensure the project's scalability. A methodology will be transferred to provide the CACs in the six project countries with the necessary skills and knowledge to understand and promote financial products associated with clean energies and sustainable projects targeting rural beneficiaries.
- 2.21 This subcomponent will receive support from the team of social outreach workers, environmental engineers or renewable energy experts, and green finance specialists to: (i) participate in the creation and implementation of methodology transfers at various CACs of the region and train them in the methodology for strengthening rural organizations and green products; and (ii) disseminate relevant information on the development of green lines implemented by other CACs (see Component 3).
- 2.22 To achieve those objectives, the aforementioned team will transfer a methodology to four unions⁴¹ that are representative of the project countries. This will include technical visits and design and training for (i) green financial products; (ii) strengthening of producer organizations; and (iii) renewable energy for producers.
- 2.23 DGRV will also offer those CACs use of the (i) MicroScore tool (microcredit scoring software with a green credit module); (ii) the DGRV's Environmental and Social Risk Management System (SARAS); and (iii) an e-learning course on Sustainable Finance.⁴²
- 2.24 This component will be executed by DGRV. The expected outcomes by the end of the project include the following: (i) 102 groups of producers are identified; (ii) 16 organizations are strengthened: business partner training; (iii) 2,400 people are trained in credit/financial education; (iv) 4 unions/federations of CACs receive methodology transfers; (v) 1,400 technical staff at CACs and unions complete DGRV's e-learning course on Sustainable Finance; (vi) 40 CACs adopt the MicroScore and Environmental and Social Risk Management System (SARAS) tools; (vii) 3 CACs incorporate a strategy and action plan to increase women's participation in awareness-raising activities and the training of productive groups.

⁴¹ Second-tier entities that unite hundreds of CACs (federations, organizations, etc.). They will be CACs affiliated with the following institutions: Coopcentral/Visionamos-Red Coopcentral, CONCAMEX and affiliated federations, FACACH, CIDERURAL, and FEDECASES/FEDECREDITO.

⁴² MicroScore: Supports management of credit risk mitigation, compliance with the credit operation methodology (individual and agriculture microcredits), and evaluation of sustainable credits.

Environmental and Social Risk Management System (SARAS): Supports identification, classification, evaluation, management, and monitoring of credit operations, to integrate environmental and social factors into loan evaluation systems and existing standard operating procedures.

Component 2:⁴³ Development of pilot projects in remote areas (Counterpart US\$125,000).

- 2.25 The main objective of this component is to address the energy needs of areas without access to the electrical grid that rely exclusively on fossil energy generators or have low-quality and/or unreliable energy sources, making them particularly vulnerable.
- 2.26 The cofinancing and counterpart resources will be allocated to the development of community energy pilot projects. Those projects will be focused on groups of poor or vulnerable producers with limited repayment capacity for access to energy solutions. DGRV will manage the activities of these energy projects through its financial partners to ensure their proper performance. In these cases, the participating CACs will partially cofinance five pilots, combining credit with their own resources, as well as technology transfer and battery donations for off-grid projects.
- 2.27 With the counterpart financing, at least 200 people are expected to be benefitted by one pilot project. However, with the LCE cofinancing, 1,000 people are expected to be impacted by the execution of five photovoltaic projects with a generation capacity of 1-20 kWp per project. Each one of these projects will have 50% cofinancing from the CACs affiliated with DGRV, since they work with the producers and beneficiary areas and want to address existing demand and needs. The photovoltaic projects will not only provide clean and reliable energy to these populations but serve as models to follow for future projects implemented in other vulnerable areas.

Component 3:⁴⁴ LAC e-Coop Facility – Design and implementation of green lines for community energy projects (IDB Lab US\$578,000 (RG-T4357, RG-O1718); Counterpart US\$171,429)

- 2.28 The objective of this component is to facilitate access for producer organizations to the necessary finance and training for the development of sustainable, clean energy projects through the design and implementation of green credit lines at CACs. This component is divided into two subcomponents:
- 2.29 **Design of a green credit line and preparation of technical profiles of producer organizations.** The project will finance a team of environmental technical specialists or renewable energy specialists contracted by DGRV, who will conduct the following activities with producer organizations:
- Within the producer organizations strengthened by the social outreach workers, identification of groups with energy generation potential and demand in order to advise them on effective energy solutions or green products.
 - An energy and financial evaluation guide and catalogue of technologies available at the regional level, considering the needs of local productive groups and the accessibility of technologies in the local market. The catalogue will include development of a methodology for measuring

⁴³ Component 2 anticipates cofinancing of at least US\$125,000 from the LCE.

⁴⁴ Component 3 anticipates cofinancing of at least US\$207,000 from the LCE.

environmental impacts (tCO₂ avoided) and installed energy capacity by type of clean technology.

- Energy assessment: Energy analyses to explore access to clean energy technologies for producer organizations or individuals.
 - Training for community members on the benefits of clean energies, and for CACs, on green products.
- 2.30 Training will be on the use of renewable energies for productive uses and will cover content such as: (i) benefits of renewable energies; (ii) types and functioning of renewable energies; (iii) techniques to optimize energy use; (iv) energy storage; (v) legal and regulatory aspects; (vi) financing and subsidies; (vii) maintenance and safety policies; (viii) social and environmental risk and impact; (ix) monitoring and evaluation; and (x) business development.
- 2.31 The energy analyses will examine the preconditions of social and societal cohesion together with the economic and technical viability of the energy project. They will also provide information on the volume of installed capacity and clean energy generation for each project, specifications for required equipment, and the associated costs. A full economic evaluation will be done that includes the costs of operating the project and the expected benefits.
- 2.32 The analyses will include: (i) request for financing in a format established by the organization/individual and the CAC; (ii) assessment of economic and technical viability; (iii) estimated power generated; (iv) recommendations for operations and equipment to be purchased; (v) cost projections; (vi) investment budget (working capital and fixed assets, financing needs); and (vii) project's expected return on investment.
- 2.33 The project will also have experts in green finance to design clean energy credit products and training on those products for CACs in the region working with DGRV and its local partners, like federations or associations of CACs. Training will consist of an assessment of the country's energy status (supply and demand), review of technologies, advisory support on selection of suppliers, design and implementation of green financial products, and monitoring and evaluation reports.
- 2.34 **Deployment of green credit portfolio.** This subcomponent seeks to establish a facility that uses contingent recovery investment grant (CRIG) financing to promote the development of new green credit lines focused on clean energies at CACs under this project.
- 2.35 Together with each CAC, financial projections will be defined for the new green line, and rules will be established to govern the eligibility and financing conditions of the CACs for producer organizations, according to the credit product designed and the potential for repayment of the transaction. Selection criteria are described in detail in Document 5 of the Technical File. For the five participating CACs, and others subsequently added to the project, the CRIG facility will be an opportunity to test and adopt new green financial products, enabling them to expand their menu of financial services for the rural population, particularly agricultural producers.
- 2.36 The CACs will contribute a cash counterpart of at least 30% own funds to each energy project, to incentivize the development of green financing for low-income producer organizations.

- 2.37 The expected outcomes for this component by the end of the project, not counting additional cofinancing, will be as follows: (i) 928 people benefit from workshops to raise awareness of the potential of renewable energies; (ii) 2 clean energy technology evaluation guides and catalogues for each region; (iii) 100 energy analyses are performed to explore access to clean energy technology for producer organizations or individuals; (iv) 5 CACs offer green credits for access to clean technology using CRIG resources; (v) 46 green credits disbursed to producer organizations (collective credits); (vi) 190 green credits disbursed to individual producers (individual credits); (vii) US\$1,428,571 disbursed in credits; and (viii) less than 5% of the new green portfolio is past due (PAR90).
- 2.38 With core resource mobilization, these outcomes are expected to increase as follows: (i) 1,950 people benefit from workshops; (ii) 3 clean energy technology evaluation guides and catalogues; (iii) 200 energy analyses; (iv) 6 CACs offer green credits for access to clean technology using CRIG resources; (v) 69 green credits disbursed to producer organizations (collective credits); (vi) 285 green credits disbursed to individual producers (individual credits); and (vii) US\$2,142,857 disbursed in credits.

**Component 4:⁴⁵ Coordination, evaluation, and knowledge dissemination
(IDB Lab US\$245,000 (RG-T4357))**

- 2.39 The objective of this component is to raise awareness and promote new community-based energy generation models in communities, governments, and institutions with dissemination and coordination of the project's activities.
- 2.40 This component includes a publication on innovation in access to clean energy technologies by productive groups. The publication will compile information on the impact of energy projects on producers (benefits for product processing, increase in productivity of current products, etc.). The publication will also compile information from the catalogues on adopted technologies (biomass, solar energy, off-grid power, etc.) and their impact on emissions mitigation and energy generation.
- 2.41 The following actions will be taken to share and disseminate the knowledge and achievements obtained through the project:
- Preparation of informational materials that present lessons learned along with step-by-step guides with the project methodologies. One will be targeted to producers and the other to CACs.
 - Strengthening of the energy communities network in Latin America and the Caribbean through the [Energy Coop](#) platform, where materials and lessons learned will be housed.
 - Organization of webinars to disseminate and share the knowledge gained during the project, to provide training opportunities and promote understanding of issues related to renewable energies for productive uses.
 - Presentation of the project and its outcomes at regional events organized by DGRV, its counterparts, and partners to disseminate the project more broadly. An in-person regional event will be planned for late 2024 in Brasilia, Brazil. That event, organized by DGRV, IDB Lab, and the Organization of

⁴⁵ Component 4 anticipates cofinancing of at least US\$95,000 from the LCE.

Brazilian Cooperatives (OCB), will focus on renewable energies and energy communities. At least 40 attendees from at least 7 countries are expected, which includes the 6 countries participating in the project plus Chile.

- 2.42 The main outcome of this component is (i) 1 publication on innovation in access to clean energy technologies by productive groups. With additional cofinancing, the following outcomes are also expected: (ii) 2 DGRV publications compiling lessons learned; and (iii) dissemination at 2 events on innovation in access to clean energy technologies and energy communities.

B. Project results, measurement, monitoring, and evaluation

- 2.43 **Outcomes.** By the end of the project, 8,000 individuals and 42 producer organizations are expected to benefit directly and indirectly from the use of clean energies as a result of the project activities. The volume of clean energy installed capacity available to producers and groups of producers will be 1,421 kW,⁴⁶ and CO₂ emissions avoided due to installation of the energy projects will be at least 242 tCO₂eq/MWh. To achieve these objectives, at least 4 CACs are expected to receive CRIG resources for development and implementation of green credits tailored to the project beneficiaries, and at least 5 CACs are expected to develop green credits as a result of the project's methodology transfers. With core resource mobilization and cofinancing, the project outcomes are expected to increase to 13,200 individuals and 69 organizations benefitted; 2,507 kW of installed capacity; 427 tCO₂ avoided; and 9 CACs that develop green credits tailored to the project beneficiaries.
- 2.44 **Measurement and monitoring.** DGRV will be responsible for compiling the data and reporting on outcomes and achievements using the project's results matrix. The executing agency is already working with two planning and monitoring tools.⁴⁷ At project inception, it will prepare a monitoring plan based on those tools to ensure monitoring and measurement of indicators. The executing agency will report to the Bank every six months through a project status report and will submit a final project status report on results at the end of the project. The project will also promote events involving the region's public and private sectors to share findings, as well as to share and discuss the project's results.
- 2.45 **Evaluation and operational learning.** DGRV, with the support of IDB Lab, will contract a project coordinator responsible for execution and monitoring of progress made by the project against the Results Matrix indicators. Learnings from the project will be collected in the DGRV publications on lessons learned and in the publication on innovation in access to clean energy technologies by productive groups.

⁴⁶ This indicator may vary depending on the technologies being promoted and will be supplemented with the publication on innovation in access to clean energy technologies.

⁴⁷ Strategic Planning System (SPE): Tool for setting parameters for the project's indicators, defining targets, time for completion, responsible parties, and monitoring and supervision alerts.

Qualitative Evaluation System (SEC): Tool for diagnostic assessment of organizations (initial status and tracking), designing their action plan, and monitoring the strengthening of social entrepreneurship.

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

A. Alignment with the IDB Group

- 3.1 The project contributes to the objective of eradicating poverty and promoting social inclusion in the region by improving access to clean energy in disadvantaged rural communities. Such access will not only drive economic growth in these areas but provide significant benefits in terms of food security. This project is aligned with the IDB's efforts to promote sustainability and climate change mitigation, by facilitating the transition to renewable energy sources and the reduction of carbon emissions in the energy mix. Lastly, by driving the creation of energy communities and access to green finance, this project supports the IDB's objectives of fostering sustainable development and shared prosperity throughout the Latin American and Caribbean region.
- 3.2 This project is consistent with the second Update to the Institutional Strategy of the IDB Group 2020-2024 (document AB-3190-2) and is aligned with the development challenges of (i) social inclusion and equality; (ii) productivity and innovation; and (iii) economic integration. It will contribute to the IDB Group's Corporate Results Framework 2020-2023 (document GN-2727-12) through the indicator, "Installed power generation capacity from renewable sources."
- 3.3 The operation is also consistent with the Energy Sector Framework Document (document GN-2830-8), specifically the first two pillars: (i) energy access – coverage, quality, reliability, and affordability in the provision of energy services; (ii) energy sustainability – energy efficiency, renewable energy, climate change mitigation and adaptation, and reduction of environmental impacts in the long term; It is also consistent with the Climate Change Sector Framework Document (document GN-2835-10) in the area of sustainability. The project is consistent with the IDB Infrastructure Strategy: Sustainable Infrastructure for Competitiveness and Inclusive Growth (document GN-2710-5), by promoting partnership-based productive models to improve infrastructure, in order to increase efficiency in service delivery and support the promotion of policies geared toward the mitigation of CO₂ emissions.
- 3.4 The project is also aligned with the IDB Group's different country strategies with each of the countries where the project is to be implemented. One of the strategic objectives in the current IDB Group Country Strategy with Colombia (2019-2022) (document GN-2972) is to "Increase equitable access to quality basic services." The strategy also includes climate change as a crosscutting sector. The IDB Group Country Strategy with Brazil (2019-2022) (document GN-2973) includes "Narrow infrastructure gaps" as a strategic objective, which includes "Increased share of renewables (e.g., wind and solar) in the energy matrix" as an expected result. The IDB Group Country Strategy with Mexico (2019-2024) (document GN-2982) includes "Strengthen access to credit" and "Improve rural productivity" as priority areas. The IDB Group Country Strategy with Peru (2022-2026) (document GN-3110-1) includes "Strengthen environmental management with a focus on sustainability and climate change" and "Improve the coverage and quality of basic services" as strategic objectives. The current IDB Group Country Strategy with El Salvador (2021-2024) (document GN-3046-1) includes "Develop inclusive and sustainable infrastructure services" as an objective. Lastly, the IDB Group Country Strategy with Honduras (2019-2022) (document GN-2944) includes "Expand credit access for agricultural micro, small, and medium-sized enterprises"

and “Improve the efficiency, coverage, quality, and sustainability of electricity services” as strategic objectives.

- 3.5 **Paris alignment.** This operation is considered to be universally aligned with central element 1 (BB1) of the Paris Agreement. In addition, the operation’s intermediate activities are considered to be automatically aligned with adaptation; accordingly, the operation is aligned with BB2. The energy subprojects will be financed through financial intermediaries (CACs). However, the team of engineers and technical specialists who conduct the energy analyses will apply measurement tools and supervise them.
- 3.6 According to the joint methodology of the multilateral development banks for tracking climate finance, approximately 100% of the total IDB resources for this project are invested in climate change mitigation activities. These resources contribute to the IDB Group target of increasing the financing for climate-related projects to 30% of combined approvals by the end of 2020.
- 3.7 To align the project with **Climate Finance**, the reports will incorporate climate impact indicators applicable to the technologies ultimately promoted in the production-oriented projects, according to the key performance indicators defined in the evaluation guide and catalogue of offered technologies.
- 3.8 **SDG alignment.** The project contributes to SDG 7, Affordable and clean energy, specifically (i) target 7.1 By 2030, ensure universal access to affordable, reliable and modern energy services; and (ii) target 7.2 By 2030, increase substantially the share of renewable energy in the global energy mix. It also contributes to SDG 10, Reduced inequalities in and between countries, specifically (iii) target 10.2 By 2030, empower and promote the social, economic and political inclusion of all, irrespective of age, sex, disability, race, ethnicity, origin, religion, or economic or other status. Lastly, the project contributes to SDG 13, Climate action, specifically (iv) target 13.3 Improve education, awareness-raising and human and institutional capacity on climate change mitigation, adaptation, impact reduction, and early warning.
- 3.9 **Gender alignment.** The project is also aligned with the Gender and Diversity Sector Framework Document (document GN-2800-13), by including a gender lens. Furthermore, it is aligned with the crosscutting themes of Gender Equality and Diversity, with measures to promote gender equality among producer organizations in the participating countries. Specifically, all CACs participating in the project will develop a gender action plan, and DGRV will encourage the incorporation of specific actions aimed at greater participation by women in CAC training activities. This will include a consensus on more favorable hours, the availability of childcare, and adaptation of materials to ensure gender-inclusive content that is relevant to women producers, not just to men.
- 3.10 **Scaling.** The project’s scaling strategy has three lines of action. First, as a primary mechanism for direct scaling, the project will use its facility and technical assistance activities to transfer knowledge with respect to credits for clean energy generation, to cofinance the portfolios of six CACs in the project countries, and to promote pilot clean energy generation projects in remote areas.
- 3.11 Second, to scale beyond the six participating CACs, DGRV will transfer the lessons learned from the project through the federations and national organizations of

cooperatives⁴⁸ in the six project countries. Specifically, through this channel, the project will share guides for developing credit products to finance the generation and distribution of clean energies targeted to CACs, and guides for the installation and management of clean energy generation systems for productive uses. Within the next five years, at least nine CACs are expected to offer green credits for rural producers to access clean technology. The project also expects to work with IDB Invest to identify potential partners with financing needs in order to scale up green finance.

- 3.12 Third, DGRV will promote lateral exchanges between the trained CACs, to replicate learnings in the development of green financial products targeted to producer organizations.
- 3.13 DGRV incorporates the following factors into these lines of action: (i) potential market size; (ii) central funds or federations of cooperatives (unions) as the agents for knowledge sharing on green credit product design; (iii) CACs as direct agents for identifying associations of producers and financing clean energy generation; and (iv) financial resources to enable new CACs to scale the financing, mainly with their own resources.
- 3.14 DGRV and IDB Lab will work together to identify innovations and state-of-the-art technologies for clean energy generation, connecting the participating CACs with the innovation and entrepreneurship ecosystem. For example, IDB Lab has already identified startups like Sunco (loan CO-L1297), Novatio, and Seos Energy, in Colombia that could work with CACs on the Cooperativa Financiera de Antioquia and Crediservir project. There are also various synergies with projects in the Amazon region, such as Sustainable Bioeconomy Businesses Led by Forest-dependent Communities (operation BR-T1451), which pursues the development of a green economy with local communities.
- 3.15 This project is coordinated with the efforts of the Bank's Energy Division (ENE) in rural electrification and access to energy and complements rural electrification projects CO-L1156 and RG-T4133 in the Pacific and Amazon regions. ENE is also preparing loan operation CO-L1287 for US\$140 million with Colombia's Financiera de Desarrollo Nacional, which includes financing of energy community projects. The lessons learned from the IDB Lab project will be used to structure new IDB operations that support energy community projects and production-oriented projects.
- 3.16 IDB Invest is naturally inclined toward growth in the cooperative sector as part of its financial inclusion strategy, since such entities have a valuable degree of penetration for that strategy. Thus, the IDB Invest team will support workshops to learn about the development of the credit products designed by Cooperativa Financiera de Antioquia, as a first approach to cooperative enterprise in Colombia and Mexico that paves the way for future opportunities.
- 3.17 **Lessons learned.** The project incorporates learnings developed by the IDB and DGRV working with CACs and producer associations, e.g., lessons related to selecting associations to receive credit. Specifically, the project will require that the producer associations are already organized and operating before the possibility

⁴⁸ CONFECOOP and Red Coopcentral in Colombia; SICREDI and OCB in Brazil; CONCAMEX and FOCOOP in Mexico; FACACH and CONSUCOOP in Honduras; FENACREP in Peru; and FEDECACES and FEDECOOPADES in El Salvador.

of financing is considered. Incorporating lessons learned with partnership-based organizations will prevent working with organizations formed with the main purpose of obtaining external financing. The project will also incorporate lessons learned from the IDB's Social Entrepreneurship Program, which shows that the long-run sustainability of new financial products at CACs depends largely on whether the entity has a history of working with, and a commitment to, the beneficiary population, in this case producer associations.

B. Project and institutional risks

- 3.18 The level of project risk is medium. The risks are described below and classified in Document 4 – Risk analysis matrix.
- 3.19 **Risk of executing agency's organizational structure.** The project's effectiveness may be impacted by the executing agency's ability to manage and coordinate all its activities. If the executing agency does not have an adequate organizational structure, the project's success could be threatened by delays, poor coordination, or even a critical lack of resources. **Mitigation:** Steps will be taken to ensure that the executing agency has a well-structured team with experience on similar projects (see [Section V](#)). The organizational structure of project progress will be evaluated periodically, to identify opportunities for improvement.
- 3.20 **Risk of country regulatory framework.** Each country's regulatory framework in the energy sector may change, which could influence the conditions for the project's operations. Changes in regulations or government policies could adversely affect the viability of investments in clean energy and the functioning of the energy communities. **Mitigation:** Close communication will be maintained with the DGRV project team and changes in energy regulations will be carefully monitored. Investments and projects will be diversified, to reduce exposure to regulatory changes in a single market.
- 3.21 **Risk of market traction for lending.** Ensuring that producers accept the loans offered is essential to the financial success of the project. Lack of interest or adoption by producers could result in an unused credit portfolio, which would negatively impact the project's financial results and sustainability. **Mitigation:** Awareness and education campaigns will be conducted, to highlight the benefits of the credits and promote their adoption. A market analysis will be done, and the credit products will be adapted to the needs of the beneficiaries.
- 3.22 **Risk of development of green lines and their management.** The design and management of green credit lines are key to the project's success. If the investment needs of the beneficiaries are not properly identified, or if these lines are poorly managed, the funds could be used ineffectively, or opportunities for effective investments in clean technologies could be missed. **Mitigation:** A detailed analysis of investment needs will be done before designing the green credit lines. A robust monitoring and evaluation system will be established to monitor investment returns and to make any necessary adjustments.
- 3.23 **Risk of tailoring the credit for beneficiaries.** If the loan terms are not suitable or affordable, there could be a lack of interest from producers or difficulties with repayment, which would threaten the project's sustainability. **Mitigation:** Ability to pay and financial preferences of beneficiaries will be assessed before establishing the terms of the loans. Consultation processes will be conducted with the participating beneficiaries both before and during the project. Flexible lending

products will be offered with interest rates and terms tailored to the profile of the beneficiary. Financial education and advisory support will be provided to ensure that the beneficiaries understand the loan terms.

- 3.24 **Risk of cash flow of the operations.** Cash flow is critical to maintaining the project's operations. Delays in cash inflows, due to either late loan payments or revenue problems, could create financial difficulties and affect project execution. **Mitigation:** A reserve fund will be established to hedge against any possible cash mismatches.
- 3.25 **Environmental risks.** There is a medium risk related to working with vendors linked to forced labor in their solar supply chain (see IDB Group Measures to Address Risk of Forced Labor in the Supply Chain of Silicon-based Solar Modules, document GN-3062-1). **Mitigation:** In partnership with DGRV, and as part of the regional program's activities, the team of technical specialists will create a catalogue of eligible technologies and a list of solar panel vendors, which will be sent to IDB Lab for validation (Environmental, Social, and Governance Division (SEG)).
- 3.26 On 17 October 2023 this operation was analyzed and classified according to the IDB's Environmental and Social Policy Framework (document GN-2965-21). The operation has been classified as category "C" because it is expected to cause minimal or no negative environmental or social risks and/or impacts.

IV. INSTRUMENT AND PROPOSED BUDGET

- 4.1 The regional project has a total budget of US\$1,502,429. Of that amount, US\$1,000,000 (67%) will be contributed by IDB Lab and US\$502,429 (25%) by the counterpart. The IDB Lab financing includes US\$400,000 in contingent recovery investment grant (CRIG) funding and US\$600,000 in nonreimbursable technical cooperation (NRTC) funding from resources of the Multilateral Investment Fund (MIF).
- 4.2 For the LAC e-Coop Facility (operation RG-O1718), the project includes US\$400,000 in CRIG funding from IDB Lab, which will be supplemented with US\$500,000 in core resources and US\$500,000 from sister operations CO-G1052 and CO-G1053, financed with resources from the Clean Technology Fund (CTF) (operation RG-O1700). This financial instrument will be employed solely to offer financing to CACs to develop and implement green credit lines so that the target population can finance clean energy projects for productive uses. This project will serve as the basis for encouraging other financial institutions of the region to implement credits for productive purposes in low-income communities.
- 4.3 Operation RG-T4357 will be a technical cooperation project with US\$600,000 from IDB Lab and US\$502,429 from the counterpart. This financial instrument will be used for training activities for producers and CACs, energy analyses, preparations of catalogues, guides, and a publication on clean technologies, and development of pilot projects in underserved areas. This operation will be supplemented with at least US\$500,000 in cofinancing contributed by the Global Energy Alliance for People and Planet (GEAPP) through the Low Carbon Energy Fund for People and Planet (LCE). This contribution would increase the total budget to US\$2,002,429.

Budget Summary						
Components	RG-T4357		RG-O1718	Counterpart	Total US\$	%
	Executing agency: DGRV	Executing agency: IDB Lab	Executing agency: IDB Lab			
Component 1: Awareness-raising on the cooperative energy ecosystem in the region	177,000		-	206,000	456,000	25
Component 2: Development of pilot energy projects in remote areas	-	-	-	125,000	250,000	8
Component 3: LAC e-Coop Facility: Design and implementation of green lines for community energy projects	178,000		400,000	171,429	956,429	50
Component 4: Coordination, evaluation, and knowledge dissemination	120,000	125,000	-	-	340,000	16
Total	475,000	125,000	400,000	502,429	1,502,429	100

- 4.4 **Core resource mobilization.** The facility (operation RG-O1718), fully managed by IDB Lab, will be open to additional contributions from external donors that accept the conditions stated in this document or any other condition established by the IDB or its partners. These resources will be approved following IDB procedures. The cofinancing resources will be channeled through a project specific grant operation.
- 4.5 Resources will be considered for a facility coordinator to conduct the activities for coordination with the sister operations and for funding as part of the technical cooperation resources with IDB Lab funds.

V. EXECUTING AGENCY AND IMPLEMENTATION STRUCTURE

A. Description of the executing agency

- 5.1 [Deutscher Genossenschafts- und Raiffeisenverband e.V. \(German Confederation of Cooperatives\) \(DGRV\)](#) will be the executing agency for the nonreimbursable technical cooperation⁴⁹ (operation RG-T4357) and will execute the resources granted by IDB Lab according to its rules and procedures. It will also serve as interlocutor between IDB Lab and the CACs and producer organizations interested in access to clean energies for productive uses and development of community projects. It will administer this network by working with members and specialists among its local partners.
- 5.2 Headquartered in Berlin and Bonn, DGRV is the third-tier civil organization representing the cooperatives union in Germany. DGRV has more than 40 years of experience in international cooperation with activities in more than 30 countries,

⁴⁹ With the exception of US\$125,000 in resources administered by the Bank for coordinating the project facility (RG-O1718) (Component 3).

- including 12 countries in Latin America and the Caribbean. It provides training, consulting services, and assistance in the development of cooperative systems and structures with the objective of sustainable development of the sector.
- 5.3 Its counterparts are cooperative entities at the micro and meso levels (federations, cooperative hubs) and public entities for regulation, control, and promotion of the cooperative sector (macro level). With seven years working with campesino partnerships using the “Networks” methodology,⁵⁰ DGRV has sufficient experience and access to a dense network of local partners in the region.
- 5.4 DGRV has worked with Visionamos-Red Coopcentral in **Colombia** since 2005. Today the program has 1.3 million members and US\$1.8 billion in assets. Since 2015, DGRV has been executing the “Apoyamos” program (“Networks”) with Cooperativa Financiera de Antioquia and the CFA Foundation (operation CO-G1052), in five departments of Colombia. Since 2022, DGRV has worked in parallel on the “Apoyamos Juventud” project with youth farmers in Antioquia, Santander, and North Santander to facilitate generational handover. Its counterparts are individual cooperatives and their foundations and the two regional confederations of cooperatives: CONFECOOP Antioquia and CONFECOOP East.
- 5.5 DGRV has worked in **Brazil** since 1996, first on central fund systems (SICREDI), and then on building an effective supervision system with the Central Bank of Brazil. It later focused on CACs in the country’s northeastern region and, since 2016, on renewable energies. DGRV is also applying its “Networks” model with groups of farmers in Paraná in cooperation with SICREDI Paranapanema and Pará (in the Amazon region) in cooperation with the Organization of Brazilian Cooperatives (OCB) at the national and Pará state level. DGRV has an office in São Paulo.
- 5.6 DGRV has been operating in **Mexico** since 2005, both directly and through regional federations, the CONCAMEX confederation of credit unions, and the FOCOOP deposit guaranty fund. DGRV started working on pilot renewable energy projects in recent years in collaboration with GIZ in regions such as Oaxaca. It is currently working on a “Networks” project with the CACs Acreimex (Oaxaca, since 2022) and Sagrada Familia (Yucatán, since 2023) with a medium-term time horizon. DGRV has offices in Mexico City with experts in sustainable finance and renewable energy lines.
- 5.7 DGRV has been working in **El Salvador** since 1998 and with FEDECACES since 2004, with subsidies for local staff in the technical areas of management and supervision of CACs affiliated with FEDECACES. Since 2020 it has been working with FEDECOOPADES as a federation of small farm cooperatives, and since 2022 with the “Apoyamos” program (adapted from the Colombian model).
- 5.8 DGRV has been operating in **Honduras** for more than 20 years, the whole time in cooperation with the FACACH federation. In recent years it has also worked with the supervisory authority, CONSUCOOP. Both institutions are using various DGRV tools for both supervision and management.
- 5.9 In **Peru**, DGRV has been working intensively in the cooperative financial sector with CACs since 2016, first on the design of the new law together with the Superintendency of Banks and Insurance Companies (SBS) and with FENACREP,

⁵⁰ The “[Apoyamos, Buen Vivir Rural](#)” project.

the national union of CACs. It also works with CIDERURAL to give greater emphasis to rural areas. DGRV has been working in the cooperative farm sector in Peru since 2022 (alpaca cooperatives, etc.), particularly in the area of sales and marketing.

- 5.10 **Integrity review.** The project team conducted the integrity due diligence on the project with the assistance of the IDB's Office of Institutional Integrity (OI), and no reputational impact or integrity risks warranting disclosure were identified for IDB Lab.

B. Implementation structure and mechanism

- 5.11 DGRV will establish an execution unit and the necessary structure to execute the project's activities and to manage the NRTC resources efficiently. DGRV will also be responsible for delivering progress reports on project implementation. For such purposes, the project will have a robust coordination unit within the executing agency to perform the following functions:

- Supervise project execution and ensure that deadlines and objectives are met;
- Coordinate with all parties involved in the project to ensure successful execution;
- Administer the project budget and ensure proper accounting;
- Train participants in management and monitoring tools to ensure attainment of the defined indicators.

- 5.12 The project will have Operating Regulations (Document 5) describing project governance.

- 5.13 **LAC e-Coop Committee.** As part of the management system, a monitoring and supervision committee will be established with a fundamental role in governance of the regional program and management of the facility. This committee's members will be a diverse group of key stakeholders, including representatives of DGRV, IDB Lab, CACs that play an executing agency role in Component 3, and other donors and relevant interested parties who can offer a valuable perspective to the project.

- 5.14 This committee will meet periodically, at least twice a year, to assess project progress, performance of activities, results achieved, and challenges encountered over the course of the project. This review process will make it possible to set goals and priorities for the next project period and to improve and adapt implementation strategies.

- 5.15 **Coordination of the LAC e-Coop Facility for CACs.** Component 3 will be coordinated by the IDB through IDB Lab. In collaboration with DGRV, the project will work with at least five CACs acting as executing agencies of the CRIG resources.

VI. FULFILLMENT OF MILESTONES AND SPECIAL FIDUCIARY ARRANGEMENTS

- 6.1 **Disbursement by results and fiduciary arrangements.** The level of risk determined by the diagnostic assessment of integrity and institutional capacity (DICI) was low, reflecting that DGRV has acceptable capacity to manage the project resources. The executing agency agrees to the IDB Lab's standard arrangements on results-based disbursements and to the Bank's policies on procurement⁵¹ and financial management,⁵² as specified in the Technical File.
- 6.2 A condition precedent to all project disbursements will be corroboration of the fulfillment of milestones using the means of verification agreed upon by the executing agency and IDB Lab. Fulfillment of milestones does not exempt the executing agency from its responsibility to achieve the agreed results. Additionally, DGRV will have to justify the use of at least 80% of cumulative advances of funds in order to request a new disbursement. According to risk- and performance-based project management modality, disbursement amounts are determined as a function of the project's estimated liquidity needs for a maximum of six months. IDB Lab and the executing agency will agree on those needs based on the activities and costs programmed in the annual planning process. Unless otherwise determined by the Bank in the course of the project, the executing agency's procurement and contracting policies will be used, in accordance with market practices for the private or commercial sector that are acceptable to the Bank, pursuant to the IDB's procurement and contracting policies (documents GN-2349-15 and GN-2350-15).
- 6.3 Along with the annual work plan, an annual procurement plan will be delivered with the necessary procurements for the project and compliance with milestones. IDB Lab will conduct an ex post review of the technical aspects of procurement, as necessary, particularly those aspects deemed critical. The executing agency will prepare its annual financial statements and ensure that they are made available to the Bank. With resources from the contribution, the Bank may review the financial statements and use of the funds allocated to the project and verify the financial and procurement practices.

VII. ACCESS TO INFORMATION AND INTELLECTUAL PROPERTY

- 7.1 **Access to information.** The information contained in this document is classified as private under the Bank's Access to Information Policy.⁵³
- 7.2 **Intellectual property.** DGRV will retain the intellectual property of the products and studies developed with the project technical cooperation funding. To enable the Bank to (i) disseminate the project results; (ii) apply the lessons learned to other projects in the region and ensure maximum dissemination of the project learnings with the target population and within the region; and (iii) leverage learnings for the analysis of similar future projects at the regional level, DGRV will grant the Bank a nonexclusive, irrevocable, and global license, in perpetuity and free of rights, to use, copy, distribute, reproduce, publicly present, and execute

⁵¹ Link to [Policies for the Procurement of Goods and Works Financed by the Inter-American Development Bank](#).

⁵² Link to [Financial Management Guidelines for IDB-financed Projects](#).

⁵³ Link to the Bank's [Access to Information Policy](#).

each and every such right, as well as to create derivative works, by virtue of the terms of the privacy policy and the terms and conditions of the executing agency. The Bank may grant sublicenses to third parties without the need to request new authorizations or licenses from the executing agency.

- 7.3 The executing agency will represent and warrant to the Bank that execution of the project does not infringe, nor will it infringe, the rights of third parties, and it will take all necessary steps to ensure that the Bank can exercise the rights mentioned in this document without limitation. The executing agency will release and indemnify the Bank, its staff, sublicensees, or consultants from any action that may be taken against the exercise of the rights granted by virtue of the license given to the Bank.
- 7.4 The Bank may disseminate, reproduce, and publish information related to the project and include the name and logo of the executing agency.