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## Second Party Opinion

# Banco Bolivariano Biodiversity Financing Framework

April 11, 2025

**Location:** Ecuador

**Sector:** Bank

## Alignment Summary

Aligned = ✓ Conceptually aligned = ○ Not aligned = ✗

- ✓ Green Bond Principles, ICMA, 2021 (with June 2022 Appendix 1)
- ✓ Green Loan Principles, LMA/LSTA/APLMA, 2023

See [Alignment Assessment](#) for more detail.

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Light  
green

Activities representing transition steps in the near-term that avoid emissions lock-in but do not represent long-term low-carbon climate resilient solutions.

Our [Shades of Green Analytical Approach](#) >

## Strengths

### **Bolivariano's framework adheres to the IFC's Biodiversity Finance Reference Guidelines.**

Biodiversity financing instruments issued under the framework will be applied to finance or refinance projects in all categories listed under the bank's framework. The guidelines reinforce market transparency around the use of proceeds for nature financing.

## Weaknesses

## Areas to watch

### **Certified fisheries and aquaculture.**

Bolivariano will allocate the majority of proceeds under the framework to certified shellfish aquaculture in Ecuador. Although certified aquaculture can help mitigate biodiversity loss from standard fishing and land aquaculture practices, it does not contribute to biodiversity conservation or restoration.

**Ecotourism financing.** Ecotourism can support the longevity of sensitive areas and contribute to biodiversity conservation by avoiding the use of land for intensive sectors such as traditional agriculture or industrial processes. However, ecotourism entails climate and environmental risks from air travel, fossil fuel ground transport, waste generation, and water use competition.

Shades of Green Projects Assessment Summary

At first, Banco Bolivariano expects to allocate 80% of proceeds to sustainable freshwater/marine production, 19% to productive land use/agriculture, and 1% to forestry and plantations. Over the years following the issuance of the financing, the bank intends to identify new opportunities and start financing waste management and ecotourism.

As of December 2023, Bolivariano's outstanding blue bond totaled US\$80 million, with 27% of the proceeds allocated. Almost all (98%) of the allocation was directed to Aquaculture Stewardship Council (ASC) and Marine Stewardship Council (MSC) certified shellfish fishing and farms. Proceeds supported processing centers' energy efficiency improvements for climate change adaptation (for example, conservation of mangrove areas, living shorelines, nature-based solutions, etc.). The remaining proceeds were allocated to water and wastewater treatment financing.

The issuer expects to direct most proceeds to finance new projects (90%). The remaining will be allocated to refinancing projects.

Productive land use/agriculture	<div><div></div><div></div></div> Medium to Light green
Climate-smart agriculture, regenerative agriculture, production and trade of crops/commodities with agricultural certifications, alternative production practices or products, and innovation and technologies.	
Sustainable freshwater/marine production	<div><div></div></div> Light green
Projects aimed at the conservation, efficient use, and sustainable management of water; wastewater treatment; responsible fishing practices to safeguard fish populations; and sustainable aquaculture.	
Measures that achieve the conservation, greater efficiency, and sustainable use of water; development and manufacturing of products for water conservation; measures that reduce the level of pollution in wetlands or other freshwater bodies, certified fishing and aquaculture production; adoption of practices and/or technologies in supply chain management; manufacturing or retailing of ocean- and water-friendly household products; reduction of downstream eutrophication by replacing synthetic phosphate or nitrogen-based fertilizers with non-synthetic organic fertilizers; prevention of stormwater and wastewater runoff into watercourses; modernization of wastewater treatment plants; and improvement of upstream watershed activities.	
Waste and plastic management	<div><div></div><div></div></div> Medium to Light green
Urban drainage systems; flood mitigation measures; reduction in the use of plastic in the design and manufacturing of products, and the use of recycled plastics for residual material needs; support for research and innovative technology aimed at recycling single-use plastics as part of larger-scale plastic recycling efforts; plastic recycling activities and facilities; and sustainable reuse or repurposing of plastics.	
Forestry and plantations	<div><div></div></div> Medium green
Sustainable forest management and tree crop production, and agroforestry systems linked to sustainable agricultural practices.	
Tourism/ecotourism services	<div><div></div></div> Light green
Certified renovation projects for sustainable ecotourism, and ecotourism operations.	

## Issuer Sustainability Context

This section provides an analysis of the issuer's sustainability management and the embeddedness of the financing framework within its overall strategy.

### Company Description

Banco Bolivariano C.A., established in 1980 and headquartered in Guayaquil, Ecuador, offers a wide variety of financial services designed for individuals, small and midsize enterprises (SMEs), and corporate clients. As of 2023, the total corporate credit portfolio was US\$3.7 billion. Livestock and aquaculture financing had the highest exposure in the credit portfolio, but with no significant concentration (9% of total credit portfolio).

### Material Sustainability Factors

#### Climate transition risk

Banks are highly exposed to climate transition risk through their financing of economic activities, which affect the environment. Banks' direct environmental impact is small relative to financed emissions and stems mainly from power consumption (e.g., data centers). Policies and rules to reduce emissions could raise credit, legal, and reputational risks for banks with large exposures to high-emitting sectors, such as oil and gas, metals and mining, real estate, and transportation. These medium- to long-term risks are significant and will be proportional to the impact of climate change on the economy. Positively, financing the climate transition offers a growth avenue for banks through lending, debt structuring, and other capital markets activities.

#### Biodiversity and resource use

Banks contribute to significant resource use and biodiversity impacts through the activities they fund or invest in. For example, the construction sector--which is a major recipient of bank financing--is a large consumer of raw materials such as steel and cement. Similarly, bank-financed agricultural and aquaculture activities can have material biodiversity impacts.

#### Physical climate risk

Physical climate risks will affect many economic activities as climate change will increase the frequency and severity of extreme weather events. Banks finance a wide array of business sectors that are exposed to physical climate risks, exposing banks to their financing activities. However, while climate change is a global issue, weather-related events are typically localized, so the magnitude of banks' exposure is linked to the geographical location of the activities and assets they finance. Similarly, banks' physical footprint (e.g., branches or ATMs) may also be exposed to physical risks, which may disrupt their ability to service clients in the event of a natural catastrophe, amplifying the impact on communities. Banks may help mitigate the effects of physical climate risks by financing adaptation projects and climate-resilient infrastructure, as well as by investing in business continuity efforts in exposed geographies.

#### Impact on communities

Banks can affect a wide array of community issues by providing access to essential services for economically vulnerable groups. Doing so has the potential to alleviate income inequality and foster upward social mobility. Realizing these objectives hinges on the responsible lending practices of financial institutions, which include transparent contractual terms, financial education programs, and support for borrowers encountering financial hardships. In contrast, obscure loan terms or predatory lending practices can exacerbate existing socioeconomic disparities in the customer base. By actively addressing these concerns, banks can access new markets, achieve better financial performance, reduce their cost of capital, attract top talent, and mitigate their reputational and regulatory risk.

## Issuer And Context Analysis

**All project categories included in Banco Bolivariano's framework aim to address pollution, overuse of natural resources, land use changes, and physical climate risks.** These are all material sustainability factors for the bank and drivers of biodiversity loss. Nevertheless, eligible projects could introduce additional considerations, such as climate transition risks, and also affect local communities. For example, waste management projects could depend on fossil fuel-based energy and generate health risks for local communities if safeguards are not implemented.

**The bank has measures in place to identify and manage potential impacts on biodiversity from its financing activities.** The framework includes eligible projects related to biodiversity loss mitigation, such as agriculture, sustainable freshwater/marine production, and forestry management. The bank will identify and manage these impacts through its Environmental and Social Risk Management System.

Under its lending practices, projects at UNESCO Natural and Mixed World Heritage Sites and Alliance for Zero Extinction locations cannot be financed unless they positively contribute to the conservation of these regions. Additionally, projects that produce significant adverse impacts on populations of species classified as "endangered" or "critically endangered" by the International Union for Conservation of Nature Red List of Threatened Species are excluded.

Furthermore, Bolivariano's framework adheres to the IFC's Biodiversity Guidelines. Biodiversity financing instruments issued under the framework will be applied to finance or refinance projects in all categories listed under the bank's framework. The use of the guidelines reinforces transparency around use of proceeds toward biodiversity financing.

**Bolivariano lacks transparency in communicating plans to manage its financed carbon footprint.** While the bank tracks and reports scope 1 and 2 emissions and some scope 3 emissions, it has yet to quantify or share any plan to report its financed emissions, which typically account for the majority of a bank's scope 3 emissions. However, the bank has committed to set medium-term reduction targets using the Science Based Targets initiative methodology to align with the Paris Agreement.

**The bank is evolving its integration of physical risk considerations into lending decisions.** The first assessment was mortgage loans; the bank followed a process to evaluate climate risks such as flooding and landslides. It considered these risk assessments, along with other factors, when determining the approval of the mortgage loan. The company is expanding these assessments to all sectors covered by its corporate portfolio.

**Bolivariano has initiatives oriented toward financial education, community support, and responsible business.** The bank is committed to promoting financial education and social responsibility through its programs. The Aula BB program, launched in 2014, provides financial education to wide audience, including school-age children, senior citizens, and the bank's employees. It offers both virtual and in-person training sessions, along with monthly electronic newsletters and social media outreach to foster good financial habits within the community. Additionally, the Your Finances program, managed in partnership with Aval S.A., offers a web platform with tools and resources to improve personal financial management in Ecuador.

# Alignment Assessment

This section provides an analysis of the framework's alignment to Green Bond and Loan principles.

## Alignment Summary

Aligned = ✓ Conceptually aligned = ○ Not aligned = ✗

- ✓ Green Bond Principles, ICMA, 2021 (with June 2022 Appendix 1)
- ✓ Green Loan Principles, LMA/LSTA/APLMA, 2023

### ✓ Use of proceeds

We assess all the framework's green project categories as having a green shade, and the issuer commits to allocating the net proceeds issued under the framework exclusively to eligible green projects. Please refer to the Analysis Of Eligible Projects section for more information on our analysis of the environmental benefits of the expected use of proceeds. The bank will disclose the proportion of financing versus refinancing in its allocation reporting. The look-back period is not disclosed, which reduces insight into the projects' additionality.

### ✓ Process for project evaluation and selection

Banco Bolivariano C.A.'s commercial manager, base committee, and expanded committee will be responsible for project evaluation and selection process. They will meet at least annually to screen and approve the proposed projects. In practice, the committees will identify and address the potential risks, including the risk of indebtedness, through an internal evaluation, which is in line with the industry's practices. The bank's processes to identify and manage environmental and social risks related to eligible projects will adhere to the Social and Environmental Risk System. The framework includes an exclusion list, covering topics such as thermal coal mining, coal transportation, coal-fired power generation, and oil and gas exploration and development projects.

### ✓ Management of proceeds

The framework outlines net proceeds will be monitored by the bank's treasury department, which will keep a record of assigned eligible assets. All bond proceeds will be allocated within a two-year period from the issuance date. The bank commits to replacing projects that cease to comply with the framework's eligibility criteria within six months following their removal from the invested pool. Pending allocation, net proceeds will be held in cash or other highly liquid and low-risk instruments, in accordance with the bank's treasury policy.

### ✓ Reporting

Banco Bolivariano C.A. commits to report annually on the allocation of the net proceeds and on the financed project's impact, until full allocation of the net proceeds and in case of material developments. Reporting will be available on the bank's website. Allocation reporting will include the total amount of instruments outstanding, a brief description of the projects, and the breakdown of allocation of net proceeds by eligible category. The bank will also report on the actual impact of the financed projects. It is a positive that the bank commits to receiving an external limited assurance on the allocation and impact reporting until full allocation.

# Analysis Of Eligible Projects

This section provides details of our analysis of eligible projects, based on their environmental benefits and risks, using the "[Analytical Approach: Shades Of Green Assessments](#)".

## Overall Shades of Green assessment

Based on the project category shades of green detailed below, the bank's expected allocation of proceeds, and consideration of environmental ambitions reflected in Banco Bolivariano's Biodiversity Financing Framework, we assess the framework as Light green.

Light green

Activities representing transition steps in the near-term that avoid emissions lock-in but do not represent long-term low-carbon climate resilient solutions.

Our [Shades of Green Analytical Approach](#) >

## Green project categories

Productive land use/agriculture	
Assessment	Description
<div><div></div><div>Medium to Light green</div></div>	<p>Projects focused on promoting sustainable and regenerative agriculture to reduce biodiversity loss and increase productivity without compromising the environment. The aim is to encourage the reduction of agrochemicals, crop diversification, soil restoration, and the use of native species. Additionally, this category includes the certified production of sustainable crops, the development of alternatives such as hydroponics and substitutes for beef, and the adoption of innovative technologies to optimize land use and protect biodiversity. These are:</p> <ul style="list-style-type: none"><li>• Climate-smart agriculture,</li><li>• Regenerative agriculture,</li><li>• Crop/Commodity production and trade,</li><li>• Alternative production practices, and</li><li>• Adoption of innovation and technologies.</li></ul>

### Analytical considerations

- Agricultural practices that reduce climate emissions from crop and livestock farming and enhance soil health, water quality, and ecosystem integrity are crucial for a low-carbon climate resilient (LCCR) future. Sustainable inputs and farming practices, as well as a shift to more plant-based and lower-emission protein sources, contribute to a green transition.
- We assign an overall Medium to Light green shade to Bolivariano's agriculture financing under the biodiversity financing framework. Eligible expenditures include certified crop production (certifications listed below), regenerative practices, such as cover cropping, the use of bio inputs to replace synthetic fertilizers (aimed at restoring agricultural soil), and climate-smart agriculture (agriculture that reduces synthetic fertilizer use through the adoption of organic practices or agroforestry). Livestock financing is excluded.
- Bolivariano's framework excludes agricultural financing in areas with high biodiversity and those that are legally protected. Furthermore, Bolivariano's agricultural credit operations undergo socioenvironmental validation to ensure that the land has not been recently converted to agricultural use. According to Ecuador's national statistics agency, 5.1 million hectares of land in the country are under agricultural use (permanent, temporary, cultivated, and natural pastures). Pastureland covers the

- largest area, with 2.3 million hectares, followed by permanent agriculture, with 1.4 million hectares. Cocoa is the main permanent crop with 42%, followed by bananas and African palm (each 13%).
- Bolivariano's framework includes the financing of geospatial data tools and hardware to detect soil degradation. We believe that such lending practices and financing types can contribute to advancing low-carbon agriculture in Ecuador, considering traceability and land conversion challenges in the region.
  - Bolivariano will provide financing to crop producers that are (or will be) certified under internationally recognized certifications listed on its framework, such as Round Table on Responsible Soy, Bonsucro, Rainforest Alliance, and Fairtrade standards. These certifications provide safeguards on deforestation and restricted use of chemical pesticides, and they have strong social considerations. Agriculture carried out under the certifications is generally more sustainable than the more widespread traditional practices that farmers in Latin America employ.
  - Considering that cocoa and bananas are the largest crops in Ecuador, the most relevant certification under the framework is the Rainforest Alliance. The certification prohibits the use of certain pesticides, per the Rainforest Alliance List and other lists (not all synthetic pesticides are excluded). The land conversion cutoff date for the certification is Jan. 1, 2014. However, the certification (as others listed) varies significantly in stringency in different environmental themes. For example, for the Rainforest Alliance, water management only goes as far as requiring farms to meet regulatory requirements. We therefore view certified crop production under the framework as Light green.
  - Bolivariano could also provide financing to noncertified farms that comply with climate-smart agriculture and regenerative best practices. Financing for climate-smart agriculture will require a 20% reduction in synthetic fertilizer use, among other requirements. However, it is not entirely clear whether Bolivariano will provide loans for multiple climate-smart measures simultaneously, rather than for individual measures. While we recognize the difficulties of adopting multiple sustainable measures, we believe this approach limits the overall benefit of the financing for this category to a Light green shade.
  - In contrast, for regenerative practices, we believe the financing will support multiple interventions on the farms. Therefore, we assign a Medium green shade to regenerative practices. We also assign a Medium green shade to alternative production practices and technological innovations listed under the framework.
  - The metric to be reported under this category--area under effective sustainable practices (in hectares)--will involve the bank validating that the farms meet the criteria in the framework. When not certified, the bank will require studies for lenders to demonstrate evidence of the environmental benefits of the financing.
  - For physical climate risks, which are material for this land-related category, Bolivariano will screen all eligible projects either at project or client level, ensuring that climate physical risk considerations are integrated into lending decisions.

Sustainable freshwater/marine production

Assessment

 Light green

Description

- Measures that achieve the conservation, greater efficiency, and sustainable use of water
- Development and manufacturing of products for water conservation
- Measures that reduce the level of pollution in wetlands or other freshwater bodies
- Fishing that respects environmental biodiversity
- Sustainable aquaculture production
- Regenerative/restorative aquaculture production
- Sustainable fishing and fishing practices
- Adoption of practices and/or technologies in supply chain management
- Manufacturing or retailing of ocean- and water-friendly household products
- Reduction of downstream eutrophication by replacing synthetic phosphate or nitrogen-based fertilizers with non-synthetic organic fertilizers
- Prevention of stormwater and wastewater runoff into watercourses
- Modernization of wastewater treatment plants
- Improvement of upstream watershed activities

Analytical considerations


- Promoting sustainable water management, protecting aquatic ecosystems, and reducing environmental impacts on water-related industries are important to an LCCR future. As a form of natural capital, water is necessary for economic activity, thriving ecosystems, and public health. Therefore, water supply systems are important for securing a future where all stakeholders have reliable access to sufficient water of adequate quality.
- These systems are energy-intensive and, if not sufficiently managed, can generate significant solid waste and methane emissions, exacerbate water stress for other stakeholders, and pose disruptions to hydrology and aquatic ecosystems. Water efficiency improvements help reduce demands on natural capital and reduce greenhouse gas emissions associated with water treatment and conveyance and, as a result, provide important benefits to achieving an LCCR future.
- Wastewater systems reduce pollution, enable resource recovery, and enhance ecosystem and public health. The primary benefits they provide include improving water quality, which has important cumulative effects on a watershed; relieving water stress; and, depending on the system, providing a source of nutrient and energy recovery.
- Aquaculture can provide a lower-emission protein alternative to livestock farming. Conversely, the potential climate benefit depends on the sustainability of feed sourcing and emissions from product transportation.
- Under the sustainable production in freshwater/marine category, Bolivariano will finance a variety of projects focused on freshwater utilization, wastewater management, fishing, and aquaculture. Collectively, these projects aim to reduce the negative impacts on aquatic environments, improve water quality, and support sustainable practices across industries. Due to the diversity of these projects, the environmental benefits can vary significantly, in our view, based on the specific project type and contextual factors. We assign a Light green to the overall category because most proceeds will be allocated to aquaculture and fishing (considerations below).
- We assess some projects under the category as Medium green, reflecting their additional potential for positive environmental impacts, while others are Light green, recognizing the limited visibility to assess benefits that we have encountered in some projects. We note limited visibility regarding project characteristics in the framework, which limits the issuer's control and oversight. Moreover, certain projects' value chain will involve fossil-fuel powered machinery, limiting some of the project's environmental benefit to Light green. The issuer has confirmed that financing will not be allocated to fossil fuel companies.
- Bolivariano seeks to finance various freshwater projects, such as water saving solutions, and rehabilitation of wetlands and freshwater bodies. We consider water efficiency projects that reduce water usage by 20% to represent a clear improvement. The issuer plans to finance development and manufacturing of water saving products for residential and commercial use. Although there is no specified threshold for the anticipated water savings from these devices, which constrains our analysis of their environmental benefits, low-flow water devices still represent a notable improvement over conventional fixture. These projects may rely on fossil fuels and high-emission supply chains; therefore, we assign a Light green shade.
- Rehabilitation of wetlands and freshwater bodies creates climate co-benefits, such as erosion mitigation, clean water, and adaptation solutions. Well-designed projects can reduce threats derived from climate change, land-use change, and pollution. We assign a Medium green shade to these projects. Despite the benefits, unclear project implementation poses risks to biodiversity and land use if not managed carefully. For instance, soil rehabilitation and wetland restoration may cause ecological disruptions or land-use conflicts if not planned with local ecosystems in mind.
- The framework includes projects related to wastewater treatment and water pollution prevention. The issuer seeks to finance manufacturing or retailing of biodegradable and phosphate-free cleaning products that do not contain plastic or plastic packaging. Although it is positive to promote chemical and plastic free products, the products will not be certified, and it is unclear which material will be used instead of plastic. Also note, materials that are based on recycled input are not necessarily recyclable. Therefore, we assign a Light green shade to this project.
- Additional projects under this subcategory include investments in nature-based solutions for wastewater treatment, such as green roofs, rain gardens, permeable pavements, runoff retention areas, bioremediation using microorganisms or plants to break down pollutants in soils and waters, biofilters, and reservoirs. The issuer will mitigate potential methane in reservoirs by complying with local regulation regarding environmental impacts. These projects have environmental co-benefits and use green infrastructure. As a result, we assign a Medium green shade.
- Projects under modernization of wastewater treatment plants are assigned a Light green shade, primarily because these will run on fossil fuels, and the bank does not require creditors to reduce operational emissions. These projects include advanced treatment technologies like ultrafiltration, electrocoagulation, advanced oxidation, reverse osmosis, artificial wetlands, and bioreactors for natural wastewater treatment.



- Similarly, Bolivariano seeks to mitigate water pollution and promote water savings through agricultural practices value chain, downstream projects including organic fertilizers from waste (biodigesters, composting, and vermiculture), control of nutrients, irrigation and precision farming, and agroforestry systems to improve nutrient retention and reduce soil erosion. Furthermore, the upstream projects include agroforestry systems, cover crops, infiltration trenches to capture water, biodigesters, and artificial wetland systems.
- The proposed projects can contribute to water pollution mitigation because they could decrease harmful substances filtering into waterways and prevent overfertilization that can lead to eutrophication (an excess of nutrients that harms aquatic ecosystems). The issuer has confirmed that efforts to mitigate methane emissions will be aligned with regulation. Due to the lack of clarity about whether these projects will be associated with conventional or sustainable agriculture, as well as the safeguards implemented to address the risk of land conversion, we assign a Light green shade.
- Aquaculture and fishing projects that align with MSC and ASC certifications are assigned a Light green shade. The ASC certification emphasizes sustainable resource management and reduced impacts on marine ecosystems. It also includes requirements related to feed in aquaculture, focusing on the responsible sourcing of feed ingredients and reducing the reliance on wild fish to limit environmental impacts. Specified best practices for aquaculture investments include environmental conservation measures such as protecting mangroves and wetlands, managing effluents and water quality, controlling sediment and sludge, conserving soil and water, using fishmeal and fish oil efficiently, sourcing broodstock and juveniles responsibly, and minimizing impacts on biodiversity and wildlife.
- Within aquaculture, the issuer aims to finance improvements on technology to enhance efficiency or productivity of farming. These projects will be linked to certified aquaculture practices that provide overproduction safeguards and limit farm density (which can lead to ecosystem degradations), which supports the Light green shade.
- We view positively the inclusion of waste prevention and circular solutions within aquaculture, such as reutilization of waste from aquatic crops as fertilizer for agricultural crops; effluent treatment systems with biofilters, advanced filtration, or treatment with aquatic plants; and use of technologies to minimize waste discharges into water sources. Moreover, the framework includes integrated practices that promote biodiversity and water quality, generating sustainable farming systems, such as the cultivation of bivalves and seaweed to increase food production and restore ocean health. Fishing projects, besides certified fisheries under MSC, include methods that allow for the capture of certain species while minimizing the incidental catch of nontarget or endangered species.
- Additionally, the issuer seeks to finance sustainable value chain technologies and solutions, such as solar-powered cold storage systems, high-efficiency refrigeration and freezing technologies, digital traceability platforms, and biodegradable packaging. We think these solutions promote environmental benefits to fishing and aquaculture projects, yet safeguards and criteria to ensure benefits are limited. Therefore, we assign a Light green shade.
- Bolivariano issued a blue bond in 2023, and the majority of the proceeds were allocated to certified shellfish (shrimp) aquaculture. The issuer expects to allocate most proceeds under this framework to the same. More than 95% of Ecuadorian aquaculture corresponds to shrimp. According to the National Chamber of Aquaculture of Ecuador, shrimp exports grew from 151,000 tons in 2010 to 1 million tons in 2024, half of which was destined for China. Long-distance aquaculture exports limit the climate benefits of such a protein source.

Waste and plastics management

Assessment

 Medium to Light green

Description


- Manufacture, trade financing, or retail of compostable and biodegradable products
- Manufacture, trade financing, or retail of biodegradable materials and low-carbon materials
- Urban drainage systems
- Flood mitigation measures
- Reduction in the use of plastic in the design and manufacturing of products, and the use of recycled plastics for residual material needs
- Support for research and innovative technology aimed at recycling single-use plastics as part of large-scale plastic recycling efforts
- Plastic recycling activities and facilities

- Sustainable reuse or repurposing of plastics

### Analytical considerations

- Waste management is an important pollution prevention measure that can prevent harm to human health and local ecosystems from waste streams. Recycling, if done properly, increases the useful life of materials, thereby reducing carbon and other air pollutants' emissions, energy, and natural-resource use. Waste prevention and reuse are the preferred solutions under the waste management hierarchy because they have the lowest negative environmental impact among waste management options, followed by recycling, energy recovery, and disposal. Waste collection and sorting projects can increase recycling and reuse rates, thus diverting waste from less environmentally beneficial disposal solutions.
- Similarly, the sourcing of materials and energy use related to the production of goods, and their final disposal, is estimated to account for two-thirds of global greenhouse gas emissions, in addition to having other negative environmental impacts, such as land and water pollution. Goods produced in energy-efficient ways that also seek to limit resource use, including through reuse, recycling and biodegradable materials, can contribute to significant emissions savings.
- Under the waste and plastic management category, Bolivariano will finance a variety of projects that include manufacturing of biodegradable, recyclable, and low carbon emission products, plastic recycling, waste management, and wastewater solutions. Given the varied environmental benefits and exposure to climate transition risks of the projects financed under the category, we assign an overall Medium to Light green shade.
- The bank's financing of plants that produce compostable, biodegradable, reused, and recycled products will support biodiversity loss mitigation by avoiding natural resources overuse. Bolivariano's due diligence process includes reviewing technical criteria to assess and confirm that the companies receiving financing meet the requirements for their products to be compostable, biodegradable, or contain a substantial share of recycled inputs. Similarly, for products marketed as low carbon, the issuer verifies emission reduction progress at the corporate level of the financed companies.
- However, the robustness of the emission reduction verification process remains unclear, and the bank has not established an emission threshold to assess how these products compare against a defined benchmark. Additionally, production running on fossil fuels can be financed, and the bank has no control over phase-out plans. Furthermore, there is limited visibility regarding adequate mitigation of environmental risks in the value chain, such as hazardous chemicals used in biodegradable products. Moreover, materials that are based on recycled input are not necessarily recyclable. For example, this is an issue with polyester clothing and other types of insulation materials. As a result, we assign these projects a Light green shade.
- Bolivariano finances projects focused on collecting, sorting, treating, recycling, or reusing waste, which encompass waste streams from different sources, including metals, plastic, and paper waste. These projects help reduce the amount of waste that is sent to landfills and avoid related environmental issues such as air pollution, water contamination, and soil degradation. Projects relating to the prevention, reduction, and recycling/sourcing are necessary for the transition. Although, as a lender, the bank does not have visibility into the management of environmental risks (e.g., energy sources and whether the projects could depend on fossil fuel-based equipment or transport). Given that the projects do not have consideration of renewable energy use, we assign a Medium green shade. For proceeds that are solely dedicated to research and development of recycling processes, we assign a Dark green shade.
- Projects related to water pollution are a key component of an LCCR future. The primary benefits they provide include improving water quality, which has important cumulative effects on a watershed; relieving water stress; and, depending on the system, providing a source of nutrient and energy recovery. However, these systems are energy-intensive and, if not sufficiently managed, can produce significant solid waste and methane emissions.
- Bolivariano's financed urban drainage systems will meet local regulatory requirements in the operation and construction phases, and the project aims to reduce inflow and infiltration into the drainage system. Nevertheless, systems may have some fossil fuel equipment. The bank does not have a plan to reduce most material operational emissions, therefore we assess the project as a Light green shade.
- Projects related to flood mitigation that do not involve machinery and are solely based on nature-based solutions, such as sustainable drainage systems using permeable materials to retain water pollutants, are assigned a Medium green shade. These projects include elements of environmental co-benefits and use of green infrastructure.


Forestry and plantations

Assessment	Description
 <b>Medium green</b>	<ul style="list-style-type: none"><li>• Sustainable forest management</li><li>• Sustainable tree crop production</li><li>• Agroforestry systems</li></ul>

Analytical considerations

- Forests can contribute to carbon sequestration and support biodiversity habitats. They also can provide ecosystem services, such as water regulation and soil stabilization, which improve climate resilience. Implementing sustainable forestry management practices, avoiding harmful land use change, and managing physical climate risks, including wildfires and pests, are key to achieving these benefits.
- Bolivariano will only provide the financing to producers that are or will be certified under the Forest Stewardship Council and Programme for the Endorsement of Forest Certification. Therefore, eligible forestry projects could be located within the Cotopaxi and Chocó Biogeographic regions, Amazon rainforest, and Andean forests. In our view, the necessary certification contributes to the project category’s objective of funding forestry practices that do not create biodiversity loss.
- Bolivariano will require that lenders to measure that the net long-term balance of greenhouse gas emissions is lower than the business-as-usual forestry practices to gain funding. Lenders must establish a baseline of carbon sequestration capacity of the financed area and monitor it over time. Furthermore, the bank establishes that lenders must increase tree species' diversity or implement planting practices that enhance and diversify local ecosystems and habitats biodiversity over time. We therefore assign an overall Medium green shade to this category.
- For physical climate risks, which are material for forestry (including fires and drought), Bolivariano will screen all eligible projects either at project or client level, ensuring that climate physical risk considerations are integrated into lending decisions.

Tourism/ecotourism services

Assessment	Description
 <b>Light green</b>	<p>Ecotourism projects that minimize the impacts of tourism on nature and contribute to the conservation and restoration of habitats. These projects may include the management of tourism/revenue flow toward conservation, reduction of carbon emissions, and generation of economic, social, and fiscal incentives for the protection of biodiversity, both within and outside conservation areas, in alignment with recognized ecotourism standards. In protected areas, the following is required: absence of biodiversity loss, legal permits, community consultation, conservation programs, and consent from UNESCO/Zero Extinction Alliance at relevant sites.</p> <ul style="list-style-type: none"><li>• Renovation projects for sustainable ecotourism certified under international standards</li><li>• Tourism operations</li></ul>













Analytical considerations

- Ecotourism includes developing leisure activities based on cooperatives and community groups, developing natural heritage sites, and conserving protected areas and natural ecosystems. These practices can support the longevity of sensitive areas and contribute to biodiversity conservation by avoiding the use of land for intensive sectors such as traditional agriculture or industrial processes. However, ecotourism entails climate and environmental risks from air travel, fossil fuel ground transport, energy use, waste generation, and water use competition.
- Bolivariano will finance the renovation of certified hotels or tour operations within this category. We assign an overall Light green for this category.
- For renovation projects, Bolivariano will require hotel operators to meet the criteria set by the Global Sustainable Tourism Council (GSTC) and green building certification standards while implementing habitat protection measures. The GSTC

certification necessitates certain features that support the concept of ecotourism. Specifically, the GSTC requires certified properties to maintain records on how they contribute to biodiversity conservation in the local area.

- However, in our view, renovation projects that meet only the GSTC criteria don't sufficiently contribute to a climate-resilient future. This is due to the high environmental risks of ecotourism (including energy use, water, and waste generation) and the GSTC not having stringent enough criteria for biodiversity conservation and other climate and environmental factors. However, since Bolivariano has additional green building criteria, we assign a Light green shade to this subproject.
- Bolivariano will require hotel operators to implement initiatives aimed at conserving or restoring habitats in their surroundings, preventing an increase in habitat invasion, and working to reduce carbon emissions through efficiency measures in the renovated facilities. This includes ensuring the design and operations of their renovated physical structures minimize environmental impact. The facilities must demonstrate a reduction in the environmental impact of existing buildings by achieving EDGE (Excellence in Design for Greater Efficiencies) or LEED (Leadership in Energy and Environmental Design) certification, showing a minimum of 20% improvement in energy efficiency and 20% water savings compared with a baseline building without such certification.
- For tour operations, Bolivariano will require operators to demonstrate a 20% reduction in energy consumption by implementing efficiency measures and utilizing renewable energy, as well as a 20% savings in water usage. Additionally, operators must eliminate the use of single-use plastics and switch to reusable or biodegradable alternatives. Projects located within marine and terrestrial conservation areas, such as the Galápagos Islands, will need to meet more stringent criteria. In addition, they must have programs to enhance conservation efforts in the area, provide evidence of no biodiversity loss, and ensure that communities and other stakeholders are consulted before the project begins operating. Given these safeguards, we view these projects as Light green.
- For physical climate risks, which are material for fixed assets in coastal zones or islands like the Galápagos, Bolivariano will screen all eligible projects at either the project or client level, ensuring that considerations of physical climate risks are integrated into lending decisions.

S&P Global Ratings' Shades of Green

Assessments					
 <b>Dark green</b>	 <b>Medium green</b>	 <b>Light green</b>	 <b>Yellow</b>	 <b>Orange</b>	 <b>Red</b>
Description					
Activities that correspond to the long-term vision of an LCCR future.	Activities that represent significant steps toward an LCCR future but will require further improvements to be long-term LCCR solutions.	Activities representing transition steps in the near-term that avoid emissions lock-in but do not represent long-term LCCR solutions.	Activities that do not have a material impact on the transition to an LCCR future, or, Activities that have some potential inconsistency with the transition to an LCCR future, albeit tempered by existing transition measures.	Activities that are not currently consistent with the transition to an LCCR future. These include activities with moderate potential for emissions lock-in and risk of stranded assets.	Activities that are inconsistent with, and likely to impede, the transition required to achieve the long-term LCCR future. These activities have the highest emissions intensity, with the most potential for emissions lock-in and risk of stranded assets.
Example projects					
 Solar power plants	 Energy efficient buildings	 Hybrid road vehicles	 Health care services	 Conventional steel production	 New oil exploration








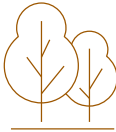
Note: For us to consider use of proceeds aligned with ICMA Principles for a green project, we require project categories directly funded by the financing to be assigned one of the three green Shades.




LCCR--Low-carbon climate resilient. An LCCR future is a future aligned with the Paris Agreement; where the global average temperature increase is held below 2 degrees Celsius (2 C), with efforts to limit it to 1.5 C, above pre-industrial levels, while building resilience to the adverse impact of climate change and achieving sustainable outcomes across both climate and non-climate environmental objectives. Long term and near term--For the purpose of this analysis, we consider the long term to be beyond the middle of the 21st century and the near term to be within the next decade. Emissions lock-in--Where an activity delays or prevents the transition to low-carbon alternatives by perpetuating assets or processes (often fossil fuel use and its corresponding greenhouse gas emissions) that are not aligned with, or cannot adapt to, an LCCR future. Stranded assets--Assets that have suffered from unanticipated or premature write-downs, devaluations, or conversion to liabilities (as defined by the University of Oxford).

# Mapping To The U.N.'s Sustainable Development Goals

Where the financing documentation references the Sustainable Development Goals (SDGs), we consider which SDGs it contributes to. We compare the activities funded by the financing to the International Capital Markets Association (ICMA) SDG mapping and outline the intended linkages within our SPO analysis. Our assessment of SDG mapping does not affect our alignment opinion.

This framework intends to contribute to the following SDGs:

Use of proceeds	SDGs				
Productive Land Use/Agriculture			Choose a building block.	Choose a building block.	Choose a building block.
	<b>12. Responsible consumption and production*</b>	<b>15. Life on land*</b>			
Sustainable Freshwater/Marine Production				Choose a building block.	Choose a building block.
	<b>6. Clean water and sanitation*</b>	<b>12. Responsible consumption and production*</b>	<b>15. Life on land*</b>		
Waste and plastics management			Choose a building block.	Choose a building block.	Choose a building block.
	<b>8. Decent work and economic growth*</b>	<b>12. Responsible consumption and production*</b>			
Forestry and plantations		Choose a building block.	Choose a building block.	Choose a building block.	Choose a building block.
	<b>15. Life on land*</b>				

Tourism/Ecotourism services				Choose a building block.	Choose a building block.
	<b>6. Clean water and sanitation*</b>	<b>14. Life below water*</b>	<b>15. Life on land*</b>		

\*The eligible project categories link to these SDGs in the ICMA mapping.

# Related Research

- [Analytical Approach: Second Party Opinions](#), March 6, 2025
- [FAQ: Applying Our Integrated Analytical Approach For Second Party Opinions](#), March 6, 2025
- [Analytical Approach: EU Taxonomy Assessment](#), Oct. 31, 2024
- [Analytical Approach: European Green Bond External Reviews](#), Oct. 31, 2024
- [FAQ: Applying Our Analytical Approach For European Green Bond External Reviews](#), Oct. 31, 2024
- [Analytical Approach: Shades Of Green Assessments](#), July 27, 2023

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## Second Party Opinion: Banco Bolivariano Biodiversity Financing Framework

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