

Ex-Ante Evaluation

**Private Sector Investment Finance Division,
Private Sector Partnership and Finance Department, JICA**

1. Name of the Project

Country : Federal Republic of Brazil

Project Name: Project for Climate Change Investment Promotion

Signing date: May 31, 2023

2. Background and Necessity of the Project

(1) Current status and challenges of climate change measures in Brazil

Brazil, with the largest GDP in Latin America and the 12th largest GDP in the world, is the world's 5th largest greenhouse gas (GHG) emitter, accounting for 3.9% (2.4 Gt) of global annual GHG emissions (2019) in the country (Japan is 8th, 2.1%). The source sectors of emissions are forestry (49.6%), agriculture (21.7%), transportation (8.3%), waste (6.7%), manufacturing (5.0%), and energy (3.7%) (Source: Boston Consulting Group , 2022).

The Brazilian federal government revised its NDC "Nationally Determined Contribution" in 2022, aiming to reduce GHG emissions to 1.61 Gt in 2025 and 1.28 Gt in 2030, and to achieve Net Zero emissions by 2050 (Source: BCG, 2022). The investment required to achieve Net Zero is estimated to be approximately \$1.9-2.4 trillion over the 30 years from 2020-50, with \$60-80 billion required annually in areas such as transportation, agriculture, forestry, and energy. However, the country's financing gap in the climate change sector is estimated to reach \$48 billion/year (source: IDB, 2017), with insufficient financing being provided.

In the Brazilian financial sector, the development of the private equity (PE) market has lagged behind the size of the economy, as many funds seeking high returns tend to invest in deposits and government bonds due to the historically high base interest rates. The country's large financing gap for climate change measures must be met using all possible financing methods, and PE investments are an important means of financing, especially for startup and middle market companies with relatively short track records and limited access to bank loans. However, the rising dollar interest rates and the uncertain economic outlook caused by the crisis in Ukraine have led to a trend toward deposits and investments in government bonds, making it increasingly challenging to raise funds. Specifically, PE investments have shrunk from R\$17.3 billion in 2015 to R\$7.3 billion in 2021 (source: Brazilian Private Equity Venture Capital Association, 2021).

Under these circumstances, this project aims to contribute to the reduction of GHG emissions in Brazil, by investing in the GEF LatAm Climate Solutions Fund III (GEF III Fund), a pioneer investment fund focusing on sustainable development goals in Brazil. A new administration took office in January 2023 with climate change measures as one of the policy priorities of President Luiz Inácio Lula da Silva., including establishing a new Ministry of Environment and Climate Change (the Ministry of Environment under the previous administration), restore the Amazon Fund, which was

abolished by the previous administration, make a presidential pledge to halt the destruction of Amazonian forests by 2030 and an application to invite COP30 (scheduled for 2025) to the Amazon region (Belém, Pará state).

(2) Japan and JICA's Policy and Operations in the Private Sector

In the JICA Country Analysis Paper (January 2016) for the Federative Republic of Brazil, "solving global issues" was analyzed as a priority area, and in the Country Development Cooperation Policy (April 2018), "urban issues and environmental and disaster prevention measures" was identified as a priority area, and JICA will provide assistance that contributes to solving disaster prevention and global issues. In addition, JICA's issue-specific project strategy "Global Agenda (Climate Change)" states that JICA will promote the reduction of greenhouse gas (GHG) emissions through the use of various decarbonization technologies. This project is consistent with these analyses and policies. At COP26 (November 2021), the Japanese government expressed its determination to "make concerted efforts to tackle climate change and contribute to the achievement of climate finance targets," and pledged to provide \$60 billion in public and private sector support over five years. The Japanese government has also expressed its continued commitment to climate change measures by launching the Paris Agreement Article 6 Implementation Partnership at COP27 (November 2022), which will contribute to further reduction of global greenhouse gas emissions by expanding the market mechanism and building a high quality carbon market in line with Article 6 of the Paris Agreement. The project will contribute to the achievement of these commitments by the Japanese government.

3. Project Description

(1) Project Objectives

The Project will contribute to the country's climate change countermeasures through the promotion of climate change business, and is considered to contribute to SDG Goal 13 (climate change). Therefore, the significance (or necessity) of support through overseas investments and loans is high.

(2) Project Site/Target Area

Brazil*.

*The fund can invest in other South American regions with the consent of at least a majority of LP investors. On the other hand, the fund plans to invest only in Brazil and the candidate companies are only in Brazil.

(3) Project Components

The investment in GEF LatAm Climate Solutions Fund III, which invests in emerging companies in the climate change sector, primarily in Brazil.

(4) Total project cost: \$204.4 million

(5) Project implementation system

① Investee: GEF LatAm Climate Solutions Fund III-B, L.P. (GEF III Fund)

② Project Implementation and Management Agency: GEF LatAm Management, L.L.C. ("GEF Management")

(6) Environmental and social considerations, cross-cutting issues, and gender classification

(1) Environmental and social considerations

① Category Classification: FI

② Basis for categorization: Because the subprojects cannot be identified prior to JICA's investment approval under the "JICA Guidelines for Environmental and Social Considerations" (promulgated in January 2022, hereinafter referred to as "JICA Environmental Guidelines"), and such subprojects are expected to have environmental impacts.

③ Others: In this project, the GEF III Fund will provide environmental and social considerations for each subproject in accordance with the Fund's Environmental and Social Consideration System and "JICA Environmental Guidelines. It has been agreed that subprojects will not include Category A.

(2) Note: This project will contribute to the reduction of GHG emissions in Brazil, thus contributing to climate change countermeasures (mitigation measures) as its main objective.

3) Gender classification: Not applicable

<Reason for classification: Although gender mainstreaming needs were identified, specific efforts to contribute to gender mainstreaming were not included.

(7) Other special note: None in particular.

4. Targeted Outcomes

(1) Quantitative Effects:

index-name	standard value (2022)	target value (2031 (one year before the end of the fund))
Number of companies invested	2	10
GHG emission reductions (tons/year (CO2 equivalent)) ¹	0	Set at the time of investment decision

(2) Qualitative effects: Promotion of climate change-related investment in Brazil, and penetration and strengthening of Sustainability and ESG management at investee companies.

5. External Factors and Risk Control

None in particular.

6. Lessons Learned from Past Projects

¹ While the Fund will invest in investments that contribute to climate change action, it does not necessarily limit all investments to direct contributions to climate change mitigation measures (GHG reduction), and investments in adaptation measures are also possible. The Fund plans to stipulate in the agreement that investments in mitigation measures will be subject to monitoring and reporting on the achievement of indicators that contribute to climate change mitigation, such as energy consumption reduction, water consumption reduction, and waste reduction, at the time of the investment decision amongst the individual contracts.

(1) Evaluation results of similar projects

In the ex-post evaluation of past Local Enterprise Development Fund projects (evaluation year: 2010), the following lessons were learned: it is necessary to fully confirm that investment targets are secured through checking the pipeline list consisting of potential investment projects, and it is effective to ensure in advance the authority to replace the fund manager if necessary.. In the ex-post evaluation of the environmental fund project (evaluation year: 2010), the study also learned the lesson that monitoring the performance of GPs as fund managers is effective in understanding the fund's income and expenditure.

(2) Lessons Learned for the Project

In light of the lessons learned, three fund managers have been designated as key persons, and it has been agreed that if any of them should cease to be involved in the management of the Fund, new investment activities from the Fund will be suspended until a majority of investors approve his/her replacement. In addition, it has been agreed that the Fund will submit to JICA annually the abovementioned management and effectiveness indicators, as well as quarterly reports on the Fund's income and expenditure. A long list of potential investment targets has been obtained, and the profitability of each company and the probability of exit have been verified.

7. Evaluation Results

As described above, this project meets Brazil's development challenges, development policy, and Japan's cooperation policy, is recognized as necessary, has an appropriate project plan, and has a good prospect of achievement.

8. Plan for Future Evaluation

(1) Indicators to Be Used: As shown in Section 4.

(2) Future Evaluation Schedule (estimate): Ex-post evaluation in the year that the Fund's term ends.