

GEF-8 PROJECT IDENTIFICATION FORM (PIF)

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General Project Information

Project Title

Support to the Productive Development Bank for the deployment of the Eco-efficiency Credit Programme in Bolivia

Region

Bolivia

GEF Project ID

11450

Country(ies)

Bolivia

Type of Project

FSP

GEF Agency(ies):

UNDP

GEF Agency ID

9701

Executing Partner

Productive Development Bank of Bolivia

Executing Partner Type

Government

GEF Focal Area (s)

Multi Focal Area

Submission Date

10/18/2023

Project Sector (CCM Only)

Technology Transfer/Innovative Low-Carbon Technologies

Taxonomy

Waste Management, Chemicals and Waste, Focal Areas, Disposal, Industrial Emissions, Persistent Organic Pollutants, New Persistent Organic Pollutants, Emissions, Eco-Efficiency, Best Available Technology / Best Environmental Practices, Hazardous Waste Management, Industrial Waste, eWaste, Climate Change, Climate Change Mitigation, Renewable Energy, Energy Efficiency, Technology Transfer, Financing, Climate Change Adaptation, Private sector, Climate finance, Influencing models, Deploy innovative financial instruments, Strengthen institutional capacity and decision-making, Convene multi-stakeholder alliances, Demonstrate innovative approaches, Stakeholders, Private Sector, SMEs, Capital providers, Individuals/Entrepreneurs, Gender Equality, Gender results areas, Capacity, Knowledge and Research, Knowledge Exchange, Capacity Development, Learning, Indicators to measure change, Knowledge Generation

Type of Trust Fund

GET

Project Duration (Months)

60

GEF Project Grant: (a)

6,208,382.00

GEF Project Non-Grant: (b)

0.00

Agency Fee(s) Grant: (c)

589,796.00

Agency Fee(s) Non-Grant (d)

0.00

Total GEF Financing: (a+b+c+d)

6,798,178.00

Total Co-financing

65,123,963.00

PPG Amount: (e)

200,000.00

PPG Agency Fee(s): (f)

19,000.00

PPG total amount: (e+f)

219,000.00

Total GEF Resources: (a+b+c+d+e+f)

7,017,178.00

Project Tags

CBIT: No NGI: No SGP: No Innovation: No

Project Summary

Provide a brief summary description of the project, including: (i) what is the problem and issues to be addressed? (ii) what are the project objectives, and if the project is intended to be transformative, how will this be achieved? (iii), how will this be achieved (approach to deliver on objectives), and (iv) what are the GEBs and/or adaptation benefits, and other key expected results. The purpose of the summary is to provide a short, coherent summary for readers. The explanation and justification of the project should be in section B “project description”. (max. 250 words, approximately 1/2 page)

The Banco de Desarrollo Productivo (BDP) Eco-Efficiency^[1] Programme is a financial loan product for micro, small, medium (MSME), and large enterprises, which aims to accelerate the adoption of energy efficiency (EE), renewable energy (RE), and low-pollution (circular economy) technologies^[2] in the agriculture, industrial, tourism, and recycling sectors in Bolivia. The success of the Eco-Efficiency Loan Programme is however currently limited due to financial and non-financial barriers and gaps that this project will tackle.

The project’s goal and expected **paradigm shift** is to improve the capacity of private sector firms and financial institutions, and the enabling environment to implement investments in renewable energy, energy efficiency – low emission technologies - and low pollution technologies and measures for the reduction and disposal of hazardous chemicals and waste (Persistent Organic Pollutants POPs)^[3] in the productive sectors of Bolivia. The project addresses identified barriers to successfully implement BDP’s Eco-efficiency Program under four components: i) deployment of BDP credit line and client support services focusing on establishing adequate capacity, systems and networks for the planning, programming and implementation of low emission (LE) and/or low pollution (LP) technologies, including best available technologies (BAT) and best environmental practices (BEP) by private sector stakeholders; ii) development and enhancement of BDP capacities to improve technical expertise, and enable the design and implementation of eco-efficient credit lines; iii) Improvement of the regulatory environment for the adoption of LE/LP technologies for selected industries in Bolivia; and iv) knowledge management and sharing of lessons learned.

By scaling up the circular economy model to support a climate-neutral, resource-efficient, and competitive economy, the project will benefit directly at least 3,600 people (1,800 women and 1,800 men) and generate global environmental benefits related to the reduction of 1,617,388 tons of CO₂-e emissions directly and 2,519,949 t CO₂-e emissions indirectly, while also eliminating hazardous chemicals and waste, including 0.414 metric tons of brominated flame retardants (BFRs) from waste electrical and electronic equipment (WEEE) and 12.55 gEQT of POPs.

^[1] As defined by the World Business Council for Sustainable Development (WBCSD), “eco-efficiency is achieved by the delivery of competitively priced goods and services that satisfy human needs and bring quality

of life, while progressively reducing ecological impacts and resource intensity throughout the life-cycle to a level at least in line with the Earth’s estimated carrying capacity.” BDP has denominated its sustainability financial product as eco-efficiency, in line with this definition, referring to resource efficiency (energy, water, and material use), increased use of renewable resources, reduction of waste, pollution levels and dispersion of toxic materials, consideration of the usefulness and recyclability of products/services at the end of their useful life, incorporation of life cycle principles, extension of function and product life, and increased service intensity of goods and services.

[2] Low emission technologies include climate control systems (include AC inverters and VRF systems), high efficiency (HE) refrigeration, HE appliances, HE ovens, HE machinery, HE agricultural machinery, HE illumination, automation and process control, electric and hybrid vehicles, production lines, solar pumps, biodigestors, micro/small scale photovoltaic systems (up to 3 MW), solar thermal energy for water heating, and small wind electric systems (detailed in table 1).

[3] Throughout the project document, EE and RE technologies are referred to as Low Emission (LE) technologies, and technologies for the reduction and disposal of hazardous chemicals and waste (Persistent Organic Pollutants POPs and other chemicals of concern) as Low Pollution (LP) technologies.

Indicative Project Overview

Project Objective

To accelerate the adoption of energy-efficient, low-emission and low-pollution technologies in the agriculture, livestock, manufacturing, and tourism sectors of Bolivia through BDP’s Eco-efficiency Loan Programme aimed at MSMEs and large companies to generate global environmental benefits related to the reduction of CO2-e emissions and hazardous chemicals and waste generated in Bolivia

Project Components

1. Improved capacities and systems for LE/LP, and BAT/BEP for the reduction of POPs by private investments

Component Type	Trust Fund
Investment	GET
GEF Project Financing (\$)	Co-financing (\$)
250,000.00	56,156,100.00

Outcome:

1.1 Increased implementation of investments in LE/LP and BAT/BEP for the reduction of POPs

Output:

1.1 Allocation of EE, RE, chemicals & and hazardous waste management credit lines increased

1.1.1. Assessment, approval, disbursement, and monitoring of EE, RE and chemicals & hazardous waste management credit lines in agriculture, manufacturing, tourism and recycling enterprises, including women led enterprises.

1.1.2. 615 tons of POPs pesticides are inventorized, repacked, transported and disposed using BAT/BEP at a certified facility.

1. Improved capacities and systems for LE/LP, and BAT/BEP for the reduction of POPs by private investments

Component Type	Trust Fund
Technical Assistance	GET
GEF Project Financing (\$)	Co-financing (\$)
3,448,000.00	5,552,421.00

Outcome:

1.2 Private sector stakeholders, including women led enterprises, have established adequate capacity, systems and networks to support the planning, programming and implementation of LE/LP technologies in their processes, and BAT/BEP for the reduction of POPs

Output:

1.2 Capacities of MSMEs, including women led enterprises, for EE, RE, and BAT/BEP use for chemicals & hazardous waste management interventions are built up.

1.2.1. Implement energy audits, feasibility studies and related Investment Plans for MSMEs and large industries (pipeline development)

1.2.2. Implement feasibility studies for BAT/BEP for hazardous chemicals & hazardous waste management and related Investment Plans for MSMEs and large industries (pipeline development)

1.3 Engagement of enterprises, including women led firms, with technology providers improved.

1.3.1. Updating of LE/LP technology catalogs, development of technology platform, and engagement events.

1.4 Monitoring and reporting of MSMEs and large industries, including women led enterprises.

1.4.1. Support to definition, measurement, and reporting of LE/LP indicators

1.5 Selected entrepreneurs, including women led enterprises, promoted under the BDP Lab.

1.5.1. Promotion of selected eco-efficient entrepreneurs to promote LE/LP technologies under BDP Innovation Lab.

2. Improved BDP's frameworks, capacities and monitoring systems to increase credit access

Component Type	Trust Fund
Technical Assistance	GET
GEF Project Financing (\$)	Co-financing (\$)
1,288,000.00	132,185.00

Outcome:

BDP has developed or enhanced strategic frameworks to address capacity gaps, improve sectoral expertise, and enhance the design and implementation of LE/LP credit

Output:

2.1. Assessment tools for LE/LP credit lines improved.

2.1.1. Develop a gender sensitive credit demand assessment, design tools and strategies for LE/LP credit lines.

2.2. BDP personnel capacities and incentives for LE/LP credit lines improved.

2.2.1. Implementation of BDP's gender-sensitive Capacity Development Program, including certification on sustainable finance, Executive exchange with other financial institutions.

2.3. BDP Environmental and Social Measurement Systems and reporting improved.

2.3.1. Development of eco-efficient taxonomy of technology measurement tools in coordination to BDP's internal systems, including gender.

2.4 Innovative Financial Instruments and structure developed for the sustainability of LE/LP investments.

2.4.1. Development of gender sensitive innovative financial instruments (thematic bonds) to unlock new finance

3. Enabling regulation and governance for improved LE and BAT/BEP for the reduction of POPs

Component Type	Trust Fund
Technical Assistance	GET
GEF Project Financing (\$)	Co-financing (\$)
691,745.00	37,356.00

Outcome:

Improved regulatory environment for the adoption of LE/LP technologies and BAT/BEP for hazardous chemical and waste management in selected sectors in Bolivia

Output:

3.1 Improved implementation of the regulatory and governance framework for hazardous waste management and LE technologies.

3.1.1. Support in the implementation of the regulatory framework for hazardous waste management at national and subnational levels.

3.1.2. Analysis of incentives for MSMEs and the industrial sector for the adoption of LE and LP technologies in Bolivia

3.2 Improved knowledge of the public and private sectors and the general public, including women and youth, on the implementation of LE and hazardous waste management actions in prioritized sectors.

3.2.1. Development of gender sensitive discussion roundtables for public-private dialogue

3.2.2. Development of a gender sensitive communication, awareness, education and dissemination campaign on the dangers and risks of hazardous waste and the means of collection.

4. Knowledge Management

Component Type	Trust Fund
Technical Assistance	GET
GEF Project Financing (\$)	Co-financing (\$)
115,000.00	9,339.00

Outcome:

Strengthened knowledge sharing and management

Output:

4.1 Knowledge management products and community practice developed

4.1.1 Development of a gender-sensitive Knowledge Management Strategy for internal and external stakeholders

4.1.2 Design and sharing of knowledge products with stakeholders

4.1.3. Establish two gender-sensitive communities of practice, for LE and for hazardous waste management to exchange knowledge and best practices

M&E

Component Type	Trust Fund
Technical Assistance	GET
GEF Project Financing (\$)	Co-financing (\$)
120,000.00	14,369.00

Outcome:

Strengthened procedures for monitoring and documentation of project results and lessons learned

Output:

5.1. Project monitoring and evaluation system implemented

5.1.1 Development of project M&E system to report Core Indicators.

5.1.2 Monitoring of Safeguards and Gender Action Plans

5.1.3 Design and implementation of tools and methodologies to capture, assess, and document lessons learned and best practices

Component Balances

Project Components	GEF Project Financing (\$)	Co-financing (\$)

1. Improved capacities and systems for LE/LP, and BAT/BEP for the reduction of POPs by private investments	250,000.00	56,156,100.00
1. Improved capacities and systems for LE/LP, and BAT/BEP for the reduction of POPs by private investments	3,448,000.00	5,552,421.00
2. Improved BDP's frameworks, capacities and monitoring systems to increase credit access	1,288,000.00	132,185.00
3. Enabling regulation and governance for improved LE and BAT/BEP for the reduction of POPs	691,745.00	37,356.00
4. Knowledge Management	115,000.00	9,339.00
M&E	120,000.00	14,369.00
Subtotal	5,912,745.00	61,901,770.00
Project Management Cost	295,637.00	3,222,193.00
Total Project Cost (\$)	6,208,382.00	65,123,963.00

Please provide justification

PROJECT OUTLINE

A. PROJECT RATIONALE

Briefly describe the current situation: the global environmental problems and/or climate vulnerabilities that the project will address, the key elements of the system, and underlying drivers of environmental change in the project context, such as population growth, economic development, climate change, sociocultural and political factors, including conflicts, or technological changes. Describe the objective of the project, and the justification for it. (Approximately 3-5 pages) see guidance here

Banco de Desarrollo Productivo (BDP) and Eco-Efficient financing.

1. The Banco de Desarrollo Productivo - Sociedad Anónima Mixta (**BDP**) is the only national development bank (NDB) in the Plurinational State of Bolivia with the objective of promoting and financing productive and development investments, promoting industrialization and food security. BDP as a financial intermediation entity is regulated by the Financial System Supervisory Authority (ASFI), and works on the first floor, second floor and technical assistance. As a fiduciary bank it manages public and private autonomous assets, with AAA risk rating. As part of its strategic framework, BDP has aligned itself with the goals of Bolivia's [2025 Patriotic Agenda](#), the [National Plan for Economic and Social Development \(PDES\) 2021-2025](#), and Bolivia's [Nationally Determined Contribution \(NDC\)](#), which are aligned with the 2030 Agenda for Sustainable Development, and the Paris Agreement commitments on climate change.
2. Limited access to commercial financing is one of the main limitations to the implementation of LE/LP projects. In the competition for financing with other core business investment projects, LE/LP projects often rank low on the priority lists of managers or high-level private sector investors, especially MSME. They usually lack the understanding of the size of the potential EE gains as they do not invest in energy audits, and lack the knowledge of technologies and reputable technology providers, among other challenges. To address these limitations, in December 2022 BDP launched its first green financial product focused on EE, RE, and circular economy, which it plans to expand through the issuance of green bonds. This product, called Eco-efficiency was designed with the support of international financial institutions and a market analysis of the demand for such credit. It provides loans up to 90 percent of capital investment, for up to 10 years with an interest rate that is 1 percentage point lower than other financial products. During its first year in the market, BDP EcoEfficiency Loan Programme disbursed a total of USD 12 million with a reduction of 829 tons of CO₂e per year, annual energy savings of 118,204 MWh/year and 164,867 m³/year of water savings. Of this portfolio, 65% of operations are concentrated in energy efficiency technologies, 30% in clean production technologies and only 5% in renewable energy. Large enterprises benefited from 98% of the total amount disbursed, which poses a challenge for BDP to include MSMEs that currently have no incentives to implement low-emission and low-pollution technologies. The Eco-efficiency financial product intends to contribute to climate change mitigation by reducing greenhouse gas emissions, and by scaling up the circular economy model to support a climate-neutral, resource-efficient, and competitive economy, while also ensuring the elimination of hazardous chemicals and waste.^[1]⁴ It also contributes to sustainable economic reactivation with a gender focus, promoting reduced pressure on natural resources, sustainable growth, and job creation.
3. Eco-efficiency BDP finances productive actors of micro, small, medium (MSMEs), and large enterprises, which need to optimize their processes, reduce, and manage hazardous chemicals and waste, and increase productivity through access to new technology that allows them to generate greater profitability and less impacts on the environment. The financial product also promotes cleaner production by reducing environmental pollution, especially addressing the issues of the elimination of hazardous chemicals and waste, including the handling and disposal of obsolete pesticides and its containers, products and materials that contain POPs such as brominated flame retardants (BFR) in waste of electrical and electronic equipment

(WEEE), and other chemicals of concern. The table below provides an initial list of targeted technologies eligible for Ecoefficiency Loan Program under LE (EE and RE) technologies per sector addressed by the project:

Table 1 – List of technologies per sector

LE Technical Area	Technologies financed by BDP	Agriculture and Livestock	Manufacturing (agroindustry, food and beverages, plastics, textiles, cement, ceramic, metal and machinery products and others)	Tourism (hotels and restaurants)
Energy Efficiency	Climate control systems (include AC inverters and VRF systems)	2	2	2
	High efficiency refrigeration (fridges, freezers and others)	2	2	2
	High efficiency appliances (washing machines and others)			2
	Agricultural machinery (tractors and harvesters)	2		
	High efficiency machinery (sewing, embroidery and weaving machines)		2	
	High efficiency ovens (e.g., Hoffman brick ovens and tunnel ovens)		2	
	Automation and process control		2	2
	High efficiency illumination	2	2	2
	Electric and hybrid vehicles		2	2
	Production lines		2	
	Other energy efficient technologies.	2	2	2
Renewable Energy	Solar pumps (fuel substitution)	2		
	Biodigestors	2		
	Photovoltaic systems (On-grid and Off-grid micro and small scale systems up to 3 MW)	2	2	2
	Solar thermal energy for water heating			2
	Small Wind Electric Systems		2	2

- BDP combines financial services with technical support to ensure financing has an impact on productivity, combating climate change and adequately managing the social and environmental risks of projects. The technical support services and focused assistance, have strengthened organizational capacities and knowledge focused mainly on the agricultural, manufacturing and tourism and recycling sectors. This technical assistance is complemented with research and development actions, information and market intelligence platforms, digital public private partnerships, and training.
- Although there is strong support from BDP for the Eco-efficiency credit line, there are several barriers and gaps that do not allow the Eco-efficiency green credit line to fulfill its whole potential. There are barriers that hinder an increased credit allocation among firms and sectors. These barriers include: i) limited technical capacity and experience of BDP in implementing green credit lines; ii) lack of knowledge, technical capacity, and prioritization of LE/LP technologies in the public and private sector; iii) mismatch between supply and demand for LE/LP technologies; iv) deficient solid waste management, including hazardous waste; v) existing regulatory framework has limited incentives for private sector adoption of LE/LP technologies; vi) limited information and data related to LE/LP technologies at national and sub-national level; and vii) limited capacity for monitoring and reporting results of ER, EEpractices and hazardous waste management.
- The current project intends to reduce or eliminate those barriers through technical assistance to MSMEs, large enterprises, private sector technology providers, BDP, the Government of Bolivia (national and sub-national), and other relevant stakeholders such as academia. The project will also support the improvement of the regulatory framework to improve the enabling environment for the adoption of LE/LP technologies. The next section provides the current situation and trends of energy production and consumption, and waste management, including the elimination of hazardous chemicals and waste in Bolivia.

Resource use, chemical management and elimination of waste and chemical pollution in Bolivia.

7. Resource use and consumption, including energy, water and materials is likely to increase, as Bolivia has grown in the last 10 years (2012-2022) at a rate of 3.8 percent (World Bank, 2023). Bolivia's National Economic and Social Development Plan 2021-2025 (PDES) establishes deepening the process of industrialization of strategic natural resources to promote endogenous development focused on job creation and the reduction of inequalities and social and economic exclusion. The PDES also proposes moving towards a modern, inclusive and sustainable energy matrix that expands access, security and quality of energy services provided to the population and generates surpluses for the external market. Increased economic growth is also projected to affect waste generation, including of hazardous chemicals and waste.
8. According to the National Energy Balance 2006-2020 ([Fundación Solón, 2022](#)), both production and consumption of primary energy is dominated by oil and natural gas production with a share of 93 to 95 percent of total primary energy production. The share of renewable energies (hydro, biomass, wind and solar) in total primary energy production grew very little from 6.5 percent in 2006 to 7.4 percent in 2020. In 2020, almost two thirds of electricity generation (64 percent) came from natural gas, 29 percent hydropower, 3 percent biomass, and 3 percent wind and solar. The majority of electricity consumption (44 percent) was from the residential sector, followed by the commercial, services and public sector with 25 percent, industry 22 percent, the agricultural, fishing and mining sector with 6 percent, and construction and others with 3 percent. The industrial sector mainly consumes natural gas, biomass and, to a lesser extent, electricity, while in the agricultural sector 70 percent of energy consumption is related to diesel use.
9. In 2008, CO₂ emissions in the country came mainly from the agriculture, forestry and other land uses (AFOLU) sector with 80.9 percent of total CO₂ emissions, followed by the energy sector with 17 percent, Industrial Processes and Product Use (IPPU) sector contributed 1.8 percent. Although the AFOLU sector reduced CO₂ emissions between 2006 and 2008, the energy sector generated 12 percent more emissions in 2008 compared to 2006 ([Ministry of Environment and Water \(MMAyA\), 2020](#)).
10. The ambitions of the planned energy transition are reflected in the electricity sector targets of Bolivia's Nationally Determined Contribution ([MMAyA, 2022](#)), proposing to increase the share of renewable energy to 79 percent in 2030, from 39 percent in 2010, of installed capacity and increased the installed capacity of alternative energy sources (including steam combined cycle) in electricity generation from 2 percent in 2010 to 9 percent in 2030. On energy efficiency, Bolivia has some initiatives to encourage the use of energy efficient light bulbs, home appliances, etc. This includes the Program for Efficient Offices in the Public Sector, Home Appliances Labeling Program, and Energy Audit Program in Buildings ([Bolivian Institute of Standardization and Quality, 2023](#))
11. Industrial poles or centers are located in or near the country's main urban areas (La Paz, Cochabamba, Santa Cruz (municipality of Warnes) and El Alto (municipality of Viacha)). There is great potential for growth and development of the productive and industrial sectors of Bolivia. The low degree of industrialization, the lack of government policies, and very old machinery and equipment with low energy efficiency, result in high per unit energy consumption, which do not contribute to a reduction in energy use in the industrial sector. The sub-sector that consumes most energy is the non-metallic mineral products (cement, bricks, plaster, ceramics, etc.), followed by food processing, and mineral products. Industries are also one of the main sources of hazardous **chemicals and** waste generation, river pollution, and atmospheric pollution.
12. According to Bolivia's 2016 National Implementation Plan (NIP) of the Stockholm Protocol, Bolivia had several industries that generated POPs (dioxins and furans), including the production of mineral products like cement, lime, bricks, and glass. In the case of cement production, there are four enterprises (SOBOCE

in La Paz, FANCESA in Sucre, COBOCE in Cochabamba and Itacamba Cemento S.A. in Santa Cruz) which in their production processes can generate dioxins and furans. For brick production, according to the NIP, there is industrial and artisanal brick production, which uses natural gas, charcoal, wood that can generate dioxins, furans, PCB and HCB. Technological and/or process conversion, technology innovation and/or adaptation in these sectors, could further reduce POP pollution from these industries.

13. Regarding **use of pesticides in agriculture**, the 2016 NIP of the Stockholm Protocol shows that the amount of obsolete pesticides had increased from 194 tons in 2003 to 615 tons in 2011. These 615 tons comprised DDT, Sulfluramid (Mirex S), Aldrin, Dieldrin, Chlordane, Lindane and other undetermined pesticides, mostly located in Santa Cruz, La Paz, Cochabamba, Beni and Tarija. According to [Fundación Solón](#), pesticide imports have increased from 11,365 tons in 2011 to 52,489 tons in 2019, with most of it used for soja production in Santa Cruz (44 percent). This increased use of pesticides has generated problems regarding the proper disposal of container/plastic packaging. The lack of technical and legal guidelines regarding final disposal of pesticide containers is generating large amounts of hazardous waste and creating a habit in rural areas of reusing those containers for water storage and utensil container. When not reused, it is usually handled by open burning and burial, dumped in open sites near fields, streams and ponds or abandoned in the field due to delayed transportation of pesticide containers to treatment areas. There has been little or no incentives for the recycling sector to handle pesticide containers and agriculture plastic recycling in rural areas.
14. Like many other developing countries, Bolivia faces numerous challenges in waste management, particularly in **hazardous waste management**. Bolivia does not have a sound system for disposal and elimination of hazardous chemicals and waste. According to the 2019 household survey (INE, 2019), 66 percent of households uses the public waste collection services, 26 percent burn their waste, and 8 percent bury, through it to rivers or empty lots. Use of public waste management services is higher in urban areas, reaching 94 percent of households, while the majority in rural areas burn their waste. The municipality of La Paz, is the only one with the implementation of several pilot initiatives aimed at garbage collection and waste recycling.
15. There are still challenges in the implementation of the laws and its regulations, as **hazardous** waste generated, including WEEE **and obsolete pesticides**, has limited environmentally safe final disposal mechanisms. Of the total solid waste generated, only 48 percent is disposed of in sanitary landfills and only 1.6 percent is used under differentiated collection schemes.^{[2]⁵} That is, the primary treatment system in Bolivia continues to rely heavily on landfill disposal, without proper elimination of waste/obsolete chemicals and products and material that contain or can emit POPs and chemicals of concern. Although waste is classified according to its characteristics or source of generation, collection is not carried out separately, particularly for WEEE and hazardous waste. This situation highlights the urgent need for a more comprehensive and sustainable WEEE management approach.
16. Waste generation in Bolivia has been on the rise. In 2016, Bolivia generated approximately 5,400 tons per day and by 2023, it generated 8,285 tons per day ([Direction of Solid Waste Management & Swisscontact, 2023](#)). **Around 0.9 percent** of that total (74.6 tons per day) was hazardous waste mostly generated (> 70 percent) in nine capital cities and El Alto (National Institute of Statistics (INE), 2017). WEEE or e-waste is the type of waste that has grown the most due to the rapid obsolescence of information and communication equipment. It also contains metals and other dangerous materials such as brominated flame retardants (BRF), so its mismanagement has significant consequences on health, climate change and the environment. Approximately 60 percent is stored in homes, public and private institutions; it is estimated that 30 percent is recovered through informal collectors who select only the most valuable parts or components; the rest of the waste is disposed of in clandestine dumps or public peri-urban areas without any treatment for proper

disposal. According to Wagner et al. (2022), in 2019, Bolivia generated 53,000 tons of WEEE (4.7 kg per capita), of which only 4 percent were collected (0.2 kg per capita). POP management and collection from WEEE was non-existent (0 percent). Plastic generated from WEEE were 14,000 tons and BRF generated were estimated at 7,000 tons.

17. The rules, laws and regulations for hazardous waste management (including WEEE and pesticide plastic containers) that are issued by the central Government often lack impact due to the limited control and monitoring of compliance, especially with the informal sector. Although an Extended Producer Responsibility (EPR) regime has been established as part of Bolivia's hazardous waste management model, the implementation of this regime is still limited and needs to be complemented with specific regulations that also allow for the implementation of the environmental regulatory framework specific to POPs. The absence of specific legislation for POPs management, including pesticide plastic containers and WEEE (BFR plastics) means that most are managed by the informal sector and that most waste ends up in landfills or is burned. Although Bolivia, like the rest of the countries in Latin America, has legislation regarding POPs management, its application is lax and the facilities for their treatment are non-existent, especially by MSMEs. Bolivia does not have enough collection and delivery points for hazardous waste to separately collect all the pesticide plastic containers and WEEE generated, consequently, the informal sector is very strong (especially for WEEE). The country only has specialized WEEE treatment facilities for some categories and/or certain products. Furthermore, for recycling companies, they have difficulty accessing new technologies and financing for their acquisition. It is also necessary to work on the strengthening and generation of capacities at the subnational government level, as well as with organizations and private companies involved in the collection and recycling of special and hazardous waste and their articulation with the collection, use and final disposal systems.
18. Through market consultations and analysis, potential lines of investment related to LE/LP technologies in the agriculture, livestock, manufacturing, tourism and recycling sectors have been identified:
- **Manufacturing and tourism (hotels and restaurants) sectors:** i) High efficiency electric motors, industrial refrigeration systems and steam boilers, and technologies for energy and water savings; ii) Large and cost-intensive machinery (e.g. production lines using a large number of electric motors) for medium and large industrial enterprises; iii) High efficiency industrial refrigeration in the food processing industry; iv) Use of high efficiency boilers in the food industry (beverages and dairy and meat products processing); v) High efficiency ovens in cement, brick and glass production; vi) Technological and/or process conversion for reduced air pollution in cement and brick industries; vii) POPs removed from waste or other materials and destroyed in suitable facilities.
 - **Agriculture and Livestock:** i) Agricultural machinery and irrigation equipment accounts for approximately 70 percent of the sector's energy consumption. There are potential energy savings with the modernization of agricultural machinery and changes in irrigation systems (e.g., solar irrigation) reducing the amount of water used in agricultural and livestock processes, and adoption of circular economy techniques. Santa Cruz has the greatest potential for energy efficiency investments, as 90 percent of the new tractor market and the largest irrigation systems are in that region; ii) Disposal of obsolete pesticides (at least 615 tons) and pesticide containers is another area of hazardous chemicals and waste management given the increased use of pesticides in Bolivia.
 - **Recycling:** i) WEEE (BFR plastics) management; ii) plastic recycling by women led cooperatives.

Relevant stakeholders, private sector, and local actors and their roles.

19. The relevant stakeholders involved in the project include BDP, MSMEs and large enterprises from the private sector (agriculture, livestock, manufacturing, and recycling sectors), technology providers, government entities, and academia. The project strengthening of the national framework aimed at energy

and circular economy transition funding which will help increase medium and long-term financing for LE/LP projects in micro, small and medium enterprises (MSMEs) as well as large industry enterprises. The support for financing mechanisms and instruments to BDP will improve their technical capacity and knowledge to enable LE/LP technologies investments.

20. The **Banco de Desarrollo Productivo (BDP)** is the main stakeholder of the project, as it will provide the financial support **MSMEs and large enterprises** through its Eco-efficiency **loan** programme under Component 1 to implement the technology investments that will deliver on the GEBs. The project will support with technical assistance those that will access credit through the Eco-efficiency credit lines. The technical support, includes energy audits, **feasibility studies (e.g. hazardous waste management, including test protocol design, technology characterization and testing, etc.)**, support for monitoring of key indicators, and technology implementation. Likewise, regardless of access to credit, will be applied to **specific pre-feasibility studies to identify companies and other actors that need to manage hazardous chemicals & waste**. Industry organizations, such as the Confederación de Empresarios Privados de Bolivia (**CEPB**) will provide means of coordination with MSMEs.
21. The project will also support access of MSMEs and large enterprises to **technology providers** to meet their technology needs. Close coordination with industry and technology providers will be key to establish adequate systems and networks to support the implementation of low emission and climate resilient technologies in MSMEs processes. As for technology suppliers, BDP has compiled a comprehensive list of these firms (e.g., HANSA, AGSA, ROGHUR, NIBOL (John Deere), BOLTRAC (CLAAS), TRAC21 (VALTRA), SACI (Massey Ferguson), Agrovier (Kubota)) that provide a wide range of equipment and efficient machinery (e.g., electric motors, construction equipment, agricultural machinery) The project has also identified the main operators involved in waste collecting and sorting, including the management of **hazardous** waste (there are six authorized WEEE collection companies in La Paz, Cochabamba and Santa Cruz).
22. **Government** stakeholders play a fundamental role in the understanding of regulatory and governance issues related to **LE technologies and hazardous chemical and waste management** and the development of public-private partnerships for innovative green financing **and energy transition**. (Component 3). These include the MMAyA (**Direction of Solid Waste Management**), Ministry of Productive Development and Plural Economy (MDPyEP), the Ministry of Rural Development and Land (MDRyT), Ministry of Hydrocarbons and Energy (MHyE), the Financial System Supervisory Authority (ASFI), and the Viceministry of Planning and Coordination (VPC) (GEF focal point), and municipalities.
23. The project will also involve experts and technical institutes that have experience and information on energy efficiency, renewable energy and waste management, such as the Center for the Promotion of Sustainable Technologies (**CPTS**), Fundación Solón, Energy for Development (**Energética**), Foundation for Recycling (FUNDARE), and the GIZ supported Renewable Energy Program (**PEERR II**).

Baseline and ongoing investments and lessons learned.

24. It is important to highlight, that the project will build its activities on useful information generated and lessons learned from ongoing investments and previous projects in the country and region, on the subject of efficient energy, financing mechanisms to support the transition of the energy matrix and solutions for reducing pollution. The following advances at the national level have been identified as examples among others:

Table 1: Previous and ongoing initiatives at national level related to project outcomes

Project/ Programme	Project/ Programme short description
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Delivering the transition to energy efficient lighting (LINK)	The GEF-funded project (2016-2023) is implemented by the MHyE and the MMayA and aims to accelerate the transition to energy-efficient lighting technologies in Bolivia through a national efficient lighting policy and innovative practical interventions
Strengthening National and Regional Cooperation Initiatives for the Environmentally Sound Management of POPs in WEEE in Latin American Countries (LINK)	The GEF-funded project (2017-2023) implemented by the MMayA, in coordination with the National Programme of Organic Pollutants (PRONACOPS) and UNIDO seeks to strengthen the policies and technical capacities of public and private entities involved in the management of WEEE.
Enabling Activities to Review and Update the National Implementation Plan for the Stockholm Convention on POPs (LINK)	The 2013-2017 project reviewed and updated the National Implementation Plan (NIP) for endorsement and submission by the Government to the Conference of the Parties (COP) to the Stockholm Convention. Participating stakeholders were also trained to manage the additional POPs with newly developed technical skills, expertise and awareness.
Wind and solar Atlas (LINK)	The first wind and solar Atlas (and corresponding mobile application INTiVITU) for the analysis of the energy potential and planning of new renewable energy projects. The project (2019-2024) is financed by GIZ (10.5 million euro) under the Renewable Energy Programme (PEERR II) with the Ministry of Hydrocarbons and Energy (MHyE).
Support for Energy Transition in Bolivia (LINK)	An AFD 90 million euro support loan in 2019, along with a budget support loan from the IDB supported Bolivian government's energy transition policy and a series of reforms for the development of alternative energies and energy efficiency in Bolivia.
Strategic alliance between ASOBAN and UNDP (LINK)	The Bolivian Private Banks Association (ASOBAN) established in 2021 an strategic alliance with UNDP within the framework of the sustainable finance program. The project focuses on promoting social and environmental investments in Bolivia within the framework of the Sustainable Development Goals.
Bolivia Digna y Productiva (LINK)	The 2019-2021 project was implemented by the International Labour Organization (ILO) with funding from the Swiss Cooperation (SECO) focused on formal and informal SMEs, and addressed barriers on productivity, competitiveness, access to markets, etc.
La Paz Recicles (<i>La Paz Recicla</i>) (LINK 1 , LINK 2 , & LINK 3)	The project started in 2019, and supports an integrated approach to waste management in La Paz, through new technologies and circular economy, awareness campaigns, technical skills of waste collecting and sorting operators, and supports scientific research. It is funded by the Italian Agency for Development Cooperation (AICS).

25. There are other similar projects in the region upon which this project could build on their lessons learned. These include the “Green Climate Financing Facility for LFIs in Latin-America”, a GCF funded programme implemented by CAF ([FP149](#)) for locally financed and developed climate change projects for MSMEs in the renewable energy, energy efficiency and land use sectors; the IKI funded project [Green Finance Facility](#) managed by IDB; the project “Promoting private sector investments in energy efficiency in the industrial sector in Paraguay” implemented by the IDB ([FP063](#)) focused on increasing energy efficiency in the industrial sector, in particular SMEs, by providing medium and long-term financing for EE investment projects; the project “Energy Savings Insurance (ESI) for private energy efficiency investments by SMEs”, also implemented by IDB ([FP009](#)) which developed and deployed non-financial instruments and risk-sharing mechanisms to promote investments in EE measures by SMEs.

[1] BDP will work with agriculture, manufacturing and recycling companies in Bolivia to support implementation of environmentally sound management of stockpiles of waste/obsolete chemicals, pesticides and agrochemical container management, and products and materials that contain or can emit POPs, and chemicals of concern.

[2] VAPBS-DGGIRS, Assessment of Solid Waste Management in Bolivia, 2022 (preliminary)

B. PROJECT DESCRIPTION

Project description

This section asks for a theory of change as part of a joined-up description of the project as a whole. The project description is expected to cover the key elements of good project design in an integrated way. It is also expected to meet the GEF's policy requirements on gender, stakeholders, private sector, and knowledge management and learning (see section D). This section should be a narrative that reads like a joined-up story and not independent elements that answer the guiding questions contained in the PIF guidance document. (Approximately 3-5 pages) see guidance here

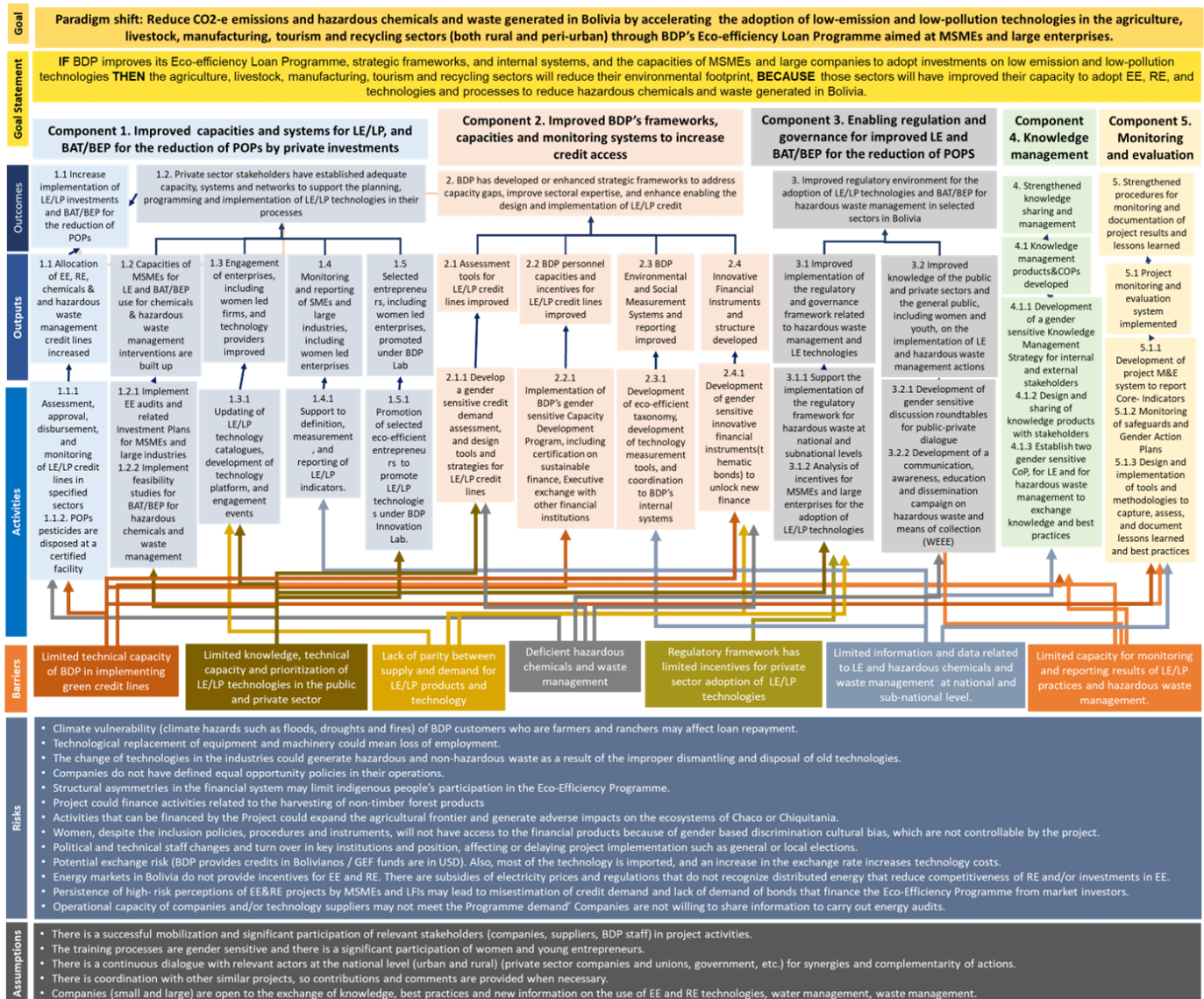
1. The **objective** of the overarching programme is to reduce CO₂-e emissions and hazardous chemicals and waste generated in Bolivia by accelerating the adoption of low-emission and low-pollution technologies in the agriculture, livestock, manufacturing, tourism **and recycling** sectors (both rural and peri-urban) through BDP's Eco-efficiency Loan Programme aimed at MSMEs and large enterprises. Therefore, the goal and expected **paradigm shift** is to improve the capacity of private sector companies and financial institutions and the enabling environment for investments in low-emission and low-pollution measures and technologies, including **the safe disposal of** hazardous chemicals and waste, in key productive sectors of Bolivia. The proposed interventions under the project components will address the identified barriers described in Section A shown in the Theory of Change diagram.
2. The overall project approach addresses the problems and barriers under a comprehensive approach with three main support areas. First, under Component 1 it addresses the lack of investment in **LE/LP technologies** by implementing an enhanced Eco-Efficiency Programme with improved technical support to MSMEs and large enterprises funded by the GEF. The technical assistance, will facilitate the achievement of intended GEBs, as these enterprises adopt the new **LE/LP** technological solutions **that reduce GHG emissions and hazardous waste**. Under Component 2, the project directly supports BDP to improve its internal capacities and systems to deliver and implement green credit lines in Bolivia. The project also supports under Component 3 an improved regulatory environment which currently has limited incentives for the adoption of **LE/LP** technologies and hazardous waste management solutions.
3. Under **Component 1** the project will address the **limited technical capacity of BDP in implementing green credit lines** with the Eco-Efficiency loan programme. An enhanced Eco-Efficiency Programme (Outcome 1.1) will be achieved **with the increased implementation of investments in EE, RE, and BAT/BEP for the reduction of POPs coupled with Outcome 1.2, technical assistance to the MSMEs and large enterprises to adequate their capacities, systems and processes to adopt low emission technologies and BAT/BEP for the reduction of POPs. Investments promoted under Outcome 1 will increase the allocation and disbursement of Eco-efficiency credit line while reducing emissions through LE/LP technologies (detailed in table 1) by agriculture, manufacturing and tourism and recycling enterprises sectors, including women led enterprises (activity 1.1.1). Hence, these investments will also inventorize, repack, transport and dispose 615 tons of POPs pesticides through BAT/BEP in certified facilities of these sectors (activity 1.1.2) addressing the barrier of deficient hazardous chemicals management.**
4. Technical assistance and capacity development will support the planning, programming and practical implementation/investments in LE/LP technologies and processes under outcome 1.2, addressing the barrier of **limited knowledge, technical capacity for prioritization of LE/LP technologies in MSMEs and large enterprises. The implementation of energy audits, feasibility studies and investment plans will inform RE and EE investments (activity 1.2.1) and feasibility studies for BAT/BEP will facilitate Investment Plans for tackling hazardous chemicals & hazardous waste management (Activity 1.2.1). The update of technology catalogues and development of platforms for engaging MSME and large enterprises with technology providers(including women led firms), will be a key activity of the project to help address the mismatch between supply and demand for LE/LP products and technologies in Bolivia (Activity**

1.3.1). The project will also support the implementation, definition, measurement, and reporting of indicators (Activity 1.4.1) to measure the performance of the different new technologies and processes, addressing the **limited capacity of MSME and large enterprises for monitoring and reporting** results of LE/LP technologies and interventions. To increase the market of low emission services and technology providers at the national level, [BDP Lab](#) will select and promote LE/LP entrepreneurs, including women-led enterprises, to further incentivize and support innovative LE/LP solutions to reduce hazardous waste and GHG emissions (Activity 1.5.1). These processes and activities will be gender sensitive, with significant participation of women and young entrepreneurs. During PPG, the pipeline of investments and criteria for project beneficiaries will be defined and used as a basis to refine calculations of GEB's. This process assumes that there is a successful mobilization and significant participation of relevant private sector companies, suppliers, and BDP staff in project activities and that MSMEs and large enterprises are open to the exchange of knowledge, BAT/BEP, best practices and new information on the use of EE and RE technologies, water management, and management of hazardous chemicals.

5. Under **Component 2**, the project will support BDP to improve its frameworks, capacities and monitoring systems to increase green credit access in Bolivia. A gender sensitive Capacity Development Program (Activity 2.2.1) **will directly address the limited technical capacity of BDP to implementing green credit lines** by providing to BDP's credit officers a certification on sustainable finance and opportunities of peer to peer exchange with other financial institutions (activity 2.2.2). The GEF funding will also support the development of a gender sensitive credit demand assessment for LE/LP technologies including design tools and strategies to improve Ecoefficiency credit line (Activity 2.1.1). Additionally this component will improve BDP' Environmental and Social Systems Measurement and reporting systems through the development of LE/LP taxonomy, technology measurement tools in coordination with BDP's internal systems (Activity 2.3.1). These improved systems will allow a more comprehensive view of BDP's green loan portfolio and offer better conditions to evaluate its progress and to further expand the financing of sustainable projects in Bolivia. The sustainability of LP/LE investments and from Ecoefficiency Loan Program will be addressed by the development of gender sensitive innovative financial instruments (including thematic bonds) to unlock new finance for new credit lines including additional sectors or types of clients (Activity 2.4.1).

6. The improvement of the regulatory environment and governance under **Component 3** will address the **limited incentives for private sector (MSMEs and large enterprises) to adopt LE/LP technologies**. The deficient hazardous chemicals management and compliance with existing regulatory framework of Extended Producer Responsibility (EPR) system, is partly due to **limited knowledge and technical capabilities for its correct application**. The barriers related to limited information and data related to LE/LP technologies and measures at national and sub-national levels, will be addressed by this component through the development of gender sensitive discussion roundtables for public-private dialogues (Activity 3.2.1) and communication & awareness campaigns on the dangers and risks of hazardous waste and education about means of collection and disposal (Activity 3.2.2). With improved capacities and awareness & communication campaigns, conditions will be in place to advance the regulatory and governance frameworks for hazardous waste management and low emission technologies. This will be done through a series of activities that include the support for the implementation of a regulatory framework for hazardous waste at the national and subnational levels (Activity 3.1.1) and through the analysis of incentives for MSMEs and the industrial sector for the adoption of EE, RE and LP technologies in Bolivia (Activity 3.1.2).

7. This will be complemented by knowledge sharing activities under **Component 4**, such as the establishment of Communities of Practice for eco-efficiency and hazardous waste management (Activity 4.1.3) to exchange knowledge and best practices among project stakeholders. This approach assumes that there is a successful mobilization and significant gender balanced participation of MSMEs and large enterprises, government authorities at national and sub-national (municipalities) level in project activities and that there is a continuous dialogue with all relevant actors (private sector companies and unions, government, etc.).



8. The project components, outcomes, outputs and activities are summarized below:

9. **Component 1: Improved capacities and systems for low emission and low pollution technologies, and BAT/BEP for the reduction of POPs by private investments.** This component seeks to improve the allocation of green credit lines for 500 MSMEs and large enterprises (200 SMEs and large enterprises and 300 microenterprises) in agriculture, livestock manufacturing, tourism and recycling sectors. Of these 500 enterprises, the Eco-efficiency programme intends to have 25% woman owned enterprises. The project will also support 300 entrepreneurs related to LE/LP projects (100 related to anchor companies and 200 individual entrepreneurs). The project will also support the safe disposal of more than 600 tons of obsolete pesticides.

Outcome 1.1 Increased implementation of investments in LE/LP and BAT/BEP for the reduction POPs and **Outcome 1.2.** Private sector stakeholders, including women led enterprises, have established adequate capacity, systems and networks to support the planning, programming and implementation of LP/LE technologies in their processes and BAT/BEP for the reduction of POPs.

10. **Component 2: Improved BDP's frameworks, capacities and monitoring systems to increase green credit line access.** Several gender sensitive technical and institutional capacity building processes will be

implemented, in terms of technical tools and internal processes, as well as technical staff in charge of loan placement.

Outcome 2. BDP has developed or enhanced strategic frameworks to address capacity gaps, improve sectoral expertise, and enable the design and implementation of LE/LP credit.

11. **Component 3: Enabling regulation and governance for improved EE, RE, low-pollution and BAT/BEP for the reduction of POPs.** This component seeks to improve the existing regulatory environment to provide a more in-depth analysis of the existing incentives and how to improve that regulatory environment to maximize the participation of private sector in the adoption of eco-efficient technologies. In addition, the bank recognizes the importance of a coordinated work between public and private actors for the implementation of activities that allow the implementation of new technologies to reduce pollution by CO₂ emissions and waste management.

Outcome 3: Improved regulatory environment for the adoption of LE/LP technologies and BAT/BEP for hazardous chemical and waste management in selected industries in Bolivia.

12. **Component 4: Knowledge management.** The project will provide relevant knowledge management products related to LE/LP technologies and hazardous waste management in Spanish and local languages. Additionally, it will focus on strengthening national platforms and information tools to enhance sharing of results and lessons learned with stakeholders, using a gender sensitive approach.

Outcome 4: Strengthened knowledge sharing and management.

13. **Component 5: Monitoring and evaluation.** The project monitoring of core indicators and the sharing of results and lessons learned with stakeholders will focus on the following outputs and activities:

Outcome 5. Strengthened procedures for monitoring and documentation of project results and lessons learned.

14. **Relevant Stakeholders.** The relevant actors and their role within the project are as follows. **BDP** will be the implementing partner (executing agency) and key actor for the development of all project components, as it will provide the investment loans and technical assistance to MSMEs and large enterprises (Component 1), with Component 2 exclusively focused on BDP's own institutional strengthening. BDP will also participate in public-private dialogue tables (Activity 3.2.1). **MSMEs and large enterprises** will be the main beneficiaries of the project through the Eco-Efficiency Loan Programme and technical assistance (Component 1), which will provide them training to increase their access to new LE/LP technology and will promote their participation in public-private dialogue tables (Activity 3.2.1). **Industry and technology providers** are a key player in the framework of Component 1 to improve the engagement of private firms and these technology providers. Various consultations and events will be held to develop update catalogs on LE/LP technologies and products available at the national level. In addition, they will be part of the consultation and exchange roundtables for the creation of public and private sector partnerships. **Industry and recycling companies** play a fundamental role in the implementation of Component 3 related to supporting the implementation of the regulatory framework for hazardous waste at the national and subnational levels. In addition, their active participation will be sought in the implementation of communication, awareness, education and dissemination campaigns on risks of hazardous waste, the means of collection with emphasis on electronic and electrical waste, based on previous experiences. The project will work in coordination with **Government and National Agencies** (MMyA, MHyE, MDRyT, MDPyEP,

municipal governments) to achieve the expected results through technical meetings, information exchange and roundtables. Especially in Components 3 and 4 related to the strengthening of the regulatory framework and governance and the exchange of lessons learned, the alignment and strong involvement with public sector actors will be sought. In addition, the project will seek to explicitly involve the decentralized Autonomous Governments for their role as WEEE managers at local level. In this context, the project will build on previous experiences with the municipalities of La Paz, Cochabamba and Santa Cruz.

15. **Knowledge Management.** The project promotes **capacity building and knowledge management** through different strategies. These strategies will be implemented at different levels: i) BDP internal capacity building (Outcome 2); ii) External capacity building of key stakeholders (Outcome 1.2); iii) Knowledge sharing and creation of public and private partnerships (Outcome 4); iv) Design of communication products (Outcome 4); and v) Design and implementation of tools and methodologies to capture, assess, and document lessons learned and best practices (Outcome 5).
16. On the other hand, **sustainability** will be achieved through the development of eco-efficient and low pollution credit lines and by creating institutional capacities of BDP as a provider for financing **LE/LP** technologies. Also, through the implementation of training sessions within private sector companies (MSMEs as well as large companies), stakeholder ownership of technologies, tools and methods introduced by the project beyond its completion will be ensured. Therefore, it is expected that strengthening capacities within the private sector will encourage companies to invest in clean, sustainable and low emission and low pollution technologies and financial investment schemes can serve as an incentive for the private sector to implement a more sustainable and inclusive business model. The project will bridge the gap between financing institutions and private companies, since MSMEs in particular, lack access to available investment schemes for clean, sustainable and low emission and low pollution technologies.
17. **Global environmental benefits (GEFTF) and GEF additionality.** The project will generate global environmental benefits (GEBs) through the financing of eco-efficient investments of 500 MSMEs and large enterprises (200 SMEs and large enterprises and 300 microenterprises) in the agriculture, livestock, manufacturing, tourism **and recycling** sectors of Bolivia. These private sector investments in technology replacement and improved hazardous waste management will reduce **2,095,989 tones CO₂eq directly and 2,519,949 tones CO₂eq indirectly**, 1,016 tons of recovered WEEE containing 414 kg of BFRs, and 12.55g EQT POPs to air reduced during the 4-year project implementation, **12,543 tons of recovered WEEE containing 5.1 tons of BFRs, and 615 tons of obsolete pesticides that will be disposed of, comprised of DDT, Sulfluramid (Mirex S), Aldrin, Dieldrin, Chlordane, Lindane and other undetermined pesticides.** Additionally, the project will reduce 2,231.73 gEQT POPs to air (dioxins and furans) from various improved industrial processes in cement production (2,204.98 gEQT POPs), textile production (14.1 gEQT POPs), brick production (0.09792 gEQT POPs), glass production (0.000102 gEQT POPs), and tractors and vehicles (0.00061 gEQT POPs). These GEBs would not have accrued without the GEF project, as BDP's Eco-efficient credit line would not have had the additional technical assistance support to boost its uptake by MSMEs and large enterprises, and the conducive enabling environment given the overall project support for improved hazardous waste management. For example, without the additional support on energy audits covered by GEF funds, the MSMEs and large enterprises would have likely not conducted those audits, as it is an additional cost that is usually not prioritized. That single activity, would have limited the penetration and success of BDP's Eco-efficient Programme. The support for the elimination of hazardous chemicals and waste that the project is providing, would also not occur without GEF funding, as the Government and private sector have limited resources, and usually do not prioritize such investments. The improved implementation of the regulatory and governance framework related to hazardous waste management and eco-efficient technologies is likely to have a positive impact in the effectiveness of the Eco-efficient Programme.

18. **National Policy support and alignment.** The project will seek through Component 3 to strengthen the current regulatory frameworks for hazardous waste management through the development of specific activities to facilitate its implementation. There are currently several laws and regulations for hazardous waste management that the project seeks to support compliance, as there is limited impact due to the lack of control and follow-up. **Law 755 on Integrated Waste Management** of October 2015 establishes the general policy and legal regime for integrated waste management in Bolivia (including hazardous waste). It focuses on prevention and reduction of waste generation and its final disposal in a sanitary and environmentally secure way. It also establishes the responsibility of waste generators to contribute to its final disposal, seeking to improve their consumption habits (reduce/reuse) and apply recycling and composting technologies to transform waste into energy. Bolivia has a specific environmental regulatory framework that directly and indirectly links POPs (Stockholm Convention) in compliance with international conventions. At the same time, **Law 031 Framework of Autonomies and Decentralization** establishes that the Autonomous Departmental Governments are responsible for regulating and executing in their jurisdiction the solid, industrial and toxic waste regime and policies approved by the central government. Therefore, the implementation and control of compliance with these policies falls on the subnational governments.
19. **Potential for scaling up.** The promotion of eco-efficient investments for 500 MSMEs and large enterprises will serve as a transformative pathway, that will allow large demonstrative effect of the adoption of eco-efficient and clean production in important economic sectors of Bolivia. Enabled by the dedicated regulatory framework and improved financing systems the proposed project will serve as a model for replication and scaling up of eco-efficient and clean production financing. Lessons learned and experiences gained through public-private dialogues will be shared on a national and international level. The awareness raised within the project on the potential economic gains that the proposed technologies can offer will encourage more financial institutions to extend their green credit lines, and therefore encourage investments in companies and industrial parks that are willing to increase their resource efficiency, as well as to promote sustainable and inclusive industrial development. Furthermore, the new technological catalogues will be the basis for priority setting for further low-emission and low-pollution investments in Bolivia.

Coordination and Cooperation with Ongoing Initiatives and Project.

Does the GEF Agency expect to play an execution role on this project?

If so, please describe that role here. Also, please add a short explanation to describe cooperation with ongoing initiatives and projects, including potential for co-location and/or sharing of expertise/staffing

There are several initiatives and projects with which there could be potential cooperation. BDP is working with other financial and non-financial institutions regarding sustainable financing, including [CAF](#), KfW, AFD, Swisscontact and GIZ. In the financial sector, the Strategic alliance between ASOBAN and UNDP focuses on promoting social and environmental investments in Bolivia within the framework of the SDGs. The Support for Energy Transition in Bolivia is a USD 90 million loan from AFD that supports the development of alternative energies and energy efficiency in Bolivia. Both initiatives support energy efficiency and renewable energy, and provide lessons learned regarding stakeholder engagement in Bolivia. In the international cooperation area, the Wind and solar Atlas supported by GIZ in coordination with the Ministry of Hydrocarbons and Energies, provides also lessons learned on the development of mobile applications to provide information for stakeholders on these types of technologies. Initiatives working with MSMEs such as “Bolivia Digna y Productiva” provides lessons about engaging MSMEs to adopt new technologies to improve their productivity and competitiveness.

Within the framework of the Basel, Rotterdam, Stockholm and Minamata Conventions for the environmentally sound management of chemicals and hazardous wastes, the Government of Bolivia has assumed several commitments. In this context, the MMAyA and UNIDO, implemented the project 'Strengthening national initiatives and Regional Cooperation for the environmentally sound management of POPs in WEEE in Latin American countries', with funding from the GEF-5. At the national level, the intervention is framed in two (2) main components: (1): Strengthening of national initiatives for the management of electronic waste, to generate Policies, Strategies, Standards, Procedures and Technical Guides, which operationalize the environmentally responsible management of WEEE; (2) Strengthening of national capacities in facilities/infrastructure for dismantling and recycling of electronic waste, to carry out the evaluation of the on-site infrastructure of private operators that recycle, reuse and/or perform the final confinement or final disposal of WEEE.

In addition, within the framework of the circular economy, the 'La Paz Recicla' initiative provides lessons learned on waste management and the adoption of new technologies and circular economy.

Core Indicators

Indicator 6 Greenhouse Gas Emissions Mitigated

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO₂e (direct)	2095989	0	0	0
Expected metric tons of CO₂e (indirect)	2519949	0	0	0

Indicator 6.1 Carbon Sequestered or Emissions Avoided in the AFOLU (Agriculture, Forestry and Other Land Use) sector

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO₂e (direct)				
Expected metric tons of CO₂e (indirect)				
Anticipated start year of accounting				
Duration of accounting				

Indicator 6.2 Emissions Avoided Outside AFOLU (Agriculture, Forestry and Other Land Use) Sector

Total Target Benefit	(At PIF)	(At CEO Endorsement)	(Achieved at MTR)	(Achieved at TE)
Expected metric tons of CO₂e (direct)	2,095,989			
Expected metric tons of CO₂e (indirect)	2,519,949			
Anticipated start year of accounting	2025			
Duration of accounting	20			

Indicator 6.3 Energy Saved (Use this sub-indicator in addition to the sub-indicator 6.2 if applicable)

Total Target Benefit	Energy (MJ) (At PIF)	Energy (MJ) (At CEO Endorsement)	Energy (MJ) (Achieved at MTR)	Energy (MJ) (Achieved at TE)
Target Energy Saved (MJ)	450,539,986			

Indicator 6.4 Increase in Installed Renewable Energy Capacity per Technology (Use this sub-indicator in addition to the sub-indicator 6.2 if applicable)

Technology	Capacity (MW) (Expected at PIF)	Capacity (MW) (Expected at CEO Endorsement)	Capacity (MW) (Achieved at MTR)	Capacity (MW) (Achieved at TE)
Biomass	0.56			
Solar Photovoltaic	2.50			
Solar Thermal	0.11			

Indicator 9 Chemicals of global concern and their waste reduced

Metric Tons (Expected at PIF)	Metric Tons (Expected at CEO Endorsement)	Metric Tons (Achieved at MTR)	Metric Tons (Achieved at TE)
620.83	0.00	0.00	0.00

Indicator 9.1 Solid and liquid Persistent Organic Pollutants (POPs) removed or disposed (POPs type)

POPs type	Metric Tons (Expected at PIF)	Metric Tons (Expected at CEO Endorsement)	Metric Tons (Achieved at MTR)	Metric Tons (Achieved at TE)
Decabromodiphenyl ether (commercial mixture, c-decaBDE)	5.53			

Indicator 9.2 Quantity of mercury reduced (metric tons)

Metric Tons (Expected at PIF)	Metric Tons (Expected at CEO Endorsement)	Metric Tons (Achieved at MTR)	Metric Tons (Achieved at TE)

Indicator 9.3 Hydrochlorofluorocarbons (HCFC) Reduced/Phased out (metric tons)

Metric Tons (Expected at PIF)	Metric Tons (Expected at CEO Endorsement)	Metric Tons (Achieved at MTR)	Metric Tons (Achieved at TE)

Indicator 9.4 Number of countries with legislation and policy implemented to control chemicals and waste (Use this sub-indicator in addition to one of the sub-indicators 9.1, 9.2 and 9.3 if applicable)

Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
1			

Indicator 9.5 Number of low-chemical/non-chemical systems implemented, particularly in food production, manufacturing and cities (Use this sub-indicator in addition to one of the sub-indicators 9.1, 9.2 and 9.3 if applicable)

Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)

Indicator 9.6 POPs/Mercury containing materials and products directly avoided

Metric Tons (Expected at PIF)	Metric Tons (Expected at CEO Endorsement)	Metric Tons (Achieved at MTR)	Metric Tons (Achieved at TE)
13,559.00			

Indicator 9.7 Highly Hazardous Pesticides eliminated

Metric Tons (Expected at PIF)	Metric Tons (Expected at CEO Endorsement)	Metric Tons (Achieved at MTR)	Metric Tons (Achieved at TE)
615.30			

Indicator 9.8 Avoided residual plastic waste

Metric Tons (Expected at PIF)	Metric Tons (Expected at CEO Endorsement)	Metric Tons (Achieved at MTR)	Metric Tons (Achieved at TE)

Indicator 10 Persistent organic pollutants to air reduced

Grams of toxic equivalent gTEQ (Expected at PIF)	Grams of toxic equivalent gTEQ (Expected at CEO Endorsement)	Grams of toxic equivalent gTEQ (Achieved at MTR)	Grams of toxic equivalent gTEQ (Achieved at TE)
2,231.73			

Indicator 10.1 Number of countries with legislation and policy implemented to control emissions of POPs to air (Use this sub-indicator in addition to Core Indicator 10 if applicable)

Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
1			

Indicator 10.2 Number of emission control technologies/practices implemented (Use this sub-indicator in addition to Core Indicator 10 if applicable)

Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)

Indicator 11 People benefiting from GEF-financed investments

	Number (Expected at PIF)	Number (Expected at CEO Endorsement)	Number (Achieved at MTR)	Number (Achieved at TE)
Female	1,800			
Male	1,800			
Total	3,600		0	0

Explain the methodological approach and underlying logic to justify target levels for Core and Sub-Indicators (max. 250 words, approximately 1/2 page)

Greenhouse gas emissions mitigated (metric tons of CO₂e). Based on the estimated project pipeline by sector of the Ecoefficiency Program and an average investment cost of the associated technologies, a reduction in energy consumption and associated emissions was estimated with a 20 years timeframe (although for some technologies the timeframe was shorter, such as appliances (10 years) and AC inverters and embroidery and weaving machines (15 years)). This includes: i) reductions of 410,992,222 MJ in energy consumption from the implementation of standard energy efficiency technologies (e.g., products and machinery in the productive sector and household appliances) such as the installation of eight (8) Hoffman brick ovens, 60 agricultural machinery, 33 AC inverters, 39 production lines, 114 weaving and embroiding machines, and 130 efficient appliances; ii) Installation of renewable energy including 57 photovoltaic systems, and 73 solar pumps; iii) use of secondary plastics with mechanical recycling instead of primary plastic production to effectively recycle 171,200 tons of plastic and reduce 633,440 t CO₂e; iv) implementation of four (4) composting and biodigesters to process organic waste and reduce 6,235 t CO₂e; and avoided 1,382 t CO₂e from the reduction of WEEE during the life of the project (2.21 tons of CO₂e per ton of RAEEs). Indirect emissions are estimated as a projected reduction of 10 percent of estimated industrial sector emissions based on national GHG inventories in a 20 year timeframe.

Chemicals of global concern and their waste reduced (metric ton of toxic chemicals reduced). the results obtained by the project "Recycling of WEEE - Circular Economy for Sustainability in three Bolivian cities" with an estimated 219 tons of WEEE recovered per year (658 tons in 3 years). Considering a 10 percent increase in WEEE recovered per year, the total WEEE recovered if four years is estimated at 1,016 tons. This considers the capacity of WEEE recycling companies in Bolivia. Based on the 1,016 tons of WEEE recovered, and a content of the estimated BFR avoided is approximately 414 kg. using the same basis, the estimates include 12,543 t WEEE projected for 20 years from co-processing from cement plants. The estimates also include 615 tons of obsolete pesticides that will be disposed of, comprised of DDT, Sulfluramid (Mirex S), Aldrin, Dieldrin, Chlordane, Lindane and other undetermined pesticides.

* Obsolete pesticides comprise of DDT, Sulfluramid (Mirex S), Aldrin, Dieldrin, Chlordane, Lindane and other undetermined pesticides distributed geographically as follows: (table available in Word version).

Persistent organic pollutants to air reduced (gram of toxic equivalent gTEQ). Based on the 1,016 tons of WEEE and an emission factor for open-air cable burning of 12,000 ug TEQ/t, we estimate avoided POP (dioxins and furans) to air reduced are 12.55 g EQT. There are similar reductions in the manufacturing sector from improved processes and technologies, including cement production and co-processing with HE kilns/ovens (2,204.98 gEQT POPs), use of water treatment plants in textile production (14.1 gEQT POPs), HE ovens in brick production (0.09792 gEQT POPs), HE ovens in glass production (0.000102 gEQT POPs), and reduced emissions from fuel efficient tractors and vehicles (0.00061 gEQT POPs).

People benefiting from GEF-financed investments (disaggregated by sex). The project will carry out energy audits in 500 enterprises (of which 200 correspond to MSMEs and 300 to micro-enterprises). The project will also support 300 entrepreneurs related to eco-efficiency and circular economy projects (assuming that 100 will be part of anchor companies and 200 will be individual entrepreneurs). Considering that in both cases these are family businesses, the project calculates the number of beneficiaries related to the 800 enterprises (assuming an average household size of 5 people), which results in 4000 beneficiaries, of which 50 percent are expected to be women (2,000 beneficiaries).

Risks to Project Preparation and Implementation

Summarize risks that might affect the project preparation and implementation phases and what are the mitigation strategies the project preparation process will undertake to address these (e.g. what alternatives may be considered during project preparation—such as in terms of consultations, role and choice of counterparts, delivery mechanisms, locations in country, flexible design elements, etc.). Identify any of the risks listed below that would call in question the viability of the project during its implementation. Please describe any possible mitigation measures needed. (The risks associated with project design and Theory of Change should be described in the “Project description” section above). The risk rating should reflect the overall risk to project outcomes considering the country setting and ambition of the project. The rating scale is: High, Substantial, Moderate, Low.

Risk Categories	Rating	Comments
Climate	Substantial	Description: There are customers who are farmers and ranchers who are vulnerable to climate hazards (floods, droughts and fires). Mitigation Measures: Use of early warning systems (using projection information); Technical assistance (BDP line of work); Insurance
Environment and Social	Low	Description: Technological replacement could mean a loss of employment sources. For example, companies that have been working for a long time, create two lines. Companies that are new, from zero to an automated line). Mitigation Measures: As part of the transition to the new technology, awareness raising and training of the companies

		<p>personnel. Description: The change of technologies in the industries could generate hazardous and non-hazardous waste as a result of the improper dismantling and disposal of old technologies. Mitigation Measures: The Project will include among its policies for the credit, the requirements that the borrower ensure that waste is properly disposed, under conditions of environmental and social security.</p>
Political and Governance	Low	<p>Description: Political and technical staff changes and turn over in key institutions and position, affecting or delaying project implementation such as general or local elections (general elections in Bolivia will be held in 2025). Mitigation Measures: Keep stakeholders informed of project progress and results. Development and implementation of a comprehensive Stakeholder Engagement Plan.</p>
Macro-economic	Low	<p>Description: Exchange risk / exchange rate (BDP gives credits in Bolivianos / GEF funds in USD). Most of the technology is imported (increase in exchange rate increases the cost of importing). Mitigation Measures: Securing credit with existing machinery and use of contract management.</p>
Strategies and Policies	Substantial	<p>Description: Energy prices and electricity subsidies and reduced competitiveness of renewable energies and/or investments in energy efficiency. Mitigation Measures: Under the Eco-efficiency loan programme, the credit lines offer concessional rates that would increase the competitiveness of new technology adoption. Financial analysis will be undertaken in PPG to</p>

		explore how attractive investments might be.
Technical design of project or program	Low	Description: Failure in demand estimation and information. Mitigation Measures: Perform market analysis on a regular basis to avoid or reduce uncertainty.
Institutional capacity for implementation and sustainability	Moderate	Description: Operational capacity of companies and/or technology suppliers in delivering expected results. Mitigation: Expand and improve supplier registry working with BDP that are part of the exchange platform with MSMEs. Regular assessment of the operational capacity of suppliers to deliver eco-efficient technologies.
Fiduciary: Financial Management and Procurement	Low	Description: Risk of lack of demand for BDP's green bonds issuance; lack of demand from market investors. Mitigation Measures: Due diligence with investors to promote the effective allocation of bonds in the capital markets.
Stakeholder Engagement	Moderate	Description: Companies are not willing to share information to carry out energy audits, as they do not perceive an economical benefit to include eco-efficient technologies and processes. Mitigation Measures: Implement information fairs and round-tables. Provide access to companies that have already adopted the new technologies to provide demonstrations of effectiveness of energy audits. Description: Lack of participation in project activities and product development by stakeholders at national, regional and local level due to lack of adequate incentives or clarification of their role within the Project. Mitigation Measures: Implement information fairs and round-tables. Implement information

		sharing activities to keep stakeholders engaged.
Other	Moderate	1. Description: External shocks to the project such catastrophic events (earthquakes, floods, pandemics affecting project implementation and/or government co-financing commitments Mitigation Measures: Develop contingency plans to reduce and mitigate those type of risks. 2. Description: Persistence of high- risk perceptions of EE projects by MSMEs. Mitigation Measures: Provide access to companies that have already adopted the new technologies to provide demonstrations of effectiveness of solutions.
Financial Risks for NGI projects		
Overall Risk Rating	Moderate	

C. ALIGNMENT WITH GEF-8 PROGRAMMING STRATEGIES AND COUNTRY/REGIONAL PRIORITIES

Describe how the proposed interventions are aligned with GEF- 8 programming strategies and country and regional priorities, including how these country strategies and plans relate to the multilateral environmental agreements.

Confirm if any country policies that might contradict with intended outcomes of the project have been identified, and how the project will address this.

For projects aiming to generate biodiversity benefits (regardless of what the source of the resources is - i.e., BD, CC or LD), please identify which of the 23 targets of the Kunming-Montreal Global Biodiversity Framework the project contributes to and explain how. (max. 500 words, approximately 1 page)

The proposed project is aligned with the Climate Change and Chemicals and Waste GEF-8 programming strategies. Under the **Climate Change focal area** that aims to support transformational shifts towards net-zero GHG emissions and climate-resilient development pathway, the project supports: i) **Acceleration of the efficient use of energy and materials**, through the adoption of new technologies in various sectors; ii) **Enable the transition to decarbonized power systems**, supporting low-emission and low-pollution measures and technologies to reduce CO₂ emissions.

The project also supports circular economy processes and the reduction and disposal of hazardous waste aligning itself with the **Chemicals and Waste** focal area. The project activities are aligned with **Objective 1** Creation, strengthening and supporting the enabling environment and policy coherence to transform the manufacture, use and sound management of chemicals and to eliminate waste and chemical pollution, through the support to develop and implement financial instruments and mechanisms at national level to allow for access to finance for business to sustain and scale project and program results, and with **Objective 3** Elimination of hazardous chemicals and waste.

Alignment with country priorities

The table below outlines the alignment with country priorities and plans and how they relate to the multilateral environmental agreements.

Table 3. Alignment to Country Strategies and Plans and relation to multilateral environmental agreements

Country Strategies / Plans related	Alignment to Bolivia's Strategies/Plans and multilateral environmental agreements
National Economic and Social Development Plan 2021-2025 (PDES)	<p>PDES 2021- 2025 proposes moving towards a modern, inclusive and sustainable energy matrix. The goals establish the diversification of the energy matrix, projecting the diversification of sources towards the year 2030 with the preeminence of renewable and alternative energies.</p> <p><u>Multilateral environmental agreement:</u> Paris Agreement</p>
National Economic and Social Development Plan 2021-2025 (PDES)	<p>In addition to the national goals of reducing pollution in industrial processes, the PDES sets as a goal within its Pillar 6- Productive Sovereignty with Integral Diversification, the innovation in production technologies to 'stop producing with obsolete technologies or those that reproduce polluting production recipes that are harmful to health'.</p> <p><u>Multilateral environmental agreement:</u> Stockholm Convention</p>
Nationally Determined Contribution (NDC) 2021-2030	<p>Bolivia's NDC enhances the objectives of the PDES by proposing, among its goals, universal access to electricity coverage, the expansion of distributed generation systems and a greater participation of renewable and alternative energies in the electricity matrix.</p> <p><u>Multilateral environmental agreement:</u> Paris Agreement</p>
National Implementation Plan of the Republic of Bolivia for Compliance with the Stockholm Convention on POPs	<p>The National Implementation Plan for the Stockholm Convention in Bolivia is developed from a general to a specific approach. It encompasses chemical management principles that are applicable to chemical problems in general. This plan was published in 2004^[1] and the MMAyA is currently designing regulations for its application.</p> <p><u>Multilateral environmental agreement:</u> Stockholm Convention</p>

Country policies that might contradict with intended outcomes of the project, and proposed measures:

Hydrocarbon prices in the local market are currently subsidized, with a cost of US\$0.54/liter, while the international price is US\$1.25/liter ^[2]. The fuel subsidy in 2022 reached US\$ 1.7 billion dollar. The subsidy for gasoline and diesel is framed within the Productive Community Social Economic Model (MESCP) and proposes to guarantee the population access to these fuels at a stable price. In addition, it is stipulated that at present, the subsidy mainly benefits agriculture, livestock and other productive activities in Santa Cruz. In this context, it is important to mention that in the last six years the cost of fuel subsidies grew 7.4 times, while gasoline and diesel imports increased 19 times from 2006 to 2022. While the Project does not seek to make changes to the current oil subsidy policy, one of its main pillars is to improve the regulatory environment for the adoption of low-emission and low-pollution technologies for selected industries in Bolivia, through activities and knowledge transfer related to the benefits and advantages of eco-efficient technologies.

[1] The 1st National Implementation Plan for the Stockholm Convention was valid from May 2004 to 2019, the 2nd National Implementation Plan for the Stockholm Convention was being finalized in 2019 and is not available to the public.

[2] National Hydrocarbons Agency ANH 2021

D. POLICY REQUIREMENTS

Gender Equality and Women's Empowerment:

We confirm that gender dimensions relevant to the project have been addressed as per GEF Policy and are clearly articulated in the Project Description (Section B).

Yes

Stakeholder Engagement

We confirm that key stakeholders were consulted during PIF development as required per GEF policy, their relevant roles to project outcomes and plan to develop a Stakeholder Engagement Plan before CEO endorsement has been clearly articulated in the Project Description (Section B).

Yes

Were the following stakeholders consulted during project identification phase:

Indigenous Peoples and Local Communities:

Civil Society Organizations: Yes

Private Sector: Yes

Provide a brief summary and list of names and dates of consultations

During the design of the Eco-efficiency programme, a market study was developed in 2022 with the support of CAF which surveyed different sectors and actors regarding the demand of this type of financial product. Additionally, during the first half of 2022, 10 meetings were held with the participation of around 525 MSME and large firms representing various sectors (agriculture, ceramic and brick industry, hotels, restaurants and tourism, and Chambers of Industry and Commerce) interested in the Eco-efficiency programme in several strategic locations throughout Bolivia, including La Paz, Cochabamba, Santa Cruz, Oruro and Tarija. The meetings were held to inform about the Eco-efficiency programme and to understand the perspectives, interests and specific requirements of each sector, and to analyze how the product and the technical assistance provided by BDP could address these aspects in a way effective.

During the PIF development, consultations with various actors were conducted between May and September 2023. During a field mission during May 29-31, technical meetings, interviews and visits were held in the city of La Paz. The purpose was to present the progress of the proposed project and gather additional information for the development of the PIF. Meetings were held with: BDP's Bank Management teams, and with technology suppliers including GG Importaciones, SOLTECS, Ecobus – Ecotermia, ENERVID, and the Center for the Promotion of Sustainable Energies (Centro de Promocion de Energias Sostenibles, [CPTS](#)). A field visit to a brick production plant in Viacha (El Alto) provided a first hand experience with one of the very first loans under the Eco-efficiency Programme.

Consultations with Government institutions were held to obtain and exchange information related to existing programs/projects at the national level that contribute to eco-efficiency and hazardous waste reduction, as well as the status of laws and regulations that support these processes. The Ministries consulted included the Ministry of Planning and Development (Vice-Ministry of Planning and Coordination) as GEF focal point, the Ministry of Productive Development and Plural Economy (Vice-Ministry of Industrial Policy), the Ministry of Rural Development and Land (Vice-Ministry of Rural Development), the Ministry of Hydrocarbons and Energy (Vice-Ministry of Renewable Energy), and the Ministry of Environment and Water (Plurinational Authority of Mother Earth). These consultations allowed to identify needs, gaps and bottlenecks faced by these Ministries in terms of eco-efficiency and hazardous waste reduction. During July and August, follow up technical meetings were held with the MMAyA to seek possible collaboration with the project 'Strengthening of national and regional cooperation initiatives for the environmentally sound management of POPs in WEEE in Latin American countries', which MMAyA is implementing within the framework of the GEF-5. **In November, BDP made further consultations with SOBOCE in La Paz regarding waste management and disposal.**

(Please upload to the portal documents tab any stakeholder engagement plan or assessments that have been done during the PIF development phase.)

Private Sector

Will there be private sector engagement in the project?

Yes

And if so, has its role been described and justified in the section B project description?

Yes

Environmental and Social Safeguard (ESS) Risks

We confirm that we have provided indicative information regarding Environmental and Social risks associated with the proposed project or program and any measures to address such risks and impacts (this information should be presented in Annex D).

Yes

Overall Project/Program Risk Classification

PIF	CEO Endorsement/Approval	MTR	TE
Medium/Moderate			

E. OTHER REQUIREMENTS

Knowledge management

We confirm that an approach to Knowledge Management and Learning has been clearly described in the Project Description (Section B)

Yes

ANNEX A: FINANCING TABLES

GEF Financing Table

Indicative Trust Fund Resources Requested by Agency(ies), Country(ies), Focal Area and the Programming of Funds

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Programming of Funds	Grant / Non-Grant	GEF Project Grant(\$)	Agency Fee(\$)	Total GEF Financing (\$)
UNDP	GET	Bolivia	Climate Change	CC STAR Allocation: CCM- 1-1	Grant	1,734,328.00	164,761.00	1,899,089.00
UNDP	GET	Bolivia	Climate Change	CC STAR Allocation: CCM- 1-3	Grant	1,734,328.00	164,762.00	1,899,090.00
UNDP	GET	Bolivia	Chemicals and Waste	POPs	Grant	1,369,863.00	130,137.00	1,500,000.00
UNDP	GET	Bolivia	Chemicals and Waste	POPs	Grant	1,369,863.00	130,136.00	1,499,999.00
Total GEF Resources (\$)						6,208,382.00	589,796.00	6,798,178.00

Project Preparation Grant (PPG)

Is Project Preparation Grant requested?

true

PPG Amount (\$)

200000

PPG Agency Fee (\$)

19000

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Programming of Funds	Grant / Non- Grant	PPG(\$)	Agency Fee(\$)	Total PPG Funding(\$)
UNDP	GET	Bolivia	Climate Change	CC STAR Allocation: CCM-1-1	Grant	100,000.00	9,500.00	109,500.00
UNDP	GET	Bolivia	Climate Change	CC STAR Allocation: CCM-1-3	Grant	100,000.00	9,500.00	109,500.00
Total PPG Amount (\$)						200,000.00	19,000.00	219,000.00

Please provide justification

Sources of Funds for Country Star Allocation

GEF Agency	Trust Fund	Country/ Regional/ Global	Focal Area	Sources of Funds	Total(\$)
UNDP	GET	Bolivia	Biodiversity	BD STAR Allocation	2,157,179.00
UNDP	GET	Bolivia	Land Degradation	LD STAR Allocation	1,860,000.00
Total GEF Resources					4,017,179.00

Indicative Focal Area Elements

Programming Directions	Trust Fund	GEF Project Financing(\$)	Co-financing(\$)
CCM-1-1	GET	1,734,328.00	17946329
CCM-1-3	GET	1,734,328.00	18287998
CW-1	GET	1,369,863.00	14444818
CW-2	GET	1,369,863.00	14444818
Total Project Cost		6,208,382.00	65,123,963.00

Indicative Co-financing

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Investment Mobilized	Amount(\$)
GEF Agency	UNDP	In-kind	Recurrent expenditures	312000
Recipient Country Government	BDP	Loans	Investment mobilized	56156100
Recipient Country Government	BDP	In-kind	Recurrent expenditures	2845163
Private Sector	Beneficiaries (500 MSMEs and large enterprises)	Equity	Investment mobilized	5615610
Recipient Country Government	MMAyA	In-kind	Recurrent expenditures	195090
Total Co-financing				65,123,963.00

Describe how any "Investment Mobilized" was identified

BDP Investment mobilized of 56,156,100USD relates to the loan that will be provided to Small, medium and large companies, which will then complement with 5,615,610 of private equity (10% of total loan) as criteria to access funds.

ANNEX B: ENDORSEMENTS

GEF Agency(ies) Certification

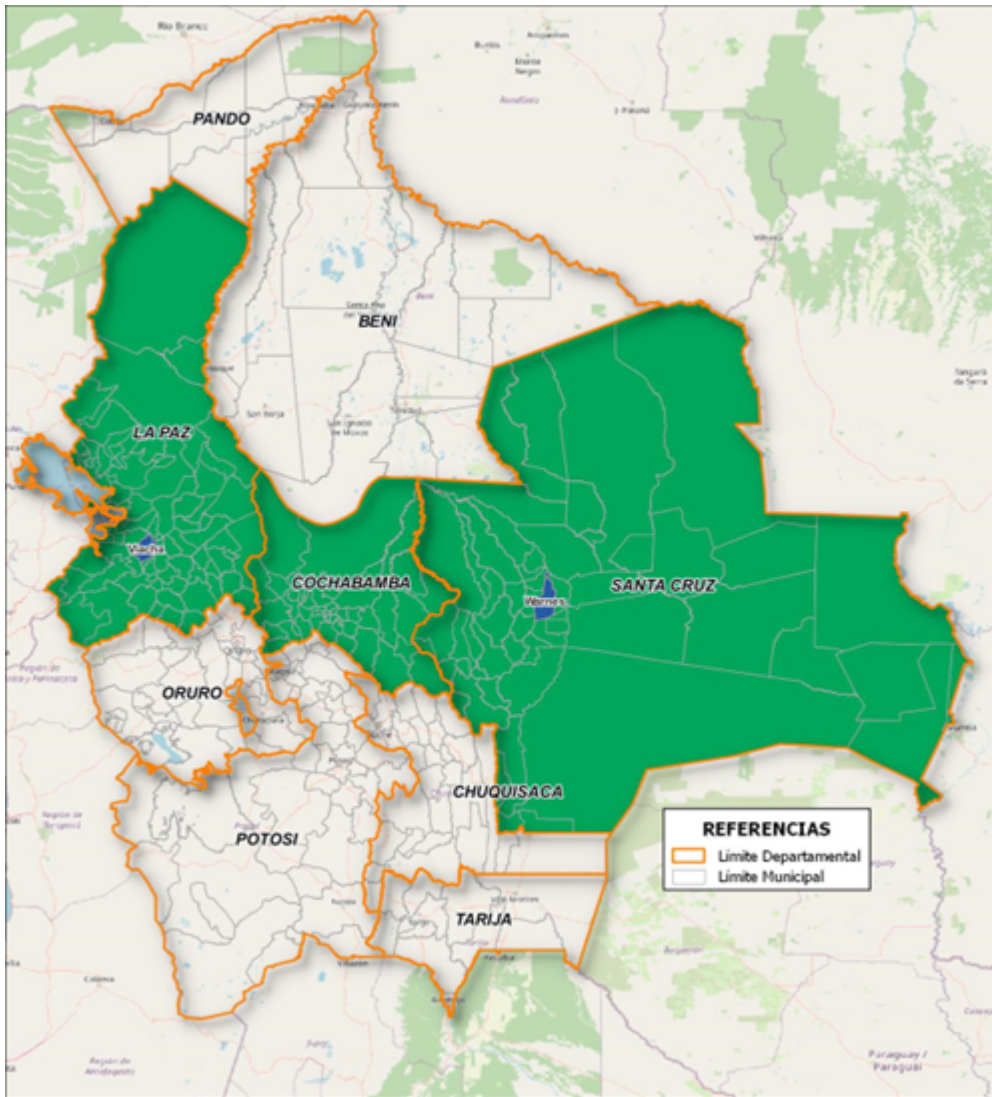
GEF Agency Type	Name	Date	Project Contact Person	Phone	Email
GEF Agency Coordinator	Pradeep Kurukulasuriya	10/18/2023	Ludmilla Diniz		ludmilla.diniz@undp.org

Record of Endorsement of GEF Operational Focal Point (s) on Behalf of the Government(s):

Name	Position	Ministry	Date (MM/DD/YYYY)
Carlos Guachalla Terrazas	Viceminister	Planning and Coordinato	10/16/2023

ANNEX C: PROJECT LOCATION

Please provide geo-referenced information and map where the project interventions will take place



ANNEX D: ENVIRONMENTAL AND SOCIAL SAFEGUARDS SCREEN AND RATING

(PIF level) Attach agency safeguard screen form including rating of risk types and overall risk rating.

Title

SESP BDP Ecoeficiencia_2023-10-15_clear for PIMS

ANNEX E: RIO MARKERS

Climate Change Mitigation	Climate Change Adaptation	Biodiversity	Land Degradation
Principal Objective 2	No Contribution 0	No Contribution 0	No Contribution 0

ANNEX F: TAXONOMY WORKSHEET

Level 1	Level 2	Level 3	Level 4
RInfluencing models			
	Transform policy and regulatory environments		

	Strengthen institutional capacity and decision-making		
	Convene multi-stakeholder alliances		
	Demonstrate innovative approaches		
	Deploy innovative financial instruments		
RStakeholders			
	Indigenous Peoples		
	Private Sector		
		Capital providers	
		Financial intermediaries and market facilitators	
		Large corporations	
		SMEs	
		Individuals/Entrepreneurs	
		Non-Grant Pilot	
		Project Reflow	
	Beneficiaries		
	Local Communities		
	Civil Society		
		Community Based Organization	
		Non-Governmental Organization	
		Academia	
		Trade Unions and Workers Unions	
	Type of Engagement		
		Information Dissemination	
		Partnership	
		Consultation	
		Participation	
	Communications		
		Awareness Raising	
		Education	
		Public Campaigns	
		Behavior Change	
RCapacity, Knowledge and Research			
	Enabling Activities		
	Capacity Development		
	Knowledge Generation and Exchange		
	Targeted Research		
	Learning		
		Theory of Change	
		Adaptive Management	
		Indicators to Measure Change	
	Innovation		
	Knowledge and Learning		
		Knowledge Management	
		Innovation	
		Capacity Development	
		Learning	
	Stakeholder Engagement Plan		
RGender Equality			
	Gender Mainstreaming		
		Beneficiaries	
		Women groups	
		Sex-disaggregated indicators	
		Gender-sensitive indicators	
	RGender results areas		
		Access and control over natural resources	
		Participation and leadership	
		Access to benefits and services	
		Capacity development	
		Awareness raising	
		Knowledge generation	
RFocal Areas/Theme			
	Integrated Programs		

	Biodiversity		
	Forests		
	Land Degradation		
	International Waters		
	Chemicals and Waste		
		Mercury	
		Artisanal and Scale Gold Mining	
		Coal Fired Power Plants	
		Coal Fired Industrial Boilers	
		Cement	
		Non-Ferrous Metals Production	
		Ozone	
		Persistent Organic Pollutants	
		Unintentional Persistent Organic Pollutants	
		Sound Management of chemicals and Waste	
		Waste Management	
			Hazardous Waste Management
			Industrial Waste
			e-Waste
		Emissions	
		Disposal	
		New Persistent Organic Pollutants	
		Polychlorinated Biphenyls	
		Plastics	
		Eco-Efficiency	
		Pesticides	
		DDT - Vector Management	
		DDT - Other	
		Industrial Emissions	
		Open Burning	
		Best Available Technology / Best Environmental Practices	
		Green Chemistry	
	Climate Change		
		Climate Change Adaptation	
			Climate Finance
			Least Developed Countries
			Small Island Developing States
			Disaster Risk Management
			Sea-level rise
			Climate Resilience
			Climate information
			Ecosystem-based Adaptation
			Adaptation Tech Transfer
			National Adaptation Programme of Action
			National Adaptation Plan
			Mainstreaming Adaptation
			Private Sector
			Innovation
			Complementarity
			Community-based Adaptation
			Livelihoods
		Climate Change Mitigation	
			Agriculture, Forestry, and other Land Use
			Energy Efficiency
			Sustainable Urban Systems and Transport
			Technology Transfer
			Renewable Energy
			Financing
			Enabling Activities
		Technology Transfer	
			Poznan Strategic Programme on Technology Transfer

			Climate Technology Centre & Network (CTCN)
			Endogenous technology
			Technology Needs Assessment
			Adaptation Tech Transfer
		United Nations Framework on Climate Change	
			Nationally Determined Contribution