

PMR Public Report

Operation Number	BR-L1576	Chief of Operations Validation Date	04/22/23						
Year- PMR Cycle	Second period Jan-Dec 2022	Division Chief Validation Date	04/24/23						
Last Update	03/27/23	Country Representative Validation Date	04/25/23						
PMR Validation Stage	Validated by Representative								
Basic Data									
Operation Profile									
Operation Name	Program BID-BNDES to Finance the Sustainable and Productive Recovery of Micro, Small and Medium Enterprises (MSMEs)	Loan Number	5452/OC-BR, 5453/TC-BR						
Executing Agency	BANCO NACIONAL DO DESENVOLVIMENTO ECONOMICO E SOCIAL	Sector/Subsector	FINANCIAL MARKETS-FINANCING FOR ENVIRONMENTAL SUSTAINABILITY						
Team Leader	SIERRA GONZALEZ, EDUARDO	Overall Stage	Approved/Pending prior Legislative Approval						
Operation Type	Loan Operation	Country	Brazil						
Lending Instrument	Investment Loan	Convergence related Operation(s)							
Borrower	BANCO NACIONAL DO DESENVOLVIMENTO ECONOMICO E SOCIAL								
Environmental and Social Safeguards									
Impacts Category	B13	Was/Were the objective(s) of this operation reformulated?	NO						
Safeguard Performance Rating		Date of approval							
Safeguard Performance Rating - Rationale									
Financial Data									
	Total Cost and Source					Available Funds (US\$)			
Operations	Original IDB	Current IDB	Local Counterpart	Co-Financing / Country	Total Original Cost	Current IDB	Disb. Amount to Date	% Disbursed	Undisbursed Amount
BR-L1576	250,000,000	250,000,000	0	0	250,000,000	250,000,000	-	0.00%	250,000,000
Aggregated	250,000,000	250,000,000	0	0	250,000,000	250,000,000	-	0.00%	250,000,000
Expense Categories by Loan Contract (cumulative values)									

Please note that inactive indicators and outputs are not displayed; totals in the actual cost table may not match the sum of the cost of the outputs displayed, due to the cost of inactive outputs.

RESULTS MATRIX

General Development Objectives

General Development Objectives Nbr. 2: General development objective: To promote sustainable economic recovery of MSMEs in Brazil.

Observation:

Indicator		Unit of Measure	Baseline	Baseline Year	Expected Year of Achievement	EOP 0	
2.0	Indicator 1: Average change in annual sales revenue at companies supported by the program compared to the control group.	%	0	2020	2026	P	2
						A	-
Details							

Means of Verification: Data of the Relação Anual de Informações Sociais (RAIS), from the Ministry of the Economy of Brazil.

Observations: This indicator will measure the difference in sales revenue with and without program support (Component 1). An impact evaluation of sales revenue will be conducted for this operation using the R-Automated Model for Impact Verification (MARVIm). Findings of the evaluation and the values of this indicator will be reported after the program has been officially closed and its completion report issued. Given the lag on data availability, calculations for the indicator may be based on the initial or prior cohort of the same lines and characteristics. Because the companies that are to receive program support and those of the control group are similar, the baseline is zero. The proposed target is in line with the estimates obtained using the MARVIm model for other previous IDB support initiatives and programs.

The General Development Objective indicator target is expected to be observed by the operation's "Fully Justified" date in Convergence (CO): No

Pro-Gender	No	Pro-Ethnicity	No	CRF indicator					
Indicator				Unit of Measure	Baseline	Baseline Year	Expected Year of Achievement	EOP 0	
2.1	Indicator 2: Average change in annual employment at companies supported by the program compared to the control group.			%	0	2020	2026	P	4
								A	-
Details									

Means of Verification: RAIS data, from the Ministry of the Economy of Brazil.

Observations: The indicator will measure the difference in employment with and without program support (Component 1). An impact evaluation on employment will be conducted based on MARVIm data. Findings of the evaluation and the values of this indicator will be reported after the program has been officially closed and its completion report issued. Given the lag on data availability, calculations for the indicator may be based on the initial or prior cohort of the same lines and characteristics. Since companies supported by the program and those of the control group are similar, baseline is zero. The proposed target is in line with the estimates obtained using the MARVIm model for other previous IDB support initiatives and programs.

The General Development Objective indicator target is expected to be observed by the operation's "Fully Justified" date in Convergence (CO): No

Pro-Gender	No	Pro-Ethnicity	No	CRF indicator					
Indicator				Unit of Measure	Baseline	Baseline Year	Expected Year of Achievement	EOP 0	
2.2	Indicator 3: GHG emissions reduction from Battery Energy Storage Systems (BESS) investments.			tCO2e	0	2021	2040	P	214,085
								A	-
Details									

Means of Verification: Reports provided by the projects supported and information gathered under TC-BR-T1497.

Observations: This indicator shows the sum of annual reductions in GHG emissions due to BESS investments relative to a mix of nonrenewable power plants of the Brazilian Grid that meet the additional demand during peak hours. The baseline is zero because it is assumed that without the finance provided by the program, companies would not have implemented BESS, and therefore would have zero emission reductions. Due to the high cost of electricity during peak hours at some distributors, companies disconnect from the grid and would use BESS. (*) According to OEL#13 of the loan document, the main assumptions are: • Cost of a standard 3-hour 240 kWh project (turnkey solution): US\$250,000, equivalent to US\$1,042/kWh; • Lifespan of a battery system: 14 years; • Batteries function providing energy during 3 hours/day; • BESS function only during business days (252 days/year); • Battery degradation: 2% per year during the first 10 years; • Average emission factor for the Brazilian grid: 0,000398743 tCO2/kWh; • Nonrenewable sources average emission factor: 0.002998067 (kg Co2/kWh); • Resources exclusively allocated to BESS projects will be (US \$27.5 million).

The General Development Objective indicator target is expected to be observed by the operation's "Fully Justified" date in Convergence (CO): No

Pro-Gender	No	Pro-Ethnicity	No	CRF indicator			

Indicator		Unit of Measure	Baseline	Baseline Year	Expected Year of Achievement	EOP 0	
2.5	Indicator 4: Reduction of energy demand on peak from BESS investments.	kW	0	2021	2027	P	8,800
						A	-
Details							

Means of Verification: Reports provided by the projects supported and information gathered under TC-BR-T1497.

Observations: This indicator shows how the use of BESS investments allow for a reduction on energy demand at peak, relative to a mix of nonrenewable power plants of the Brazilian Grid that meet the additional demand during peak hours. The baseline is zero assuming that without the finance provided by the program, companies would not have implemented BESS. All BESS investments indicators are based on the assumptions summarized above (*) in Impact Indicator #3, described in OEL#13). Thus, this indicator is calculated as follows: US\$27.5million / (US\$1,042/kWh) = 26,400kWh. 26,400 kWh / 3 hours = 8,800 kW.

The General Development Objective indicator target is expected to be observed by the operation's "Fully Justified" date in Convergence (CO): No

Pro-Gender	No	Pro-Ethnicity	No	CRF indicator	

RESULTS MATRIX

Specific Development Objectives

Specific Development Objectives Nbr. 1: Specific development objective: Enhance the availability of medium and long-term financing in the context of the COVID-19 pandemic for MSMEs' and entrepreneurs' productive investments. This will be attained by ensuring provision of financing for climate related investments, vulnerable areas, and women businesses.

Observation:

Indicator		Unit of Measure	Baseline	Baseline Year	EOP 0	
1.0	Indicator 1: Outstanding stock in relevant portfolio.	Million R\$	9872.19	2020	P	6,859.08
					A	-

Details

Means of Verification: BNDES internal information.

Observations: Relevant portfolio is comprised by total eligible credit for productive investments by MSMEs and entrepreneurs operating in vulnerable areas, women businesses, and climate related investments within BNDES Finame , BNDES Automático , Cartão BNDES. It should be noted that 100% of funds raised by the program are for one of these three populations. The indicator is based on relevant portfolio outstanding stock by December 31,2020. Given the declining trend observed for financing for MSMEs' investments prior to COVID-19 (-43.7% from 2015 to 2019) and the context of the pandemic, the target for the end of the project will be conservative and assume that the program has helped to at least mitigate a decline in the baseline value. Thus, the target is calculated as: Baseline*(1-%of reduction in MSMEs investments) + Component 1 expressed in R\$. 9,872.19* (1-43.7%) + (250,000,000*5.196) = 6,859.08 The exchange rate corresponds to December 31, 2020 (see link).

Evaluation Methodology: -

Pro-Gender	No	Pro-Ethnicity	No	CRF indicator	

Indicator		Unit of Measure	Baseline	Baseline Year	EOP 0	
1.3	Indicator 2: Percentage of relevant portfolio with loan term equal to or greater than 60 months at inception.	%	83	2020	P	83
					A	-

Details

Means of Verification: BNDES internal information.

Observations: As of December 31, 2020, data from BNDES for the relevant portfolio exhibit a baseline value of 83%. Given the context of the pandemic of COVID-19, the target will be conservative and assume that the program has helped to mitigate the decline observed in average terms of loans from 71.3 months to 56.9 months (OEL#3 of project document), thus helping to maintain the figure of the baseline.

Evaluation Methodology: -

Pro-Gender	No	Pro-Ethnicity	No	CRF indicator	

Indicator		Unit of Measure	Baseline	Baseline Year	EOP 0	
1.4	Indicator 3: Climate related project financing percentage over relevant portfolio.	%	26.9	2020	P	26.9
					A	-

Details

Means of Verification: BNDES internal information.

Observations: The eligible climate related investments include: (i) investments in energy efficiency; (ii) efficient equipment; (iii) renewable energy; (iv) BESS; (v) sustainable agriculture, and (vi) electric transportation. Total financing for climate related amounted R\$2,656,356,877 of outstanding stock (including those under ABC Program and Finame Baixo Carbono) on December 31,2020. Formula = Outstanding stock for Climate related investments/ relevant portfolio.* Given that the program resources represent a small portion of BNDES relevant portfolio and the context of the pandemic of COVID-19, the target will be conservative and assume that the program has helped to at least maintain the figure of the baseline.

Evaluation Methodology: -

Pro-Gender	No	Pro-Ethnicity	No	CRF indicator	

Indicator		Unit of Measure	Baseline	Baseline Year	EOP 0	
1.5	Indicator 4: Vulnerable areas MSMEs financing percentage over relevant portfolio.	%	78.4	2020	P	78.4
					A	-

Details

Means of Verification: BNDES internal information.

Observations: MSMEs will be considered as located in vulnerable areas when MSMEs operate in a municipality with a lower Human Development Index (HDI) than the national average (0.727) at the moment of credit origination and according to available data. Total financing for vulnerable areas MSMEs amounted R\$7,735,079,558 of outstanding stock within BNDES Finame, BNDES Automático, and Cartão BNDES on December 31, 2020. Formula = Outstanding stock for MSMEs in Vulnerable Regions / relevant portfolio.* Given that the program resources represent a small portion of BNDES relevant portfolio and the context of the pandemic of COVID-19, the target will be conservative and assume that the program has helped to at least maintain the figure of the baseline.

Evaluation Methodology: -

Pro-Gender	No	Pro-Ethnicity	No	CRF indicator			
Indicator				Unit of Measure	Baseline	Baseline Year	EOP 0
1.6	Indicator 5: Women MSME financing percentage over relevant portfolio.			%	21.9	2020	P 21.9
							A -
Details							

Means of Verification: BNDES and Quadro de Sócios e Administradores (QSA) by Receita Federal.

Observations: A firm will be considered Woman MSME when evidence support decision-making process is led by women. For the relevant portfolio, majority (97.6%) of identified women MSMEs have either majority of woman managing partners, or women as individual holder of the firm. Total financing for women MSMEs amounted R\$2,162,780,806 of outstanding stock within BNDES Finame, BNDES Automático and Cartão BNDES on December 31, 2020. Formula = Outstanding stock for Women MSMEs / relevant portfolio.* Given that: (i) amid COVID-19 pandemic there was a reduction in this indicator, (ii) there could be a low demand from women MSMEs and that (iii) BNDES does not yet have specific products for this segment, this intervention together with BNDES efforts will work towards maintaining, as a minimum, this share allocated to women, that otherwise may fall significantly. To ensure support to women, 30% of program resources are directed to women MSMEs.

Evaluation Methodology: -

Pro-Gender	No	Pro-Ethnicity	No	CRF indicator				
Indicator		Unit of Measure		Baseline	Baseline Year	EOP 0		
1.7	Indicator 6: Eligible credit* for MSMEs financed originated through digital channels percentage over total eligible credit MSMEs financed.			%	99	2021	P	99
							A	-
Details								

Means of Verification: Counting of Cadastro Nacional da Pessoa Juridica (CNPJ) matching disbursements made through BNDES Online platform, divided by total count of CNPJ. BNDES has access to the CNPJ and will use its internal operational systems for disbursement information.

Observations: This indicator considers MSMEs using at least one of the platforms included in BNDES digital channels. This indicator includes only eligible credit within BNDES Finame and BNDES Automático; Cartão BNDES is excluded. Digital origination is expected to maintain 2021 performance through the life of the operation.

Evaluation Methodology: -

Pro-Gender	No	Pro-Ethnicity	No	CRF indicator				
Indicator				Unit of Measure	Baseline	Baseline Year	EOP 0	
1.8	Indicator 7: Total Energy rating for BESS projects.			kWh	0	2021	P	26,400
							A	-
Details								

Means of Verification: Reports provided by the projects supported and information gathered under TC-BR-T1497.

Observations: The energy rating indicator shows the maximum amount of energy that can be stored in the battery or storage system for all projects (see GESP Monitoring and Reporting toolkit for more details). The baseline is zero assuming that without the finance provided by the program, companies would not have implemented BESS. All BESS investments indicators are based on the assumptions summarized above (*) in Impact Indicator #3). Calculation: US\$27.5million/(US\$1,042 / kWh) = 26,400 kWh

Evaluation Methodology: -

Pro-Gender	No	Pro-Ethnicity	No	CRF indicator				
Indicator				Unit of Measure	Baseline	Baseline Year	EOP 0	
1.9	Indicator 8: Total Power rating for BESS projects.			kW	0	2021	P	8,800
							A	-
Details								

Means of Verification: Reports provided by the projects supported information gathered under TC-BR-T1497.

Observations: The power rating indicates how much power can flow into or out of the energy storage systems continuously for all projects (see link). The baseline is zero assuming that without the finance provided by the program, companies would not have implemented BESS. All BESS investments indicators are based on the assumptions summarized above (*) in Impact Indicator #3). Calculation: (US\$27.5 million / (US\$1,042 / kWh) = 26,400 kWh. 26,400 kWh / 3 hours = 8,800 kW. Considering that the total storage capacity of a standard BESS project will be consumed in three hours of use, the total power rate is 8,800 kW.

Evaluation Methodology: -

Pro-Gender	No	Pro-Ethnicity	No	CRF indicator				
Indicator					Unit of Measure	Baseline	Baseline Year	EOP 0
1.10	Indicator 9: Total investments for BESS and RE channeled through BNDES.			Million US\$	0	2021	P	40
							A	-
Details								

Means of Verification: BNDES internal information.

Observations: This indicator includes the resources from the program and co-financing from local and private sector funds, to be invested in BESS and Renewable Energy (RE) investments, in line with Clean Technology Fund (CTF) requirements. The baseline is zero because there have not been prior disbursements for BESS investments through the relevant credit line. The target is the sum of program resources allocated for BESS and RE of US\$25 million (including CTF funds and Bank’s Ordinary Capital) plus US\$15 million expected from private financing (LFI financing and borrower’s equity). From these resources, US\$27.5 million are exclusively for BESS investments.

Evaluation Methodology: -

Pro-Gender	No	Pro-Ethnicity	No	CRF indicator		

RESULTS MATRIX

OUTPUTS: ANNUAL PHYSICAL AND FINANCIAL PROGRESS

Component Nbr. 1 Component 1: Medium and long-term financing to MSME’s sustainable investments (US\$250 millions).

				PHYSICAL PROGRESS		FINANCIAL PROGRESS	
	Output	Unit of Measure		2022	EOP 0	2022	EOP 0
1.01	Product 1: Program resources provided for BESS investments.	Million US\$	P	2	10	2,000,000	10,000,000
			P (a)	2	6	2,000,000	6,000,000
			A	-	-	-	-
1.02	Product 2: Program resources channeled for financing other climate related investments.	Million US\$	P	12.3	61.5	12,300,000	61,500,000
			P (a)	12.3	36.9	12,300,000	36,900,000
			A	-	-	-	-
1.03	Product 3: Program resources provided for women MSMEs. ¹³	Million US\$	P	15.3	76.5	15,300,000	76,500,000
			P (a)	15.3	45.9	15,300,000	45,900,000
			A	-	-	-	-
1.04	Product 4: Program resources provided for MSMEs in vulnerable areas. ¹³	Million US\$	P	20.4	102	20,400,000	102,000,000
			P (a)	20.4	61.2	20,400,000	61,200,000
			A	-	-	-	-

Total Cost					
	Total Cost		P	50,000,000	250,000,000
			P (a)	50,000,000	150,000,000
			A	0	0

No information available for this section

IMPLEMENTATION STATUS AND LEARNING

Lesson Learned - Categories
Others - Technical-Sectorial Dimensions
Legal aspects and public processes