Operation Number	ME-G1012	Chief of Operations Validation Date	10/11/18
Year- PMR Cycle	First period Jan-Jun 2018	Division Chief Validation Date	
Last Update	10/11/18	Country Representative Validation Date	
PMR Validation Stage	Validated by Chief of Operations		

Basic Data

Operation Profile

Operation Name	GEF Program for the Implementation of Prioritized ESC Projects in Three Mexican Cities	Loan Number	GRT/FM-16409-ME
Executing Agency	BANCO NACIONAL DE OBRAS Y SERVICIOS PUBLICOS, S.N.C.	Sector/Subsector	EN - ENERGY
Team Leader	RIQUELME, RODRIGO	Overall Stage	Disbursing (From eligibility until all the Operations are closed)
Operation Type	Investment Grants	Country	MEXICO
Lending Instrument		Convergence related Operation(s)	
Borrower	ESTADOS UNIDOS MEXICANOS		

Environmental and Social Safeguards

Impacts Category	В	Was/Were the objective(s) of this operation reformulated?	NO
Safeguard Performance Rating		Date of approval	
Safeguard Performance Rating - Rationale			

Financial Data

Item			Total Cost an	d Source		Available Funds (US\$)						
цеш	Original IDB	Current IDB	Local Counterpart	Co-Financing / Country	Total Original Cost	Current IDB	Disb. Amount to Date	% Disb	Undisbursed Amount			
ME-G1012	13,761,468	13,761,468	0	0	13,761,468	13,761,468	0	0.00%	13,761,468			
Aggregated	13,761,468	13,761,468	0	0	13,761,468	13,761,468	0	0.00%	13,761,468			

Expense Categories by Loan Contract (cumulative values)

RESULTS MATRIX

IMPACTS

No information available for this section

RESULTS MATRIX

OUTCOMES

Outcome Nbr. 0: 1. Improve and increase the solid waste management and the generation of low-carbon energy to reduce greenhouse emissions in Xalapa

Observation:

	Indicator	Unit of Measure	Baseline	Baseline Year		2017	2018	2019	2020	2021	2022	EOP 2022
0.0	Tons of greenhouse gas emissions avoided	Tons of CO2eg/y	0.00	2017	Р	0.00	0.00	0.00	0.00	0.00	1,792.00	1,792.00
	associated to energy production by the biodigester plant in Xalapa	COZeq/y			P(a)	0.00	0.00	0.00	0.00	0.00	1,792.00	1,792.00
					Α	0.00	0.00					0.00

Details

Means of verification: *Annual Average. The information will be provided by Banobras based on the reports delivered by the operator

Pro-Gender No Pro-Ethnicity No

	Indicator	Unit of Measure	Baseline	Baseline Year		2017	2018	2019	2020	2021	2022	EOP 2022
0.1	Tons of municipal solid waste disposed at the sanitary landfill of Xalapa	ton/day	490.00	2017	Р	0.00	0.00	0.00	0.00	0.00	430.00	430.00
	Sanitary landilli of Aalapa				P(a)	0.00	0.00	0.00	0.00	0.00	430.00	430.00
					Α	0.00	0.00					0.00

Details

Means of verification: Operation log of incoming and outgoing solid waste conducted by operator and included in the Final Evaluation

Pro-Gender No Pro-Ethnicity No

	Indicator	Unit of Measure	Baseline	Baseline Year		2017	2018	2019	2020	2021	2022	EOP 2022
0.2	Power production from low-carbon energy sources	MWh/year	0.00	2017	Р	0.00	0.00	0.00	0.00	0.00	3,962.00	3,962.00
	in Xalapa				P(a)	0.00	0.00	0.00	0.00	0.00	3,962.00	3,962.00
					Α	0.00	0.00					0.00

Details

Means of verification: Power: 452 KW. Operation log tracked by the meter and included in the Final Evaluatio

Pro-Gender No Pro-Ethnicity No

	Indicator	Unit of Measure	Baseline	Baseline Year		2017	2018	2019	2020	2021	2022	EOP 2022
0.3	Tons of compost produced by the biodigester in	ton/day	0.00	2017	Р	0.00	0.00	0.00	0.00	0.00	26.00	26.00
	Xalapa				P(a)	0.00	0.00	0.00	0.00	0.00	26.00	26.00
					Α	0.00	0.00					0.00

Details

RESULTS MATRIX

OUTCOMES

Means of verification: Operation log of incoming and outgoing compost conducted by the operator, and included in the Final Evaluation

Pro-Gender No Pro-Ethnicity No

Outcome Nbr. 1: Increase the production of low carbon energy to reduce greenhouse gas emissions in La Paz

Observation:

	Indicator	Unit of Measure	Baseline	Baseline Year		2017	2018	2019	2020	2021	2022	EOP 2022
1.0	Tons of greenhouse gas emissions avoided	Tons of	0.00	2017	Р	0.00	0.00	1,692.00	1,684.00	0.00	0.00	1,589.00
	through solar panels in La Paz	CO2eq/y			P(a)	0.00	0.00	1,692.00	1,684.00	0.00	0.00	1,589.00
					Α	0.00	0.00					0.00

Details

Means of verification: *Annual Average during project lifetime taking into account public buildings from first phase. Semester Progress Report of overall production

Pro-Gender No Pro-Ethnicity No

	Indicator	Unit of Measure	Baseline	Baseline Year		2017	2018	2019	2020	2021	2022	EOP 2022
1.1	Power production from low-carbon energy sources	MWh/y	0.00	2017	Р	0.00	0.00	1,959.00	1,949.00	0.00	0.00	1,840.00
	in La Paz				P(a)	0.00	0.00	1,959.00	1,949.00	0.00	0.00	1,840.00
					Α	0.00	0.00					

Details

Means of verification: *Annual Average during project lifetime taking into account public buildings from first phase. Operational logs from meter readings aggregated over all PV plants

Pro-Gender No Pro-Ethnicity No

Outcome Nbr. 3: Improve and promote solid waste management –control and recovery of materials- in order to encourage the generation of low-carbon energy and the reduction of GHG emissions Observation:

	Indicator	Unit of Measure	Baseline	Baseline Year		2017	2018	2019	2020	2021	2022	EOP 2022
3.0	Number of times that the pilot projects have served as a reference for other projects in the country	# of times	0.00	2017	Р	0.00	0.00	0.00	0.00	0.00	2.00	2.00
	as a reference for other projects in the country				P(a)	0.00	0.00	0.00	0.00	0.00	2.00	2.00
					Α	0.00	0.00					

Details

Means of verification: The information will be provided by Banobras and included in the Final Evaluation

Pro-Gender No Pro-Ethnicity No

Outcome Nbr. 2: The municipality and stakeholders have the technical, environmental and economic information needed to make a decision on whether or not make the investment in Campeche **Observation**:

RESULTS MATRIX

OUTCOMES

	Indicator	Unit of Measure	Baseline	Baseline Year		2017	2018	2019	2020	2021	2022	EOP 2022
2.0	Technical, environmental and economic studies	# of times	0.00	2017	Р	0.00	0.00	0.00	0.00	0.00	1.00	1.00
	agreed and approved by the Municipality and stakeholders to build the Campeche infrastructure				P(a)	0.00	0.00	0.00	0.00	0.00	1.00	1.00
	project				Α	0.00	0.00					
	Details											

Means of verification: Report of the municipality approving the project

Pro-Gender No Pro-Ethnicity No

RESULTS MATRIX

OUTPUTS: ANNUAL PHYSICAL AND FINANCIAL PROGRESS

Component Nbr. 1 Biodigester for Xalapa's solid waste management system operating

			PHYSICAL PROGRESS		FINANCIAL PROGRESS		
	Output	Unit of Measure		2018	EOP 2022	2018	EOP 2022
1.1	Final design of the biodigester plant in Xalapa finalized	study	Р	0	1	0	200,000
		P(a)	P(a)	0	1	0	200,000
			Α	0	0	0	0
1.2	Biodigester for Xalapa's solid waste management system operating	Biodigester	Р	0	1	0	3,390,547
			P(a)	0	1	0	3,390,547
			Α	0	0	0	0
1.3	Preliminary works executed	works	Р	0	1	0	3,390,546
			P(a)	0	1	0	3,390,546
			Α	0	0	0	0
1.4	Biodigester and energy production plant in Xalapa built	Plant	Р	0	1	0	200,000
			P(a)	0	1	0	200,000
			Α	0	0	0	0

Component Nbr. 2 Solar photovoltaic capacity for self-supply in public buildings and schools in La Paz

				PHYSICAL	PROGRESS	FINANCIAL	PROGRESS	
	Output	Unit of Measure		2018	EOP 2022	2018	EOP 2022	
2.1	kW of generation capacity installed – low carbon sources in La Paz	KW	Р	0	2,580	500,000	4,500,000	
			P(a)	0	2,580	500,000	4,500,000	
			Α	0	0	0	0	

Component Nbr. 3 Comprehensive program for the sanitation of the Bay of Campeche

				PHYSICAL	PROGRESS	FINANCIAL	PROGRESS
	Output	Unit of Measure		2018	EOP 2022	2018	EOP 2022
3.1	Detailed-design of the sanitation infrastructure in Campeche completed considering climate change adaptation measures	Study	Р	0	1	0	1,000,000
			P(a)	0	1	0	1,000,000
			Α	0	0	0	0

Component Nbr. 4 Institutional strengthening, dissemination and communication

				PHYSICAL P	PHYSICAL PROGRESS		PROGRESS
	Output	Unit of Measure		2018	EOP 2022	2018	EOP 2022
4.1		Seminars, conference,	Р	0	3	0	30,000
		activiti	P(a)	0	3	0	30,000
			Α	0	0	0	0
4.2	Biodigester, solar photovoltaic power plants, and sanitation technical training workshops in Xalapa, La Paz and Campeche conducted	Trainings	Р	0	3	0	50,000
			P(a)	0	3	0	50,000
			Α	0	0	0	0
4.3	Technical guidelines developed to replicate the biodigester technology	Document	Р	0	1	0	50,000
			P(a)	0	1	0	50,000
			Α	0	0	0	0
4.4	Performance assessment study of solar PV technologies in schools developed	Report	Р	0	1	0	50,000
			P(a)	0	1	0	50,000
		Α	0	0	0	0	
4.5	Review paper with lessons learned from the experience on photovoltaic plants in public schools developed	Paper	Р	0	1	0	50,000
			P(a)	0	1	0	50,000
			Α	0	0	0	0

Other Cost

Administración	P			127,075	635,375			
	P(a)			127,075	635,375			
	Α			0	0			
Auditoria	P			127,075 635,3 0 15,000 75,0 15,000 75,0 0 12,000 60,0 12,000 60,0 0 0 30,0				
	P(a)			15,000	75,000			
	Α	P(a) 15,000 A 0 P 12,000 P(a) 12,000 A 0 P 0	0	0				
Monitoreo	Р	P		12,000	60,000			
	P(a)			12,000	60,000			
				0	0			
Evaluación Intermedia	Р			0	30,000			
	P(a)			0	30,000			
	Α			0	0			
Evaluación Final	Р			0	50,000			
	P(a)			0	50,000			
	Α			0	0			

Total Cost

Total Cost	Р	654,075	13,761,468
	P(a)	654,075	13,761,468
	Α	0	0

CHANGES TO THE MATRIX

No information available for this section