



## Greater Cairo Air Pollution Management and Climate Change Project (P172548)

MIDDLE EAST AND NORTH AFRICA | Egypt, Arab Republic of | Environment, Natural Resources & the Blue Economy Global Practice | IBRD/IDA | Investment Project Financing | FY 2021 | Seq No: 6 | ARCHIVED on 06-Mar-2024 | ISR59637 |

Implementing Agencies: Arab Republic of Egypt, Ministry of Environment

**Key Dates****Key Project Dates**

Bank Approval Date: 30-Sep-2020

Effectiveness Date: 09-Jun-2021

Planned Mid Term Review Date: 07-May-2024

Actual Mid-Term Review Date:

Original Closing Date: 31-Dec-2026

Revised Closing Date: 31-Dec-2026

**Project Development Objectives**

Project Development Objective (from Project Appraisal Document)

To reduce air and climate emissions from critical sectors and increase resilience to air pollution in Greater Cairo.

Has the Project Development Objective been changed since Board Approval of the Project Objective?

No

**Components Table**

Name

Enhancing the Air Quality Management & Response System:(Cost \$17.50 M)  
Support the Operationalization of SWM Master Plans in Greater Cairo:(Cost \$126.00 M)  
Vehicle Emissions Reduction:(Cost \$40.00 M)  
Enhanced Capacity, Behavioral Change and Communication:(Cost \$6.20 M)  
Project Management and Monitoring & Evaluation:(Cost \$9.80 M)  
Improved E-Waste and HCW management for Reduction of uPOPs:(Cost \$9.13 M)

**Overall Ratings**

Name	Previous Rating	Current Rating
Progress towards achievement of PDO	<input type="checkbox"/> Moderately Satisfactory	<input type="checkbox"/> Moderately Satisfactory
Overall Implementation Progress (IP)	<input type="checkbox"/> Moderately Satisfactory	<input type="checkbox"/> Moderately Satisfactory
Overall Risk Rating	<input type="checkbox"/> Substantial	<input type="checkbox"/> Substantial

**Implementation Status and Key Decisions**

The construction of the common infrastructure of the 10th of Ramadan Integrated Waste Management Facility has already started, and the Ministry of Environment together with the Ministry of Local Department organized an event in February 2024 to put the "cornerstone" and celebrate the event. Bidding documents for the purchase of electric buses and the rehabilitation of El-Amreya bus depot to accommodate the buses, with charging and maintenance facilities, are near completion and should be published shortly. The Black Cloud National Committee met several times during January and February 2024, and a preparedness and response system is currently under preparation to mitigate and reduce the impacts of the Black Cloud phenomenon. The project, in collaboration with Cairo Cleanliness and Beautification Authority, launched a campaign to raise the awareness of the general public, and induce positive behavioral change. Capacity building activities and training sessions were also implemented in Qalyubia Governorate for the staff of the Governorate and waste collection associations.



**Risks**

**Systematic Operations Risk-rating Tool**

Risk Category	Rating at Approval	Previous Rating	Current Rating
Political and Governance	☐ Substantial	☐ Substantial	☐ Moderate
Macroeconomic	☐ Substantial	☐ Substantial	☐ Substantial
Sector Strategies and Policies	☐ Substantial	☐ Substantial	☐ Moderate
Technical Design of Project or Program	☐ Substantial	☐ Substantial	☐ Substantial
Institutional Capacity for Implementation and Sustainability	☐ High	☐ Substantial	☐ Substantial
Fiduciary	☐ Substantial	☐ Substantial	☐ Substantial
Environment and Social	☐ High	☐ High	☐ High
Stakeholders	☐ High	☐ Substantial	☐ Substantial
Other	--	--	--
Overall	☐ Substantial	☐ Substantial	☐ Substantial

**Results**

**PDO Indicators by Objectives / Outcomes**

Emission reduction from municipal waste				
▶ Reduction in Greenhouse gas emissions (CO2 equiv.) from municipal solid waste (Percentage, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	0.00	0.00	30.00
Date	01-Jul-2022	10-Jul-2023	11-Dec-2023	30-Jun-2026
Comments:	Monitoring lagging behind, given that the main activities for the construction of the 10th of Ramadan ISWM Facility has just started. This indicator measures cumulative GHG emissions from the waste generated in Qalyubia governorate during the project period (2022-2036) without the waste disposal facility and emissions in the same period with disposal facility.			
▶ Reduction of large-scale solid waste fires per annum (Percentage, Custom)				



	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	0.00	0.00	20.00
Date	01-Jun-2020	10-Jul-2023	11-Dec-2023	31-Dec-2026
Comments:	Yearly monitoring not yet available given that main activities for the construction of the 10th of Ramadan ISWM Facility has just started. This measure assesses whether the number of large solid waste fires has been reduced in the governorate of Qalyubias and Cairo.			

Black carbon and greenhouse gas emission reduction from public buses

► Greenhouse gas emissions (CO2 equiv.) from public buses on selected routes (Percentage, Custom)

	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	100.00	100.00	100.00	77.00
Date	01-Jun-2020	10-Jul-2023	10-Jul-2023	31-Dec-2026
Comments:	This indicator measures the change in GHG emissions due to the introduction of e-buses, compared to the business as usual using internal combustion engines (ICE) buses. The project expects to reduce the GHG emissions. The baseline is normalized to equal 100% and the target shows the expected reduction against this base. Status update: The eBus route and depot location selection is in progress. The issuance of bid documents is targeted for September 2023. GHG (CO2 equiv) will be available when the eBuses are operational. Methodologies in collecting the data is now being prepared and discussed.			

► Black Carbon emissions from public buses (Percentage, Custom)

	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	100.00	100.00	100.00	98.00
Date	01-Jun-2020	10-Jul-2023	10-Jul-2023	31-Dec-2026
Comments:	The eBus route and depot location selection is in progress. The issuance of bid documents is now rescheduled for April 15, 2024. This indicator measures the change in GHG emissions due to the introduction of e-buses, compared to the business as usual using ICE buses. The project expects to reduce the GHG emissions. The baseline is normalized to equal 100% and the target shows the expected reduction against this base. Status update: The eBus route and depot location selection is in progress. The issuance of bid documents is targeted for September 2023. Currently seven potential methodologies have been identified and further disucssion and consultation is needed to decide which methodology is implementatable.			

Increased resilience to air pollution

► Targeted people taking self-protective action in response to alert of a high pollution event (Share of surveyed people adopting avoidance behavior) (Percentage, Custom)

	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	0.00	0.00	5.00



Date	01-Jun-2020	10-Jul-2023	11-Dec-2023	31-Dec-2026
Comments:	Activities lagging behind, hence no reporting. This measure assesses whether the resilience to air pollution has been increased, by showing whether more people report to have changed their avoidance behavior in response to high pollution events.			

<b>Reduction of uPOPs emissions from eWaste and Healthcare Waste</b>				
► Reduction, avoidance of emissions of POPs to air from point and non-points sources (gTEQ) (Number, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	71.40	71.40	71.40	64.24
Date	06-Oct-2021	10-Jul-2023	10-Jul-2023	31-Dec-2026

**Intermediate Results Indicators by Components**

<b>Enhancing the Air Quality Management &amp; Response System</b>				
► Climate pollutant monitors (including Short Lived Climate Pollutants and GHGs) installed and operational in a select number of locations (Number, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	0.00	0.00	12.00
Date	01-Sep-2020	10-Jul-2023	11-Dec-2023	31-Dec-2026
Comments:	This measures the number of Aethalometers installed and operating (measuring samples of ambient fine particles). Status: The procurement for consultancy for monitoring network review is underway.			
► Institutional Air Quality response mechanism established and operational (Yes/No, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	No	No	No	Yes
Date	01-Jun-2020	10-Jul-2023	11-Dec-2023	31-Dec-2026
Comments:	A national system is established and operational, that allows the Government to take decisions during high pollution days based on air quality forecasting. Status: Consultant is being mobilized to develop a proposed mechanism.			
► Greater Cairo Climate and Air Quality Management Plan developed and submitted to the Council of Ministers (Yes/No, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	No	No	No	Yes



Date	01-Jun-2020	10-Jul-2023	11-Dec-2023	31-Dec-2026
Comments:	<p>An Integrated Climate and Air Quality Management Plan (IC-AQMP) will be developed to serve as the overarching framework for government action to reduce the sources and amounts of pollutants responsible for the degradation of urban ambient air quality and regional and global warming. Plan will present options with estimated budget requirements in the form of a time-bound action plan with clear roles and responsibilities delineated.</p> <p>Status: The launch event was held on June 6, 2023 and the procurement for a consultancy is underway.</p>			

Support the operationalization of SWM Master Plans in Greater Cairo				
▶ Integrated municipal solid waste facility established in Greater Cairo (Yes/No, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	No	No	No	Yes
Date	01-Sep-2020	10-Jul-2023	11-Dec-2023	31-Dec-2026
Comments:	<p>The indicator measures the construction and operation of its means that the a facility to treat, process and dispose the waste generated by Qalyubiya Governorate in Greater Cairo, including the construction of a disposal and treatment facility for municipal waste. This would involve selection of eligible contractor/ operator, signing of contract signed with a private operator(s), and regular receipt of waste at the facility.</p>			
▶ Healthcare waste facility established and operational in the 10th of Ramadan Site (Yes/No, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	No	No	No	Yes
Date	01-Sep-2020	10-Jul-2023	11-Dec-2023	31-Dec-2026
Comments:	<p>The indicator measures the effective construction and operation of a healthcare waste facility at the 10th of Ramadan site.</p>			
▶ Municipal Solid Waste Dump Sites Closed and Rehabilitated (Number, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	0.00	0.00	1.00
Date	01-Sep-2020	10-Jul-2023	11-Dec-2023	31-Dec-2026
Comments:	<p>The indicator measures whether the Abu Zaabal dumpsite is closed and contained by the project, as per the approved plan. The benefits of GHG emission reduction from this closure however will be measured by the outcome indicator on 'GHG emission reduction from the municipal solid waste.</p>			
▶ Solid Waste Management Unit in Qalyubia Governorate established with Operations Manual, monitoring and reporting systems (data bases, IT infrastructure and other tools) for solid waste management (Yes/No, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	No	No	No	Yes
Date	01-Sep-2020	10-Jul-2023	11-Dec-2023	31-Dec-2026



Comments: The indicator measures the capacity building of Qalyubia Governorate for solid waste management

Vehicle emission reduction				
<b>► User satisfaction with bus service (percentage) (Text, Custom)</b>				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	TBD	TBD	TBD	TBD
Date	20-Oct-2021	10-Jul-2023	11-Dec-2023	31-Dec-2026
Comments:	Indicator measures satisfaction with public transport service provided by e-buses, which will operate with the project at higher frequency, have air conditioning, USB charging and CCTV cameras inside and outside. User satisfaction should increase thanks to the project. Survey findings will be addressed to improve service provision. This indicator has a sub-indicator by gender to capture female and male perceptions. Status update: User satisfaction survey design is ongoing, it is expected that data collection on baseline will be available by August/September 2023.			
<b>□ Female user satisfaction with bus service (percentage) (Text, Custom Supplement)</b>				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	TBD	TBD	TBD	TBD
<b>□ Male user satisfaction with bus service (percentage) (Text, Custom Supplement)</b>				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	TBD	TBD	TBD	TBD
<b>□ Bus service quality action plan elaborated, consulted and disclosed (Yes/No, Custom Supplement)</b>				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	No	No	No	Yes
<b>► Perception of security among users of public e-bus (Text, Custom)</b>				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	TBD	TBD	TBD	TBD
Date	20-Oct-2021	10-Jul-2023	11-Dec-2023	31-Dec-2026
Comments:	Sub-indicator measures the variation of the proportion of e-bus services users satisfied with their personal security while using public transport services. Surveys will allow to collect a baseline data (sex-disaggregated) and based on that also target will be set that allows to monitor the improved satisfaction/ security for female and male users. Personal security perception should increase with the project. Status update: Perception survey design is ongoing, it is expected that data collection on baseline will start after the delivery of the buses.			
<b>□ Perception of security among female users of public e-bus (Text, Custom Supplement)</b>				



	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	TBD	TBD	TBD	TBD
<input type="checkbox"/> Perception of security among male users of public e-bus (Text, Custom Supplement)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	TBD	TBD	TBD	TBD
<b>► E-bus pilot implementation progress (Text, Custom)</b>				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	N/A	N/A	N/A	Satisfactory
Date	11-Oct-2021	10-Jul-2023	11-Dec-2023	31-Dec-2026
Comments:	<p>This indicator measures the e-bus pilot infrastructure and operation implementation progress including the 3 major components of the pilot: connection to power supply and charger installation, maintenance facilities, e-bus supply and operation.                      Status update: The eBus route and depot location selection is in progress. The issuance of bid documents has been rescheduled to April 2024. The multi-criteria analysis has identified EI-Amreya depot and the routes best suited for the project. Procurement of buses and rehabilitation work of the garage not yet started, and hence no reporting available at this stage.</p>			
<input type="checkbox"/> Electric buses in operation (Yes/No, Custom Supplement)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	No	No	No	Yes
<input type="checkbox"/> Charging stations in operation (percentage) (Yes/No, Custom Supplement)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	No	No	No	Yes
<input type="checkbox"/> E-bus maintenance facilities in operation (Yes/No, Custom Supplement)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	No	No	No	Yes
<input type="checkbox"/> CTA staff trained for operation and maintenance efficiency improvement (Yes/No, Custom Supplement)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	No	No	No	Yes
<b>► Monitoring of Key Performance Indicators (KPIs) for e-buses (Yes/No, Custom)</b>				
	Baseline	Actual (Previous)	Actual (Current)	End Target



Value	No	No	No	Yes
Date	20-Oct-2021	10-Jul-2023	11-Dec-2023	31-Dec-2026
Comments:	Indicator follows how CTA is measuring the key performance indicators that assess the performance of the e-buses. Examples are: revenue, costs, km travelled, ridership and a combination or ratio of these indicators that are meaningful to assess the performance and efficiency of the operation. Status update: The eBus route and depot location selection is in progress. A multi-criteria analysis is being done to see which depot and routes best suited for the project. Therefore, no KPIs can be reported at this stage.			
<input type="checkbox"/> Average daily business day ridership on selected e-bus routes (Text, Custom Supplement)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	TBD	TBD	TBD	TBD

Enhanced capacity, behavioral change and communication				
▶ Pilot Community-based Social Marketing (CBSM) initiatives implemented (Number, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	0.00	0.00	2.00
Date	01-Sep-2020	10-Jul-2023	11-Dec-2023	31-Dec-2026
Comments:	This indicator tracks the successful design and implementation of pilot Community Based Social Marketing activities aiming at inducing behavioral changes in support of air quality and solid waste management. Scale up activities based on the pilots need to take place to affect change at Greater Cairo level or larger groups of population.			
<input type="checkbox"/> Improving municipal solid waste segregation at source at households level (Number, Custom Breakdown)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	0.00	0.00	1.00
Date	01-Sep-2020	10-Jul-2023	11-Dec-2023	31-Dec-2026
▶ Number of NGOs/CBOs led initiatives in collaboration with local authorities (Number, Custom)				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	0.00	0.00	10.00
Date	01-Sep-2020	10-Jul-2023	11-Dec-2023	31-Dec-2026
Comments:	This indicator measures the collaboration between governmental and non-governmental entities in the form of NGOs/CBOs led initiatives (e.g. clean up campaigns, SWM collection, awareness campaigns including for the beneficiaries of different project components) that demonstrate contribution of the project to stronger partnerships with public actors			
<input type="checkbox"/> Number of women groups or CSOs engaged in monitoring SWM services (Number, Custom Supplement)				
	Baseline	Actual (Previous)	Actual (Current)	End Target





Value	0.00	0.00	0.00	4.00
<b>► Increased percentage of women employed in the solid waste chain (Percentage, Custom)</b>				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	0.00	0.00	10.00
Date	01-Sep-2020	10-Jul-2023	11-Dec-2023	31-Dec-2026
Comments:	Indicator measures the increase in percentage of women who, got jobs in carrying out activities in the solid waste chain, due to the training and capacity building activities of the project.			
<b>► People reached out with air quality and climate change information (Text, Custom)</b>				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	TBD	TBD	TBD	TBD
Date	01-Sep-2020	10-Jul-2023	11-Dec-2023	31-Dec-2026
Comments:	People provided with enhanced air quality information, including real-time and forecast air pollution information, and guidance on actions to be taken in case of extreme weather situation. This indicator will measure the extent to which the project succeeded in reaching out to a larger audience with enhanced information in order to induce a behavioral change and increase the people's resilience to air pollution.			

<b>Project Management and Monitoring &amp; Evaluation</b>				
<b>► Level of satisfaction of stakeholders with the quality of project's engagement (Text, Custom)</b>				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	This is a project management related indicator, and no baseline exists.	N/A yet, TBD as the project moves forward	N/A yet, TBD as the project moves forward	The end target of the level of satisfaction will be determined during preparation of the M&E manual.
Date	01-Sep-2020	10-Jul-2023	10-Jul-2023	31-Dec-2026
Comments:	This indicator measures the degree of satisfaction of the stakeholder groups, including project affected parties, with regards to the quality of the consultation process, integrating consultation results in the design, quality and timeliness of information sharing.			
<b>► Percentage of grievances received and addressed in a timely manner (Percentage, Custom)</b>				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	0.00	0.00	80.00
Date	01-Sep-2020	10-Jul-2023	11-Dec-2023	31-Dec-2026
Comments:	This indicator refers to the percentage of grievances that are addressed and responded to within a timeline that has been specified and publicly communicated by the project. It also assesses the functionality of the GRM system against the following specific parameters: (i) Standard operational guidelines for the system are developed; (ii) Qualified staff has been appointed to deal with the complaints; and (iii) Reporting system is in place to document and track complaints.			



Improved eWaste and Healthcare waste management for Reduction of uPOPs				
<b>▶ Number of emission control technologies / practices implemented (Number, Custom)</b>				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	0.00	0.00	5.00
Date	06-Oct-2021	10-Jul-2023	11-Dec-2023	31-Dec-2026
Comments:	Activity not yet started.			
<b>□ Number of emission control technologies/practices implemented in the eWaste Sector (Number, Custom Breakdown)</b>				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	0.00	0.00	3.00
Date	12-May-2022	10-Jul-2023	11-Dec-2023	31-Dec-2026
<b>□ Number of emission control technologies/practices implemented in the healthcare waste sector (Number, Custom Breakdown)</b>				
	Baseline	Actual (Previous)	Actual (Current)	End Target
Value	0.00	0.00	0.00	2.00
Date	12-May-2022	10-Jul-2023	11-Dec-2023	31-Dec-2026

### Performance-Based Conditions

#### Data on Financial Performance

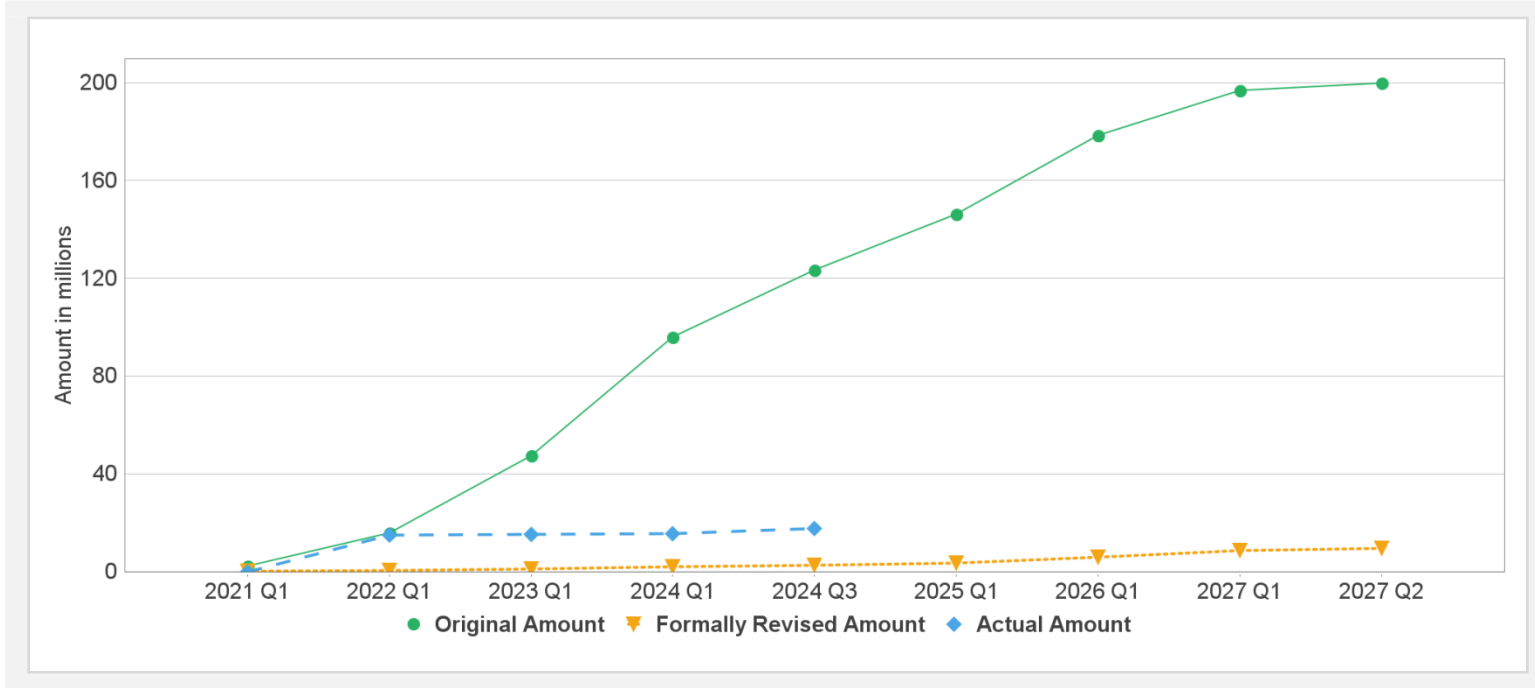
##### Disbursements (by loan)

Project	Loan/Credit/TF	Status	Currency	Original	Revised	Cancelled	Disbursed	Undisbursed	% Disbursed
P172548	IBRD-91660	Effective	USD	200.00	200.00	0.00	18.05	181.95	9%
P172548	TF-C0761	Not Effective	USD	9.13	9.13	0.00	0.00	9.13	0%

##### Key Dates (by loan)

Project	Loan/Credit/TF	Status	Approval Date	Signing Date	Effectiveness Date	Orig. Closing Date	Rev. Closing Date
P172548	IBRD-91660	Effective	30-Sep-2020	24-Jan-2021	09-Jun-2021	31-Dec-2026	31-Dec-2026
P172548	TF-C0761	Not Effective	28-Feb-2023	--	--	31-Dec-2026	31-Dec-2026

#### Cumulative Disbursements



### Restructuring History

There has been no restructuring to date.

### Related Project(s)

P176688-Improved Management of E-Waste and Healthcare Waste for Reduction of uPOPs Emissions