



Railway Improvement and Safety for Egypt Project (P175137)

MID EAST,NORTH AFRICA,AFG,PAK | Egypt, Arab Republic of | IBRD/IDA | Investment Project Financing (IPF) | FY 2021 | Seq No: 11 | Archived on 19-Aug-2026 | ISR08864

Implementing Agencies: EGYPTIAN NATIONAL RAILWAYS, Ministry of Transport

1. OBJECTIVE

1.1 Development Objective

Original Development Objective (Approved as part of Approval package on 05-Mar-2021)

To improve safety and service quality of the railway services along the Alexandria-Cairo-Nag Hammadi corridor.

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

No

2. COMPONENTS

Name
Safe System Signaling Modernization:(Cost \$602.00 M)
Safe System Asset Management Improvement:(Cost \$54.00 M)
Project Delivery, Institutional and Human Resource Development:(Cost \$24.00 M)

3. OVERALL RATINGS

Name	Previous	Current
Progress towards achievement of PDO	● Moderately Satisfactory	● Moderately Satisfactory
Overall Implementation Progress (IP)	● Moderately Satisfactory	● Moderately Satisfactory
Overall Risk Rating	● Substantial	● Substantial

4. KEY ISSUES & STATUS



4.1 Implementation Status and Key Decisions

Project implementation is progressing with recent signs of modest improvement, but significant cumulative delays to the overall schedule persist. In the past 6 months, there was meaningful progress in signaling modernization works with the Sohag CTC commissioned, the Asyut–Nagh Hammadi section has entered the defect liability period stage, the Beni Suef–Asyut section has been fully completed, and the 17-kilometer stretch under Milestone 2 is advancing to 85%. The major remaining works are along the Cairo–Beni Suef line, which is significantly behind the original schedule. The PDO continues to be fully achievable, but not within the current closing date of September 2027.

5. SYSTEMATIC OPERATIONS RISK-RATING TOOL

Risk Category	Rating at Approval Approval Package - 05 Mar 2021	Last Approved Rating ISR Seq. 010 - 18 Feb 2026	Proposed Rating
Political and Governance	● Moderate	● Moderate	● Moderate
Macroeconomic	● Moderate	● Moderate	● Moderate
Sector Strategies and Policies	● Substantial	● Substantial	● Substantial
Technical Design of Project or Program	● Moderate	● Moderate	● Moderate
Institutional Capacity for Implementation and Sustainability	● Substantial	● Substantial	● Substantial
Fiduciary	● Substantial	● High	● High
Environment and Social	● Substantial	● Substantial	● Substantial
Stakeholders	● Moderate	● Moderate	● Moderate
Overall	● Substantial	● Substantial	● Substantial



6. RESULTS

6.1 PDO Indicators by PDO Outcomes

To improve safety on the Alexandria - Nag Hammadi corridor								
Indicator Name	Baseline		Actual (Previous)		Actual (Current)		Closing Period	
	Value	Month/Year	Value	Date	Value	Date	Value	Month/Year
1. Railway Accident Risk (Number)	0.56	Dec/2020	0.56	Dec/2025	0.56	Dec/2025	0.44	Mar/2027
	Comments on achieving targets		The project will reduce from 0.562 to 0.440 the Fatalities and Weighted Serious Injuries (FWSI) per billion passenger kilometers (km). By reducing risk, the project improves safety in the Alexandria to Nag Hammadi corridor. FWSI is the way modern railways measure the railway accident risk. The rationale for using this indicator is to align the ENR with good international practice as showcased by the European Union (EU) standard. This standard EU definition is calculated by adding the number of fatalities to 0.1 times the number of serious injuries divided by billion passenger-kms. The baseline is based on 2019 data from ENR and comprises: (a) data on fatalities and serious injuries where ENR's procedures have failed; and (b) 1% of fatalities and serious injuries where other factors have been involved. This indicator is a composite hybrid formulation to enable the ENR to work toward the EU standard. The target is to reduce the baseline indicator by 4% per annum over the project duration. This indicator has three sub-indicators by type of collisions that can lead to fatalities and serious injuries: (a) train colliding with another train or fixed structure (buffer or end block); (b) train colliding with a pedestrian, typically reported as "hit by train;" and (c) train colliding with a road vehicle, typically reported not as a standard rail collision but as "collision with road vehicle." This disaggregation seeks to enrich the root analysis that ENR can perform to learn how to further improve its safety levels. *All values (baseline, current, and target) will need to be revised due to improved data and methodology. The revision will take place during midterm review of the project.					



1.1 FWSI per billion passenger km caused by train colliding with another train or fixed structure (Number)	0.45	Dec/2020	0.45	Dec/2025	0.45	Dec/2025	0.35	Mar/2027
	Comments on achieving targets		This sub-indicator captures collisions between a train and another train or fixed structure that lead to a fatality or serious injury, measured per billion passenger-km. The indicator measures a failure in the ENR's procedures.					
1.2 FWSI per billion passenger km caused by train colliding with a pedestrian (Number)	0.08	Dec/2020	0.08	Dec/2025	0.08	Dec/2025	0.06	Mar/2027
	Comments on achieving targets		This sub-indicator captures collisions between a train and a pedestrian that lead to a fatality or serious injury, measured per billion passenger-km. Railways typically report this collision as "pedestrian hit by a train." This indicator is not derived from a failure in ENR's procedures but from other factors. Consequently, its contribution to the FWSI calculation is factored with a 1% loading.					
1.3 FWSI per billion passenger km caused by train colliding with a road vehicle (Number)	0.04	Dec/2020	0.04	Dec/2025	0.04	Dec/2025	0.03	Mar/2027
	Comments on achieving targets		This sub-indicator captures collisions between a train and a road vehicle that lead to a fatality or serious injury. Railways typically report this collision not as a standard rail collision but as "collision with road vehicle."					
2. Occupational Health & Safety Risk for ENR employees along the Alexandria - Nag Hammadi line (Number)	0.30	Dec/2020	0.27	Dec/2025	0.27	Dec/2025	0.24	Mar/2027
	Comments on achieving targets		The Project will reduce the Lost Time Injury Frequency Rate (LTIFR) from 0.303 to 0.237 per 100,000 hours worked in the Alexandria – Nag Hammadi line. The LTIFR is the way modern railways measure the health and Safety (H&S) risk. By reducing risk to ENR employees, the project improves safety. This indicator also reflects the holistic and systemic view of safety embedded in the project. The LTIFR is a standard industry good practice and it is the number of incidents where a worker/employee has lost time at work (1 hour and above) due to an injury sustained at work. The rationale for using this indicator is to align the ENR with international good practice as showcased by the European Union (EU) standard. The indicator is normalized per 100,000 hours worked. The calculation for the baseline assumes the ENR's 47,000 employees working 1600 hours per year (excludes public holidays, religious festivals, weekends, annual leave). Further refinement to this data may be available at a later date. This is a total of 75,200,000 working hours.					



		*All values (baseline, current, and target) will need to be revised due to improved data and methodology. The revision will take place during midterm review of the project.						
To improve rail service quality along the Alexandria-Cairo-Nag Hammadi corridor.								
Indicator Name	Baseline		Actual (Previous)		Actual (Current)		Closing Period	
	Value	Month/Year	Value	Date	Value	Date	Value	Month/Year
3. Train Punctuality (Percentage)	75.00	Dec/2020	90.00	Dec/2025	90.00	Dec/2025	90.00	Mar/2027
	Comments on achieving targets		Punctuality is an internationally used measure of the timeliness in train running in compliance with the timetable. Punctuality is generally measured taking into account a time margin of arrival, especially for longer distance trains, although that definition is not universal. As long as the same definition is used, a comparison over time can be made. For network reliability, train punctuality will be used as a proxy pending more accurate data from the ENR. Train punctuality is therefore the arrival within a certain number of minutes of planned arrival time of the train to the terminal station, 15 minutes for long-distance (PLD) trains and 10 minutes for short-distance (PSD) trains, as indicated by the ENR. The upgraded signaling will improve schedule recovery time also. During the implementation of the modernization of signaling system (first 4-5 years of the project), the timetable will need to be adapted to accommodate the execution of works in parallel with the train circulation. The works will impose speed restrictions and extended duration of travel from origin to destination station. The updated timetable issued for the periods of works on each railway line will be used as reference for an accurate calculation of the punctuality of trains. The ENR will also measure the time of delay over the timetable excluding any effect of the signaling and track upgrade works. They will do this by calculating the difference in time between a hypothetical unaffected train compared to the actual delay incurred by the works.					
3.1 Train Punctuality Passenger Long Distance Cairo	75.00		95.00		95.00		90.00	
	Comments on achieving targets		Train punctuality is measured by the number of times the timetabled trains reach their destination (arrival) within a margin (PLD 15 minutes). The calculation excludes the delays					



Alexandria and Cairo - Nag Hammadi (Percentage)			caused by the upgrading works on the railway and this is done by calculating the difference between a hypothetical “no-delay” train with the actual delay caused by the works and subtracting that value from the delay actually observed at arrival. The indicator is disaggregated into two segments in the Monitoring Plan: Cairo Alexandria and Cairo - Nag Hammadi.					
3.2 Train Punctuality Passenger Short Distance Cairo Alexandria and Cairo - Nag Hammadi. (Percentage)	75.00		85.00		85.00		90.00	
	Comments on achieving targets		Train punctuality is measured by the number of times the timetabled trains reach their destination (arrival) within a margin (PSD 10 minutes). The calculation excludes the delays caused by the upgrading works on the railway and this is done by calculating the difference between a hypothetical “no-delay” train with the actual delay caused by the works and subtracting that value from the delay actually observed at arrival. The indicator is disaggregated into two segments in the Monitoring Plan: Cairo Alexandria and Cairo - Nag Hammadi.					
4. User Satisfaction with ENR passenger services (Percentage)	60.00	Dec/2020	60.00	Dec/2025	60.00	Dec/2025	80.00	Mar/2027
	Comments on achieving targets		This indicator has two parts. The first part measures user satisfaction with railway service on the intervened corridor and therefore is related to the improving quality of service part of the development objective. The ENR carries out periodic surveys that ask users to rate attributes such as air conditioning, cleanliness, ticket availability, customer service and staff, train time, and service level. In other surveys the ENR asks about delay in train arrival, overall trip evaluation, and staff attitude. The project has direct influence on train time or late arrival (punctuality) and on service level or trip quality. These two categories –train time, delay in arrival; and service level, overall trip evaluation– are the main attributes to examine for rating purposes with equal weight. The survey will use a 5-point Likert scale (1: highly unsatisfied; 2: moderately unsatisfied; 3: neutral; 4: moderately satisfied; 5: very satisfied), asking whether the user is satisfied with each of the attributes measured. Those who answer 4 or 5 would be counted as “satisfied.” The project will improve the rating for 60% to 80% for these two attributes. Survey must report the respondents’ gender. For overall quality assessment including gender considerations, evaluators will also examine the ratings in cleanliness, ticket availability, and customer service and staff. Trends in the ratings are particularly important to analyze changes. Hence reporting is yearly for this part. ENR will publish the results of the					



			analysis of the surveys and indicate next steps to improve quality where needed. The second part of the indicator measures user perception with the quality of improvements at stations (component 2) and will be designed with Bank support prior to commencement of works in this component to establish the baseline. This survey will be repeated at Mid-Term Review and at closing. This survey will also use a 5-point Likert scale (1: highly unsatisfied; 2:					
4.1 User satisfaction female users of ENR services (Percentage)	60.00		60.00		60.00		80.00	
	Comments on achieving targets		This sub-indicator will report the answers by females to the survey described above. The Monitoring Plan also contains a sub-indicator for male users that will be reported, but is not shown in the results framework to accommodate space constraints in the printout.					
5. Performance-based funding for ENR (Yes/No) ^{PBC}	No	Dec/2020	No	Dec/2025	No	Dec/2025	Yes	Mar/2027
	Comments on achieving targets		The project will promote a major reform to improve the efficiency and accountability of the ENR through the adoption of Public Sector Obligations (PSO) and Multi-Annual Infrastructure MAI Contracts. The implementation of the PSO and MAIC mean that the ENR receives performance-based funding. Currently, the Ministry of Finance pays contributions (subsidies) to ENR with no linkage to performance. This indicator will be achieved when the ENR and the MOT and/or the MoF sign PSO and MAI contracts that meet the intended scope and KPIs. The achievement of this outcome indicator means that the Performance-Based Condition was met. See please section "Verification Protocol Table: Performance-Based Conditions" for more details. Annex 1 of the PAD also presents more details.					

6.2 Intermediate Results Indicators by Components

Safe System Signaling Modernization								
Indicator Name	Baseline		Actual (Previous)		Actual (Current)		Closing Period	
	Value	Month/Year	Value	Date	Value	Date	Value	Month/Year
	0.00	Dec/2020	0.00	Dec/2025	0.00	Dec/2025	0.00	Jun/2021



Functioning GRM for project related complaints (Number)	Comments on achieving targets		This indicator assesses the efficiency and the functionality of the grievance mechanism system in place for the project by measuring the grievances received, the solution given, and the time taken to solve the issue. The indicator reports the grievances not solved after three months to track deficiencies in the GRM. The indicator also tracks the number of grievances received. The indicator also tracks the number of grievances received. The baseline and target are zero to reflect that zero grievances should be outstanding after three months. A positive number will indicate the GRM needs improvement. This indicator will also measure that a self-assessment of ENR grievance mechanism against the guiding principles of the grievance mechanism as per ESS10 has been conducted and based on the assessment, and with support from the World Bank, that the ENR has developed an Action Plan that addresses the root causes of the grievance to prevent repetition.					
Signaling towers commissioned in Alexandria – Cairo – Nag Hammadi (Number)	21.00	Dec/2020	51	Dec/2025	51	Dec/2025	70.00	Dec/2026
	Comments on achieving targets		Signaling tower refers to the technological building hosting the signaling control room with all related equipment and all stations and the tracks between stations controlled by the respective signaling tower. Commissioning refers to putting into operation the modernized signaling and ancillary equipment such as cables, computers, software, point machines, signals, power supply, telecommunication equipment, rehabilitated track and turnouts in all stations and along the entire lengths of track controlled by the respective signaling tower, and so on. The four segments rolled over from the ENRRP have 51 signaling towers and the Cairo – Beni Suef segment has 19. In the Monitoring Plan, the indicator is disaggregated by segment.					
Centralized Traffic Control Centers (CTC) commissioned in Alexandria-Cairo-Nag Hammadi (Number)	0.00	Dec/2020	2	Dec/2025	2	Dec/2025	4.00	Dec/2026
	Comments on achieving targets		The Centralized Traffic Control (CTC) represents a centralized office that controls remotely all railways interlockings and the entire traffic flows along a part of the railway network (usually a railway section of 100-250 km). All signaling towers installed along the respective railway section are connected to the CTC and are subordinated to it for traffic management purposes. Commissioning of the CTC means the CTC and all subordinated signaling towers are interconnected and operational according to the project specifications. There are five					



			CTCs in the entire alignment, four belong to the rolled over segments from the ENRRP, and one for the Cairo-Beni Suef segment. Indicator is disaggregated accordingly.					
GHG emissions from transport on the Alexandria – Nag Hammadi corridor (Percentage)	0.00	Jan/2021	0.00	Dec/2025	0.00	Dec/2025	-6.90	Mar/2027
	Comments on achieving targets		Green House Gas (GHG) emissions of railways and competing intercity transport modes (e.g., cars, buses and trucks) in CO2 equivalent, along the project corridors from Alexandria through Nag Hammadi. The project will reduce GHG emissions because of improved operational efficiency in ENR passenger and freight services and thanks to a modal shift from cars and trucks.					
Safe System Asset Management Improvement								
Indicator Name	Baseline		Actual (Previous)		Actual (Current)		Closing Period	
	Value	Month/Year	Value	Date	Value	Date	Value	Month/Year
People benefiting from improved access to sustainable transport infrastructure and services (Number of people) ^{CRI}			27,444,515	Dec/2025	27,444,515	Dec/2025	27,444,515	Sep/2027
	Comments on achieving targets		total beneficiaries are based on 2020 population along the project alignment					
People benefiting from improved access to sustainable transport infrastructure and services – Female (Number of people) ^{CRI}			13,563,079	Dec/2025	13,563,079	Dec/2025	13,563,079	Sep/2027
	Comments on achieving targets		This based on the percentage of female population being 49.2% in Egypt according the World Bank Development Indicators					
People benefiting from improved access to sustainable transport infrastructure and services – Youth (Number of people) ^{CRI}			16,466,709	Dec/2025	16,466,709	Dec/2025	16,466,709	Sep/2027
	Comments on achieving targets		This is based on the average of youth being 60% of Egypt's population according to UN Population Fund					



Design and deployment of the Safety Management System (SMS) at ENR. (Percentage)	0.00	Dec/2020	81.00	Dec/2025	81.00	Dec/2025	80.00	Mar/2027
	Comments on achieving targets		This indicator measures the progress of the establishment of a safety culture at the ENR through the design and deployment of a SMS and training of staff in safety culture through the SMS which has already begun but has had difficulty with implementation. An effective SMS designed and implemented, will have a positive impact on safety issues at stations and other parts of railway operations. Safer operation of the railway is the higher level outcome and is one that will generate public, political and staff confidence in the ENR, through better safety and asset management outcomes, and will lead to a sustainable railway. The SMS includes an Asset Management System embedded within it. Higher rates of equipment reliability which will support the change in the ENR personnel's attitude to current technology work-arounds that lead to unsafe practices. In the Monitoring plan there is one sub-indicator for this indicator: Number of ENR staff trained on the structure, objectives, and main tenets of a Safety Management System (SMS) that should also be tracked.					
Fire safety at stations (Number)	0.00	Jan/2021	2	Dec/2025	2	Dec/2025	10.00	Mar/2027
	Comments on achieving targets		This indicator measures the implementation of comprehensive fire safety plans at stations and workshops in accordance with the ENR fire safety department standards on the alignment. The fire safety plan includes, among other things, fire extinguishers, sprinklers, and training of the station head and other station personnel so the plan can be implemented. The training will include drills.					
Pedestrian barriered level crossings installed and operational (Number)	0.00	Nov/2020	0.00	Dec/2025	0.00	Dec/2025	10.00	Mar/2027
	Comments on achieving targets		This indicator measures the number of pedestrian barriered level crossings that are operational. This indicator measures a key element of physical safety equipment installed on the track. The objective is to increase the number of operational pedestrian barriered level crossings. Pedestrian barriers are different to road barriers because they provide a specific pedestrian path across the railway track which avoids the use of the roadway for pedestrians. Pedestrian barriers are usually immediately adjacent to road barriers but can also be installed at separate locations of high foot traffic.					
	0.00	Dec/2020	1,260	Dec/2025	1,260	Dec/2025	1,000.00	Mar/2027



Precursors to Incidents Reported by ENR Staff (Number)	Comments on achieving targets		The reporting of these precursor occurrences indicates the potential risks of future accidents. Some precursors are: broken rails, track buckles, signals passed at danger, wrong side signaling failures, broken wheels, and broken axles. The rationale for using this indicator is to align the ENR with good international practice as showcased by the EU standard. The objective is to reduce the number of precursors to incidents.					
			Precursors to collisions are events that could lead to a fatal collision if some other form of intervention was not applied.					
			Precursors to derailments are events that could lead to a fatal derailment where all wheels of the train stay on the track but that the circumstances could very easily lead to a fatal derailment.					
			The indicator ensures that all precursors are reported and are given equal weight. The idea is to encourage ENR staff to report to reflect a culture of safety.					
Length of Cairo-Giza-Beni Suef corridor segment served by signaling system with mitigation measures to identified climate and disaster risks (Kilometers)	0.00	Dec/2020	0.00	Dec/2025	0.00	Dec/2025	125.00	Mar/2027
	Comments on achieving targets		The project upgrades track and signaling systems including signaling towers on the Alexandria-Nag Hammadi corridor. The technical specifications for all these assets must embed climate and natural disaster resilience parameters. Known risks for the project area include extreme temperature, extreme precipitation and flooding, drought, strong winds and earthquakes. Bidding documents for track and signaling works for the Cairo-Giza-Beni Suef segment will address measures to mitigate these climate and disaster risks. Signaling towers control traffic of assigned railway segments, typically several stations per control tower. The indicator is defined as follows: when works complete that is, a signaling tower is commissioned and the modern signaling system becomes functional for the particular segment of the corridor, then climate and disaster risk-resilient signaling system now serves the segment. The length of the corridor segment covered by the signaling tower will be added to the indicator to be reported. The Cairo-Giza-Beni Suef corridor is 125km in length, and the baseline value is 0, and the target value is 125. Design and works will occur during the first several years of implementation, and climate and disaster resilient signaling system					



		will be in place toward the end of project implementation showing an S-shaped progress curve.						
Project Delivery, Institutional and Human Resource Development								
Indicator Name	Baseline		Actual (Previous)		Actual (Current)		Closing Period	
	Value	Month/Year	Value	Date	Value	Date	Value	Month/Year
Female graduates recruited in ENR in a wide range of engineering roles (Number)	215.00	Dec/2020	306	Dec/2025	306	Dec/2025	240.00	Mar/2027
	Comments on achieving targets		This indicator measures the number of female graduates recruited by the ENR for a wide range of engineering roles from civil to electrical to mechanical to signal engineer. The rationale for this indicator is to encourage women’s recruitment in roles that tend to be male dominated in the ENR and broadly in the transport sector, one of which is engineering, and aims to facilitate education toob transition of female graduates with relevant education profile.					
Steering Committee established and meets periodically (Yes/No)	No	Oct/2020	Yes	Dec/2025	Yes	Dec/2025	Yes	May/2022
	Comments on achieving targets		The MoT will establish a steering committee (SC) that will include MoF and MoIC and represnetatives of other ministries as needed . The SC will lead the reform effort at ENR that will result in the adoption of the PSOC and MAIC.					
Policy Reform Preparatory Analysis for PSOC and MAIC (Yes/No)	No	Dec/2020	Yes	Dec/2025	Yes	Dec/2025	Yes	Jun/2023
	Comments on achieving targets		The scope of the preparatory analysis will include three key elements: (a) preparatory analytical work and help with adoption of the PSO contract; (b) preparation work and help with adoption of the MAIC; and (c) preparation of supporting business plans for each of the business units in ENR.					

6.3 Performance Based Conditions (PBC)

PBC Name	Baseline	Actual (Previous)		Actual (Current)		Closing Period
		Value	Date	Value	Date	

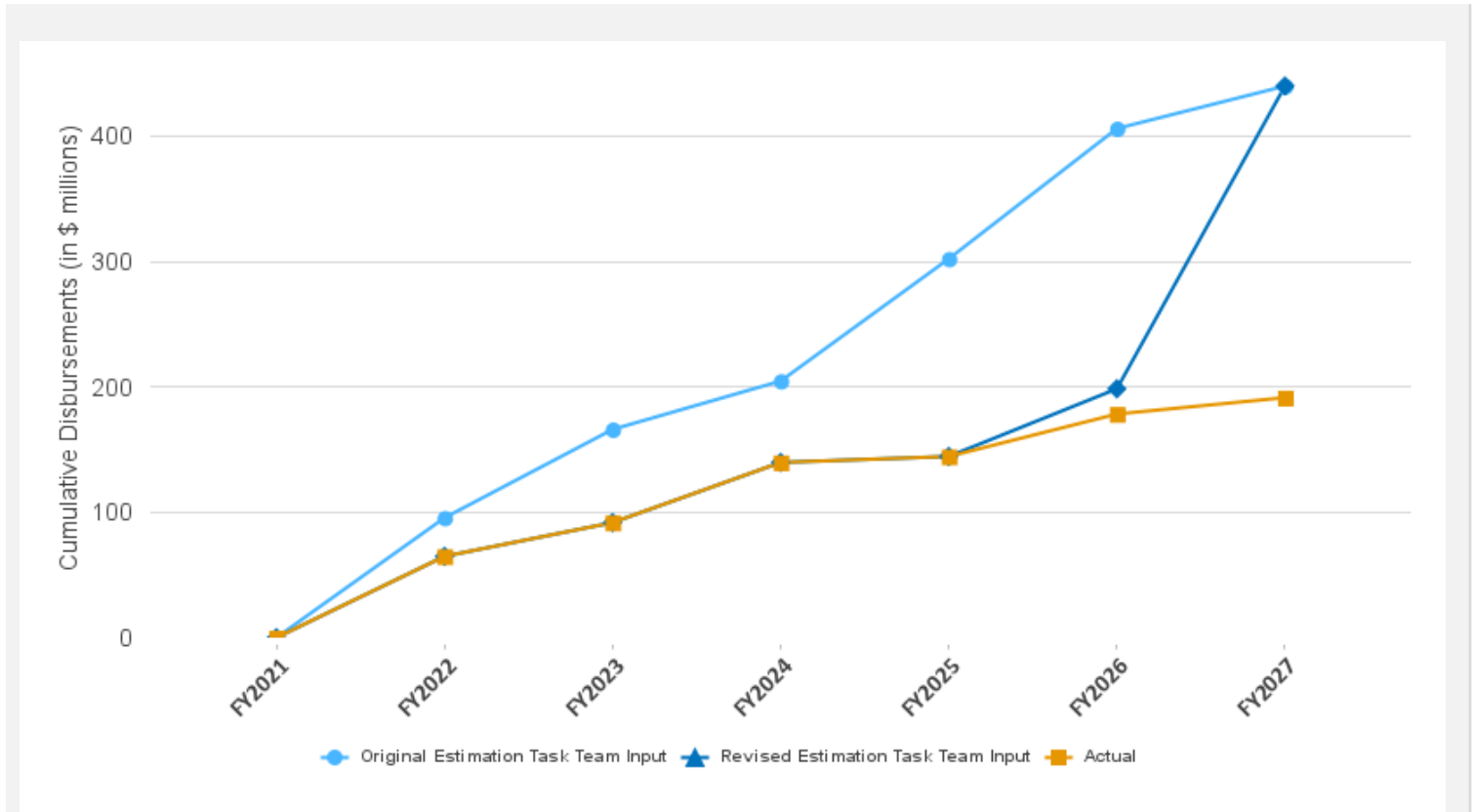


1:5. Performance-based funding for ENR (Yes/No) Not Due	Value	No	No	05-Aug-2025	No	31-Aug-2027	29,000,000.00
	Allocated Amount	0.00			0.00		
PBC allocation			29,000,000.00				



7. DATA ON FINANCIAL PERFORMANCE

7.1 Cumulative Disbursements



7.2 Disbursements (by loan)

Loan/Credit/TF	Status	Original	Revised	Cancelled	Disbursed	Undisbursed	Historical Disbursed	% Disbursed
IBRD-92090	Effective	440.00	421.20	0.00	200.82	220.38	0.00	47.68%

7.3 Key Dates (by loan)

Loan/Credit/TF	Status	Approval	Signing	Effectiveness	Orig. Closing	Rev. Closing
IBRD-92090	Effective	05-Mar-2021	28-Apr-2021	25-Aug-2021	30-Sep-2027	30-Sep-2027

8. KEY DATES



Key Events	Planned	Actual
Approval	05-Mar-2021	05-Mar-2021
Effectiveness	25-Aug-2021	25-Aug-2021
Mid-Term Review No. 01	22-Sep-2024	14-Nov-2024
Operation Closing/Cancellation	30-Sep-2027	

9. RESTRUCTURING HISTORY

10. ASSOCIATED OPERATION(S)

There are no associated operations