Appraisal Environmental and Social Review Summary

Appraisal Stage

(ESRS Appraisal Stage)

Date Prepared/Updated: 08/29/2022 | Report No: ESRSA02295

BASIC INFORMATION

A. Basic Project Data

Country	Region	Project ID	Parent Project ID (if any)
Egypt, Arab Republic of	MIDDLE EAST AND NORTH AFRICA	P177932	
Project Name	Cairo Alexandria Trade Logistics Development Project		
Practice Area (Lead)	Financing Instrument	Estimated Appraisal Date	Estimated Board Date
Transport	Investment Project Financing	8/23/2022	9/28/2022
Borrower(s)	Implementing Agency(ies)		
Ministry of Finance, Egypt, Arab Republic of Egypt-Ministry of International Cooperation	Ministry of Transport, Egypt, Egyptian National Railways - Ministry of Transport		

Proposed Development Objective

To improve the performance and support the decarbonization of the logistics and transport sectors in the Alexandria-6th October-Greater Cairo Area railway corridor.

Financing (in USD Million)	Amount
Total Project Cost	998.00

B. Is the project being prepared in a Situation of Urgent Need of Assistance or Capacity Constraints, as per Bank IPF Policy, para. 12?

No

C. Summary Description of Proposed Project [including overview of Country, Sectoral & Institutional Contexts and Relationship to CPF]

The Project will build a railway bypass to the congested railway network around greater Cairo. This bypass will improve the efficiency of freight transport between the Alexandria Sea Port and Greater Cairo. Coupled with ongoing improvements to the railway lines between Cairo and Nag Hamadi under the RISE Project, freight trains can reach Upper Egypt. The bypass includes a greenfield segment starting at the Bani Salamah station on the line connecting Bashteel with El Itihad stations) and the Marazeeq-Wahat line. The bypass also upgrades the signaling on the

Marazeeq-Wahat line, between Marazeeq (km 0 point) and the meeting point with the greenfield segment. The Project will also improve access by train for container trains to the 6th of October Dry Port (DP6) which manages only containers and lies along the Marazeeq-Wahat railway line. The Project will also upgrade the railway signaling on the Bashteel-El Itihad (El Manashy segment) and El Itihad-Tafaroa (El Itihad segment) between Greater Cairo Area and Alexandria.

The Project will increase the capacity of the existing railway corridor between Alexandria and Cairo to manage freight trains. The Project will allow, for example, to increase from 4 trains per day bound to DP6 to more than 30 once all the Project is complete. Traffic for other types of freight trains will also increase. Moreover, because of the bypass to the heavily congested area of Greater Cairo, the Project will increase the railway connectivity to Upper Egypt, allowing for a trade and economic corridor to Sudan. Furthermore, the Egyptian railways' network is extensive, so this bypass opens up other parts of the network to railway traffic, including the Damietta Port and Port Said. Other dry ports can also benefit if they build last-mile connectivity to the existing ENR network to take advantage of the projects' benefits.

The Project will also introduce the Infrastructure Access Charge (IAC) regime for railways in Egypt. The IAC allows private railway operators, for example, to run their trains, paying a charge to ENR as the owner of the tracks. The railway bypass to the bottleneck in the GCA increases capacity to allow more trains, including those eventually operated by the private sector. The Project also opens up other private sector participation opportunities in railways.

As part of the project design, all subcomponents embed a zero harm/zero tolerance, safety first" into the upgrade and new works on the tracks, at communities along the tracks, ensuring safety for communities along the tracks, such as fencing, level crossings, and education measures.

The Project has the following components:
Component 1. Railway Sector Reform, Project Delivery, Stakeholder Engagement, Women's Economic Empowerment, and Private Sector Participation
1.1 Railway sector reform: (a) Developing and adopting a transparent railway infrastructure access charging (IAC) scheme for the Egyptian railway network, determining the specific charges to be paid for access and use of infrastructure by public and private railway operators, and supporting the ENR in drafting, negotiating and entering into IAC Contracts with private railway operators; (b) developing a regulatory framework for the railway network, identifying the detailed scope and responsibilities of a railway regulator and the associated governance framework; and (c) identifying and developing additional rail-friendly policies to increase traffic on the railway network.
1.2 Project-delivery activities: (a) Setting up an owner's Works Supervisor and Integrator to manage and integrate the design and construction of works financed by the Ministry of Transport (MoT) and works financed with Loan proceeds under Part 2; and (b) financing of a technical audit for the works under Part 2.
1.3 Promotion of Women's Employment and Stakeholder Engagement. (a) Promoting women's employment in the ENR's workforce through upgrading its childcare facility, the establishment of a female internship program and (b) implementing activities under the [Stakeholder Engagement Plan] to strengthen meaningful stakeholder engagement under the Project, including establishing and disseminating a citizen's charter.
1.4. Enabling private capital mobilization (PCM) for the railway sector. Transaction support to ENR in dealing with private parties concerning the private sector participation opportunities in the rail sector.
1.5 Decarbonization study (ENR financed): conducting a technical study for developing a decarbonization roadmap for the ENR.

Component 2: Track extension, railway signaling modernization, and selected track upgrades to create a railway bypass around the Greater Cairo Area.

2.1 Greenfield Link. Construction of a greenfield link from the Bashteel–Itay El Baroud section to the Marazeeq-Wahat section, including (a) constructing structures (bridges, viaducts) and laying track foundation; and (b) installation of track and signaling.

2.2 Marazeek–Wahat Section Upgrade. Upgrading of existing track and signaling modernization from Maraziq to the junction point with the greenfield link.

2.3 El Bashteel-Itay El Baroud Section: (a) Upgrading of existing track, construction of a parallel track, and new signaling installation on both tracks on the El Bashteel-El Itihad segment; and (b) upgrading of the existing single track and signaling on the El Itihad-Itay El Baroud segment.

2.4 El Itihad-Tafaroa Section: Upgrading existing single track and signaling on the El Itihad-Tafaroa section.

D. Environmental and Social Overview

D.1. Detailed project location(s) and salient physical characteristics relevant to the E&S assessment [geographic, environmental, social]

The project will cover a total of 376.5 km linear segments extending from Giza to Alexandria governorates through Monufia and Behira governorates. The project is taking place in different areas, including passing through agricultural lands, cities, villages and desert. The below is a description of the surroundings where the project will be taking place. The 376.5 km are divided into:

1- Sub-component 2.1 - 68.5 km greenfield of railway tracks and infrastructure, including siting of the railway right-of-way (RoW) which is around 40-50 m total width (Segment 1).

The 68.5 Km in Segment 1 can be broken down into 4 main areas based on the surrounding land use and key environmental and social (E&S) features along the segment:

A) 4 km starting from Bani Salama area: Segment 1 will start near Bani Salama Station on the existing El Bashteel – Itay El Baroud railway track (Subcomponent 2.3). The existing railway track is located on a narrow strip of land, around 70 m width, between two main water irrigation channels namely, Al Reyah Al Nasseri and Al Rayah Al Behiery. Segment 1 will start from 2 points on the existing track forming a triangle shape to allow trains to turn in north or south directions. The two sides of the triangle cross the Al Reyah Al Nasseri water channel (around 50 m width), pass-through cultivated lands for around 0.5 km each, where both meet. Segment 1 then passes through cultivated lands for around 3 km before it reaches to the Regional Ring Road (RRR). The main features surrounding the 3.5 km include (1) for 500 m, a few scattered structures for livestock and poultry farming with varying distances from the proposed route, (2) for 250 m, a cemetery located 180 m from the alignment and (3) for 800 m, a gated farmhouse compound located 400 m, in the nearest point, to 800 m from the alignment. The alignment will cross 1 local road (1 lane in each direction) in the area.

B) 25 km within the RRR RoW before crossing the Dabaa highway. The RRR RoW is 200 m in each side. The alignment is located 50 m west of the RRR. Accordingly, the 50 m alignment will be located within the RRR RoW. The owners of the lands within the RRR RoW are restricted from building any structures within the RRR RoW, according to the national requirements. The land use surrounding the RRR in this area, for 17.5 km, is mainly cultivated lands with

different crops (mostly fruits and vegetables) and irrigation types. Then, for the last 7.5 km, it is mainly vacant desert land, but there are two structures within the alignment footprint including 200 m of movable greenhouses and one unfinished steel structure warehouse. Within the 25 km the alignment will intersect with (1) two highways, namely Cairo Alexandria Desert Road and Dabaa Corridor; (2) three local roads (1 lane in each direction); (3) under construction high-speed train (4) underground main oil pipeline (Sumed Pipeline) and (5) a number of overhead Transmission lines (where the alignment is located between the towers).

C) 16.5 km are located in a currently vacant uninhabited desert land that is owned by the Government. The alignment will be located 50-500 m away from the RRR in this area. The government will implement the second phase of Mostaqbal Misr agriculture land reclamation project in this area that is owned and operated by the a number of governmental entities. The main features surrounding the alignment in this area include for 15 km, a parallel overhead transmission line, located 200-400 m away from the alignment. The alignment will intersect with a planned 1 local road in this area.

D) The last 23 km are located in a vacant uninhabited desert land south of the RRR. For 16 Km the alignment will be completely within the borders of the planned Gannet Misr land reclamation project for agriculture. The project is also owned and operated by the government. The last 7-8 km will be located within the Gannet Misr project on the borders with bordered the New 6th of October city authority land plot (N6OCA). The N6OCA plot is currently vacant, and the authority has prepared an initial master plan for the plot as a new city. The owned land by the authority is still under the subject masterplan, and no selling to developers or private owners has taken place according to the consultations. Segment 1 will intersect with one highway (Giza-Wahat) before connecting with the existing Marazeek–Wahat (segment 2). The main features surrounding the alignment in this area include a substations on the borders of Gannet Misr project and overhead transmission lines in the area.

The proposed 68.5 Km alignment was optimized in many areas to further avoid and minimize the anticipated E&S impacts.

2- Sub-component 2.2 - signaling modernization and select track improvements for 66 km (Segment 2) Marazeek–Wahat Section This existing segment is located in Giza governorate and it is mainly located in the desert parallel to the highway. The last five km are located in a rural area, where the line intersects with the Cairo-Beni Sueif railway line. There are residential buildings that are recently built-in close proximity to the existing line. The buildings are located in the desert area for around 14 km along the line. The distance between the buildings and the line varies between 50-200 m in the different areas.

3- Sub-component 2.3 El Bashteel – Itay El Baroud (Segment 3) including
(a) El Bashteel – El Itihad segment (100 km) upgrade of existing track, construction of a parallel track and signaling provision for both tracks;
(b) El Itihad – Itay El Baroud segment (27 km) upgrade the existing single track and signaling.

The existing Segment 3 is extending from Giza in a densely populated area through rural areas in the north up till reaching Beheira Governorate. Some parts of Segment 3 are fenced, especially in Giza. Also, around 40 km, out of the 100 km to be dualized, are located in a narrow strip of land, around 70 m width, between two main water irrigation channels. Many villages and small cities are located along Segment 3 as well as rural areas. Segment 3 is passing over

a number of water and irrigation channels. The feasibility study indicated that there are 13 illegal crossing points in Segment 3.

4- Sub-component 2.4 El Itihad – Tafaroa 108 km - track upgrades and signaling modernization (Segment 4).

The existing Segment 4 is extending from Beheira to Alexandria governorate. Similar to Segment 3, many villages and small cities are located along Segment 4. This segment is also passing over a number of water and irrigation channels. The feasibility study indicated that there are 38 illegal crossing points in Segment 4.

The project associated facilities for Segment 1 include any new stations that might be identified during the project implementation and road upgrades of the intersection roads at the same time of the railway construction. The site-specific E&S instruments for Segments 3 and 4 will further identify the project's associated facilities. The already existing DP6, which is financed by the European Bank for Reconstruction and Development (EBRD) is not considered an associated facility, as the facility is not expected to expand due to the project. Also, the Alexandria port is not considered an associated facility for the same reason. The E&S instruments will assess and address potential cumulative impacts from other projects within the project area of influence.

Component 1 activities include technical assistance, studies, project supervision and management. Under component 1.3. (a) relatively small-scale civil works might be needed to upgrade an existing childcare facility for ENR employees. in Ramsis station, Cairo Governorate.

D. 2. Borrower's Institutional Capacity

The project will be implemented by the MoT and the ENR. The ENR will implement the CATLDP Project through the PMU that implements the RISE Project and MoT will have an overall supervisory role. The PMU will be implementing the project's 2 components.

ENR through the PMU will be accountable for the overall compliance with National requirements as well as the World Bank's Environmental and Social Framework (ESF) requirements, including for the activities/components financed by the local fund. There will be a collaboration with other entities, including the Egyptian Survey Authority (ESA) which is the national entity in charge of applying the public interest and eminent domain law in the country. Moreover, the General Authority for Roads and Bridges (GARB) will be responsible for building the infrastructure needed for subcomponents 2.1 and 2.3 (including embankments, roads, viaducts, etc.) through a subsidiary agreement. Then, ENR will manage the signaling and track's related works (superstructures) in addition to the operation. The coordination between GARB, ESA and ENR is crucial to ensure that the different activities are conducted as per the ESF requirements. ENR Subsidiary agreement with GARB will ensure that works executed by GARB will take pace in accordance with the E&S instruments prepared for the project accordance with the ESF, as sated in the project ESCP.

ENR has been the implementing agency for the Egypt National Railway Restructuring Project (ENRRP - P101103) for more than 10 years, which was implementing the old safeguards policies and is now closed and is currently implementing the Railways Improvement and Safety for Egypt Project (RISE - P175137), declared effective on August 25, 2021, and applying the ESF. The Environment Affairs Department (EAD) in ENR is responsible for following up on the environmental and social performance of all ENR sectors and the management of E&S and occupational health and safety (OHS) measures for all projects and consists of a director and 8 E&S specialists. The Director of ENR's EAD is currently formally a seconded member of RISE PMU as an environmental specialist. In the meantime, this Department falls directly under Vice Chairman of Shared Service Sector, which is a different line of reporting from the Project's

Department where the PMU is seated, which falls under the Vice Chairman of Project's Department. Moreover, the Health and Safety of ENR's operations are outside EAD and the PMU's purview, though they play a role in overseeing contractor's E&S and OHS performance for the purposes of World Bank (WB) projects, in addition to the supervising firm. In general, the OHS supervision responsibility is fragmented within ENR as each department has the responsibility of supervising the OHS aspects related to its own activities and the ENR's central safety department is mainly focusing on operational safety aspects. The EAD's capacity to manage E&S risks has improved over the course of the WB's support, specifically in gaining additional staff and benefitting from ongoing support from WB E&S specialists and capacity building, including on ESF. However, recurring performance shortfalls are observed, particularly related to the implementation of the environmental and social commitment plan (ESCP) of RISE. Contributing causes include lack of coordination between the EAD, PMU and other departments, which each have different reporting lines, lack of enabling environment from ENR to manage E&S risk (insufficient resources including office spaces, desks, computers and transportation arrangements, inadequate staffing, and working arrangement). As part of RISE project, a social specialist was hired and his capacity in implementing ESF is being built. The social team of ENR is gradually strengthened, and this should continue to evolve as part of CATLDP. Despite the improvements in ENR capacity in dealing with E&S aspects, this project brings a whole spectrum of more sophisticated risks and institutional complexity that might be challenging for ENR to address.

The implementation of the WB projects over the past 11 years witnessed five projects related OHS fatalities and other two mass causalities of train incidents within the geographical scope of the project. Moreover, the project is GARB's first experience with the WB. The WB team will further monitor GARB capacity during the project's implementation and will propose relevant corrective measures.

ENR current capacity is considered limited for managing the CATLDP activities in accordance with the ESF requirements. For this project the ESCP includes very important measures to address capacity challenges through an appropriate institutional setup and allocation of adequate resources to the EAD to properly function including appointing 7 E&S specialists, who may not necessarily be new hires, allocating adequate resources and providing capacity building. Although ESF will apply to all activities under the project and relevant ESF instruments are being prepared, the risks related to the implementation and supervision of those activities and the associated possible fragmentation of responsibilities still apply, including for example possibility of land acquisition by ESA, in collaboration with GARB without ENR EAD's knowledge. To minimize the project risks, including E&S risks:

(1) sub-component 1.2 a will finance setting up an owner's Works Supervisor and Integrator to manage and integrate the design and construction of works financed by the MoT and works financed with loan proceeds in Component 2. The scope of the supervision firm will include all the works under Component 2. Under this approach, this firm scope will include ensuring that all the E&S requirements in the project's instruments are well implemented on the ground and integrated into the contractual arrangements with the different contractors. The firm will have its own E&S team to integrate the ESF requirements in the bidding documents and supervise their implementation, while building the capacity of ENR teams to be assigned under the PMU.
(2) ENR will hire an Owner's Representative firm to supervise component 2.1. and 2.3 (a), which will include experienced environmental specialists, social specialists and Health and Safety specialists and Community Liaison Officers (CLO) to supervise the works and ensure integration of the E&S requirements in the bidding and contracts.
(3) GARB will hire supervising firms and contractors to construct tracks under components 2.1. and 2.3 (a) infrastructure. At GARB level there will be focal points for managing E&S aspects and an adequate number of

competent environmental specialists, social specialists and Health and Safety specialists to supervise project preparation and construction phase at the supervising firms' level.
(4) All the project contractors will implement the project in accordance with the E&S requirements and will hire also an adequate number of competent environmental specialists, social specialists and Health and Safety specialists

The conducted assessments clearly revealed that the extended geographical scope of the project and the significance of the impacts are calling for constant presence on the ground for the E&S team of the firm. The firms teams should be working closely with the E&S team under the PMU and EAD. All the different entities involved in implementing E&S measures will be included in capacity building activities to be able to implement all ESF requirements and E&S instruments. Moreover, the Owner's Works Supervisor and Integrator will develop and implement a capacity building plan and providing on the job training to ENR PMU/EAD. Additionally, ENR will hire as needed E&S consultancy firms during implementation to support the project in monitoring and preparing E&S instruments. Finally, the ESCP includes provisions to ensure that adequate number of competent environmental specialists, social specialists and occupational health and safety specialists at the different levels is hired in timely manner to supervise the project and ensure compliance. In the meantime, logistical and resource challenges that are encountered by EAD need to be addressed by ENR to allow for an improved and more motivating working environment for the E&S teams. This should be achieved also through allocating adequate resources for the EAD team, as mentioned in the ESCP.

II. SUMMARY OF ENVIRONMENTAL AND SOCIAL (ES) RISKS AND IMPACTS

A. Environmental and Social Risk Classification (ESRC) — Substantial

Environmental Risk Rating — Substantial

The project will result in positive impacts in terms of improving safety across its footprint and reducing the number of incidents. The project will positively contribute to climate change mitigation by improving existing infrastructures and constructing new infrastructures leading to a modal shift of freight and transport from road to rail. Additionally, indirect positive impacts include reducing the movement of trucks on roads which will enhance road safety and potentially reduce Greenhouse Gases as the project outcome may induce the reduction of trucks by 25 % representing a potential reduction of GHG emissions from freight transport by 22%. The project will include varied activities including a greenfield construction of 68.5 Km rail tracks, dualization of an existing line for 100 Km, and signaling works in all the segments. The routes of all segments do not overlap with any known important natural habitats or protected areas. The closest protected area from the segments is located 25 Km to the south and it is not expected to be impacted by the project. Segment 1 will pass through uninhibited desert area for around 35 Km while the rest of the alignment will be mainly located in the ROW of the RRR. The other segments are already existing and the dualization will require expanding the footprint by 100 Km passing over and in parallel with a number of water irrigation canals. Other works for signaling will be carried out within the same footprint of existing rail infrastructure and will not extend beyond the track corridors. Construction and operation of the project, if improperly managed, will likely result in large adverse impacts on air, soil, communities and workers, most of these adverse impacts are expected to be temporary, predictable and/or reversible. During construction potential large impacts include 1) potential generation of wastes during construction (including inert, municipal hazardous wastes and wastewater) ; 2) OHS risks for workers including exposure to Physical and Chemical hazards across the project as well as biological hazards in the dewatered area; 3) Cumulative impacts of sourcing of quantities of borrow materials including sand and ballast for the project; 4) Traffic impacts including disruption of vital highways in Giza (RRR, Cairo-Alex and Dabaa

roads) including risks of accidents associated with movement of the project vehicles and trucks. During Operation potential large impacts include 1) Noise and vibrations associated with trains movement, in areas with sensitive receptors; 2) OHS risks during maintenance; 3) Community health and safety (CHS) risks during crossing tracks, especially at illegal crossing points; 4) Soil and water contamination and community risks associated with transporting of dangerous goods along the lines, in the event of accidents; 5) Train traffic increase in areas with mixed traffic (passenger and freight) may result in more train accidents. Also, the project activities will entail typical construction impacts which will vary in terms of significance in accordance with the proximity to the sensitive receptor along the segments including, but not limited to: 1) Air and noise emission; 2) Soil and surface water pollution due to leaks or accidental spills of hydrocarbons or mismanagement of wastes (e.g. hazardous material); 3) Community H&S risks. During construction and operation, the project might entail the use of pesticides to control vegetation in some areas. Despite the long-standing engagement with the WB, ENR E&S's technical and institutional capacity has improved but proportionate to the project's scope the capacity is currently considered limited. Over the past 11 years, Bank-financed projects witnessed five OHS fatalities and two mass causalities in train accidents.

Social Risk Rating Substantial

The social risk rating is considered Substantial owing to the scale and nature of impacts as described in more details below. The project, in the meantime, is anticipated to benefit the population of Egypt, as safer mobility will encourage more people to use the rail. Moreover, moving goods on rail will help mitigate traffic incidents and road damages. The safety measures imbedded in component 2 are designed to increase mobility of poor and vulnerable people, specifically female commuters and people with reduced mobility. This increase in mobility will potentially be reflected on economic opportunities. The most critical activities that result in the substantial risk rating are the creation of the new rail corridor (sub-component 2.1), signaling improvements (Sub-component 2.2, 2.3 and 2.4) and the creation of parallel tracks (sub-component 2.3 (a)). Some minor risks are also found under component 1.3 (a). An ESIA is being finalized to cover sub-component 2.1 and sub-component 2.2 while an environmental and social management framework (ESMF) is covering all the remaining components. The majority of the identified social impacts are related to the loss of assets and impacts on livelihoods as a result of land expropriation. At this stage, it is roughly estimated that the project implementation will require the expropriation of approximately 300 feddans of privately owned land. Despite the fact that national legislations and systems are in place to regulate actions related to eminent domain for public interest projects and offer compensation above market price, there are also number of gaps between ESS5 requirements and the existing systems (most importantly in relation to compensating encroachers and tenants, consultation with affected persons, offering resettlement alternatives, etc.). Limitation in the institutional capacity, diversity of entities involved and the risk of fragmented accountability are all factors that contributed to the risk and resulted in assessing the social risk as substantial. The main social risks and impacts of the project could be summarized in the following noting that more detailed elaboration is offered under each relevant ESS: Pre-construction phase, the main contributing risk factors are land and livelihoods related impacts as follows: a) Risk of private properties expropriation, b) Risks of involuntary physical relocation for encroachment, c) Risk of physical relocation for the tenants or informal users (farmers) that occupy an area of ENR RoW, d) Impacts on livelihoods, e) Fragmentation of responsibilities related to the management of resettlement, f) Unaddressed community complaints and potential escalation and/or conflict. Construction phase, the main contributing risk factors are a) Temporary land-related impacts, b) dust and construction waste related impacts on agriculture lands (This should be a temporary risk but may potentially become a long-term impact if mitigation measures during construction of waste and dust are not managed), c) CHS risks, d) Labor and OHS risks, e) Unaddressed community complaints and potential escalation and/or conflict related to the construction impacts, and f) Limited capacity of ENR in managing social risks. Operation phase: the main contributing risk factors are: a) CHS: Behavioral challenges (e.g.

illegal crossing, passengers regularly opening train doors while the train is moving, and train derailments), b) impacts on community privacy and/or security concerns, c) Potential devaluation for the market price of land and structures.

B. Environment and Social Standards (ESSs) that Apply to the Activities Being Considered

B.1. General Assessment

ESS1 Assessment and Management of Environmental and Social Risks and Impacts

Overview of the relevance of the Standard for the Project:

ESS1 is relevant to the project and its associated facilities as activities will likely result in significant E&S risks and impacts, which are identified in the project E&S instruments. The Bank team reviewed the feasibility studies shared by ENR and conducted site visits.

Construction activities include clearance of lands, earthworks, civil works, rail structures, access roads, closure or diversion of existing highways, etc. Signaling activities entail trenching along the railway, wayside equipment, block system and interlocking equipment at intervals. Track renewal requires using special equipment. Signaling buildings are required along the segments, and small structures at the level crossings. The project will use significant quantities of raw materials, in the construction of the greenfield and the parallel tracks, including mainly sand and ballast - normally sourced from licensed quarries -, cement and water. For existing segments, works related transportation is normally done through the railway. The project associated facilities for Segment 1 include any new stations that might be identified during the project implementation and road upgrades of the intersection roads at the same time of the railway construction.

Below are the key risks and adverse impacts relevant to component 2, most of them are expected to be site-specific, temporary, predictable and/or reversible:

1. OHS hazards during construction, maintenance and operation: 1) range of injuries from minor to fatal, including physical and chemical hazards during works close to live tracks and handling hazardous materials or wastes. 2) danger of drowning, when working over or near water channels.
2. Potential generation of wastes due to typical construction wastes, including municipal waste, hazardous waste (e.g., wooden ties which might be coated by benzopyrene or ballast contaminated with oil and grease) and wastewater, considerable quantities of inert waste, metal.
3. In case of dedicated quarries and borrow pits for the project, depending on their locations, extraction of materials may have significant cumulative impacts (waste generation, increased dust, noise and vibrations, and truck traffic).
4. Traffic impacts: e.g., disruption of vital highways in Giza (and risks of accidents due to movement of project vehicles). The new line will intersect with 3 highways used by thousands of vehicles and considered vital to the traffic system in the greater Cairo area. Other segments are intersecting with roads through level crossings and illegal points. Construction of all segments will increase traffic during construction.
5. CHS impacts during construction and operation phases. During operation, the impacts include noise and dust emissions, intersected roads and train accidents and structural integrity. Moreover, sub-components 2.1 and 2.3 (a) impacts include lack of privacy, accessibility to farms and/or houses, and security concerns. During construction, communities adjacent to the works could be exposed to accidents, construction hazards and personal safety(e.g., SEA/SH). Also, potential risks of community exposure to COVID-19.

6. Typical construction-related impacts such as air and noise emissions, unloading/uploading of ballast and sand, soil, and adjacent water bodies' pollution in case of leakage of fuel and cultural heritage impacts.
7. During Operation, soil and water contamination and CHS risks associated with transporting of dangerous goods along the lines. Train traffic increase in areas with passenger and freight traffic may result in more accidents. The project might entail use of pesticides to control vegetation, resulting in CHS hazards.
8. Permanent and temporary acquisition of privately owned rented or encroached on land is anticipated for the new line and the parallel tracks. Signaling activities and the construction of parallel tracks will take place within ENR RoW, where tenants and informal users may experience impacts from loss of land/assets.
9. Noise and Vibration impacts associated with the new line operations as well as the expected increase in the noise level as a result of the number of train trips increase along the existing lines. The two main sensitive receptors along Segment 1 include, (1) for 800 m, a gated farmhouse compound located 400 m, in the nearest point, to 800 m from the alignment (2) for 800 m, a few scattered gated farmhouses that are located at a variant distance from the alignment (from 80-100).
10. Risk of unaddressed/unresolved community complaints and potential escalation and/or conflict, including those related to project designs, construction impacts, compensation, etc. Inadequate or delayed redressal for the complaint may lead to discontent and conflict on the ground.
11. Potential devaluation for the market price of land and structures for certain structures and/or land with close proximity to the rail, especially if the rail will be passing through them.
12. Risks related to disturbance of farming activities during construction works, from generated waste and dust. This should be a temporary impact that may lead to long-term implications if left unmitigated.
13. Risks related to the integrity of infrastructure during construction or damaging utilities, especially underground.

Component 1 will support implementation of the SEP, capacity building activities, technical studies, supervision and management of the project. Thus, the Terms of References for the technical studies will include E&S objectives as indicated in the project's ESMF and ESCP. For Component 1.3 which might entail small scale civil works to upgrade childcare facility, the impacts are expected to be typical small scale construction impacts that can be easily mitigated. Thus, those activities will be subject to the ESMF screening process to determine adequate E&S instrument to prepare.

For each of the project's components and associated facilities (AFs) that might be identified in the future, a site-specific ESIA will be prepared as per the ESMF.

The Draft ESIA for segments 1&2 includes a robust analysis of alternatives in compliance with ESS1 Annex 1D. The feasibility study proposed 5 alternatives for segment 1. Initially, a 49 km alignment was selected as the best option from technical and financial. It was further studied during the E&S Assessment which concluded that the E&S impacts were very significant and appropriate mitigation measures very costly. The longest alternative for Segment 1 was then reassessed to be the best alternative from E&S, technical and financial perspectives. The Segment 1 alignment was then selected based on consultations with a wide range of stakeholders, including a public consultation in May 2022 for the 49 km alignment. Also, the selected alignment was further optimized based on consultation with New October city authority to avoid their future planned city. The Draft ESIA requires the contractors to develop site-specific E&S management plans before starting construction including air, noise, vibration, soil pollution, waste, OHS, resource management, labor influx, and traffic management plans among others. The Draft ESIA assessed the project's associated cumulative impacts and indicated that the project's contribution to the cumulative impacts over

the affected receptors for Air, Noise and waste generation is Limited and mostly short term. It is anticipated that certain groups of landowners may encounter accumulated impacts if land under this project will be expropriated in addition to past expropriation for the RRR in 2014-2017 from the same owners. During the RP preparation, case by case assistance will be provided. In case of any further changes in the alignment, E&S instruments will be updated.

ENR will not sign the works contracts until the E&S documents are prepared and cleared by WB as stipulated in the ESCP. Also, the ESCP stipulates that the E&S instruments will be integrated in the contracts for all the project's contractors and supervising firms. For Segments 3&4, which will be identified during the project implementation, the project's ESMF requires site-specific ESIAs and environmental and social management plans to be prepared. All the E&S instruments will take into account the issues relevant to the project described in the WBG EHS Guidelines including (General, railways, construction materials extraction).

Works under each segment could be divided into sections, so ENR can start construction in sections where land is vacant of any users and owned by the government. For the sections where land has private ownership or uses, the government will start construction after land acquisition is completed as per the resettlement plan. ENR will also develop a capacity management plan to enhance capacity during the project's lifetime. The E&S instruments are proposing a robust institutional setup to ensure full compliance.

The following E&S instruments will be prepared and implemented throughout the project implementation as per the timeframe committed by the borrower in the ESCP:

Instruments to be implemented after clearance and disclosure, before project appraisal:
1- Finalize and implement Draft ESIA for sub-components 2.1 and 2.2
2- ESMF for the project covering the scope of the entire project with a focus on component 2
3- Resettlement framework (RF) covering the scope of the entire project

Instruments to be prepared, cleared and disclosed, during the project implementation:
1- Comprehensive ESIA for sub-components 2.3
2- Comprehensive ESIA for sub-components 2.4
Additional instruments as per the screening tool in the ESMF for activities under component 1. Findings and recommendations of the E&S instruments are to be included in the bidding documents and contracts for all the project activities.

ESS10 Stakeholder Engagement and Information Disclosure

ESS10 is relevant to the project. The project has a variety of project-affected parties. 1) Those who will be negatively impacted by the project include: i) landowners, land tenants and land users, including land tenants/users within the RoW impacted by work activities, within government owned lands that belong or/and do not belong to ENR; ii) households and owners of residential structures; iii) local communities (including children) in area adjacent to construction sites that may experience adverse E&S impacts from construction (e.g., noise, dust, traffic, community health and safety impacts); iv) train users using Segment 3, who may experience train delays from construction; and v) vendors and service providers. 2) Those who will be positively impacted by the project include: i) workers and local communities who will benefit from direct and indirect job opportunities; ii) freight forwarders and logistics operators;

and iii) the general public, including women, people with disabilities, and children who can benefit from safety improvements. 3) Other stakeholders including other government ministries and local governments across the four governorates within the project area, civil society, and media. Vulnerable groups including women, persons with disability, the elderlies, the people living below the poverty line and land users without legal/property titles who will be impacted by the project

As part of the E&S instruments preparation, throughout the period from December 2021 to August 2022, several field visits were led by ENR with other relevant stakeholders, including but not limited to the MoT team, WB team and the ESF Consultant. Conducted field visits included meetings with the stakeholders involved in the existing and new lines as well as stakeholders of DP6 and Alexandria Port (AP). Moreover, numerous stakeholder engagement activities were conducted, including interviews and focus group discussions to get views on the anticipated impacts and risks of the project and the appropriate mitigation measures. Groups of stakeholders included but were not limited to users of trains and stations, residents of villages and cities, civil society representatives, the respective local authorities, real estate developers near the 49 km previously proposed alignment. Findings were analyzed and incorporated in the stakeholder engagement plan (SEP) as well as shared with the transport technical team to explore opportunities for the technical design to benefit from the local stakeholders' inputs. Key findings indicate overall support for the project, recognizing the role it can play in refreshing the economy and also adding a key passengers service to the targeted area, which currently suffers from a number of operational challenges related to the existing railway service. Consultations also resulted in decisions to manage and minimize risks, through opting for a longer alignment that avoided passing through planned residential compounds and the planned New October City, and subsequently minimized the risks of future land and assets devaluation. Stakeholders emphasized the need to construct parallel tracks to minimize train delays as well as to rehabilitate stations. In the meantime, participants indicated that they are worried that those works may entail an increase in the train ticket tariff.

A more detailed account of the findings of the conducted consultations is documented in the SEP. An initial public consultation to present the findings of the ESF instruments was conducted in May 2022 and a second one was conducted on August 25, 2022. During the latter, while stakeholders were supportive of the project, impacts on farmers were mostly discussed, those included 1) cumulative impact from the RRR related to the inability to access land plots divided in two and request to have tunnels or bridges to facilitate access, 2) request to have passengers' stations on the rail corridor, especially in Bani Salama 3) dust and construction waste related impacts on agriculture lands, 4) request for the last 4 km of the alignment to be fine-tuned during the census survey, in consultation with farmers, to avoid having orphan lands.

A SEP has been developed to set out how the project will engage systematically with its stakeholders in an inclusive and culturally appropriate manner throughout the project life cycle with the aim of supporting effective management of E&S risks. It introduces a plan for consultation activities and a plan for information sharing, including appropriate techniques that should fit with the capabilities and needs of the different groups of stakeholders. The SEP indicates that the engagement of stakeholders is an evolving process that commences from the preparation phase (ESIA, ESMF, SEP and RF) and continues throughout the project's life cycle. Each stage and phase have its specific objectives of engagement and results in specific outputs to be integrated in the design and implementation of the project.

The SEP also includes a project-level grievance mechanism (GM), which will be established, taking into account experience from the previous ESF project RISE. As part of the latter, ENR is conducting an assessment of ENR's

project-level GM and Railway Safety Campaign (which is an established mechanism at ENR level to handle SEA/SH complaints) against ESS10 and ESS4 and will develop and implement corrective actions ensuring the referral of survivors to relevant gender-based violence service providers, in a safe, confidential, and survivor-centered manner. Lessons learned will be beneficial for the new project and the GM should be scaled up to cover the scope of this project. Moreover, a high level meeting between ESA and ENR will need to take place to ensure that complaints raised during implementation of civil works form sub-component 2.1 and 2.3 (a) are reaching ENR. Moreover, a community liaison officer will be hired as part of the Owner's representative to ensure coordination between the different entities and the community members.

The SEP considers social distancing requirements imposed in the country under COVID-19 circumstances, and precautionary measures will be taken for as long as the risk exists, to minimize the risk of COVID-19 transmission during any planned stakeholder engagement activities (such as avoidance of public gatherings, public hearings, workshops, and community meetings, use of online communication tools to design virtual workshops).

B.2. Specific Risks and Impacts

A brief description of the potential environmental and social risks and impacts relevant to the Project.

ESS2 Labor and Working Conditions

ESS2 is relevant to the project. The large-scale project will require thousands of workers, especially during the construction phase of the different segments. The project entails, as per the drafted Labor-Management Procedures (LMP), three categories of workers as stipulated in ESS2, namely: a) about 70 direct workers of the PMU; b) about 1600 contracted workers; and c) about 400 primary supply workers.

The project workforce is expected to mainly consist of contracted workers hired by national and international contractors for the activities to be financed by both the government fund and the loan. The construction activities to be financed under the government fund include the main civil works such as, bridges, viaducts and embankments. The loan will finance installation of the tracks and signaling system. The project workers will be hired in phases according to the progress in each segment. It is expected that most of the workers will be recruited locally by sub-contractors. However, there might be a need for the project to provide them with accommodations. These workers are expected to be predominantly male and include skilled, semi-skilled and unskilled workers, including sub-contracted workers. Primary suppliers will include suppliers of needed raw materials for the project, such as sand, ballast, cement, etc. The key identified labor risks include:

- OHS hazards during construction, operation, and maintenance. This potential risk may result in a wide range of injuries from minor to fatal due to exposure to physical, chemical and biological hazards including (1) rotating and moving equipment and working near or on live tracks which poses workers to the risks of getting struck by trains, (2) noise and vibrations (3), electrical hazard from the project facilities or from intersecting utilities, (4) eye hazards and hot works, (5) heat stress and fatigue when working outdoors, (6) working at heights, (7) working on or near water and contaminated area, (8) exposure to hazardous material (i.e. fuel and hazardous waste) and diesel exhaust, (9) the project may also include working in confined spaces, (10) possible infection of project workers with COVID-19, and (11) exposure to traffic incidents/accidents during transportation from and to the sites.

- Child labor for contractors, sub-contractors, and primary suppliers especially during construction which is a common risk in Egypt in the construction sector, particularly for small-scale sub-contractors given that underage children accept cheap wages.
- Inadequate labor working conditions, especially in the case of semi and unskilled workers, particularly for sub-contractors (the workers with irregular contracts or those working under casual arrangements), including (1) Inappropriate accommodations, rest areas and sanitary facilities, (2) exceeding normal working hours, working during the weekend, (3) lack of insurance coverage in case of work related accidents, (4) risks of unfair, inconsistent or irregular payments, and (5) absence or weak connection to support systems and lack of ability to raise complaints and advocate for better and fairer working conditions.

The implementation of the WB projects with ENR over the past 11 years witnessed five project-related OHS fatalities, which included one in 2015, three in 2020 and one in 2021. The first fatality occurred when a train passenger who was leaning out of the moving train collided with scaffolding at the contractor's site erected close to the tracks. In February 2020, two workers lost their lives in a highway traffic crash while on their way to patrol the project sites. This incident highlighted weaknesses in one of the contractors' safety management plans and reporting to the WB. In November 2020, a passengers' train struck and fatally injured a worker undertaking trenching activities beside the tracks. In September 2021, a passengers' train struck and fatally injured another worker undertaking maintenance on the tracks. Root cause analysis for those incidents are being finalized and implementation of the correction actions is in progress.

ENR prepared a LMP to establish and maintain a safe working environment consistent with national laws and ESS2 for all project's workers. The lessons learned from ENRRP and RISE unfortunate fatalities are incorporated in the LMP to prevent the reoccurrence of similar incidents/accidents in the future. Also, the E&S instruments propose proportionate mitigation measures to eliminate, control, minimize the OHS hazards, respectively. The E&S instruments include waste management plans and OHS plans. Additionally, ENR shall integrate the LMP requirements in the contracts and ensure that the relevant requirements are cascaded contractually to contractors, sub-contractors and primary suppliers, especially in the contracts that are not subject to the WB procurement procedures. For the activities funded by the government fund, which consist of the main construction activities, there is a risk to do business as usual, disregarding OHS and labor protection, although the ESF will apply. The project will establish a labor GM as per the LMP. ENR will ensure that the system is disseminated and closely coordinated with other relevant parties (e.g. GARB) to ensure that all types of contracts including those financed by the Government will apply the LMP and the labor GM. ENR owner's supervisor and system integrator as well as the owner's representative will oversee the contractors' E&S performance during the construction works. Although ESF will apply to those activities and relevant ESF instruments will be prepared, the risks related to the implementation and supervision of those activities and the associated possible fragmentation of responsibilities still apply. The ESCP stipulates that the LMP will be implemented and incorporated into the specifications of all contracts where appropriate and feasible.

ESS3 Resource Efficiency and Pollution Prevention and Management

ESS3 is relevant. The needed works in all the segments will generate different forms of pollution that will vary in their significance depending on the sensitivity of receptors. Some of the anticipated impacts will have remarkable impacts on air, water, soil, and consume resources. The anticipated risks include:

Construction phase:

1- Air emissions will be generated from using equipment and vehicles and will include fugitive emissions of dust as well as noise emissions. Noise and dust will be generated during the different project activities including, the moving of vehicles, trenching and especially during laying down ballast for track renewal. In general, the impacts will be temporary but sensitive receptors might be in close proximity in areas along all the lines.

2- Different types of wastes will be generated during construction, including non-hazardous and hazardous wastes from all the activities. Mismanagement of generated waste could cause soil pollution or water bodies' contamination. In addition to typically generated wastes from civil works, including labor camps if any. The project is expected to generate considerable quantities of inert waste, metal and potentially hazardous waste including wooden ties which might be coated by benzopyrene or ballast contaminated with oil and grease during track renewal activities. It should be highlighted that during the implementation of track renewal in Old WB projects, samples from wooden ties were sent to laboratories in Italy and found to be free of carcinogenic contaminants.

3- Accidental spillage and leakage of fuel which will be used during construction, as well as mismanagement of hazardous and non-hazardous waste, might cause soil pollution or water bodies' contamination.

4- Potential cumulative impacts of sourcing of large quantities of borrow materials including sand and ballast which may require dedicated quarries and borrow pits for the project. Depending on their locations, extraction of materials may have significant cumulative impacts (waste generation, increased dust, noise and vibrations, and increased truck traffic). Depending also on the slope of the embankment and the topography, sections of routes will require bringing in the earth while others will require the earth to be removed (Cut and Fill). The ESIA for segment 1 and 2 highlighted that sourcing of borrow material will only occur from licensed quarries that are approved by the ministry of Environment.

Construction and Operation Phase:

5- The project is expected to reduce greenhouse gas (GHG) emissions during operation since rail transport has the lowest emissions per km and unit transported. It is estimated that a reduction of CO2 emissions by 12,380 tons/year as a result of model shift from trucks to rail, reduced traffic in Central Cairo Hub.

6- Potential use of pesticides to control vegetation in some of the project areas to protect the rails along the tracks, especially during the operation phase.

During Operation:

7- significant impacts include also soil and water contamination and community risks associated with transportation of dangerous goods, in case of accidents along with the lines as well as Air emissions from trains.

8- Noise and Vibration impacts associated with the new line operations as well as the expected increase in the noise level as a result of the number of train trips increase along the existing lines. Segment 1 selection considered the ESF mitigation hierarchy in avoiding to the possible extent the E&S impacts and especially noise impacts. The alignment after selection was further optimized to increase the distance between the segment and the existing sensitive receptors. It should be noted that Segment 1 noise impacts are less significant comparing to the other alternatives. The two main sensitive receptors along Segment 1 include, (1) for 800 m, a gated farmhouse compound located 400 m, in the nearest point, to 800 m from the alignment (2) for 800 m, a few scattered gated farmhouses that are located at a variant distance from the alignment (from 80-100). The ESIA recommended to install noise barriers along the two sensitive areas to further reduce the anticipated impact to the acceptable levels. Also, ENR will consider establishing a Quite Zone during trains operation in this area. The site-specific E&S instruments to be prepared for other segments will assess the noise and vibration along the other segment that will be dualized and will influence

the alignment design. The cost of the mitigation measure will be financed by the safety component embedded in the project.
9- Air emissions will be generated from operating the diesel trains including CO2, PM and NOX, resulting from the new line and the traffic increase on existing lines. The ESIA proposed mitigation measures in alignment with the WBG EHS guidelines for Railways to minimize the air emission from ENR freight fleet.
The daft ESIA assessed the risks associated with the project in Segments 1 and 2 and proposed mitigation measures for managing the anticipated impacts during the project phases. The ESIA requires the contractors to prepare a comprehensive set of ESHS plans to manage the impacts in accordance with the proposed mitigation measures in the ESIA. The plans include the Air emissions Management plan (MP), Noise and vibration MP, Waste and HAZMAT MP including spill prevention, among others. The future site-specific instruments will assess the environmental impacts associated with the project activities and include appropriate and site-specific mitigation measures following the mitigation hierarchy in the ESF to avoid the impact in the first place. The E&S instruments should refer to the performance and measures specified in the World Bank Group Environmental and Health and Safety Guidelines (EHSGs) as well as the national laws, whichever is most stringent to avoid and minimize the impacts. The instruments will also include measures to assess the use of resources and propose technically and financially feasible measures for efficient use of resources as well as for avoiding the generation of hazardous and non-hazardous wastes. The mitigation measures will consider the pollution generated during all the project phases including the associated facilities to be identified. Also, the E&S instruments will incorporate the lessons learned from the Bank projects with ENR and investigate if using pesticides is envisaged under the project.

ESS4 Community Health and Safety

ESS4 is relevant to the project. The main risks associated with community health and safety are attributed to the construction activities in Component 2 as well as the operation phase in all segments depending on the proximity to the community. The Segment 1 will intersect with three main highways and other narrow and local roads, in addition to agricultural lands in various parts of the segment. The Cairo-Alex Road and Dabaa corridor are used by thousands of vehicles and are considered vital to the traffic system in greater Cairo regions. Also, the project will depend on the RRR given that the alignment is located in it RoW. The traffic flow in Cairo-Alex increases significantly in the summer season. The other existing segments are already passing through several villages and densely populated areas where legal level crossings and illegal crossing points exist. There are around 13 and 38 illegal crossing points for segments 3 and 4, respectively. The existing segments are not fenced except in a few areas and pedestrians normally use the railway tracks as walking paths, some trains along the segments are moving with open doors, and train derailments and accidents do occur.

The impacts of construction and operation, if poorly managed, may result in health and safety risks to the nearest communities. The anticipated impacts include:
1- Traffic impacts in all segments, including disruption of vital highways in Giza, including (Cairo-Alex road) and Dabaa Road. During the construction of all segments, traffic will increase proportionally with the number of project vehicles, including trucks transporting materials and workers, especially in densely populated areas. In addition, the likelihood and significance of traffic incidents will increase in all the roads to be used by the project vehicles or intersect with the project's routes.

2- Train traffic increases in areas with mixed traffic (passenger and freight) may result in more train accidents. Currently, the information on the number of incidents in the existing segments is not known, but the number of train incidents in Egypt is considered high.
3- Air emissions during operations, especially where sensitive receptors are located in close proximity to the tracks.
4- Noise and vibration impact from construction activities, especially in areas where sensitive receptors are located. During operations of all segments, the train traffic created by Segment 1 and the increase in other segments will entail noise emissions to communities and receptors that are located in close proximity to the routes.
5- The new line impacts also include lack of privacy, accessibility to farms and/or houses, security concerns, etc. During construction, communities adjacent to the worksites will be exposed to potential accidents, general construction hazards, and personal safety, including sexual harassment.
6- During construction, risks of labor influx could be encountered. The construction phase will require the mobilization for a large number of workers, who are expected to be predominantly male of skilled, semi-skilled, and unskilled workers. It is not known at this stage of the project if workers will be from the local communities or will be mobilized from other locations. However, in certain segments (e.g. Segment 1) there will be likely a need for bringing workers from outside the community. In the context of this project, labor influx implications may include but will not be limited to pressure on the local resources and increased risks on communities such as SEA/SH, risks of community exposure to diseases, etc.
7- The COVID-19 pandemic also introduces potential risks of community exposure through contagion pathways such as meetings, stakeholder engagement sessions and construction sites, etc.
8- During Operation significant impacts include community risks associated with transporting of dangerous goods along the lines.
9- Effects of utility cuts on local businesses and communities during construction activities
10- The 308 existing km network is not enclosed and pedestrians regularly use the railway tracks as walking paths. Risks related to construction in dense areas will apply for the the new line as well as the creation of the parallel tracks, where construction works are close or within land and structures of local communities. This may result in accidents and potential SEA/SH ;
11- High risks of accidents at level crossings, including legal crossings
12- In the context of Egypt and given the limited safety awareness and behavior, the increased capacity of the rail network is likely to mean increased community health and safety risks. Behavioral challenges (e.g. illegal crossing, passengers regularly opening train doors while the train is moving, and train derailments) need to be addressed and to be completed by enhanced safety systems
13- Community risks posed by security arrangements to protect the project during construction and operation.

The E&S instruments assess the impacts and determine the needed additional instruments to be prepared prior to start the works, such as community health and safety management plans, security management plans and traffic management plans for the different segments based on the phasing of the project. The impact of noise and vibration during operation will be assessed prior to the finalization of the design of the new routes as to be part of the analysis of alternatives. Access restrictions to the project sites should be in place during construction to minimize any potential risks on the health and safety of the communities. In the meantime, the impact of the operation of the different segments should also be examined and alternative access and secured routes should be designed in consultation with the local communities. The E&S instruments are proposing appropriate mitigation measures with the corresponding budget and will propose any additional studies that will be needed. Also as part of the project

design all subcomponents under component 2 embed a “zero harm/zero tolerance, safety first” into the upgrade and new works on the tracks, at communities along the tracks, ensuring safety for communities along the tracks, such as fencing, level crossings, and education measures.

The instruments will examine the associated facilities to the project including if the project will include construction or renovation of any railway stations to take into consideration the ESF requirements, such as fire and safety and accessibility as well as other impacts. The ESMF is providing the steps to be followed to identify and mitigate the anticipate impacts as well as good basis for identifying associated facilities under the project.

ESS5 Land Acquisition, Restrictions on Land Use and Involuntary Resettlement

ESS5 is relevant to the project. Land impacts are numerous and vary in scale: Acquisition of private land is anticipated because of the new railway and the parallel tracks. Activities for signaling works take place within the ENR RoW, where tenants and informal users may experience impacts from loss of land or assets.

Pre-construction phase, the main contributing risk factors are land and livelihoods related impacts and could be summarized as: a) Risk of private properties expropriation: The RF estimated that the project implementation will require the expropriation of approximately 300 feddans of privately owned land. For sub-components 2.1 and 2.3 (a), land expropriation is inevitable. Although the new alignment will pass through desert and state land, it will also pass-through private properties (uncultivated and cultivated lands, reclaimed land, and few structures). For the creation of the parallel track, while it will consist mainly of impacts on tenants or informal users (farmers) that occupy an area of ENR RoW, land and properties expropriation beyond ENR RoW may also be inevitable for this component in segments where the width of the RoW is not enough. b) Risks of involuntary physical relocation for encroachment: while the mentioned sub-components have several private properties whose owners will be able to demonstrate legal title, there may be land users and encroachers that may likely be relocated. With absence of legal title and documentation, this group is considered more vulnerable to the impacts of relocations and/or loss of livelihoods. c) Risk of physical relocation for the tenants or informal users (farmers) that occupy an area of ENR RoW: The signaling works, which are considered limited in scale are anticipated to consist mainly of, or adjacent government land plots, that will be needed for storage or new project structures. d) Impacts on livelihoods: this risk specifically applies in the cases of individuals and groups whose livelihoods are dependent on land (e.g., tenants of ENR RoW who are using the land for cultivation) and possibly other types of businesses that could be relocated as a result of dualization or the creation of the new segment (e.g., small shops). e) In the context of this project and given that the new alignment will be passing parallel to the RRR, it is anticipated that certain groups of landowners may encounter accumulated impacts if land under this project will be expropriated in addition to past expropriation for the RRR from the same owners. f) Fragmentation of responsibilities related to the management of resettlement: As explained, the section of the greenfield involves large number of actors with different roles and responsibilities (ENR, GARB, ESA). Thus, there is a risk of fragmentation of accountability, uncoordinated sequencing of activities, specifically for the implementation of the resettlement and compensation plans. Given the multiple entities involved in the project, risks related to land acquisition will need to be very closely monitored including alignment and adherence with the provisions of the RF and resettlement plan(s) (RPs) that will be prepared and will apply on the Government financed activities. Close coordination with ESA needs to also take place to align the RPs with the survey to be done by ESA.

Construction phase: There is a risk of resorting to private land temporarily for detouring, storage of material, waste and dust from construction activities, etc. In such cases, the risk could be in absence of voluntary arrangement and/or affecting the quality of land (fertility) and subsequently its future usability.

Operation phase: Potential devaluation for the market price of land and structures.

At this stage of the project, a RF is covering the impacts of involuntary resettlement, land acquisition and restriction of land use as a result of all the project components. Regarding the new line and although the route of the new track has been initially defined, the rationale for following the framework approach is the fact that the alignment that has been initially determined could potentially change (which already took place between concept and appraisal stages several times). In light of the above, the RF is perceived to be the appropriate instrument at this stage, on the basis of preparing a subsequent RP once the plan of the census survey is known and the final alignment is determined. In general, signaling works are considered limited in scale, consisting mainly of impacts to tenants or informal users (farmers) that occupy an area of the RoW of the railway corridor, owned by the state, or adjacent government land plots, that are needed for storage, or new project structures. The formal and informal tenancy agreements of those using land on ENR RoW include a clause to terminate the agreement when ENR needs land. The RPs to be conducted will further explore the vulnerable groups (e.g., informal land users, those whose are experiencing accumulated impacts as a result of frequent land acquisition, etc.) related to the project and will examine differentiated measures to avoid and minimize impacts on them. Activities for the signaling works consist of building equipment shelters, trenching for cables, main and secondary technical buildings. The most significant land needs for these types of activities are related to the Main Technical Buildings (MTB) that each occupy an area of about 400 m2. A screening tool will be developed as part of the ESMF, and land related issues will be identified at screening stage in the process. If any land will be needed, RPs will be prepared.

The same RF caters for the project since it is still not known if the parallel track will happen on the right or on the left of the existing corridor, the location and number of technical buildings is still unknown. To address the risks related to resettlement non-compliances, the ESCP includes the following language: “Prepare and adopt RP for each activity under the Project for which the RF requires such RP, as set out in the RF, and consistent with ESS5. RP to be reviewed and cleared by the Bank, disclosed and implemented before the commencement of any civil works. If resettlement will take place before the project effectiveness, the same condition should apply and no civil works should commence on the ground before an RP is prepared, reviewed, and cleared by the Bank, disclosed and implemented”.

Overall potential land taking impacts under this project is presented below:

1) Sub-component 2.1, the new 68.5km line: Activities under this subcomponent will require land expropriation of cultivated lands and farmlands and other type of lands that may lead to negative impacts on land and/or livelihoods. Impacts on businesses and structures are also highly possible. Upon identifying those locations during the project design stage, the RP will be prepared.

2) Sub-component 2.2, the existing track Marazeek-Wahat line for 66 Km: the area consists of mainly desert lands and passes through 8km of cultivated lands. The existing RoW ranges between 10m to 13m. The number of signaling structures will range from 1-2 signaling towers and their location is not yet determined. All materials and equipment will be stored on the RoW. All the upgrading of the existing track and signaling will be located on the existing RoW.

Activities under this subcomponent are not expected to lead to land acquisition or resettlement but may lead to temporary and/or permanent physical and/or economic displacement of land users on the RoW for material storage and signaling provision. This will be known at the design stage.
3) Sub-component 2.3, the existing El Bashteel – Itay el Baroud corridor for 117km: Activities under segment (a) require ENR to restore the land of the RoW from existing land users (e.g., users under usufruct or rental arrangements). However, land expropriation and impacts on residential structures, businesses and/or public facilities might also be possible in cases, where RoW is not wide enough. Activities under segment (b) may lead to temporary and/or permanent physical and/or economic displacement of land users on the RoW for material storage and signaling provision. This will be known at the design stage. Based on the rough estimation by ENR Property Department representative, about 300 land users have been identified on the right side and left side of the RoW of this corridor.

4) Sub-component 2.4, the existing El Itihad – Tafaroa rail corridor 108 km: Activities under this sub-component may lead to temporary and/or permanent physical and/or economic displacement of land users on the RoW for material storage and signaling provision. Based on the rough estimation by ENR Property Department representative, about 16 land users have been identified on the RoW. However, since the location of the signaling buildings have not been determined yet, we are not sure of the number of PAPs that will be affected by the project. This will be known more precisely at the design stage.

For the different segments and associated works, risk of temporary land acquisition applies given the need for land to store material and potentially to establish alternative routes and/ or detours. Temporary land acquisition may lead to range of complications, including but not limited to: 1) negative livelihoods impacts for the owners or users of the land without proper compensation, 2) affect the quality and/or the fertility of land to the extent that affect its future use/market value, 3) risk of giving back the land plots to farmers without providing proper rehabilitation of the land. As appropriate, such impacts will be further assessed when the design is determined.

ESS6 Biodiversity Conservation and Sustainable Management of Living Natural Resources

ESS6 is currently relevant. The routes of all the segments do not overlap with any known important natural habitats or protected areas. Most of the project activities for segments 2, 3, and 4 will take place around the footprint of the existing railway corridor and will include major construction activities and the crossing of a few water irrigation channels. The project will consume raw materials such as gravel and sand but it will be purchased only from sites that are licensed and authorized by the Ministry of Environment. The impacts on water resources including marine biodiversity is not expected, however, waste mismanagement or working in close proximity to the irrigation channels might result in the release of contaminants into the water resources. Relevant mitigation measures will be taken to avoid any water irrigation channel contamination. The E&S no natural habitats or biodiversity concerns are expected in the project areas. It is also worth mentioning that the project will mainly use Cement crossties and using wooded crossties is not expected at this stage.

ESS7 Indigenous Peoples/Sub-Saharan African Historically Underserved Traditional Local Communities

As no indigenous communities, according to ESS7, are present in the targeted geographic locations of the project, the ESS7 is currently not considered relevant to the project.

ESS8 Cultural Heritage

ESS8 is currently relevant. The new alignments to be constructed will not overlap or pass in close proximity to any known important protected cultural heritage Areas. The project will include major earthworks in mainly in the new alignments. Egypt is well known for un-discovered archeological sites. Given the project nature, there are chances to find tangible physical cultural resources during excavations, also there might be known cultural heritage assets in the project area of influence. On Segment 4, the ESMF identifies two empty plots of lands belonging to the Ministry of Antiquities that are bordering the segment at Al-Salam stations (around 1.5 km2 and 0.25 Km2). Details on the archeological importance is not currently available and will be assessed during the preparation of the site specific ESIA. On Segment 2, the existing tracks are located 300-500 m from the Dahshor and Saqqara areas which are well known World Heritage sites. The ESIA noted that the signaling works within this area will include laying down cables 2-4 m from the existing tracks and installing signaling equipment on the tracks. Accordingly, all the works will be carried out within the ROW of the existing tracks. The ESIA indicated that the possibility of threatening the historical monuments is very unlikely and identified chance find procedures as a precautionary measure to be followed during construction. For the E&S instruments to be prepared for Segment 4, it should assess the existence of tangible or intangible cultural heritage resources which may be impacted by any of the project activities and identify measures for dealing with chance finds.

ESS9 Financial Intermediaries

ESS9 is not currently relevant as it is not envisaged to use this financing modality.

C. Legal Operational Policies that Apply

OP 7.50 Projects on International Waterways	No
OP 7.60 Projects in Disputed Areas	No

B.3. Reliance on Borrower's policy, legal and institutional framework, relevant to the Project risks and impacts

Is this project being prepared for use of Borrower Framework?	No

Areas where "Use of Borrower Framework" is being considered:

The use of the Borrower Framework is not being considered. The project entails substantial-risk environmental and social impacts and given the limited capacity of the counterpart, using the borrower's framework is not recommended.

IV. CONTACT POINTS

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Borrower/Client/Recipient

Borrower: Ministry of Finance, Egypt

Borrower: Arab Republic of Egypt- Ministry of International Cooperation

Implementing Agency(ies)

Implementing Agency: Ministry of Transport, Egypt

Implementing Agency: Egyptian National Railways - Ministry of Transport

V. FOR MORE INFORMATION CONTACT

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VI. APPROVAL

Task Team Leader(s):	Arturo Ardila Gomez, Salma Hany Adly Abdelfattah Ibrahim, Hisham Mahmoud Fouad
Practice Manager (ENR/Social)	Chaogang Wang Cleared on 29-Aug-2022 at 09:15:14 GMT-04:00