



Project Information Document (PID)

Concept Stage | Date Prepared/Updated: 18-Apr-2022 | Report No: PIDC32872



BASIC INFORMATION

A. Basic Project Data

Country Egypt, Arab Republic of	Project ID P177932	Parent Project ID (if any)	Project Name Cairo Alexandria Trade Logistics Development Project (P177932)
Region MIDDLE EAST AND NORTH AFRICA	Estimated Appraisal Date May 11, 2022	Estimated Board Date Jun 15, 2022	Practice Area (Lead) Transport
Financing Instrument Investment Project Financing	Borrower(s) Ministry of Finance, Egypt, Arab Republic of Egypt- Ministry of International Cooperation	Implementing Agency Ministry of Transport, Egypt, Egyptian National Railways - Ministry of Transport	

Proposed Development Objective(s)

To improve the performance and lower the greenhouse gas emissions of the logistics and railway sectors in the Alexandria-6th October-GCA railway corridor and generate private sector participation in railway transport in Egypt.

PROJECT FINANCING DATA (US\$, Millions)

SUMMARY

Total Project Cost	777.00
Total Financing	777.00
of which IBRD/IDA	400.00
Financing Gap	0.00

DETAILS

World Bank Group Financing

International Bank for Reconstruction and Development (IBRD)	400.00
Guarantee	100.00
IBRD	100.00

Non-World Bank Group Financing



Counterpart Funding	102.00
Borrowing Country's Fin. Intermediary/ies	102.00
Commercial Financing	275.00
Commercial Financing Guaranteed	200.00
Unguaranteed Commercial Financing	75.00

Environmental and Social Risk Classification
Substantial

Concept Review Decision

Track II-The review did authorize the preparation to continue

Other Decision (as needed)

B. Introduction and Context

Country Context

- 1. Strong Economic Growth.** In recent years, macroeconomic stabilization and energy sector reforms have helped build resilience. Real gross domestic product (GDP) growth continues to be affected by the COVID-19 crisis and has declined from the pre-pandemic average of 5 percent to 3.3 percent in FY2020/21. Growth had surged to 9 percent during H1-FY2021/22 (July—December 2021), compared to a modest 1.4 percent a year earlier. The resumption of international travel and trade, pent-up global demand, and favorable base effects allowed strong rebounds in the export-oriented sectors. Adverse global developments (including soaring prices and tightening financial conditions), aggravated by the war in Ukraine, have caused an acceleration in domestic inflation and negatively affected Egypt’s external accounts. Egypt introduced a coordinated set of fiscal, monetary, and exchange rate policy changes in response to these developments. On March 21, the Central Bank of Egypt (CBE) allowed the exchange rate to depreciate overnight by around 16 percent to stem the widening net exports deficit and raised policy rates by 100 basis points.
- 2. Meanwhile, the government introduced a mitigation package worth EGP 130 billion (1.6 percent of FY23 GDP).** Recent external shocks are adversely impacting Egypt’s short-term economic outlook. Economic activity will be adversely affected by the war in Ukraine. In October 2021, the World Bank approved a US\$ 360 million Development Policy Financing (DPF) loan under the “Egypt Inclusive Growth for Sustainable Recovery” program to support Egypt’s post-pandemic recovery. The objectives of this program are to enhance macro-fiscal sustainability, enable private sector development, and foster women’s economic inclusion.
- 3. Reform of Governance and Regulatory Frameworks.** Since 2017, Egypt has reformed its governance and regulatory frameworks in investment attraction, trade promotion, and digitalization. Institutional strengthening has included the establishment of (a) the Export Development Authority (EDA) in 2017; (b) the National Council for Artificial Intelligence in 2019,



and (c) the National Center for Telecommunication Services Quality Monitoring in 2020, as well as: (d) the strengthening of the Industrial Development Authority (IDA) in 2018.

4. **Egypt also modernized the legal framework.** The reforms include: (a) Industrial Licensing Law No. 15/2017; (b) Investment Law No. 72/2017; (c) Bankruptcy Law No. 11/2018; (d) e-Payments Law No. 18/2019; (e) Personal Data Protection Law No. 151/2020; (f) Micro, Small and Medium Enterprises Law No. 152/2020; and (g) Customs Law No. 207/2020. As part of the latter, the National Single Window (NSW), an online platform to speed up customs processes, was completed in 2021. The NSW simplifies customs procedures to allow Egypt to take advantage of the African Continental Free Trade Area (AfCFTA). As part of the law, the Ministry of Finance issued Decree No. 38/2020 on Advance Cargo Information (ACI) to speed up and simplify cargo clearance.

5. **Egypt seeks to attract international investors.** Egypt's structural reforms and fast-growing economy increasingly attract the attention of international investors. The country's annual foreign direct investment (FDI) inflows averaged 3.1 percent of GDP during 2016-19, nearly double the average for the Middle East and North Africa (MENA) and higher than Sub-Saharan Africa (1.8 percent). In addition to traditional partners—such as the European Union, the United States, and countries in MENA, such as the United Arab Emirates and Saudi Arabia—new investors have emerged as key partners for Egypt in the last decade. For example, FDI from China accounted for 22.4 percent of total jobs created in 2018-20 (up from less than 1 percent during 2016-18). Russian FDI accounted for 3.6 percent of the total in 2018-20, up from 1.4 percent in 2012.¹ Recent high international prices can also help attract FDI inflows to Egypt's oil and gas extractives sector.

6. **Many firms are choosing Egypt as a trade or investment corridor for the African continent and the Middle East.** This choice occurs in multiple sectors, including medium- and high-tech sectors, such as electronics (for example, Samsung and LG). During 2017-20, Egypt attracted the highest percentage of FDI in electronics and electrical (E&E) manufacturing in Africa (21 percent of the total number of projects) and the second-highest of knowledge-intensive ones (14 percent). Egypt has also positioned itself on the global investment map as an attractive location for digital services in Africa, building on traditional business-process outsourcing (BPO) services. As a result, investments increased in emerging areas, such as the Ericsson Artificial Intelligence (AI) and Analytics Hub established in Cairo.

7. **Weak Labor Market.** The labor market continues to manifest weakness. Small and micro enterprises' informal employment continues to grow, accounting for more than two-thirds of new entrants into the job market. In contrast, formal public and private sector employment have stagnated. The high number of informal businesses in the Small and Medium Enterprise (SME) sector distorts competition and inhibits the effectiveness of government policies.² The youth unemployment rate of 18.7 percent in FY2020/21 was at least twice the overall rate. The contribution of manufacturing to employment creation in the private sector declined from 32 percent in 1996 to 21 percent in 2017.³

8. **Need for better integration into Global Value Chains.** Despite Egypt's growing domestic market and proximity to international markets,⁴ the country is yet to attract substantial FDI to harness its sizeable domestic market and connect it to global value chain-based international trade.⁵ Egypt has an opportunity to act as the trade hub of the Eastern Mediterranean

¹ Central Agency for Public Mobilization and Statistics. 2017. *Egypt Labor Market Report: Demographic Trends, Labor Market Evolution, and Scenarios for the Period 2015-2030*.

² Business Climate Development Strategy and Policy Assessment of Egypt, The Authority of the Steering Groups of the MENA-OECD Initiative, June 2010, <https://www.oecd.org/global-relations/46341307.pdf>

³ Economic Research Forum. 2019. *Job Creation in Egypt, A Sectoral and Geographical Analysis Focusing on Private Establishments 1996-2017*.

⁴ IFC (International Finance Corporation). 2020. *Creating Markets in Egypt-A Country Private Sector Diagnostic*.

⁵ World Bank Press Release. 2020. Global Value Chains Have Spurred Growth but Momentum Is Flagging, World Bank Press Release



region, providing improved connectivity. Improving connectivity is therefore central to enhancing trade.⁶

Sectoral and Institutional Context

9. **Transport connectivity and logistics are important for Egypt to improve the country's trade competitiveness.**

This could be possible by integrating the country within the global supply chain, facilitating the movement of its exports to reach wider markets through multimodal (road, rail and maritime) transport, and reducing transport time and costs, where a 10 percent reduction in the overall lead-time results in a 4.3 percent export increase in MENA countries (IFC, 2018). On the domestic front, improved logistics will also open up new opportunities, attract new players into the sector, and help to increase the incomes of stakeholders from the largest companies down to the small business and new entrants.

Logistics:

10. **Egypt's logistics sector needs further development due to the weakness of dedicated infrastructure and underdeveloped services.**⁷ Efficient logistics rest, among others, on a combination of connectivity, freight transport infrastructure, multimodal platforms, and dedicated and well-located logistics zones and facilities. The Egyptian logistics expenditure amounts to about 20 percent of GDP⁸ (approx. US\$ 47 billion), to be compared to 8.5 percent in the US (2012).⁹ This level of expenditure on logistics takes valuable resources away from the production and trading of the goods moved. In absolute value, overall logistics costs in Egypt are expected to cross the US\$ 50 billion threshold by 2024.¹⁰ Egypt's ranking in the Logistics Performance Index (LPI), measured by the World Bank, dropped from 42nd in 2016 to 67th out of 160 countries in 2018, confirming the country needs to improve its logistics performance.

11. **The Ministry of Transport (MoT) is the government institution tasked with overseeing the sector.** MoT aims to make **transportation** an effective catalyst for national economic growth and promote Egypt as a global center for trade. The three strategic objectives within this goal are to (i) develop an integrated, sustainable, and safe transport system; (ii) enhance multimodality and inter-modality and logistics services; and (iii) promote private sector investment throughout the country. The expected results are investments totaling EGP 244.7 billion (approx. US\$ 15.7 billion) in 2021/22, which is more than double those in 20/2021.¹¹

12. **Improving the physical capacity and connectivity of Egypt's transport systems strengthens interactions with existing economic entities, and also allows Egypt to access a broader market base where economies of scale in production, distribution, and consumption can be tapped.** The GoE understands the highly transformational impact of transport activities in promoting trade and logistics, attracting investments, and creating jobs. Finally, logistics improvements in clearing and delivering freight in a reliable and timely manner provide a better utilization of the expensive transport assets, thus reducing transport costs as it allows trade to move with fewer delays.¹²

Maximizing Finance for Development and Cascade Analysis:

No. 2020/051/DEC.

⁶ World Bank. 2015. *Egypt Connectivity Study, A Strategy to Improve Egypt's Trade Connectivity*. Report No. ACS12517.

⁷ Creating Markets in Egypt-A Country Private Sector Diagnostic, IFC, 2020

⁸ Transport Sector in Egypt, The Next Steps. World Bank, 2016.

⁹ State of Logistics - USA 2013.

¹⁰ Mordor Intelligence.

¹¹ Ministry of Planning and Economic Development (<https://mped.gov.eg/?lang=en>)

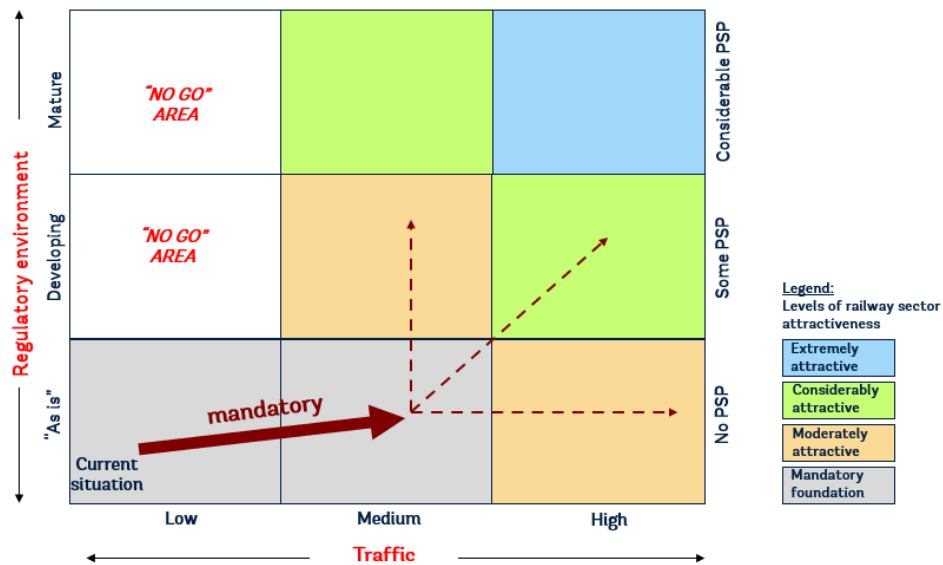
¹² The Geography of Transport Systems, Jean-Paul Rodrigue, 2020, ISBN 978-0-367-36463-2



13. **The GoE and the MOT are keen on increasing private sector investment in the transport sector.** Many Egyptian ports for example have private operators, as illustrated below. Regarding railways, on April 2, 2018, the Government issued Law 20/2018, which is an update to the Sector-Specific Law 149/2006 for railways. The new law allows ENR to seek direct participation by private investors in developing the railway system for example through concessions. The law introduced these main amendments: (i) ends the ENR monopoly on the establishment, management, operation, and maintenance of the railway networks via an ENR-issued concession agreement; (ii) broadens the ENR concession-based system to allow engagement of the private sector on a much broader scale; and (iii) limits the concession period to 15 years. These historic reforms are groundbreaking considering ENR has never allowed private sector participation in the sector since its inception in 1834.¹³

14. **Despite this law, the private sector is yet to invest in railways. The Cascade analysis done to prepare this Concept Note illustrates the reasons.**¹⁴ The analysis included a market sounding exercise. The first question in the Cascade analysis is if the private sector can undertake the project and if so, how much of the project can it finance? The analysis showed that the private sector cannot undertake the project, not even partially. The Cascade analysis looked at several options starting with a concession under a Design-Build-Operate and Transfer (DBOT) arrangement. While the existing regulations allow in principle such concessions, other conditions could not be met and there is a critical infrastructure bottleneck. Therefore, this project aims to develop the knowledge and understanding for engaging the private sector, while at the same time addresses the identified bottleneck. The project consists of building a 54 km greenfield track and upgrading another 250 km of track between the Alexandria Port and the Greater Cairo Area (GCA). Figure 1 below shows the regulatory and traffic volume conditions under which Private Capital Mobilization (PCM) is feasible in the railway sector, a key element in the Cascade analysis carried out. The project lies in Figure 1 in the bottom quadrant: “as is” or insufficient regulatory environment and low-traffic.

Figure 1. Regulatory and Traffic conditions that make feasible PSP in railways.



Source: Task team.

15. **The “as is” regulatory environment is because of ENR’s historical reliance on public budgetary finance that resulted in its poor capacity to develop the cost structure for its infrastructure development and operational and maintenance.** ENR receives contributions from the Ministry of Finance to cover its operational deficit. ENR privileges

¹³ <https://www.sharkawylaw.com/egypts-national-railway-is-now-open-for-business-with-the-private-sector/>

¹⁴ The Task Team thanks the IFC Upstream unit for its contributions to this analysis.



always passengers trains as explained below, leaving residual capacity for freight trains. The main reason provided by ENR for the inability to share the tracks with private sector operators is the high cost of building and maintaining the railway infrastructure. This is a cost the private sector operators refuse to take responsibility for. They await the State to finance the construction of the network as investors' main goal is to make profit with as little risk as possible.

16. **The project is also in the low-traffic quadrant because of capacity constraints for freight trains within the vicinity of the GCA.** The current track layout converges in Cairo, which coupled to the standard practice at ENR prioritizing the heavy passenger traffic coming into and leaving Cairo reduces the capacity for freight trains. For example, only four trains per day can use the current layout, but 50 will be needed by 2060, and those are just the trains bound to a key destination, the 6th of October Dry Port. There are other freight trains that cannot use the tracks, some bound for Upper Egypt. This capacity bottleneck partially explains why ENR carries less freight traffic every year. See below for more details.

17. **As part of the Cascade analysis, the market sounding tested interest for private investment in the project.** The answer was that the private sector could be interested after the implementation of a railway bypass to the bottleneck around the GCA—explained below. In this case, the private sector will operate its own locomotives and freight trains and pay an access charge to ENR. But as explained above, this access charging regime does not exist yet. Other private players expressed they could build the 54 km bypass but as a regular public works contract, not as a concession because the length is too short. Railways like highways need subsidies for the infrastructure part, even when the private sector participates under a DBOT or a train operator.

18. **If the answer to the first question is no, then the second question in the Cascade analysis is what can the project do to promote in the future PCM in the sector?** The project includes reforms to create an access charging regime that will allow ENR and private operators to share tracks, therefore breaking ENRs monopoly—not achieved until now, as explained. The project builds on and deepens the reform effort started by the RISE Project. The project also addresses the infrastructure bottleneck. Private construction and railway signaling firms will build the project. The next sections explain the other problems that the project needs to address. The final section explains how the project provides a solution, including opening railways to private sector participation.

Ports:

19. **The Alexandria Port (AP) is historically the main port for Egypt's trading with European countries and is considered one of the largest and most important ports in the Mediterranean.** Operated by a private firm, Hutchison,¹⁵ AP handles almost 60 percent of Egypt's foreign trade.¹⁶ The Port covers a total area of 10.2 km², including 2 km² of land and 8.5 km² of water. The present yearly throughput for Alexandria container terminal is 500,000 twenty-foot equivalent unit (TEU),¹⁷ while the design capacity was 160,000 TEU, resulting in delays in dwell time and clearance of goods, port congestion, and increased transport costs.¹⁸ Movement of trade is slower than in members of the Organization for Economic Co-operation and Development (OECD).¹⁹ Time losses are due to different reasons, including customs limitations, handling delays, limited stacking and maneuvering areas, and congestion inside the port due to too many trucks, coupled to connectivity weaknesses to and from the port.

20. **AP's efforts to improve its port services are being helped by a 12 billion Egyptian pounds (approx. US\$ 764 million) investment plan,** which includes the development of 87 platforms along a 24.9-km coastline.²⁰ This development

¹⁵ <https://hutchisonports.com/ports/world/hutchison-ports-alexandria/>

¹⁶ Alexandria Port Authority (<https://apa.gov.eg/en/>)

¹⁷ Maritime Networks, Port Efficiency, and Hinterland Connectivity in the Mediterranean, WBG, 2018

¹⁸ Logistics Capacity assessments (LCAs), <https://dlca.logcluster.org/display/public/DLCA/LCA+Homepage>

¹⁹ OECD Data, Container Transport, <https://data.oecd.org/transport/container-transport.htm>

²⁰ Upgrading Alexandria port to help Egypt become int'l trade, logistics hub, Xinhua Net, Sept. 2021, http://www.news.cn/english/2021-09/11/c_1310180919.htm



plan necessitates the physical expansion of AP's footprint. However, with AP located in the heart of the City of Alexandria, with urban dwellings located in very close proximity to the port, expanding the port's footprint has been rendered unfeasible. Consequently, AP's expansion efforts are taking into consideration 6th of October Dry Port (DP6) to perform as an Inland Customs Clearance Depot ICCD). An ICCD can perform all the customs related functions, which help in decongesting the ports. An ICCD can have an added value if it is near major production and consumption hubs, which is the case for DP6 as will be explained later.

Dry Ports:

21. **Egypt's logistics masterplan recommends the development of several logistic centers and dry ports to lower logistics cost and improve multimodality.**²¹ Each dry port will have a port code that will allow waybills to set the dry port as the destination –not a seaport. The plan therefore improves Egyptian logistical capacity for multimodal transport because a container, for example, will be carried by ship, then train, then truck –intermodal transport– under one contract to the final destination.²² Multimodal transport requires the different transport modes to have capacity, offer reliable service, and meet the contractual obligation to transport according to the waybill. The masterplan includes last mile rail connectivity to several of the dry ports (e.g., DP6, 10th of Ramadan and New Aswan). Coupled with a foreseen improvement in freight rail, to be explained later, this is expected to develop the logistics sector as it will provide a resilient rail connectivity between those dry ports and their targeted internal and external markets, thus strengthening supply chains, reducing freight travel time, and lowering transport costs. In addition, with these dry ports geographically spread across several governorates, the environmental and traffic safety impacts of taking freight trucks off the road and onto rail will reverberate across the country. When prioritizing dry ports, the GoE is utilizing a multifaceted criterion that includes contribution to corridor development, demand of freight transportation for export/import, contribution to export promotion, potential for public-private-partnership, and impact on the natural environment and resettlement issues.²³

22. **The 6th of October Dry Port (DP6) aims at alleviating pressures currently experienced by traditional seaports, especially at the AP, Egypt's largest and most congested.** DP6 will decongest the container part of the AP, provide storage, and reduce customs clearance times. DP6 will focus on customs clearance of goods via an integrated customs service system, along with administrative offices for users including, DP6 operator, shipping line agents, shipping, clearing, and transportation companies. The facility will have a maximum daily capacity of 720 TEUs, totaling just over 260,000 TEUs per year. DP6 is expected to create 3,500 direct and indirect jobs and will include container yards, multipurpose storage warehouses, communication and control systems, and handling and inspection equipment (e.g., cranes, tractors, stackers, X-Ray inspection systems, etc.).

23. **In January 2020, MoT announced plans to build its first dry port, namely the DP6, through a public-private partnership (PPP).** Egyptian PPP law calls for a competitive bidding process to select the concessionaire under a build-operate-transfer (BOT) structure. DP6 customers will directly remunerate the operator of DP6 PSP through end-user payments. A revenue sharing mechanism also sends some funds to GALDP. The US\$ 176 million project, slated for completion in 2022, will cover 420,000 sq meters—the largest in Africa. The resulting PPP is between the General Authority for Land and Dry Ports (GALDP) and a Special Purpose Vehicle consisting of: (i) "DB Schenker," a division of German rail operator Deutsche Bahn AG that focuses on logistics and supply chain management; (ii) "Elsewedy Electric Co S.A.E," an Egypt-based joint stock company engaged in the manufacture of integrated cables and electric products; and (iii) "3A International," an Egyptian-based freight forwarding company.

²¹ Multimodal Transport and Logistics Systems of the Eastern Mediterranean Region and Master Plan in Egypt, JICA, August 2008

²² World Bank. 2021. Module 2 "Economic, Transport and Trade Corridors," of the OLC training "Transport Connectivity, Logistics and Regional Integration."

²³ Multimodal Transport and Logistics Systems of the Eastern Mediterranean Region and Master Plan in Egypt, JICA, August 2008



24. **The European Bank for Reconstruction and Development (EBRD) finances this PPP in the amount of € 25 million.** The loan by EBRD is part of a total investment package of US\$ 60 million to finance the design, development, construction and operation and maintenance of the DP6. EBRD sees this investment in DP6 as a "trigger investment" under EBRD Green Cities Framework 2 Window 2 ("GrCF2 W2") formally initiating 6th of October City's participation in the program and enabling the start of the development of the Green City Action Plan ("GCAP") with the New Urban Communities Authority ("NUCA") for the 6th of October City. The 6th of October City also has an important industrial area, explained below. DP6 also follows EBRD safeguards.²⁴

25. **As part of the PPP, the GoE is contractually committed to deliver railway traffic to DP6.** This commitment includes two separate components: (1) delivering railway connectivity; and (2) delivering railway traffic to the private operator of DP6. The GoE is seeking World Bank support to meet its contractual obligation. DP6 is indeed designed around railways to transport in and out the containers it will handle, delivering additional savings in time and cost. With a direct rail connection to AP, DP6 will function as an inland port for containers moving through the various ports in the north of Egypt, whilst also servicing both 6th of October industrial area and the Greater Cairo Area (GCA). DP6 is expected to save over 14 million liters of diesel and 40k tons of CO₂ emissions per year.

26. **However, the current ENR network only allows four trains per day given the bottleneck in the GCA.**²⁵ These trains use the existing railway network, heavily used by passenger trains and some bulk trains to Upper Egypt, hence the lack of capacity for more trains carrying containers. Yet demand projections by a study financed by the Public-Private Infrastructure Advisory Facility (PPIAF) indicate that DP6 could generate 15 container trains per day by 2030 and 50 by 2060.²⁶ Indeed, the DP6 operator expects in the medium term about 30 trains per day. These estimates assume the rail service will capture only 20 percent of the demand, and the remaining containers will travel by truck. If rail service is improved further, then this share could increase. The number of trains carrying bulk cargo will also increase, as shown by the PPIAF-financed study. The capacity of the railway network in the GCA must be increased to allow more freight trains bound to DP6, Suez, and Upper Egypt –and even private sector participation, as explained below.

Rail:

27. **Egypt's rail system is the most extensive on the African continent.** The 9,570-km network is operated by ENR, which runs both freight and passenger services. In 2019 the MoT initiated 12 projects to add 424 km of railway track to the network. The first of these projects will connect DP6 with seaports and the Suez Canal Economic Zone (SC Zone), as well as forming a link to the existing Abu Tartur-Saqqara line. However, railway services are strongly focused on passenger transport, where around 1.4 million passengers per day travel on the 705-station network, and where 'rules in operations' on mixed-use tracks give priority to passenger trains, leading to freight rail delays and scheduling uncertainty.

28. **Currently, rail freight transport cannot compete with trucks, which also have a higher carbon footprint than rail.** The competitiveness of ENR in providing freight transport services has decreased constantly during the last 15 years, as shown by the drop from about 12 million tons per year transported in 2000 to the current 3 million tons per year.²⁷ Freight transport generates about 21 percent of ENR's revenues, incurs about 15 percent of costs, and is responsible for about 10 percent of ENR's deficit. The reasons for the decreased rail freight traffic span several fronts including; outdated and insufficient rolling stock, lack of maintenance, an aspect that will be rectified with the recent purchasing of new locomotives. The lackluster attitude towards freight transport limits the provision of commercial-grade customer service, and the market distortions resulting from freight trucks ability to overload, thus falsely depressing transport costs and providing an unfair advantage for freight by road over that by rail. Finally, there are also operational causes including ENR

²⁴ <https://www.ebrd.com/work-with-us/projects/psd/51830.html>

²⁵ The capacity can increase to six trains per day but with lower reliability and longer trip times.

²⁶ High Level Business Case Report for Railway Freight Project, Menarail Freight Consultants, Nov. 2020. PPIAF. World Bank.

²⁷ Egypt-Enabling Private Investment and Commercial Financing in Infrastructure, World Bank, 2019



standard practice of providing priority to passenger over freight trains, especially in major urban areas such as the GCA. The resulting bottleneck leaves residual capacity for freight trains.

29. **In addition to unlocking opportunities for international trade and improved logistics, MoT is focusing on freight as the lever of growth for the railway domestic market.** ENR is targeting mining products (5.6 million tons), agriculture products (4.5 million tons), construction materials and industrial products (4.3 million tons each), and petroleum products (2.3 million tons)—and containers. A key function of the railway will be to support the wheat supply chain by transporting imported wheat to silos across the country. In April 2020, MoT announced its plans to create a new independent public freight transport company to manage rail freight movement. The company will initially manage transport by rail and trucks before expanding into maritime and inland operations.

30. **The GoE launched an aggressive program to increase rail safety** mainly by reducing maintenance backlogs and modernizing obsolete assets, especially with its track renewal and signaling modernization program. The World-Bank-financed Railway Improvement and Safety for Egypt (RISE) Project is a key pillar in this regard and other multi-lateral and bi-lateral institutions are also helping and are contributing to the needed funds.

31. **In addition, the GoE has taken steps to address the railway sector institutional, regulatory, and financial challenges.** As explained above, the Government issued Law 20/2018, which is an update to the Sector-Specific Law 149/2006 for railways, intended to allow private sector participation in all aspects of railway services provision. As seen, private sector participation is yet to materialize for the reasons captured in the MFD/Cascade analysis.

Taking gender into consideration with respect to the social aspect of transport:

32. **Only about 3 percent of about 45,000 ENR employees are women, with more than half engaged in administration.**²⁸ For example, 215 of 886 engineers are women. Albeit low, the higher share of women engineers compared to the overall share of women in the ENR reflects the remarkable success that women have achieved in the Science, Technology, Engineering and Mathematics (STEM) fields of education: almost half of the STEM graduates in Egypt are female.²⁹ Still, there are ample opportunities to improve gender balance in technical roles in the ENR. As it is generally the case in the transport sector, the most common issues that typically impede women's access to employment in the ENR include: (a) perceptions that the sector is highly male dominated, which can dissuade women from even thinking of applying for a job in the sector, or physically strenuous, as well as gender stereotypes about the specific roles and capabilities of men and women; (b) the prevalence of a male-dominated work culture; (c) inflexible and generally unattractive terms and conditions of employment, for example, many jobs in the sector involve the need for spatial mobility and irregular and/or atypical working hours, including shift work, which are often difficult to reconcile with family life and represent an obstacle to the employment of women—and also men—with responsibilities for providing care; and (d) lack of clear career trajectories and opportunities.

33. **International experience shows that lack of gender-responsive transport services and lack of women in the sector reinforce each other.** Lack of women contributes to little incentive for transport services to respond to the particular needs of women service users. Employing more women in the transport sector in those roles that are traditionally male dominated can lead to more inclusive transport service development, in addition to the obvious benefits of providing women with income-generating opportunities. It is foreseen that jobs catering for women will likely be identified at the trade and logistics enterprises around the operation of DP6.

Railways and Climate Change Risks:

34. **The project area is exposed to high climate change risks, yet the project will accelerate adaptation by improving resilient railway service.** The Task Team conducted a disaster risk screening finding that the project area is exposed to

²⁸ Mena Rail Transport Consultants. (2020). Preliminary Gender Assessment - Railway Freight Project. Cairo.

²⁹ World Bank. (2018b). Opus Cit.



significant risks of extreme weather events. The risks of these climate events will be higher in the future: the mean annual temperature is expected to increase by 2 to 3°C by 2050 (more rapidly in the interior regions); the frequency of extreme storm events is projected to increase with greater flooding and storm damage, and an increase in the frequency of sandstorms. The project extends from the wet and humid Nile River Delta region in the north to the dry desert areas along in the 6th of October zone and then enters the GCA. The project will adapt to climate change by improving the safety of the railway network and by building the greenfield segment taking into consideration these impacts.

How the proposed project intends to address the problems:

35. **The project is built on the Cascade analysis presented above. First, the project will open up the railway sector to private sector railway operators.** The project will develop a clear and transparent railway infrastructure access charging regime for the Egyptian railway network, determine the specific charges to be paid for access and use of infrastructure by all railway operators, and the supporting contractual arrangements. The project will also provide a roadmap for private sector investors interested in participating in the growing railway traffic. With AP privately operated, the precedent of having Egypt's first private sector operated dry port of DP6, and the foreseen utilization of private sector railway operators along the developed railway corridor, the project will design the access charging regime that will put ENR on the path to collaborate with the private sector for the first time in its history. The project will accelerate the design and implementation of a seamless multimodal transport system across multiple modes of transport (i.e., ports, rail, and dry ports), which is a must for a vibrant logistics sector. With Egypt planning further PPPs under its Dry Port master plan, the project will help deliver the needed regulatory, institutional, and operational knowhow for stakeholders—both government and private sector—to accelerate private investment in railways—thus making dry ports more feasible.

36. **Second, the project will build a railway bypass around the network's congested bottleneck generated by heavy passenger traffic that surrounds the GCA.** This bypass will improve the efficiency of freight railway transport between the AP and the GCA. The bypass is constituted by first, implementing a 54-km long greenfield segment that will run from the Al Qatta station (on the Bashteel-El Itihad line), to the marker points located on 48 km and 51 km on the Marazeeq-Wahat line. The bypass is completed by upgrading the signaling on about 66 km of track on the Marazeeq-Wahat line, from Marazeeq station (km 0) to km 66 of this line. DP6 is located 1.3 km away from the Marazeeq-Wahat line, close to the point 66 km away from Marazeeq. ENR is currently building this last mile link to DP6. The project will also upgrade the railway signaling and build an additional track on the Al-Manashy Line and Al-Itihad segments that lie between the GCA and AP. These upgrades are needed because there are also capacity constraints in these segments, as shown by the PPIAF-financed study. The Al-Manashy segment is used by passenger and freight trains. The MOT has plans to revive passenger service on the upgraded Al-Itihad segments, see Figure 2. The Marazeeq station lies on the Cairo-Beni Suef segment for which the RISE project will upgrade the track and railway signaling. The Manashy segment will link to Al-Itihad and extend to Itay Al-Baroud station. This last station is on the Cairo-Alexandria segment undergoing track and signaling upgrades under the RISE Project. Notice that project therefore also opens other origin-destination opportunities for passenger trains on the heavily traveled Cairo-Alexandria corridor.

37. **The project will therefore increase the capacity of the existing railway corridor between AP and GCA to manage freight trains.** Once the project is completed, it will allow for freight trains for example bound to DP6 to increase from 4 trains per day to more than 50 by 2060.³⁰ Without that reliable and safe freight rail linkage, the movement of goods between AP and DP6 will be left to freight trucks using the road network, thus reducing the efficiency and reliability provided by freight rail, while negatively impacting quality of life aspects such as GHG emissions, traffic congestion, and road safety.

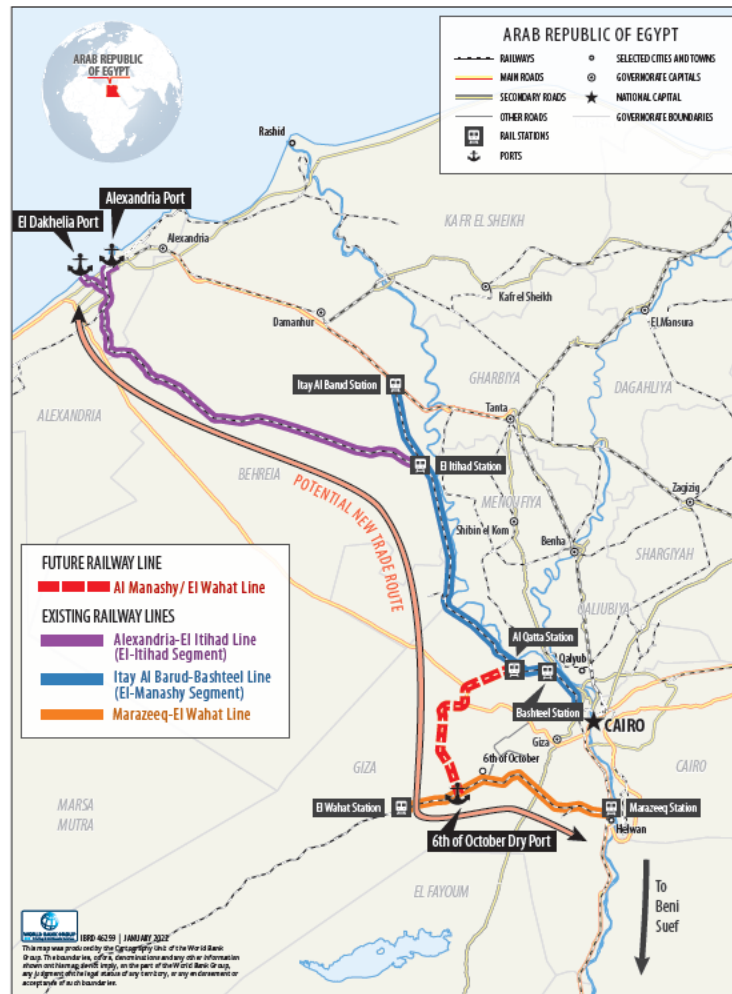
38. **By reducing transport and logistics costs, the rail freight corridor will reduce the economic distance to markets and therefore facilitate and catalyze regional trade.** Generated trade could be up to US\$ 0.5b per year, of which about

³⁰ High Level Business Case Report for Railway Freight Project, Menarail Freight Consultants, Nov. 2020.



one third would be exports³¹. These initiatives will also generate net benefits for households and firms through reduced costs of imports and increased export opportunities (Roberts et al. 2019).³² In addition, agglomeration impacts will be created, enhancing the potential trade-offs between different development outcomes, between different localities, and between different sets of economic actors. The trade facilitation and logistics enhancement activities are aimed at reducing idle times and delays due to congestion and other barriers along the corridor. Taken together these will generate wider economic benefits (WEB) and other spillover effects. The proposed Project has therefore been designed as a socially optimal “corridor package,” a set of interventions that extends beyond the investment in the trunk transport infrastructure to include other trade and logistics infrastructure as well as policies and institutions that amplify the net economic benefits.

Figure 2 - General outline of the railway track between AP, GCA, and DP6



39. This bypass will also allow freight traffic to other parts of the network which is therefore expected to increase and generate private sector interest in railway service provision. When coupled with the ongoing improvements to the railway lines taking place between Cairo and Nag Hamadi (the World Bank financed RISE Project, P175137), freight trains can efficiently reach Upper Egypt. The project is expected to increase railway connectivity to Upper Egypt thanks to the

³¹ Based on the total value of Alexandria’s trade and a 5% reduction in the door-to-door cost of traded goods

³² Roberts et al. 2019, “Transport corridors and their wider economic benefits” available at <https://doi.org/10.1111/jors.12467>



linkage to the Cairo-Giza-Beni Suf line upgraded by the RISE Project. Freight trains will move goods such as molasses, clay, containers, thus improving the possibilities of establishing a regional economic corridor with Sudan. In addition, the bypass will clear access to ports having railway connection such as the ports of Damietta Port Said to the east, thus providing efficient freight rail connectivity with Egypt’s major maritime ports to the east. The project will therefore allow freight trains to serve many market segments from containers to bulk—which opens opportunities for private railway operators to pay an access charge.

40. **The project will continue railway reform efforts started by the RISE Project to enable private sector participation and private capital mobilization.** The RISE project commenced the railway reform through formalization of the new institutional arrangements with the introduction of Public Service Obligation (PSO) and Multi-Annual Infrastructure (MAI) contracts. The reform component under the proposed project targets three further institutional improvements: (a) completion of the establishment of new institutional arrangements in the railway sector through introduction of an infrastructure access-charging (IAC) regime, which will be enabled by the reform part of the ongoing RISE project, (b) establishing the legal basis for an independent railway regulatory body to ensure private participation is facilitated with transparent regulation, and (c) development of rail-enabling transport policies to help increase traffic to rail. Table 1 below captures the relationship between the two projects in this reform effort as well as the evolution of the reform effort.

Table 1. 1Programmatic Approach for Reforming Egypt's Railway Sector

Targeted Benefits		RISE Project		Proposed Project CATLDP		
		Public Service Obligation Contracts	Multi-Annual Infrastructure Contracts	Infrastructure Access Charging	Enabling rail & PSP Policies	Railway Safety Regulations
Railway Sector Improvements	Formalization of Obligations	Yes	Yes	Yes		
	Predictability of Funding	Yes	Yes	Yes		
	Culture of Performance	Yes	Yes	Yes		Yes
	“User-Pay” Principle	Yes		Yes		
PSP within the Sector	Enabling Environment	Yes		Yes	Yes	Yes
Transfer to Rail	Railway Traffic Growth			Yes	Yes	
	Reduced GHG & other benefits				Yes	

41. **Moving goods on rail and away from road is instrumental in Egypt’s efforts to decarbonize the transport sector,** mitigate traffic incidents and road damages caused by freight trucks using the road network. The project will reduce the number of large trucks transporting containers between Alexandria to Cairo by up to 25 percent (currently about 5,000 trucks enter and leave AP each day,³³ of which just under half are for containers). This reduction in trucks will bring about slightly smaller reduction in overall corridor related transport fatalities (in the EU, the costs of personal rail accidents per ton km are only about 8 percent those of per ton.km of road transport).³⁴ GHG emissions from rail transport of freight are only about 12 percent those of equivalent road transport,³⁵ so the 25 percent reduction in truck traffic will reduce transport emissions of the container traffic by about 22 percent.

42. **The proposed project is expected to reduce air pollution and GHG emissions for the City of Alexandria.** Alexandria is one of the cities mentioned during COP26 expected to suffer from the ramifications of global warming and the complexities of climate change. Reducing the number of trucks entering and exiting the AP will have a positive impact on the air quality of the City of Alexandria. AP is located at the center of the City’s coastline. The huge number of trucks

³³ Egypt Today, Jan 30th, 2019. <https://www.egypttoday.com/Article/1/64080/%E2%80%98Let-it-rust%E2%80%99-did-not-cause-cars-accumulation-in-ports>

³⁴ European Commission, Handbook on the external costs of transport, 2019. <https://op.europa.eu/en/publication-detail/-/publication/9781f65f-8448-11ea-bf12-01aa75ed71a1>

³⁵ European Environment Agency, 2017, “Specific CO2 emission per tonne-km and per mode of transport in Europe. https://www.eea.europa.eu/data-and-maps/daviz/specific-co2-emissions-per-tonne-2#tab-chart_1



accessing the port in both directions have an extremely adverse impact on AP's air quality. With PM₁₀ and PM_{2.5} values of 805 µg/m³ and 368 µg/m³ respectively, these readings are negatively affecting AP's air quality.³⁶ With the proposed project moving freight from road to rail, the number of trucks accessing –as well as the resulting congestion within the port's vicinity– are expected to go down. This reduction in truck numbers and corresponding congestions will have a positive impact on the air quality of AP and the city, resulting in improved health conditions and quality of life for the citizens of the City of Alexandria.

43. **Expanding economic opportunities for the neighboring 6th of October Industrial City.** Egypt had 15 industrial zones, which contributed 82.83% of the total number of enterprises operating in towns and industrial areas.³⁷ Located a few kilometers away from DP6, the 6th of October Industrial City is ranked 'first' with almost one fifth of the cumulative total number of facilities.³⁸ Despite the tremendous scale of public investments, the Industrial City is yet to meet its promise, including the mobilization of private sector capital to make use of the Industrial City's vast land resource and strategic location within the vicinity of the GCA. Suboptimal accessibility, including the inability to receive raw materials and/or ship goods and products to markets in a reliable, efficient, and inexpensive manner has been highlighted as one of reasons limiting economic opportunities. The development of the AP-DP6 freight rail corridor will have a direct impact on the Industrial City, including the potential placement on the global supply chain map. With its very close proximity to DP6, the 6th of October Industrial City can benefit from just-in-time services, with raw material coming in and products and inventory shipped out. This direct access to global markets could attract investors' attention with promises of economic opportunities and jobs.

Relationship to CPF

44. **The proposed project is strongly aligned with Egypt Country Partnership Framework (CPF) (FY 2015-19).**³⁹ In particular, the proposed project contributes to the achievement of outcomes under subcomponent 2.1, namely, "Improved opportunities for private sector job creation", where the proposed Aswan-Wadi Halfa economic corridor is expected to enhance trade competitiveness, support export diversification, and improve value chains linkages and access to markets in Sudan and other Nile Basin countries. The project will also help in leveraging the rate of industrial development and promoting SME linkages to large industries. The project also contributes to the achievement of outcomes under subcomponent 2.3, namely, "Enhance capacity and safety of key transport infrastructure", where the proposed corridor will advance the effort to link by rail these two countries. The project will move freight and goods from road, where it is more prone to road accidents, traffic bottlenecks, and elevated levels of GHG emissions. Also, it will strengthen transport and logistics chains through a variety of measures, including targeted regulatory and ICT initiatives, with the goal of spurring cross border mobility and economic activity.

45. **The proposed project aligns with the World Bank MENA Strategy which promotes private sector participation.** The proposed project enables modernizing rail freight, a service of critical importance to the Egyptian economy, while strengthening ENR as an institution and accelerating reform initiatives to improve governance of the rail sector. The proposed project will build a bypass to the bottleneck on the GCA and therefore create myriad opportunities for freight trains, including the AP-DP6 corridor and to Upper Egypt. The project will also advance ENR's investment program by leveraging the new and rehabilitated stretches of the network to create opportunities suitable for private sector

³⁶ Air Quality Indices, Sources, and Impact on Human Health of PM₁₀ and PM_{2.5} in Alexandria Governorate, Egypt, Journal of Environmental Protection, Vol. 9, No. 12 (Nov. 2019)

³⁷ Ministry of Trade and Industry (<http://www.mti.gov.eg/English/Pages/default.aspx>)

³⁸ General Authority for Investment and Free Zones (<https://www.gafi.gov.eg/English/Pages/default.aspx>)

³⁹ Egypt: Country Partnership Framework for the period FY 2015-19, World Bank Group Report No. 94554-EG, November 2015



participation which lead to private capital mobilization (PCM). The World Bank-IFC joint team will continue supporting the objective of promoting private participation in railways.

46. **The proposed project will contribute to the World Bank Group’s Climate Change Action Plan (CCAP) 2021-2025 by focusing on the fourth key system transition, the transport sector.** Within this key system transition, the project addresses many relevant measures outlined under the transport system’s pillar “logistics and freight.” In terms of climate change mitigation, the project aims at enabling and incentivizing a modal shift from a high-carbon mode (road) to a low-carbon mode to carry freight, it modernizes the railway network in general, and it will lay the analytical foundation for a long-term transition towards green logistics in Egypt. In terms of climate change adaptation, the project seeks to create a new low-carbon alternative to transport freight from Alexandria to the GCA and vice-versa. By doing so, the project also increases the overall resilience of Egypt’s transport network to climate-induced shocks by offering one additional resilient mode of transportation.

47. **The proposed project will build on the World Bank’s close engagement with the GoE on policy dialogue in the transport sector including institutional structure and governance arrangements, while enhancing safety and regulatory aspects and increasing connectivity to employment opportunities, markets, and services.** Strengthening the institutional capacity within the sector will positively impact trade logistics and help unlock opportunities for private sector participation and economic growth as stated in Egypt’s sustainable strategy under Egypt 2030 vision. The proposed project will continue the reform effort of ENR started by the RISE project, as explained above.

48. **The World Bank’s robust track record over a decade of analytical work and transport-related engagement underpin the proposed Project.** The report titled, “Egypt: Enabling Private Investment and Commercial Financing in Infrastructure” (World Bank, 2018),⁴⁰ points out the urgent need to invest in infrastructure for sustainable economic development, urging institutional and regulatory environment that enables and encourages private sector investment in the infrastructure sector. The World Bank with support from the UK-funded Strategic Partnership for Egypt’s Inclusion Growth Trust Fund (SPIEG TF) developed the study “Achieving Green, Inclusive, Safe, and Effective Transport for Egypt.” This study identified strategies for rail, urban, road, maritime, and inland waterway subsectors, and proposed a set of institutional, regulatory, and implementation recommendations. The strategies are anchored when possible on maximizing finance for development (MFD) to generate private sector participation.⁴¹ The MoT plans to seek private sector participation in operations of the rail freight line between Alexandria Port and DP6 and other segments of the ENR network.⁴²

49. **The project responds to the World Bank’s Gender Strategy (2016-2023)** and more concretely, one of its pillars on removing constraints for providing –not just more but– better jobs, especially in the field of rail freight and logistics. The project is also well aligned with one of the World Bank’s MENA (FY18-23) Regional Gender Action Plan priorities; namely, to empower women economically.

50. **The project will help the GoE meet its Intended Nationally Determined Contributions (INDCs).** As the transport sector represents with approximately 19% the second largest contributor to Egypt’s overall CO₂ emissions,⁴³ the project aligns closely with the World Bank’s and the GoE emphasis on reducing CO₂ emissions, through facilitating the freight shift from road to rail.

⁴⁰ World Bank, 2018. Opus Cit.

⁴¹ World Bank, 2021. “Achieving Green, Inclusive, Safe, and Effective Transport for Egypt.” The Bank team carried out consultations on this study with transport related government agencies in Egypt, which gave feedback. The report is not yet disclosed.

⁴² See <https://www.theafricareport.com/104391/egypt-will-the-private-sector-put-trains-back-on-track/> and <https://www.al-monitor.com/originals/2021/05/can-privatization-save-egypts-railways>

⁴³ Egypt's nationally determined contributions to Paris agreement: review and recommendations, Lamia Abdalla, Alexandria Higher Institute for Engineering and Technology, January 2020



51. **The project also intends to initiate a dialogue with the GoE on the national railway's role in climate-proofing the Egyptian economy.** Shifting freight from road to rail will already lead to lower CO₂ emissions thanks to rail's lower carbon intensity per ton-km. Still, the long-term goal needs to be to fully decarbonize the Egyptian economy, including its freight transport sector. In this context, the project will develop decarbonization scenarios for the national railway sector appears highly beneficial in two ways: First, helping prepare Egypt for a decarbonizing economy globally where increasing carbon border adjustment mechanisms (such as recently announced by the European Union⁴⁴) will make carbon-intensive goods and services (incl. transport services) more and more uncompetitive. Second, helping identify potential green business opportunities where Egypt can, for instance, leverage its large renewable energy resources to produce emerging zero-carbon fuels such as green hydrogen⁴⁵ not only for domestic off-takers such as the railway, trucking, iron and steel, or chemical sector, but also for export purposes such as international shipping⁴⁶, aviation or industrial off-takers in Europe.

52. **The project will also help the GoE alleviate road congestion, reduce road traffic incidents, and extend the lifetime of existing road infrastructure.** The increasing movement of freight trucks in one of Egypt's most trafficked corridors, namely Cairo-Alexandria road, causes frequent congestion and accidents whose levels are expected to decrease with more freight carried by rail. In addition, reducing the number of freight trucks on the road will minimize the distress for road pavement caused by the overloading of trucks.

53. **Donor coordination.** GoE is focused on developing the railway system through partnering with other IFIs. The proposed project is part of a comprehensive set of projects financed by multi-lateral and bi-lateral institutions, including EBRD, Arab Fund, Kuwait Fund, AfDB, EXIM (Hungary), EDC (Canada), AFD (France) and the EIB. The World Bank financed RISE Project. The World Bank is expected to support MoT as a member of a working group to be formed by MoT to coordinate the various activities.

C. Proposed Development Objective(s)

To improve the performance and lower the greenhouse gas emissions of the logistics and railway sectors in the Alexandria-6th October-GCA railway corridor, and generate private sector participation in railway transport in Egypt.

Key Results (From PCN)

- 1) Freight trains per day: measures the improved logistics aspect of the PDO. The indicator will track the number of freight trains per day between selected points such as AP and DP6 and AP and a point in Upper Egypt (sub-indicators will be used).
- 2) Containers handled by rail between AP and DP6: measures the improved logistics aspect of the PDO.
- 3) Private Sector Participation: This indicator will inform on (1) the number of Private sector projects (operators) enabled by the building of this infrastructure project and (2) on the amount of commercial financing raised by Egypt to finance this infrastructure and which may be benefitting from an IBRD guarantee.
- 4) Greenhouse gas emissions: This indicator measures the lower greenhouse gas aspect of the PDO. The indicator will use standard methodologies for GHG accounting.

⁴⁴ European Union, Carbon Border Adjustment Mechanism, 14 July 2021, https://ec.europa.eu/taxation_customs/green-taxation-0/carbon-border-adjustment-mechanism_en

⁴⁵ ESMAP, Green Hydrogen in Developing Countries, 2020

⁴⁶ World Bank, The Potential for Zero-Carbon Bunker Fuel Production in Developing Countries, 2021



- 5) An intermediate (output) will track the adoption of the Infrastructure Access Regime for railways, linked to meeting the PBC.

D. Concept Description

54. **Component 1. Railway Sector Reform, Project Delivery, Institutional and Human Resource Development:**

55. Subcomponent 1.1. Advancing railway sector reform through technical studies: (a) developing a clear and transparent railway infrastructure access charging (IAC) regime 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 the supporting contractual arrangements; (b) defining the detailed scope and responsibilities of the railway regulator and associated governance framework, including the infrastructure access charge contract; and (c) identifying and developing further rail-friendly policies to increase traffic on the rail network.

56. To strengthen the project's support for institutional reform and to specifically motivate the introduction of the IAC regime the project includes a Performance Based Condition (PBC). The PBC will be structured during preparation and will be linked to the GoE, achieving an outcome indicator linked to the adoption of the IAC. The PBC will be associated with the payments to the last payments to the contractor/s the ENR will hire for the works in Subcomponents 4.2 and 4.3.

57. Subcomponent 1.2. Implementing the following project-delivery activities: (a) owner's System Integrator and Works supervision to manage and integrate the design and construction of industrial works financed by the MoT with own funds and works financed with loan proceeds in Component 4 and (b) financing of a technical audit for the works under Component 4.

58. Subcomponent 1.3. (a) Implementing priority activities under the Stakeholder Engagement Plan with a view to strengthening meaningful stakeholder engagement. The project will support the establishment and dissemination of a citizen's charter that will entail citizens' rights and duties and will be informed by the recently issued Ministerial decree on a Code of Conduct for safe transport. The citizen's charter will encapsulate the need for identifying and addressing gender-specific concerns for safety. (b) The project will coordinate its work to advance gender equality with a Gender Taskforce set up in the MoT to coordinate gender activities in various transport agencies incorporated under the ministry. The taskforce is currently being established, with representation from the ENR with the primary objective of operationalizing the issued Code of Conduct for safe transport. Close liaison with the MoT's Gender Taskforce will be important for consolidating and sharing the lessons among different transport agencies and for effectively implementing various gender programs under the ENR (gender-related activities of the project RISE and the envisaged activities under the CATLDP are just some of them). The Gender Taskforce that is currently being established can also resort to additional members beyond those from the MoT and its affiliate. Options related to engaging civil society representatives who work on gender and transport issues will be explored as potential means for strengthening citizen engagement. Moreover, the project will ensure that the development of the regulatory framework under Subcomponent 1.1 will be conducted through engagement with relevant stakeholders including the AP, DP6, freight forwarders, logistics operators, passenger railway users, and others.

59. **Component 2. Securing private sector participation (PSP) for last mile connectivity railway links, freight terminals and/or acquisition of freight wagons, etc.**

60. - Subcomponent 2.1. Structuring and detailing of private sector participation in the construction of last mile connectivity to the main ENR network, hook-and-haul traction services, leasing/purchase of wagons, operation of dedicated marshaling yards ("transfer points"), and so on.

61. - Subcomponent 2.2. Identifying and implementing specific opportunities for private sector participation in growing railway traffic, including multimodal transport.



62. Component 3. Decarbonization and Green Financing

63. Subcomponent 3.1 Technical assistance (US\$ [1] million) for developing a decarbonization roadmap for the ENR by (a) assessing Egypt's railway network against its techno-economic suitability to be electrified, to be operated with hydrogen-powered trains, and/or to be operated with battery-powered trains; (b) determining the best decarbonization approach (track electrification, hydrogen, batteries, or hybrid) for each of Egypt's main railway corridors, (c) exploring synergies with parallel decarbonization plans in Egypt's related sectors (for example, power, industry, shipping, aviation, and so on); (d) providing preliminary cost estimates (for example, for new/retrofitted infrastructure and rolling stock) and estimate potential benefits (for example, reduced air pollution and public health); and (e) making recommendations to the ENR on short-term, mid-term, and long-term actions to be considered to achieve full decarbonization over the coming decades.

64. Subcomponent 3.2 Technical assistance (US\$1 million) for designing financings that attract green/ESG-linked investors. This subcomponent will help the GoE in accessing both (i) local currency and (ii) international green/ESG-linked finance markets. The subcomponent will include an evaluation of green/ESG-linked financing options (loan versus bond, green versus sustainability linked), currency (local versus USD or other), level of credit enhancement (some or none), reporting requirements, and prepare the financing to fit with green bond/loan criteria. It will also involve organizing a Request for Qualification/Request for Proposal (RfQ/RfP) process to determine investor appetite for the various alternatives, pricing and terms and evaluate the need for credit enhancements, if any, to achieve affordable and attractive co-financing for the project on a blended basis.

65. Component 4: Track extension, railway signaling modernization, and select track upgrades. Note: the GoE share OR the IBRD share can be financed through commercial lending covered by the IBRD guarantee.

66. Subcomponent 4.1. Creation of a railway bypass around the GCA to enable a freight corridor to link Alexandria Ports (AP) to the 6th October Dry Port (6DP) and the south of Egypt: (a) construction of 54 km of greenfield single track and signaling works to link Al Qatta Station (on the Bashteel [Imbaba]-Itihad line) with the Marazeeq-Wahat line at km 48 and km 51; (b) upgrade of 66 km of railway signaling and select track upgrades on the Marazeeq-Wahat line to complete access to DP6 (located on km 66 of this line);⁴⁷ (c) embedding of a safety management culture and physical safety measures into the upgrade and new works on the tracks, at communities along the tracks, on rolling stock, and at stations and level crossings including but not limited to physical improvements to station platforms, buildings, and their environs; improving surveillance systems along the tracks; ensuring safety for communities along the tracks through fencing, level crossings, and education measures; and upgrading the visibility of rolling stock.

67. Subcomponent 4.2. (a) Upgrade of 120 km of the El-Manashy line, consisting of the modernization of the signaling system and track rehabilitation on the existing single line connecting Bashteel (Imbaba) and Itay El Baroud stations to increase railway capacity for operation of mixed passenger and freight traffic on this segment of the rail freight corridor; (b) embedding of a safety management culture and physical safety measures into the upgrade and new works on the tracks, at communities along the tracks, on rolling stock, and at stations and level crossings including but not limited to physical improvements to station platforms, buildings, and their environs; improving surveillance systems along the tracks; ensuring safety for communities along the tracks through fencing, level crossings, and education measures; and upgrading the visibility of rolling stock.

68. Subcomponent 4.3. Upgrade of 122 km of the El-Itihad line, consisting of: (a) selection of track upgrades and signaling modernization of the existing single track railway line connecting El-Itihad station and AP (known as El-Itihad segment) to achieve the uniform operational functionality on the entire freight corridor; (b) enhancement of the processing capacity of container trains, by developing a marshalling yard/freight terminal at the railway station closest to

⁴⁷ The ENR built the 1.3 km railway track between km 66 and the entrance to DP6. This track is operational since December 2021.



AP to create a shuttle service with short freight trains between AP and this station and then assembling larger trains to continue to DP6 and beyond;48 (c) embedding of a safety management culture and physical safety measures into the upgrade and new works on the tracks, at communities along the tracks, on rolling stock, and at stations and level crossings including but not limited to physical improvements to station platforms, buildings, and their environs; improving surveillance systems along the tracks; ensuring safety for communities along the tracks through fencing, level crossings, and education measures; upgrading the visibility of rolling stock.

69.

Legal Operational Policies	Triggered?
Projects on International Waterways OP 7.50	No
Projects in Disputed Areas OP 7.60	No

Summary of Screening of Environmental and Social Risks and Impacts

The project is expected to improve the safety and reliability of the railway sector across the geographical boundaries of the project. The Environmental and Social risks are both rated High. There are multiple reasons for such high-risk classification due to the nature, scale and diversity of the anticipated risks and impacts as well as the challenges in the client capacity to manage those impacts. The construction and operation of the project, if improperly managed, will be accompanied by significant adverse impacts on air, water, soils, communities, workers, and biodiversity. The associated negative impacts, in case of absence or poorly developed/implemented mitigation measures, are expected to be significant, irreversible, large scale and of high economic and social costs. The main anticipated impacts include: (1) Acquisition of private land is very likely inevitable because of the new railway track and the dualization related works, which is not yet known where it will take place. Both sides of the existing railway track as well as the proposed route for the new greenfield track have privately owned properties (land and other structures) as well as diverse types of encroachments. Activities for signaling works take place within the ENR ROW, where tenants and informal users may experience impacts from loss of land or assets. In the meantime, devaluation and/or depreciation of the value of the private properties could be an impact during operation; (2) Occupational Health and Safety (OHS) hazards during construction, maintenance and operation phases which may result in a wide range of injuries from minor to fatal; (3) Potential generation of large volumes of hazardous wastes especially in the pond area in subcomponent 2.1; (4) changes in the direction of the water flow in the pond area which could entail shifting of flooding to new areas extending the contamination footprint to other areas and water flow in other community land areas posing a community health and safety risks and potential land loss and/or lowering the yield of cultivated land; (5) biodiversity impacts in the Pond area, (6) Cumulative impacts of sourcing of large quantities of borrow materials (7) Community health and safety impacts during construction and operation phases including lack of privacy, accessibility to farms and/or houses, security concerns and personal safety, including sexual harassment, etc.; (8) Typical construction-related impacts such as air and noise emissions and waste generation (9) soil and water contamination and community risks associated with transportation of dangerous goods along the lines; (10) Train traffic increase in areas with mixed traffic (passenger and freight) may result in more train accidents.

The project will be implemented by MOT, ENR and GARB. ENR environmental and social (E&S) technical and institutional capacity has relatively improved over the long engagement with the Bank. Component 2 includes the main activities

⁴⁸ The project does not intervene the tracks inside AP. AP, however, is a key stakeholder that must participate in the project’s stakeholder committee. See Implementing Agency Assessment section.



which entail significant E&S impacts and financed by Government's fund which will be managed during construction by GARB. The coordination between GARB and ENR will be crucial for the project implementation and for managing the E&S risks.

2. Procurement of civil works for subcomponent 2.1 which is expected to take around nine (09) to 18 months is expected very soon. ENR confirmed that the requirements of the ES instruments to be prepared will be included in the contracts of the awarded contractors. Also, ENR is committed to initiate construction after preparing Resettlement Plan (RP) that are cleared by the Bank and disclosed and where land is vacant of any users and owned by the government. Prior to appraisal the E&S instruments for the project will be developed and disclosed including:

- ? Environmental and Social Impacts Assessment (ESIA) for sub-component 2.1
- ? Environmental and Social Management Framework (ESMF) for sub-components 2.2, 2.3 and 3
- ? One Resettlement Framework (RF) for the two (02) components.

Although the route of the new track has been initially defined, the alignment might be changing when the actual survey for land acquisition starts. While the RF is perceived to be the appropriate instrument at this stage, the ESCP will clearly include the following language: A RP should be prepared, reviewed and cleared by the Bank, disclosed and implemented before the commencement of any civil works in the sections that will entail land acquisition whichever is earlier.

- ? Environmental and Social Commitment Plan (ESCP)
- ? Stakeholder Engagement Plan (SEP)
- ? Labor Management Procedures (LMP)

The preparation of the ESIA and ESMF will consider Pelosi disclosure requirement before the board approval.

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