

Environmental and Social Data Sheet

Overview

Project Name:	CAIRO METRO LINE 3 (PHASE 3)
Project Number:	2010-0613
Country:	Egypt
Project Description:	Extension of Line 3 (Phase 3) of the Cairo Metro with 17 km to serve the main transportation corridors of urban greater Cairo.
EIA:	Required
Project included in the Carbon Footprint Exercise ¹ :	YES

Summary of Environmental and Social Assessment, including key issues and overall conclusion and recommendation

The environmental assessment work carried out to date has resulted in an overall understanding of the environmental and social risks and mitigation measures needed for a project of this size and complexity. A revised Environmental and Social Impact Assessment (ESIA), including Non-Technical Summary (NTS) and Resettlement Policy Framework (RPF) has been prepared and has been carried out addressing EIB's environment and social requirements and standards as well as the legal framework at national and local levels. The ESIA documentation has still to be submitted to the Egyptian Environmental Affairs Agency (EEAA), the national competent authority, for final review and approval, the scoping document having already received clearance.

The ESIA presents the potential environmental and social impacts of the project, main characteristic of the baseline, and description of the mitigation measures. Given that the direct area of influence of the project is a densely populated urban setting, mostly occupied with commercial activities and that most of the metro line will be built above or below public roads, the environmental and social (E&S) issues associated with the project include: (i) land acquisition and expropriation along the right-of-way as well as loss of formal and informal livelihoods, (ii) loss of access to services, (iii) increased noise pollution, (iv) negative visual impacts, (v) increase of dust emissions, (vi) increased vibrations, (vii) fire protection and emergency response and (viii) general workplace and community safety. The Project affected area does not include protected wildlife zones and natural habitats. However some of the areas planned for the construction of stations and viaducts will require special attention as these are located in densely populated poor areas. Based on the socio-environmental assessment, the environmental and social impacts will be by and large limited to the construction stage, and will be localised, temporary and reversible.

The ESIA contains a framework Environmental and Social Management Plan (ESMP) that sets out how the E&S impacts and risks identified by the assessment will be managed and monitored throughout the project life cycle. The ESMP includes an implementation timeline for all the actions. The ESMP contains commitments to develop a comprehensive series of E&S policies to safeguard employees, the local communities and the environment. These include employment policies, and health, safety and environment (HSE) policy and social policies and these, along with the full E&S management programme, plans and procedures continue to be developed concurrent with the wider project planning. The management programme for construction and operation will be developed before the start of each phase respectively.

¹ Only projects that meet the scope of the Pilot Exercise, as defined in the EIB draft Carbon Footprint Methodologies, are included, provided estimated emission exceed the methodology thresholds: above 100,000 tons CO₂-e/year absolute (gross) or 20,000 tons CO₂-e/year relative (net) – both increases and savings

A Resettlement Action Plan (RAP) will be prepared outlining the resettlement and compensation for loss of livelihood programme in terms of process, schedule and approach and includes procedures to be implemented in relation to communications, grievances and the documentation required to record steps taken and verify the satisfactory completion of the relocation and compensation process.

The stakeholder engagement and public consultation carried out to date has been documented in a Stakeholder Engagement Plan. This document lists all known stakeholder groupings and outlines a set of future stakeholder engagement, a key component of the wide-ranging stakeholder engagement planned for the project.

The promoter will need to have a dedicated and professional EHS and social team with sound professional experience to ensure the sustainability of their operation. The promoter will appoint a full-time EHS specialist who will be responsible for EHS programme of the project during construction and operations. The promoter will also appoint a social specialist for the implementation of the RAP as well as the SEP/grievance mechanism.

Note, however the promoter has very limited experience in coordinating, implementing, monitoring, and enforcing the measures as defined in the various plans. These aspects are mitigated through the establishment of a PIU which will include E&S experts to provide the promoter with the appropriate support and training.

Overall and in the long-term the project is expected to have a positive impact on the environment. Congestion and air pollution are currently some of the most important environmental problems facing the Greater Cairo Region. Providing a high quality and safe transport alternative, especially for long trips, will help contain the rapid increase in motorised trips and related environmental impacts.

With the appropriate mitigation measures in place and the Environmental and Social contractual conditions placed on the project, the project is acceptable for Bank financing.

Environmental and Social Assessment

Environmental Impact and Mitigation

Environmental and Social Assessment: In 2011, with support of AFD TA funds, a first ESIA was carried out. Following its review against EIB requirements and standards, the process and study contained a number of significant gaps. In early 2012, with the support of additional AFD and EIB TA funds, the EIB commissioned a multi-disciplinary team of international and Egyptian E&S specialists to upgrade the preliminary ESIA and prepare a detailed ESIA including ESMP and Resettlement Policy Framework (RPF) with its associated Resettlement Action Plan (RAP). The assessment and methodologies used were in accordance with international standards and the E&S standards and requirements of the lenders to the project, notably EIB and AFD.

The detailed ESIA with all its appendices will be completed in August 2012. The ESIA covered potential impacts and risks for the whole project life-cycle from site preparation and construction through operations. To support the assessment, a number of environmental and socio-economic baseline information in the project's area of influence was gathered and recorded. As the project location is in a densely populated urban area, particular emphasis was placed on the socio-economic baseline data which was gathered through household interviews and questionnaires as well as during the community consultation events carried out to support the ESIA process.

Environmental and Social Management Systems: The ESMP outlines the management programme to be further developed for the project through the project E&S Management System and is supported by early E&S planning in relation to the management of specific issues such as community relations, community safety, traffic management, waste

management and E&S performance monitoring. For the proper implementation of the ESMP, a specialised environmental and social unit will be set up by the promoter with at least one professional staff designated to supervise the overall implementation of the ESMP. In addition, key staffs engaged in environmental management in the contractor's company will receive training. During the construction period and first two years of operation, noise, vibration and surface water monitoring will be carried out at selected sites.

Environmental impacts during Construction: During the construction phase, erosion, surface run-off, solid and liquid waste, noise and vibration, dust vehicle emissions, hazardous material (waste oil, cleaning solvents) are the main source of pollution. In addition construction activities will result in some community disturbance and nuisance, mainly in relation to noise, dust and project-related traffic. Noise will be continually monitored and mitigation measures applied where necessary which may include the erecting of temporary noise barriers, the scheduling of the noisiest activities during daylight hours and the notification of residents prior to specific activities. Dust suppression methods such as dampening down working areas will be employed. Traffic volumes to transport workers, equipment and materials to the construction site will be considerable. A traffic management plan defining the measures to be employed will reduce impacts.

Vibration: vibration impacts associated with construction are due to tunnelling and surface works, demolition of existing structures, road works and construction of new surfaces, and from spoil removal. Adjusting work schedules and limiting certain work activities when mitigation measures are not effective, community consultation, regular information bulletins and monitoring noise levels to respond to complainants are among the measures to be implemented.

Noise: A detailed noise model assessment will be carried out to support the ESIA. For the underground sections, the ESIA concluded that the cumulative noise contribution from the project when it will be in operation were insignificant in relation to background noise with no increase over the existing background noise levels predicted at communities closest to the line. A monitoring campaign for the elevated sections of the line will confirm project compliance with Egyptian standards and if noise is found to exceed the predicted levels, additional mitigation measures for noise sources such as sound barriers would be provided. Noise monitoring will also be routinely carried out during the construction phase and first two years of operation for the project and measures will be taken to minimise noise disturbance where necessary.

Hazardous Waste Management: Hazardous materials will be safely transported to and from the site using vehicles and procedures that are in accordance with international standards during construction. Storage of hazardous materials will also follow international standards whereby adequate, secure and fully contained storage facilities in separate designated areas will be used.

Pest Management: Since the implementation of civil works requires the demolition of existing structures, it is common practice to spray the debris with pesticides to prevent the spread and infestation of rodents. For that reason, the promoter will follow international pest management guidelines and practices.

Cultural Heritage: Although no direct impact on archaeology nor sites of physical cultural heritage were identified in the environmental documentation, given the location of the project there is nevertheless the possibility that construction could have unanticipated negative impacts on historical artefacts or sites if they were to be discovered during implementation. Though the alignment has been selected to minimise interference with existing infrastructure, a chance find procedure will be put into place by the contractor. If archaeological materials are found, the competent authorities will be notified and work will be suspended until such findings can be investigated by experts and a determination can be made regarding how to manage such finds.

Environmental Health and Safety: The Contractor will be responsible for developing the detailed H&S procedures to be followed by the construction work force. He will implement

safe working practices at the construction site and will demonstrate compliance with policies and procedures through a monitoring programme that will record and routinely report performance to the promoter. Construction site H&S risks will be identified using job safety analysis procedures and other industry standard methods to define appropriate measures that will be adopted to avoid or eliminate defined hazards and risks. Potential emergency scenarios will also be identified by the promoter in conjunction with the contractor and adequate emergency response arrangements will be developed for implementation.

H&S plans and procedures specific to the operation of the project will be developed as the construction programme advances. As with the construction programme, the specific measures to be adopted, the H&S organisation for operations and emergency response arrangements will be based on hazards and risk identified for the operational phase using standard industry techniques. Fire and life safety protection systems and control facilities will meet international standards for metro systems.

Construction ESMP: A construction ESMP will present detail plans for flooding, noise, vibration, spoil, ground water, waste, dust, emergency response, and for occupational and community health and safety. Throughout the construction period monthly water monitoring will take place at major construction sites. Air quality monitoring will be conducted at major construction sites every 3 months. Vibration impacts will be monitored and building inspections will be conducted to test if structures along the right-of-way are adequately protected against vibration as it may pose risk to community safety.

Social Assessment

Land acquisition and involuntary resettlement and loss of livelihood compensation:

The promoter with the assistance of consultants has prepared a Resettlement Policy Framework (RPF) in accordance with the requirements of World Bank OP 4.12 on Involuntary Resettlement and Egyptian law. The RPF will be endorsed by the promoter and the competent authority responsible for land expropriation. The RAP will follow the approved RPF to ensure all project affected people will improve or, at least, have restored their pre-project level livelihood. The promoter's commitment to livelihood restoration is confirmed through the RPF and RAP.

The consultants are in the process collecting the baseline information for all of the project affected businesses as well as an inventory of affected structures. Once the land acquisition process is initiated, each property owner will be informed in writing. Lost assets will be calculated at full replacement cost that is the market value of building a new structure with area and quality as the same as those of the affected structure and labour. As the project is located in a densely populated urban environment, it is critically important for small businesses to be close to pedestrian traffic. Finding alternative locations with equivalent business potential will be a challenge.

It is important to note that without the Bank's involvement, livelihoods would not be restored up to the standards achieved and no adequate compensation provided; in effect, a commendable precedent is being set in the country concerning the rights to compensation of informal settlers and employees of resettled businesses alike. Social standards of affected people will eventually benefit from the added value brought forward by Bank's intervention.

Labour and working conditions: Employment condition for the promoter and those of the project construction contractors will follow Egyptian labour laws including regulations with respect to working hours, overtime payment, and other benefits and compensation policies. Implementation of the promoter's Human Resources policy and procedures will be the responsibility of promoter's appointed Human Resources manager. The development of the HR procedures is on-going and will include measures to ensure conformance with ILO core labour standards, promote a non-discriminatory and equal opportunities working environment and ensure safe working conditions for the promoter and contractor employees. The policies and procedures will be shared with all employees as part of the new employee orientation process in relation to their specific responsibilities and also on their individual rights under their employment contract and the law. Individual conditions of employment will be

communicated through a written contract to be issued at the time of employment. There will be no informal workers used and the minimum age for employment on the project will be 18 years old.

Collective bargaining is in place in Egypt where labour rights and labour organisations are governed by labour law. The promoter will have a grievance procedure in place which will include processes for receiving applicable grievances in person, in writing and by phone. The promoter's contractors will be held responsible for their fair and appropriate handling of employee grievances and this will be subject to monitoring by the promoter's Human Resources Manager.

The promoter will work actively with their contractors to promote local access to project employment in both the construction and operational phases of the project.

Public Consultation and Stakeholder Engagement

The "Guidelines of Principles and Procedures for Environmental Impact Assessment" (EEAA, January 2009) establish the requirement to involve the public and other stakeholders in the EIA planning and implementation phases through the public consultation process. According to the guidelines, public consultation should be carried out at least at two stages of the EIA process: first during the EIA scoping phase, and second once the draft EIA is completed. In addition the Bank requires that a stakeholder engagement plan be drafted and be applicable until completion of construction, identifying all direct and indirect stakeholders and identifying the level of consultation for each of these. The Bank also requires the setting up of a grievance mechanism.

In addition to the public consultation carried out at the scoping phase, additional community engagement activities have been carried out and will continue to be carried out by the promoter, in part to support the ESIA process, but mainly to ensure that communities are aware of the project, its purpose and objectives and the different phases of development, listen to concerns and issues raised by the local communities and other opportunities to affected people so that they may provide suggestions and recommendations to the promoter. The consultation programme was conducted in the project area of influence, but information was also disclosed across a wider geographical area. Stakeholders consulted represented the diversity of the neighbouring communities in terms of gender, religion and vulnerable people and included individual residents as well as locally elected officials, religious leaders, and community-based organisation. Other stakeholders included government and non-government representatives including council members. Community engagement methods included ad-hoc and formal interviews, focus group discussions and public meetings.

Up to date the issues raised by the stakeholders involved consulted are the following:

- Cairo inhabitants acknowledge the urgent need to solve the traffic problem and support the construction of the metro, however surveys and public meetings indicated that a in a number of communities did not have sufficient information about the metro;
- More information about the project and related compensation measures was expressed;
- Concerns were expressed about the loss of agricultural land and schools;
- Another main concern was the capacity of existing building structures – many of them having been built informally and being of poor quality – to withstand the effects that excavation and tunnel boring might have on them.

At present only the public consultation on the ESIA and RPF has been carried out. Targeted stakeholder engagement with project affected people will be carried out during the development of the RAP.

All related ESIA documentation has been posted on the Promoter's Project website and accessible to the public. The ESIA study and the NTS have also been disclosed on the EIB's website.

EIB Carbon Footprint Exercise

According to the Bank's services, the Project is estimated to contribute to reduce traffic-related CO₂ emissions by almost 120 000 tonnes per year. This level of savings in CO₂ emissions is the result of an absolute level of CO₂ emissions deriving from the production of electricity for the operation of the new metro of about 18 000 tonnes per year, which has to be compared to the baseline reference scenario of about 137 000 tonnes per year emitted. This is an outstanding result for an urban public transport project, and is due mainly to the expected shift to public transport (mainly the new metro) from private cars, and to the reduction of conventional bus line services, run on diesel buses.

Conclusion

The Project will increase the quality and availability of mass transport within the Greater Cairo Area and provide the commuting public with alternatives to private cars, buses and vans. Direct impacts of the new stations include increasing the accessibility of public transport to employment centres, health, and education facilities. Improving the metro services in general increase the access of the low-income and mobility-impaired population to employment centres. In addition, increased use of public transport will help reduce traffic congestion and air pollution, thereby contributing to overall improvements in the quality of life in the Greater Cairo Area and the City's climate change mitigation agenda.