Concept Environmental and Social Review Summary

Concept Stage

(ESRS Concept Stage)

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BASIC INFORMATION

A. Basic Project Data

Country	Region	Project ID	Parent Project ID (if any)
Peru	LATIN AMERICA AND CARIBBEAN	P170595	
Project Name	Lima Metropolitano North Extension		
Practice Area (Lead)	Financing Instrument	Estimated Appraisal Date	Estimated Board Date
Transport	Investment Project Financing	7/15/2019	9/12/2019
Borrower(s)	Implementing Agency(ies)		
Ministerio de Economia y Finanzas			

Proposed Development Objective(s)

The Project Development Objective (PDO) is to improve urban transport services, mobility and accessibility to jobs in the North of the City of Lima.

Financing (in USD Million)	Amount
Total Project Cost	123.00

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

No

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

The proposed project is the continuation of Lima Transport Project (P035740) implemented from 2003 to 2011. The extension covers 10.2km between Naranjal (current final extension) to Chimpu Ocllo, integrating 3 municipalities (Independencia, Comas, and Carabayllo) in the North of Lima. This project will benefit 371,000 habitants, 90,000 current trips and potentially 27,000 new trips per day for the mentioned municipalities. Eighty percent of the population of these municipalities are in the lowest tiers of urban poverty (C and D) and the BRT is the main source of high-quality of urban transportation for this population. In addition, the economic activities (small and medium enterprises) around the proposed BRT extension have been growing significantly in the last 10 years and the project

should boost these activities aligned with the presence of more decentralized urban economies in the north of the city of Lima. The main interventions of the proposed project will include: 10.2km segregated BRT lanes, 17 stations and 21 at level pedestrian crosses and 2 elevated pedestrian walkways. In addition, one terminal station (Chimpu Ocllo), bus depot, 3 operational bus U-turn, water treatment plant and technology to manage the additional BRT service provision. Additional fleet is needed to insure BRT operation. The provision of buses and the transport operations will be under PPP schemes.
The project will be implemented under three components:

1. BRT infrastructure to be financed by the Bank and the Client
2. Fleet of busses for the BRT extension to be financed under PPP scheme
3. Project Management and Land Acquisition to be financed by the Client

D. Environmental and Social Overview

D.1. Project location(s) and salient characteristics relevant to the ES assessment [geographic, environmental, social]

The BRT North Extension Project (the project) will be implemented along the Metropolitana Avenue corridor, covering a total of 10.2 km. It will integrate mainly two municipalities in the Northern part of Lima, Comas and Carabayllo, and a small sector of the municipality of Independencia. This extension is the continuation of the current BRT system ("Metropolitano", from now on) financed by IBRD (2003-2011) and the Inter-American Development Bank (IADB). The current project also includes the upgrade and expansion (from 3 to 6 l/s) of the capacity of an existing Wastewater Treatment Plant (wastewater is supplied from existing domestic sewage pipelines), the expansion of the "Patio Taller Chimpu Ocllo" (2.2 ha) in an area currently used by the Metropolitan Municipality of Lima (MML) as a container and scrap storage area and to dispose of organic and non-organic waste, and the relocation of public services such as water and sewage connections along the BRT corridor. In addition, based on the currently available information, it appears that the project may operate without additional fleet for the next 3 years. Preliminary analyses indicate there is room to improve the efficiency of bus operations through better bus programming and optimization of services and frequencies.

Regarding the environmental context, the project will be implemented along existing roadways. There are no natural habitats nor protected natural areas within the project's direct area of influence which, according to the project's category II Environmental and Social Impact Assessment (EIAsd), is 200 meters from the axis of the road to each side, and thus the project will not generate impacts on natural or natural critical habitats. Approximately 3,500 trees currently planted along the two avenues of intervention will need to be managed, either through temporary relocation or permanent relocation and replacement. Also, according to the environmental baseline of the EIAsd, current noise and air quality levels of the project area already exceed the values permitted by the corresponding National Environmental Quality Standards. The EIAsd identified an archeological site, "Collique Bajo 1", 71 m away from the project's footprint. This 1.6 ha "huaca" is located in the district of Comas.

In relation to the social context, the project will be implemented in busy avenues with high volumes of pedestrian, vehicular and small-business activity, formal and informal. Key concerns of current Metropolitano users have been related to citizen security and sexual harassment. In 2009, the Inspection Panel received a complaint concerning the Metropolitano, conducted an investigation, and identified five areas where relevant Bank policies were not complied with: (i) the identification of impacts beyond the immediate area of construction and operation of the BRT; (ii) dissemination of information and consultation with the affected population; (iii) implementation of the traffic re-

routing pattern included as part of the traffic study; (iv) speed of project supervision in relation to circumstances on the ground; and (v) cultural heritage analysis. Management conclusions also indicated that institutional capacity for environmental and social management was insufficiently developed at approval and that Bank's efforts on institutional strengthening did not fully achieve their objectives. Since then, the Borrower, with the support of the Bank, has taken actions to address these points, and its lessons are being considered in the design of the project and its environmental and social risk management instruments, specifically in relation to BRT accessibility for people with disabilities, the strengthening of traffic management plans, and the preparation of key instruments such as an assessment of indirect social impacts and economic impacts, a Stakeholder Engagement Plan, a Chance Find Procedure, and supervision arrangements based on a capacity assessment, among others.

D. 2. Borrower's Institutional Capacity

Based on experience and lessons learned from the first Metropolitano and other BRTs in Latin America, there is a risk associated with the lack of institutional capacity and interinstitutional coordination to manage and mitigate social impacts generated by the project. The Project Implementation Unit (PIU) for the first Metropolitano was Protransporte. The Lima Municipal Enterprise for Management of Highway Tolls (EMAPE) was also involved in the later stage of the project. Also, the Implementation Completion and Results Report of the first Metropolitano Project highlighted as a lesson learned the difficulty in supervising the project and the greater supervision effort demanded due to the interaction of two implementing units (EMAPE and Protransporte). Although the project included technical assistance and training, and its staff has previous experience with BRTs and multilateral requirements, currently neither Protransporte nor EMAPE have a specific unit to oversee the social and environmental aspects of project management.

For this project, the MML formally gave EMAPE the task of executing the project works, EMAPE will be the PIU. While EMAPE's ability to manage social and environmental risk and impacts in accordance with the Bank's Environmental and Social Safeguards Framework (ESF) was initially low, the PIU has been hiring a team of experienced specialists, two environmental and three social, to support the project, some of which are familiar with the ESF. The Bank has also hired a consulting firm to conduct an environmental and social capacity assessment of EMAPE. This assessment will identify areas where it may need strengthening, along with the identification of actionable measures and budget. Relevant measures of the assessment will be included in the project's Environmental and Social Commitment Plan (ESCP).

Other institutions involved in the implementation of the project include: MML, the Municipalities of Comas, Carabayllo, and Independencia, Ministry of Transport and Communications (MTC), the newly created Urban Transport Authority (ATU), among others. It is imperative that the roles of each of these agencies during project preparation and execution are clearly determined and laid out, together with clear arrangements and channels for interinstitutional coordination. The operational manual will define clear roles to actively involve beneficiary municipalities and other involved institutions. A strong supervisory firm will be hired to control the quality of works and progress. The interinstitutional agreements required will be also specified in the Borrower's ESCP.

Once construction is finalized, the MML will transfer the operation of the project to Protransporte, which will be eventually absorbed by the newly created Urban Transport Authority (ATU). In this sense, the ATU will integrate and absorb the currently fragmented BRT and Metro authorities. Transitioning from the current institutional arrangements and building capacity at ATU is expected to occur over the next years. The World Bank is currently supporting the first phase of implementation of ATU (with grant monies), but more support will be needed during its

learning period and to withstand changes in presidential and municipal administrations that could affect the structure of ATU's Board, its priorities and/or commitments. Specific mechanisms must be developed to ensure the sustainability of the BRT operation by ATU after the project is transferred by the MML.

II. SCREENING OF POTENTIAL ENVIRONMENTAL AND SOCIAL (ES) RISKS AND IMPACTS

A. Environmental and Social Risk Classification (ESRC) Substantial

Environmental Risk Rating Substantial

Despite this project being brown field and deploying technology that is well known, the environmental risk classification is substantial under the ESF. The classification responds to risks and impacts across the project's large geographic footprint and associated indirect area of influence along the corridors of intervention and their various intersections. These risks are mainly associated with the complex institutional arrangements of project implementation; PIU's lack of ability to manage social and environmental risks and impacts in accordance with the Bank's ESF; risks of inadequately handling occupational and community health and safety issues and traffic management during construction; and deficient handling and disposal of waste and hazardous materials. Based on the reviewed documentation and site visits to the project area, the key anticipated environmental risks and impacts are related to:

i) construction-related activities may include overall nuisance to the communities due to noise and vibration, dust, traffic congestion, waste, and visual disturbances, as well as by the removal and relocation of approximately 3,500 trees;

ii) Unskilled workforce, poor labor and working conditions, and increased risk of occupational accidents during construction;

iii) Inadequate sourcing and transportation of construction material from quarries, as well as transportation and disposal of surplus materials during construction;

iv) Inadequate handling and disposal of waste and hazardous materials during construction and consequent potential contamination of soil and/or water;

v) Lack of adequate traffic management during construction, leading to disturbance to surrounding communities. Increased risk of third-party accidents due to increased vehicular traffic from the transport of construction materials and waste, and inadequate traffic detour system;

vi) Lack of a life, fire safety and emergency response and preparedness plan at the system, new stations and supporting facilities (bus terminal and bus depot) during operation;

vii) Lack of adequate traffic planning and management during operation, for the detour of regular public transportation companies that currently use the proposed corridors of intervention;

viii) Contamination of soil and/or underground water due to expansion and operation of a wastewater treatment plant, and relocation of existing sewage canal, activities that are part of the project;

ix) Inadequate management of existing environmental liabilities, including: (a) current noise and air quality levels in the area of influence already exceed the values permitted by the Peruvian Environmental Quality Standards; (b) existing dump in the proposed area for the expansion of the bus depot (where an excavation of 7 m is necessary to remove all the waste and dumped materials); and (c) oil and hydrocarbon spills along the auxiliary roads due to the operation of car mechanical garages;

x) Impact on an archeological site located within the project's direct area of influence;

xi) Inadequate use of pesticides and fungicides during construction, for transplantation of trees, and during operation, for the maintenance of green areas;
xii) Inadequate disposal of scrap from contractor's old buses due to contractual requirements related to the renovation of bus units;
xiii) Irregular maintenance and upkeep of the bus depot, bus stations, main terminal, bus fleet, and associated infrastructure during operation, including a lack of an adequate environmental management of solid and hazardous wastes, water effluents, air emissions, and noise levels;
xiv) Potential incremental and cumulative impacts and risks associated with other current and future projects located in the same area of influence (Cable Metro-Bus, Sergio Bernales Hospital construction, rehabilitation of water and sewage pipelines, "anillo vial").
Risks and impacts will occur over existing roadways and thus no impacts are expected over natural or critical natural habitats.

Social Risk Rating Substantial

The social risk of this project is considered Substantial. Potential adverse social impacts and risks attributable to the project include: (i) the need to relocate approximately 800 informal vendors located within the project footprint, whose leaders have indicated a willingness to cooperate with the relocation process; (ii) the land acquisition of 11 social units (three residential dwellings, three commercial establishments, five residential and commercial structures), and the relocation of one small religious chapel; (iii) risk of temporary restrictions in access to residential, commercial and social infrastructure buildings, including: schools, preschools, universities, hospitals and other health centers, and public services located along a busy avenue; and (iv) risks of community health and safety. These risks may be exacerbated by a context of socioeconomic and traffic informality in which traffic signs are often ignored; a history of social protests related to the Metropolitano; potential complaints from current transport service providers (owners and workers) potentially affected by the modification of public transport routes currently available for them; and the risk of reproducing the system of gender harassment and citizen insecurity for the users of the current Metropolitano. The social and environmental management instruments to be prepared by the Borrower, including a supplementary assessment of economic and indirect social impacts, are expected to address these risks. The Traffic Management Plan in particular will need to consider the potential adverse impacts on households and businesses in the area of the project, and improved based on the consultation process. Key aspects that will need to be strengthened are meaningful consultations, citizen engagement activities, and the project's grievance redress mechanisms, based on a Stakeholder Engagement Plan and a gender assessment. While the ability of the PIU to manage the social and environmental of the project in accordance with the Bank's Environmental and Social Safeguards Framework (ESF) was initially low, the PIU is currently hiring an experienced team of three social and two environmental specialists to support the project, some of which are already familiar with the contents of the ESF. There is also a risk associated with the interinstitutional coordination needed to manage the social impacts generated and/or exacerbated by the project, regarding which the PIU will need to establish formal agreements. To support the Client, the Bank has hired an independent consulting firm to conduct an assessment of the Borrower's social and environmental risk management capacity, which will be completed during project preparation. This assessment will identify areas of improvement and define specific institutional strengthening measures, with funding arrangements. Some of these measures will be included in the project's Environmental and Social Commitment Plan (ESCP), promoting the strengthening of the Borrower's capacity.

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

B.1. General Assessment

ESS1 Assessment and Management of Environmental and Social Risks and Impacts

Overview of the relevance of the Standard for the Project:

This standard is relevant. Potential environmental and social risks and impacts are detailed in section II.A. A category II EIAsd (a type of assessment required by national law for projects when there are expected adverse impacts that are moderate in nature and can be mitigated) was developed in 2017 by an independent consultant on behalf of the Borrower, following the requirements of Peruvian national law. The EIAsd was approved by the MTC in 2018.

As part of the scoping mission, the Bank, together with the Borrower, conducted a preliminary gap analysis of the EIAsd, and identified specific areas that need to be addressed, with the preparation of complementary studies that will supplement the EIAsd, to achieve consistency with ESS1 requirements, including:

1) The legal Framework does not identify obligations of the country directly applicable to the project under relevant international treaties and agreements, nor pertinent Environmental Health and Safety Guidelines (EHSGs), including World Bank's guidelines, or other relevant Good International Industry Practices (GIIP);

2) Institutional framework -lack of assessment of the institutional capacity of the implementing agency and other involved agencies, together with proposed actions to enhance capacity and promote coordination between them;

3) An analysis of alternatives was not conducted such analysis needs to be correlated with the use of the Mitigation Hierarchy, especially in relation to the avoidance of impacts. It will include the consideration of different stations and bus depot designs and management;

4) Traffic Management study for construction needs to be updated and reviewed to identify areas where it may need strengthening, particularly regarding community health and safety. A detour plan during construction is based on data collected in 2016 and 2017. This plan needs to be updated, and consider the detour of public transportation and private vehicles, both resident and non-resident. It should encompass aspects of road closures and detours during construction, the synchronization of traffic signals, the operation of intersections to improve traffic flow and particularly enhance road safety, among others. During construction specific traffic measures are necessary for the adequate detour of the public transportation companies (and private vehicles as well) that currently operate in the corridors of intervention;

5) Associated facilities need to be identified and assessed;

6) Baseline, impact analysis and mitigation measures focus mainly on the construction and operation of the corridor and its directly related components. Such analyses need to be complemented with the following project-related activities and components:

(i) Upgrade and expansion of the wastewater treatment plant;
(ii) Relocation of a drainage canal;
(iii) Relocation of existing small informal dumps located within the project's footprint;
(iv) Removal of a dump located within the area proposed for expansion of the bus depot (including a 7 m excavation);

(v) Rehabilitation of auxiliary roads for detours;
(vi) The replacement of traffic lights.

7) There is no specific approach for addressing existing environmental liabilities;

8) There is no assessment and specific plan for the sourcing and transportation of construction material from quarries, as well as transportation and disposal of surplus materials during construction;

9) There is no estimation of the reduction of gross greenhouse gas emissions related to the project;

10) Trees located within the project footprint will be relocated to the "Ancon Forest". However, there is no assessment of the ecosystem of reference in the "Ancon Forest" and suitability of the species to be relocated to such area. Based on the results of this assessment, a specific "EMP for tree relocation and transplantation" from project footprint to "Ancon Forest" and from tree nurseries to project footprint is necessary. This takes into consideration the adequate removal of invasive species currently located in the project footprint; use of native and particularly non-invasive species for the project's green areas; specific management measures for the adequate use of pesticides and agrochemicals during the relocation of vegetation, and during its maintenance in the operation phase; etc;

11) There is no cumulative impact assessment, particularly considering projects such as the "Anillo Vial Periferico," which may involve the creation of a three-level bypass near the Naranjal station;

12) Guidelines for the development of a Chance Find Procedure are presented in the EIAsd. However, the procedure still needs to be developed;

13) EIAsd lacks Labor Management Procedures and Workers Code of Conduct;

14) EIAsd lacks security, health and safety measures for construction and operation;

15) The EIAsd needs to be complemented by an assessment of indirect social impacts and economic impacts on people's livelihoods, with mitigation measures, including but not limited to:

- Identification and analysis of key socioeconomic impacts (economic displacement) on local businesses and people's livelihoods, including those that could arise from project enclosures during construction; implementation of traffic plans, and other economic impacts not covered under ESS5.
- Analysis of potential economic displacement of current transport service providers (including formal and informal, owners and employees, and impacts on three-wheel motorcycle taxis), and their potential participation in MML's retrenchment program.
- Analysis of the risk of gentrification and the movement of people in the city (internal migration).
- Identification and analysis of vulnerable groups and ways to promote their integration in the project activities (construction and operation) and the social and environmental management instruments.

16) Identification and analysis of gender aspects of the project are missing and will need to be addressed in a separate instrument, including the risk of gender-based violence, such as sexual harassment and women's security.

17) Appropriate allocation of social and environmental specialists and their roles, in a manner commensurate with the social risk management activities that will need to be carried out by the project.

To address the mentioned gaps and adequately manage and mitigate the corresponding risks and impacts, the Borrower will prepare complementary studies that will supplement the EIAsd.

Finally, an assessment will be carried out by the World Bank (WB) prior to appraisal to confirm if inefficiencies on bus operations can be reduced through better bus programming and optimization of services and frequencies, without the need of an additional bus fleet. A specific note will be prepared to justify this situation. The results will determine if the additional fleet is a project associated facility (AF), which will be reflected and addressed in the Environmental and Social Review Summary (ESRS) for the appraisal stage, and in the Analysis of Associated Facilities (see subsection "e"). If considered an AF, additional specific analyses to comply with relevant ESSs will be developed.

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

None

ESS10 Stakeholder Engagement and Information Disclosure

This standard is relevant. The stakeholder engagement process represented a key social management challenge associated with the Metropolitano project (Lima Urban Transport Project P035740), from which protests and complaints from the local population originated. These protests included a complaint to the World Bank's Inspection Panel, submitted in 2009 (52071-PE, 2009). Regarding the consultations for the BRT expansion, the Borrower conducted: two public consultation events in May 2017, one on Av. Metropolitana and one in Av. Universitaria; one specific consultation event with the affected population of the first block of Av. Metropolitana (the area where the land acquisition for the project is expected to happen); and two social evaluation workshops in the districts of Carabayllo and Comas. This process was carried out in accordance with the provisions established in the regulations of the MTC R.D. N. 006-2004-MTC/16 (16/01/2004) which establish the need to conduct consultation and citizen participation activities in the environmental and social evaluation process on transport projects, and in accordance with the Supreme Decree N° 002-2009-MINAM (17.01.09) on transparency and access to public environmental information, participation, and citizen consultation on environmental matters. These consultations included local authorities, population interested in the project, people specifically affected by the project, such as the people whose land will be acquired for the project, leaders of neighbor associations of the area, NGOs, local environmental activists, among others. People whose land is planned to be acquired also participated in individual discussions in August 2017, where they had the opportunity to ask questions and receive additional information.

The main issues raised during the consultation process conducted in 2017 included: (i) potential increase in the levels of crime and violence; (ii) impacts on the informal vendors located near the station of Chimpu Ocllo; (iii) sexual harassment of women using the BRT system; (iv) compensation for economic impacts on the plots of land to be acquired; (v) potential restriction of access to public services during construction works; (vi) higher levels of vehicular and pedestrian traffic during operation; (vii) accessibility to the stations; (viii) reduction in green areas; (ix) potential increase of street vendors in areas near the stations, and potential flooding of the BRT stations as a result of rainfall; (x) traffic detours and changes in traffic patterns; (xi) potential conflicts surrounding subcontractors; and (xii)

increment in the levels of dust and noise, particularly during construction. People also inquired about the construction and operation of the project.

When these consultation activities happened the project was originally expected to begin in the second half of 2017. Given the significant project delays experienced, the Borrower will conduct a new round of consultations during project preparation, and will identify the consultation activities expected to be carried out during project execution. The PIU will prepare a Stakeholder Engagement Plan consistent with ESS10 prior to appraisal, which will detail the consultation and stakeholder engagement activities planned for both the preparation and construction phases of the project, including consultation on the complementary studies to the EIAsd. Based on the experience and lessons learned from the current Metropolitano, special attention will be given to inform and consult key stakeholders about the traffic and street closings studies and plans.

Other examples of actions to address the issues raised in the initial consultations are the preparation of a gender analysis and action plan, which will include measures to prevent sexual harassment, inclusion of a universal design criteria in the design of the stations and its surrounding areas, the subscription of specific formal agreements with the National Police to support traffic management and provide citizen security, and with the local municipalities to find solutions for the informal street vendors, segmentation of the work fronts to limit construction impacts to specific segments at a time, clear procedures for labor relations with contractors, among many others. The Bank shared with the Client the Guidelines for Borrowers regarding the preparation of ESS10, and examples of Stakeholder Engagement Plans (SEPs) from other projects in Latin America. These guidelines include the preparation of improved grievance mechanisms aligned with ESS10 prior to appraisal. The Bank will conduct training activities on the scope and application of the ESSs as they apply to the project.

Regarding public disclosure, the complementary studies to be developed will be prepared in Spanish, a language that is understandable to the project stakeholders. These studies will be publicly disclosed and made available in the Borrower's website and Bank's external portal. In addition to online dissemination, safeguards instruments will be sent by email to the participants in the consultations and to representatives of the local government in the area of the project. Physical copies will be also available at the local municipalities, including a specific note on their corresponding information boards announcing their public availability. Environmental and social management instruments will be updated as needed to reflect significant changes in the project and/or the context of intervention.

B.2. Specific Risks and Impacts

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

ESS2 Labor and Working Conditions

This standard is relevant. It recognizes the importance of promoting sound worker-management relationships and enhance the development benefits of the project by treating workers fairly and providing safe and healthy working conditions. Project workers include direct workers, contractors, and subcontractors. Community workers will not be hired or involved in project activities. Since the project will take place in a large metropolitan area, it is expected that most labor will be supplied locally, and no major issues associated with labor influx are anticipated. As specified in the EIAsd, approximately 846 workers are expected. Local labor laws are aligned with ESS 2 regarding child labor, so the

project will not hire children. Workers' rights are protected by government organizations such as the Ministry of Labor and Employment Promotion, and the National Superintendence of Labor Inspection (SUNAFIL), among others.

The Borrower will prepare a Labor Management Procedure (LMP) which will set out the way in which project workers will be managed in accordance with the requirements of national law and ESS2. The LMP shall describe the working conditions and management of worker relationships, the terms and conditions of employment, provisions for nondiscrimination and equal opportunity, worker's organizations and freedom of association, occupational health and safety for workers, provisions to protect the workforce including child labor and minimum wage, and the prevention of forced labor. The LMP will further ensure that the health and safety of workers, especially women, are given adequate attention and equal opportunities. It will also have the details of the grievance mechanism for workers and the roles and responsibilities for monitoring such workers. During project implementation, the LMP will be revisited and updated as required and as additional labor-related risks or issues unfold. Likewise, a Workers Code of Conduct, which contains obligations of all workers involved in the project will be prepared and adherence to the code of conduct will be a condition of employment for all project workers, including issues related to nondiscrimination and sexual harassment. The LMP and the code of conduct will be part of the bidding documents for construction.

To prepare the LMP, the Borrower, with the support of an external consultant, shall conduct a review of the regulatory framework and labor regulations. Some topics preliminarily identified to be included in the LMP are the following:

1. Legal framework: including (i) the existing labor laws and regulations of the country, and laws on occupational health and safety for workers; (ii) the international agreements related to labor, particularly those subscribed with the International Labor Agreement (ILO); and (iii) the labor procedures adopted at the level of the municipalities involved (Lima, Independencia, Comas and Carabayllo), including laws applicable for the staff of the implementing agencies, contractors, subcontractors, and primary suppliers. This review shall take into account the opinion of specialized government agencies such as the Ministry of Labor and Employment Promotion, and the National Superintendency of Labor Inspection (SUNAFIL), among others.

2. Expected workers: number of workers anticipated, types of work, characteristics of the workers, etc. The LMP will also need to include the labor procedures applicable to government civil servants involved in the project implementation or oversight workers of the PIU as specified in ESS2.

3. Employment contracts: hiring eligibility (minimum age, migrant workers), types of contracts, benefits for each type of contract (health insurance, life and disability insurance, leave entitlements, sick leave, maternity leave).

4. Hiring procedures: Probationary periods, training, social inclusion (gender equity, disability inclusion) provisions, limitations of short-term contracts before enrolling employees, etc.

5. Compensation: Minimum wages, provisions on overtime and night work, and work on holidays, payment deadlines, payments to suppliers.

6. Health and safety: key labor risks, occupational health and safety (OHS) training, personal protection equipment, gender-specific risks, risks of accidents, crime and violence risks, sexual harassment, etc.

7. Working conditions: normal working hours, code of conduct, disciplinary actions, record keeping.

8. Collective bargaining: freedom of association, group complaints, retaliation prevention.

9. Termination procedures: reasons for dismissals, notice periods, severance pay, etc.

10. Labor grievances: labor complain mechanism, appeals, dispute resolution procedures, mediation services.

11. Provisions to strengthen the labor management procedures in the project and the executing unit, as needed, including the operations manual, internal procedures of EMAPE, and other relevant documents.

12. Monitoring and supervision: responsible personnel, verification and reporting, resources needed.

Based on the assessment of the labor conditions in the context of the project, the Bank will discuss with the Borrower the need for potential adjustments to the project design. For instance, a topic that has been preliminarily identified is that the project design does not contemplate the construction of bathrooms in the BRT stations for workers, particularly for the passenger traffic controllers. Accordingly, as part of the due diligence process, the Bank will discuss this matter with the Borrower to identify a solution to the problem and ensure appropriate working conditions.

ESS3 Resource Efficiency and Pollution Prevention and Management

This standard is relevant.

Energy efficiency. The design of the BRT is already pre-existing and pre-approved by the corresponding entities and therefore this is not an infrastructure that the Bank can design with full energy considerations. Nevertheless some adjustments may be discussed and as part of the Bank's due diligence issues that have not been taken into account regarding energy efficiency will be identified to ensure these are either considered in case there is opportunity for re-design and/or incorporated as part of the Borrower's overall design procedures for future works. These issues will include alternatives for the reduction of energy consumption in bus depot activities (bus wash with recycling systems, illumination at stations, etc.). The results will be reported as part of the Analysis of Alternatives that will be prepared by the Borrower. The operation is already following basic energy efficiency measures, including the use of LED lights. Use of materials for construction. Materials will be sourced by direct purchase from the following quarries: La Gloria, Acuna and Yerba Buena. The Borrower will make sure that these are duly accredited and have the necessary permits in force. To ensure an adequate sourcing and transportation of construction materials, the Borrower will prepare a specific ESMP for this. Management of Pollution Legacies. Current noise and air quality (in terms of particulate matter content) levels in the area of influence already exceed the values permitted by the corresponding National Quality Standards and by the WB Environmental, Health and Safety Guidelines. Likewise, the proposed area for the expansion of the bus depot currently serves as a dump, and multiple oil and hydrocarbon spills have been identified along the

auxiliary roads due to the operation of car mechanical garages. The Borrower will prepare a specific EMP for addressing the mentioned existing environmental liabilities. Regarding current levels of noise and air contamination, measures to make sure this situation is not exacerbated by the project will include: dust control technologies, periodic technical inspections of construction vehicles, enforcement of a strict daily work period, among others. Furthermore, as part of the analysis of alternatives, consideration of alternatives related to the bus stations and bus deport designs and management will be included, in the interest of identifying technologies that would help manage current poor air quality baseline conditions. Pollution prevention. Management measures will be put in place to ensure there is no soil, water, and/or air contamination from the following project-related activities: (i) the operation of the wastewater treatment plant; (ii) relocation of the sewage canal during construction; (iii) relocation of current existing small informal dumps within the project's footprint; (iv) 7 m excavation and removal and transportation of accumulated material and waste in the area acquired for the expansion of the bus depot; (v) replacement of traffic lights; and (vi) use of pesticides and agrochemicals for the relocation and maintenance of vegetation. Such measures will be included as part of the supplementary baseline, impact analysis and management plan (ESMP) that the Borrower will carry out for project activities. Measures for the adequate handling and disposal of waste directly related to the construction of the BRT, including hazardous materials, are already included in the EIAsd, together with measures for managing spills and other contingencies. Regarding the wastewater treatment plant, it is currently fully operational, and under EMAPE's administration. It has a capacity of 3l/s, and is used to water current vegetation by gravity. As part of the project the plant will be upgraded and its capacity doubled to 6 l/s. This upgrading will allow to irrigate the 10.2 km of the corridor's future green areas through a mechanized irrigation system, thus optimizing water usage for irrigation of the project's landscape design component. The plant will be operated by Servicios de Parques de Lima (SERPAR), MML's Parks Service. SERPAR will need to sign an agreement with SEDAPAL (Servicio de Agua Potable y Alcantarillado de Lima) for the maintenance of the plant and associated sewage collectors. Institutional arrangements will be further assessed during due diligence, defining the role of both entities and coordinating functions of EMAPE during the operation and maintenance of the plant and collectors. A specific ESMP for the plant is necessary (which will be part of the supplementary baseline, impact analysis and management plan for project-related activities), addressing among others, the following: 1- Accurate estimation of required water for maintenance of green areas throughout the corridor's 10.2 km and water to be provided by the plant. 2- System for the adequate handling of secondary muds from operation (e.g. stabilization, dehydration, transport and controlled final disposal). 3- Mitigation of corresponding environmental risks and impacts, including odors, contamination, etc. 4- Water quality baseline at the input and output of the plant, together with a monitoring system of water quality. 5- The current Operations Manual will have to be updated to reflect the upgrading and required mitigation and management measures. Regarding the expansion of the bus depot, the proposed area (2.2 ha) was originally a quarry, now filled with organic and inorganic waste. Currently, it is used by the MML as a container and scrap storage. Due to these characteristics, a 7 m excavation will be necessary for the removal of the accumulated waste and materials. In this case, a specific ESMP (which will be part of the supplementary baseline, impact analysis and management plan for project-related activities) is necessary for the following: 1 - Adequate handling and disposal of waste, including hazardous materials. 2- Specific measures for mitigating dust emissions. 3- Adequate transportation and disposal of removed materials, in accredited sites. Due to contractual obligations of the bus operators, the execution of the project, and consequent expansion of the BRT system, the scrapping of old BRT buses and their replacement with new units will be eventually required (current fleet needs to be renewed in 3-4 years, when most buses reach the limit of the operational life set in the contracts: 1,000,000 km). The Borrower will need to assess the scrapping needs, proposed process, and develop environmental and social mitigation measures, including supervision measures to ensure that the vehicles will not operate in other cities or countries, as well as lessons learned from

other similar projects. A copy of the EMP for the scrapping of old BRT buses will be prepared by the Borrower prior to Bank Approval. It is important to mention that since 2004 Protransporte has been managing a voluntary bus scrapping program funded by the BRT fare collection (1% of the revenues). It is expected that old BRT buses will be scrapped using this program. GHG accounting. The BRT's bus units have Compressed Natural Gas (CNG) engines, which emit significantly less pollution during combustion than gasoline and diesel, and contribute to the reduction of CO2 emissions, having a direct effect in reducing greenhouse gas (GHG) emissions. According to information provided by the Borrower, the Spanish Association for Standardization and Certification (AENOR) certified in 2015 that the Metropolitano has contributed to the reduction of 200,491 tons of CO2 between July 2011 and June 2014. As part of project preparation, the team will assess the (gross and net) GHG base line of the project under the current WB guidelines. An indicator will be included in the results framework to be assessed during project implementation and at the end of the project. GHG reduction will be also included as an economic benefit in the economic analysis of the project.

ESS4 Community Health and Safety

This standard is relevant.

Traffic management and road safety during construction. Key risks and impacts related to community health and safety are linked to civil works construction and traffic safety along main roads and avenues, particularly during the construction phase. Because the districts of Independencia, Comas, and Carabayllo present a sensitive socioeconomic context, special attention will be given to traffic management plans and road safety during construction. Most of the target population in those districts is made out of urban poor families with low levels of income (socioeconomic levels C and D), which indicates a high level of socioeconomic vulnerability of project beneficiaries. In addition, there are 53 educational and seven health centers in the direct and indirect area of influence of the project; a high concentration of formal (hardware stores, pharmacies, gyms, lumber companies, auto parts, mechanical workshops, banks, etc.) and informal businesses (food stands, three-wheel motorcycle taxis, and repair shops, etc.), some of them occupying the right of way; and there is also a dense traffic intersection (at Naranjal Station) that will require particular attention during construction to avoid the risk of traffic accidents, particularly because of insufficient road signs, inadequate driving practices, non-compliance with traffic regulations among drivers and pedestrians, vehicles circulating in poor conditions, etc.

The project has detour plans developed in 2017, which do not contemplate potential risks to community safety and corresponding mitigation measures in line with the requirements of ESS4. Road safety risks associated with traffic diversions for civil work activities will need to be assessed and a Traffic Management Plan and updated detour plans for construction developed. An update of the field data collected in 2016 and 2017 will be necessary, considering factors such as: detour of public transportation and private vehicles, both residential and non-residential, assessment of alternatives for traffic diversion, consideration of schools and nurseries located next to the auxiliary roads, installation of a timed traffic light system to reduce congestion, the operation of intersections to improve traffic flow and particularly enhance road safety, strategies to ensure that trucks unloading equipment/material do not unnecessarily cause traffic jams and so equipment and supplies can be safely off-loaded, sensibilization and early communication measures, among others. As part of the Bank's due diligence, the task team will review the prepared traffic management plan to identify any additional gaps for the Borrower to address. The contractor of the civil works will need to include a specific budget line to execute this plan during construction, including the establishment of an

agreement with the National Police to ensure appropriate traffic management. Specific measures during contruction for the adequate detour of the public transportation companies (and private vehicles as well) that currently operate in the corridors of intervention will be also developed by the Borrower and presented prior to Bank Approval.

Security during civil works. The site will need to be further restricted by fencing and other barriers to ensure that children do not access the work zone. The necessary security measures and procedures for third parties and workers (including training, equipment and the necessary interinstitutional arrangements) will be laid out and assessed by the Borrower and the Bank to assure compliance with ESS4 during preparation. These measures will be included in the Security, Health and Safety Management Plan for Construction, which will be prepared by the Borrower.

Community health, safety and security risks during operation. The main community health, safety and security risks identified are associated with (i) the safety of pedestrians and drivers in the junctions of the corridor with avenues and streets of regular transit, (ii) the security and safety of users of the BRT system and supporting facilities in case of accidents and crimes and (iii) the security and safety of users of the BRT system and supporting facilities in case of natural disasters and other emergencies, including people with physical disabilities. Safety and security of the system, stations and supporting facilities should be ensured prior to commencement of operation activities. In terms of (i), the Borrower will work with the corresponding entities to ensure the installation of traffic stops, crosswalks at key and strategic spots, pedestrian signaling along the system, availability of ambulances in strategic locations, among other necessary measures; regarding (ii), the necessary security and safety services measures and procedures (including training, equipment and the necessary interinstitutional arrangements) will be laid out and assessed by the Borrower and the Bank to assure compliance with ESS4. It should be mentioned that currently Protransporte has an agreement with the National Police for security personnel, which provides security services in each station and terminals of the current Metropolitano for 18 hours daily. Protransporte also has personal security guards in stations, terminals, bus depot, and offices. In addition, there is a security system through cameras in each station, which will be extended to future project stations; finally, regarding (iii) necessary emergency response and preparedness planning and training procedures at the system, stations and supporting facilities will be assessed and developed by the Borrower in line with para 11 of ESS4. Ultimately, the Borrower will prepare and disclose prior to Bank Approval a Security, Health and Safety Management Plan for Operation, which will include management measures for assuring the security, health and safety of the BRT users and users of supporting facilities during operation in line with the three types of security, health and safety risks identified. The plan, to be ready by Bank Approval, will include specific measures for emergency response and preparedness. The BRT extension is expected to help relieve the current passenger congestion levels and facilitate the work of the passenger traffic controllers at the stations, who can help people with special needs such as the elderly, pregnant women, children, and people with disabilities, which by law are required to have a preferential treatment (Law N° 28683).

ESS5 Land Acquisition, Restrictions on Land Use and Involuntary Resettlement

This standard is relevant. The project will require the relocation of approximately 800 street vendors; land acquisition of 11 social units, including residential dwellings and commercial establishments; and the relocation of a small religious chapel, which belongs to the community and there is a general agreement to relocate it to a nearby area. The approximately 800 street vendors are concentrated in a market occupying part of the right of way of Universitaria Avenue in the Municipality of Carabayllo. Given that this municipality has the legal competency to

relocate street vendors, EMAPE and MML will need to subscribe a formal cooperation agreement with the Municipality of Carabayllo to relocate this market.

During the EIAsd's consultation process of 2017, representatives of the street vendors stated that they were willing to participate in a relocation process and do not intend to become an obstacle for the project. In addition, the project will need to acquire the land of 11 social units located in the district of Comas (three houses, three commercial establishments, and five residential and commercial structures). These social units include residents with and without formal rights to the land and assets, and squatters in the right of way. EMAPE will directly conduct the acquisition of the 11 social units and the relocation of the religious chapel. The procedures to carry out these relocation activities must be consistent with the requirements of ESS5. The Borrower has prepared a preliminary Resettlement Action Plan (RAP), called Compensation and Affectations Plan (PAC) as per national legislation. However, the PAC does not include the relocation of street vendors nor does it include all the necessary information specified in ESS5. Accordingly, the Borrower will need to update and strengthen the PAC. The Bank will support the Borrower in this process and will verify that the PAC complies with the requirements of a RAP under ESS5. Key areas where the PAC will need to be updated and further developed include:

1- an analysis of alternatives and potential design adjustments to reduce the number of affectations;
2- an updated census of the affected people, including the approximately 800 informal street vendors;
3- a census cut-off date, to be disclosed in the project area to define who is eligible to receive compensation and assistance, and to prevent ineligible people from claiming benefits after that date, including public notices;
4- an updated registry of the affected lands, goods, and sources of livelihood, by groups and subgroups;
5- the legal entitlements and/or rights that are recognizable to each of the subgroups identified;
6- establishment of a clearer relationship between the affected cases and the mitigation options for each of them;
7- an assessment of the temporary restrictions in access to the houses and commercial establishments;
8- an assessment of the economic impacts during construction, including restrictions in access generated by street closures and traffic plans;
9- updated budget of the planned compensation activities, based on current market values plus transactional costs, also including the methodology used to calculate the compensation values, and source of financing;
10- inclusion of operational information, such as the responsible party for the implementation of the plan, personnel, timeline, etc;
11- monitoring and evaluation arrangements, including the need for an audit completion report to document the living conditions of the population in relation to their pre-displacement levels;
12- an expanded assessment of the economic impacts of the project, including restrictions in access to assets; and
13- Activities of the project to accompany the affected parties in the cases of relocation.

The institutional capacity of the agencies involved in the implementation of the revised RAP will be analyzed as part of the Bank's due diligence, based on an assessment being carried out by a consulting firm, which will also include measures to address the gaps, budget, training, and points to be included in the interinstitutional agreements between the PIU and the local municipalities. The revised RAP will include a strengthened grievance mechanism for the affected people. No resettlement cases have been identified along the right of way of the sewage canal.

ESS6 Biodiversity Conservation and Sustainable Management of Living Natural Resources

This standard is relevant. The project will be implemented along existing roadways. There are no natural nor protected natural areas within the project's area of influence, and thus the project will not generate impacts on natural or critical natural habitats. Approximately 3500 trees (according to an inventory conducted in 2017) currently planted along the two avenues of intervention, will need to be relocated. The EIAsd includes a detailed tree relocation plan, which states that trees will be temporarily transplanted to nurseries, and finally relocated back to the project area after construction. However, EMAPE has determined that it would be more appropriate to relocate trees to the "Ancon Forest" and use trees from SERPAR's nurseries for the project green areas. In this sense, it is necessary to:

a) Update the 2017 tree inventory.
b) Develop an assessment of the ecosystem of reference in the "Ancon Forest" and suitability of species to be relocated to such area.
c) Based on the results of (a) and (b), develop a specific EMP for Tree Relocation and Transplantation from project footprint to "Ancon Forest", and from tree nurseries to project footprint. This, taking into consideration the following:
(i) adequate removal of invasive species currently located in the project footprint;
(ii) Use of species that: are native and particularly non-invasive, have an efficient water consumption, and are able to provide adequate shade;
(iii) Specific management measures for the adequate use of pesticides and agrochemicals during the relocation of vegetation, and during its maintenance in the operation phase;
d) Assessment of the institutional arrangements (existing and required) between EMAPE and SERPAR for the development of the tree transplantation activities and maintenance of green areas would be required.

The EMP for Tree Relocation and Transplantation will be developed by the Borrower.

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

This standard is not relevant, since there are no indigenous communities present in the area of the project.

ESS8 Cultural Heritage

This standard is relevant. The EIAsd indicates that there is no archeological evidence from a surface assessment. However, there is an archeological site, called "Collique Bajo 1" (remains of a "huaca" of 1.6 ha between Las Flores Street and San Mateo Avenue, in the district of Comas), located near the project (71 m from its footprint), which is why findings during excavations are to be expected. The EIAsd includes a thorough assessment of the findings, recommendations, and measures to avoid impacts during construction, as well as guidelines for the development of a Chance Find Procedure (CFP). The CFP will be developed by the Borrower in line with (i) guidelines included in the EIAsd, (ii) national legislation, and (iii) paragraph 11 of ESS 8.

In addition to these archeological sites, there is a religious chapel located in the right of way of Universitaria Ave in the District of Comas. This chapel was built years ago and belong to the community. During consultations in 2017, the community agreed to relocate the chapel to a nearby area. However, the Client will need to prepare a relocation plan and integrate it into the overall PAC described under ESS5. Due to the cultural and religious value to the community, the relocation plan will need to be consulted again with the community to reach an agreement on its relocation. The relocation process will be conducted in a participatory way with the users of the chapel, and the revised RAP will include the applicable provisions of ESS8 for the chapel.

As part of its due diligence, the Bank will analyze the risks to cultural heritage and may propose additional mitigation measures to the ones already identified in the EIAsd.

ESS9 Financial Intermediaries

This standard is not relevant to the project.

C. Legal Operational Policies that Apply

OP 7.50 Projects on International Waterways No

No rivers or international waters are involved in the project.

OP 7.60 Projects in Disputed Areas No

The project is located in an urban area with clear limits among the three municipalities involved in the project. IN addition, the project will be developed under the jurisdiction of the Metropolitan Municipality of Lima.

III. WORLD BANK ENVIRONMENTAL AND SOCIAL DUE DILIGENCE

A. Is a common approach being considered? No

Financing Partners

None

B. Proposed Measures, Actions and Timing (Borrower's commitments)

Actions to be completed prior to Bank Board Approval:

Based on the available information, the team has prepared the following list of the different complementary documents, to be developed by the Borrower.

Prior to Appraisal:

1. A semi- detailed ESIA has been prepared by the Borrower, which does not fully comply with Bank standards. A gap analysis is underway, based on which the Borrower will prepare an updated ESIA which will include these standard elements:

- Supplementary legal and institutional framework

- Analysis of alternatives
- Analysis of indirect social impacts and economic impacts
- Cumulative impact assessment
- Baseline assessment, impact analysis and management plan (ESMP) for project-related activities, to include EMPs for addressing existing environmental liabilities and for waste management, and information on the tree relocation and transplantation plan
- Chance Finds Procedure
- Security, Health and Safety Management Plan for Construction

2. Draft Resettlement Action Plan (RAP)

3. Draft Labor Management Procedure (LMP)

4. Draft Stakeholder Engagement Plan (SEP), including a Grievance Redress Mechanism (GRM)

5. Identification and assessment of associated facilities

Prior to Board Approval:

1. ESMP for the sourcing and transportation of construction material

2. EMP for tree relocation and transplantation

Before construction contract start date:
1. ESMP for the scrapping of old BRT buses
2. Traffic Management Plan and updated detour plans for construction and operation
3. Labor-related Grievance Redress Mechanism (GRM) and a worker's code of conduct (ESS2)
4. Security, Health and Safety Management Plan for Operation (ESS4)

The above list of documents respond to the currently available information of key potential environmental and social risks and impacts. The documents, in draft fit-for-disclosure versions, that will be disclosed prior to appraisal will be those that (i) are key for understanding the project's most relevant environmental and social risks and impacts, and (ii) provide the necessary detail to inform stakeholder engagement and Bank decision making. This, per para. 51-52 of the Environmental and Social Policy.

The Borrower will conduct one additional round of meaningful consultations during the project preparation stage, which evidence will be reflected in the corresponding consultation document, prepared and disclosed in draft format prior to appraisal. Finally, the Borrower will develop the Environmental and Social Commitment Plan (ESCP) in a stand-alone separate document (refer to next section), which will detail the agreed measures and actions in line with the complementary studies listed above.

An environmental and social capacity assessment of EMAPE, will be conducted by the WB and disclosed in draft format prior to appraisal. Relevant measures of the assessment will be included in the project's ESCP. The Borrower will also conduct an assessment of the gender aspects of the project, including measures to address gender-based violence and sexual harassment. The GHG estimation to be conducted by the Bank will be finalized prior to the project's appraisal.

Possible issues to be addressed in the Borrower Environmental and Social Commitment Plan (ESCP):

The Project will ensure consistency with the ESF through the preparation and implementation of the Environmental and Social Commitment Plan (ESCP), which will be prepared by the Borrower during the preparation stage of the project, prior to appraisal. The ESCP will be in line with the relevant environmental and social instruments and tools described in the ESSs. It will contain an adaptive management process, inputs to bidding documents for construction, requirements for monitoring reports, institutional agreements that will need to be subscribed, and potentially the final version of the Labor Management Procedure.

C. Timing

Tentative target date for preparing the Appraisal Stage ESRS 28-Jun-2019

IV. CONTACT POINTS

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VI. APPROVAL

Task Team Leader(s):	Lincoln Flor, Sofia Guerrero Gamez
Practice Manager (ENR/Social)	Valerie Hickey Recommended on 04-Jun-2019 at 10:00:37 EDT
Safeguards Advisor ESSA	Noreen Beg (SAESSA) Cleared on 18-Jun-2019 at 14:41:2 EDT