



Appraisal Environmental and Social Review Summary

Appraisal Stage

(ESRS Appraisal Stage)

Date Prepared/Updated: 01/20/2022 | Report No: ESRSA01810



BASIC INFORMATION

A. Basic Project Data

Country	Region	Project ID	Parent Project ID (if any)
Indonesia	EAST ASIA AND PACIFIC	P169548	
Project Name	Indonesia Mass Transit Project		
Practice Area (Lead)	Financing Instrument	Estimated Appraisal Date	Estimated Board Date
Transport	Investment Project Financing	12/9/2021	2/28/2022
Borrower(s)	Implementing Agency(ies)		
Republic of Indonesia	Ministry of Transportation		

Proposed Development Objective

To improve urban mobility and accessibility on high priority corridors in selected urban areas of Indonesia and strengthen institutional capacity for mass transit development.

Financing (in USD Million)	Amount
Total Project Cost	364.00

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]

Indonesia, the world's fourth most populous country, is becoming increasingly urban. Today over half of the population lives in cities; by 2045, the centenary of Indonesia's independence, nearly three-quarters will. In 2016, Indonesia had 14 cities with a population greater than 1 million and 12 cities with a population between 500,000 and 1 million. Rapid urbanization is increasing the importance of cities as living space for people and economic hubs. Mobility and accessibility to markets and services are requirements for cities' success, however congestion and poor transport services are among the main factors of low economic growth and inequality of Indonesian cities. As cities grow and prosper, people and freight movements increase in number and length, generating congestion and substantial negative externalities (such as air pollution, GHG emissions, noise, and traffic injuries and fatalities). High



traffic congestion in Indonesian cities costs at least US\$5.6 billion nationally per year (equivalent to 0.5 percent of national GDP) in terms of excess travel time, fuel consumption and Green House Gas (GHG) emissions.

In Indonesian cities people's access to jobs, places, activities and services becomes increasingly difficult (particularly for the poor) and quality of life and attractiveness for business and jobs decline. This is the reason why ensuring mobility through adequate urban transportation has become one of the major urban development priorities.

The proposed project will provide technical assistance and financing support for the first phase implementation of Indonesian Mass Transit Program (IMTP) in selected cities. The project is split into two components, the second component will fund infrastructure, goods and equipment for mass transit systems in two metropolitan areas namely Bandung and Medan, and the first will provide support for roll out and implementation of the IMTP and necessary preparatory studies and designs of the two mass rapid transit systems being developed under the Project.

Component 1 will include support for a project management unit (PMU) at national level and project implementation units (PIUs) to implement mass transit systems at sub-national level. Component 1 will also include institutional support and capacity building at national and sub-national levels. National level activities will focus on developing a pipeline of projects for subsequent implementation in accordance with the priorities of the mid-term development plan (RPJMN); development of guidelines, procedures and systems required to implement and manage the IMTP; and institutional development and capacity building of a Technical Secretariat to take over the functions of the PMU for long-term management of the IMTP to ensure sustainability of the program. Sub-national-level institutional support and capacity building will comprise establishment of sub-national institutions to manage the integration, operations, revenue collection, and operator payment of mass transit systems in each city (taking over from the PIUs); and technical assistance, and project management support (including detailed engineering designs and safeguards studies) in the two metropolitan area.

Component 2 of the project will focus on two priority areas, namely Bandung metropolitan area and Medan metropolitan area. It will support implementation of safe, resilient, green, and integrated mass transit systems and will fund infrastructure, equipment, and necessary preparatory studies and designs.

In both Bandung and Medan the mass transit systems will comprise development of a BRT system.

D. Environmental and Social Overview

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

The World Bank is planning to support the Government of Indonesia (GoI) in implementation of safe, green, resilient and integrated mass transport transit systems on high priority corridors in Bandung and Medan Metropolitan areas. The Project has two components:

Component 1 with three sub-component (SC):



Sub-component 1A (TA Type 3): Technical assistance to implement and manage IMTP. This sub-component is TA Type 3 that will strengthen borrower capacity. More specifically, it will provide support to MoT to structure and operationalize IMTP.

Sub-component 1B (TA Type 3): Institutional development at national and sub-national levels (US\$5 million). This sub-component is also TA Type 3; this sub-component will include activities to strengthen capacities of the government agencies and institutions at the national and subnational levels to plan, implement and/or operationalize the demonstration BRTs in BBMA and Mebidang.

Sub-component 1C (TA Type 1): Project management and technical assistance for demonstration BRTs in Greater Bandung and Greater Medan. This Sub-component 1C is a TA Type 1 of the OESRC Advisory Note; it will support the preparation of future investment projects (whether or not funded by the Bank). This sub component will provide technical and operational assistance to MOT on Project management and implementation, and provide support to MOT to assist the BBMA and Mebidang subnational level agencies to carry out their responsibilities in relation to the delivery and operationalization of the BRT systems.

Component 2 will finance development a 20km Bus Rapid Transit (BRT) system in Bandung and Medan metropolitan area through funding BRT construction, equipment, and necessary preparatory studies and designs. The requirement to provide design criteria for green transport infrastructure and to develop guidance for further integration of E&S sustainability through the planning sequence for the various investments planned under Component 2 needs to be reflected in the TOR for the TA consultancies under Component 1. The BRT corridor will use existing road, the proposed BRT will integrate existing bus service (i.e. Trans-metro Bandung) and angkot services covering 16 routes will also integrate similar BRT system that is already exist in Bandung City.

The City of Bandung is the capital of West Java province, and has over 2.5 million inhabitants. Greater Bandung Metropolitan Urban Area is the country's third-largest metropolitan area with over 8.5 million inhabitants. Located at 768 m above mean sea level (AMSL) and approximately 140 kilometers SE of Jakarta, the city lies in a river basin surrounded by volcanic mountains. The 400 km² flat of central Bandung plain is situated in the middle of the Citarum River Basin. The main river, Citarum, often causes flooding in the southern areas of the city. In the 20th century, Bandung gradually developed into a resort city for plantation owners. The city experienced ongoing development and urbanization, transforming from an idyllic town into a dense (16,500 people/km²) metropolitan area. The city has encountered many problems (ranging from waste disposal and floods, to a complicated traffic system resulting from a lack of road infrastructure), but still attracts a large number of tourists, weekend sightseers, and migrants from other parts of Indonesia. To improve the transport infrastructure, a consortium of Indonesian and China State Owned Enterprises is constructing Jakarta-Bandung high speed rail was started in 2016, with projected completion date in late 2021.

Sub-component 2B: Development of a Bus Rapid Transit (BRT) corridor in Medan. Feasibility studies for BRT corridor were completed in early 2019. The BRT line will be 20-km long from Terminal Amplas in the east to Terminal Pinang Baris, this proposal corridor will consist 31 stations, with 8 stations in one direction streets between Pinang Baris in the west and Amplas Bus Terminals in the southeast of Mebidang (Medan Metropolitan). The BRT upgrade assessed in the study includes bus stops outside the corridor, an integrated ticketing system, information systems, good



pedestrian facilities/access facilities, good intermodal facilities. The route was selected because it is the most cost-effective option, as well as limited impact via road widening or purchase of land

City of Medan, the capital of North Sumatra Province, has a population of over 2.2 million. The Medan Metropolitan Urban Area, which covers a few surrounding regencies, is the fourth largest urban area in Indonesia and the largest metropolitan area outside Java, with 4.6 million inhabitants. Medan is a multicultural metropolis and a busy trading city bordered by the Strait of Malacca. The city sits at elevation between 2.5 and 37.5 m AMSL. Medan is close to the Barisan Mountains (also known as the Bukit Barisan) - a mountain range on the western side of Sumatra, spanning over 1,700 km from the north to the south of the Sumatra Island. The Sinabung Mountain (peak 2,500 m AMSL), located at the southern outskirts of the city is an active volcano. Medan features a tropical rain forest climate with no real dry season. The city often experiences flooding events due to poor drainage system. Average temperatures is 27 °C throughout the year, with annual precipitation of around 2,200 millimeters.

Medan is recognized as one among the six cities in Asia to have successfully featured and preserved several colonial architectural sites, while rapidly growing into the metropolitan city. The urbanization and city development processes have significantly accelerated in the recent years, mostly due to its favorable position and economic situation. The BRT corridor will connect several main businesses areas as it is on the main roads in Medan city . The BRT service proposes to connect to adjoining agglomerations of Sunggal/Binjai City in the west and Tanjung Morawa/Lubuk Pakam in the east.

D. 2. Borrower's Institutional Capacity

The Ministry of Transport (MOT) as the implementing agency has some experience with environmental and social (E&S) safeguard requirements of other development partners. The Directorate General (DG) Sea Transport implemented an ADB port project and the DG Railway for management of the construction Jakarta Mass Rapid Transport (MRT) received financing from from JICA . The MOT has an echelon 2 unit under the Secretariat General called Center of Sustainable Transport Management. This unit supervises E&S aspects of projects under MOT and provides recommendations to the projects. This unit has permanent E&S staffs familiar with national ESIA, they will lead the preparation of environmental assessment instrument as required by the GOI requirement. However, no DG including the DG Land Transport has prior experience in the Bank's E&S Framework (ESF) or the Bank's Safeguards policies.

The entire institutional architecture for planning, implementation and operation support of the project including on environmental and social risk management will be set up during implementation. The borrower's institutional capacity is thus considered nascent especially given the complex E&S dimensions of the project that require an effective mitigation mechanism during the implementation and operation phases of the project. Component 1 of the project would establish and strengthen the institutional capacity of the National Project Management Unit (NPMU/Technical Secretariat) to manage the implementation of the project including capacity building for E&S staffs (Noting that this assessment is based on existing manpower of DGLT; related to this, the ESMF includes proposal of trainings to strengthen the DGLT and SNGs Transport Agency E&S capacity). In addition, this component will also include the establishment of sub-national Project Implementation Units (PIU) in Bandung and Medan, to manage implementation of mass transit systems, including planning, procurement and E&S instruments (e.g. implementation of land acquisition or livelihood restoration of project affected persons) necessary to implement Component 2. They will be hosted by working groups (Satuan Kerja) at provincial level substantiated by a Governor Decree (Surat Keputusan Gubernur). The working group comprises of all relevant provincial and city metropolitan agencies in



respective area, including provincial and district-levels Transport agencies, development planning agencies, and provincial- and city- office of secretary (Sekretaris Daerah), and other relevant agencies i.e. policy office, environmental agency, and Spatial Plan/Land agency. The Working group will be led by Provincial Development Planning Agency (Bappeda), Provincial Office of Secretary (Sekda), and Transport Agency (Dishub) of respective provinces. Local staffs have more experiences in dealing with BRT developments, noting that both Medan and Bandung have five corridors already of BRT like system. The project will fund the training of sub-national level staff on environmental and social risk management.

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

A. Environmental and Social Risk Classification (ESRC)

Substantial

Environmental Risk Rating

Substantial

The environmental risk rating is Substantial, downgraded from High at the Concept Review Meeting. This is due to changes in typology of investment, the Borrower has decided to exclude investment on the light rapid transit (LRT) and improvement of community railways because the two investments are assessed to be not feasible. The loan will only finance Bus Rapid Transit (BRT) in the two metropolitan cities, i.e. Bandung and Medan Metropolitan. Both Bandung and Medan Metropolitan have run bus service system, five corridors each. Typology of Investment and Potential Impacts Construction of BRT in urban setting is still considered complex and large investments with potential permanent and long term adverse E&S impacts. Other considerations for the risk rating is that the magnitude and spatial extent (i.e. the geographical area or size of the population likely to be affected is large to very large as referred to Section D.1.). The risk rating also takes into account factors outside the control of the Project, i.e. earthquake and flood that could have a significant adverse impact on the E&S performance and outcomes of the Project. The main impacts of this project will be on traffic, in addition, there will be excavation work, noise, air pollution, and possibility of surface water pollution via sediment run-off. All of these impacts are temporary during construction, during operation main impact will be cumulative impacts, modeling of the impact will be required. On air pollution, the fleets will have to meet at minimum Euro 4 standard. On flood and earthquake, there are comprehensive studies on this two that is specified to address BRT of Bandung and Medan. For example of mitigation measures for flood, the ESMF includes requires elevated concrete structures; then on earthquake, national building code on earthquake prone will be applied in design. Nonetheless, all potential significant adverse E&S risks and impacts can be mitigated using available mitigation measures e.g. through design that taken into account of the natural disaster, e.g. flood . The BRT construction and operation is not new in Indonesia, including Bandung and Medan metropolitan have operated BRT like facilities although not as advance as the BRT operating in Jakarta Metropolitan that has included feeders into the system and is managed with advance traffic management system to mitigate congestion. The E&S Capacity of Implementation Agency. The MOT as the implementing agency has some experiences with E&S requirement of other development partners but not with the World Bank ESF or OPs. Based on initial assessment on existing manpower, the capacity of participating institutions (National and SNGs Transport Agency) may not be sufficient to manage risk and impacts of construction and operation. To address this issue, the Component 1 will include TAs to strengthen the borrower E&S capacity with various trainings as identified in ESMF. Please note that SNGs staffs have far more experiences than DGLT's staff The E&S Instruments An ESMF was prepared, it will assist the development of BRT in other cities. The ESMF provides the framework for support to relevant project actors—both government and non-government stakeholders—for E&S risk management and engagement. The ESMF also provides generic measures and plans to reduce, mitigate, and/ or offset adverse risks

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and impacts as well as grievance redress mechanism and cost estimation for the ESMF implementation. Noting that site specific measures will be provided in ESIA and contractor-ESMP. For this reason, as for activities planned under Component 2, i.e. BRT system in Medan and Bandung Metropolitan areas, two preliminary ESIA's have been prepared, which include annexes of term of reference on how to prepare the ESIA in according to the WB ESF and the GOI's ESIA. The street map level mitigation measures are included for each BRT system. The ESIA will be completed in implementation period both for Bandung and Medan.

Social Risk Rating

Substantial

Social risk is rated Substantial, lowered from High at the concept stage, as the project scope has been narrowed to two Bus Rapid Transit (BRT) constructions in Bandung and Medan, capacity development and preparation of design stage E&S instruments. As the Light Rapid Transit (LRT) has been dropped, the project will unlikely require significant land acquisition. The proposed BRT lines will pass through densely populated areas, however, the scale of land acquisition will likely be limited as bus depots would be built on state lands, BRT tracks will be built on existing roads, and only a limited land acquisition will be needed where bus stops and BRT platforms are built. The exact scale and scope of land loss will be known when detailed designs are prepared during implementation. No physical displacement is expected, and detailed designs will be adjusted if necessary to avoid physical displacement. Limited loss of private structures is expected except possibly where certain bus depots would be built, and street vendors may need to change locations of business if stations and other buildings are built where they normally operate. The project may cause potential job loss of mini-bus (Angkot) operators. In many cities of Indonesia, Angkot has been both an important mode of transport and an important means of livelihoods for low income groups, although the size of angkot fleet is declining throughout Indonesia as passengers opt for other modes of transport such as online transport operators (both motorcycle and 4-wheel vehicles), and DAMRI (public transport operates by state-owned enterprise). Consultations with angkot operators indicate that, while they are supportive of BRT construction, they are concerned about potential job loss. The BRT construction will likely lead to the cancellation or modification of some angkot routes. While the exact scale and scope of impact on job and income of angkot operators will only be known when routes to be cancelled, modified (e.g. route shortening, transformation into feeder routes) or maintained are determined based on the on-going technical as well as demand assessment, it is expected that the project would affect about 1,300 Angkot operators in Bandung and 2,300 operators in Medan. The project plans to use a similar approach to mitigate impact on angkot operators as is done under BRT constructions in other cities in Indonesia and employ affected angkot drivers under BRT operations with necessary training. Preliminary assessment shows that about 1,500 jobs may be created by the BRT operator in Medan while the equivalent figure is 900 in Bandung. Mitigation measures will be developed during implementation in close consultation with angkot operators. No major health and safety impacts including SEA/SH risks are anticipated although there might be low to moderate risk of SEA/SH during BRT operations. This risk will be assessed further during implementation. SEA/SH action plans, including mapping of service providers, have been prepared for Medan and Bandung, standard operating procedure on SEA/SH prevention will be prepared, and operation-staffs will be trained on preventing and responding to SEA/SH incidents. Component 1 would provide capacity and institutional development of mass transit systems both at national and sub-national levels. Social risks of such TA activities will be managed by ensuring that ToR of respective activities address relevant standards adequately. This component will also support preparation of BRT projects in other Indonesian cities. The nature and scale of such future investments are expected to be similar to those that are funded under Component 2 of this project, and associated social risks will be addressed through design-stage ESIA, LARAP and other instruments which will be developed as part of detailed design processes. The ESMF provides details on how such design-stage instruments should be prepared in compliance with relevant standards.

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

B.1. General Assessment

ESS1 Assessment and Management of Environmental and Social Risks and Impacts

Overview of the relevance of the Standard for the Project:

ESS1 is relevant as the Project will potentially cause adverse environmental and social impacts, community hazards, occupational health and safety, long term impact on land use and impact on the transport affecting population, land taking, resettlement and rehabilitation impacts. Livelihoods impact on existing transport service providers (e.g. minibuses owners and drivers), street market sellers are considered long term and irreversible impacts.

Potential environmental risks can be caused by 1) large quantity of construction materials especially in shelter areas where the fleets stop, 2) Noise and traffic during mobilization, construction, demobilization and operation phases from construction machinery and vehicles/fleets movements. As the construction sites are located in the urban areas, noise should be managed by proper arrangement of working hours and physical intervention, 3) Soil erosion and runoff from large construction work which will may involve massive excavation (e.g. for construction of bus shelters) that will affect vegetation and soil that could ultimately result in erosion and runoff, particularly during storm events and adversely impact surface waters, 4) Hazardous and nonhazardous wastes such as hydrocarbon (e.g. gasoline, diesel and lubricant) which are used to run vehicles and machinery. Construction of storage for those hydrocarbon will have to meet the international standards (e.g. at minimum the volume of containment has to be 110% of the tank capacity), 5) Potential natural disasters.

Community health and safety (H&S) risks during BRT construction and operation arise from the concentration of pedestrians near stations and construction areas. The project area may be prone to extreme weather events and disaster risks which may threaten the safety of riders and communities. Further community H&S risks associated with BRT construction concern dust/noise, soil disturbance, traffic management, waste disposal, and associated disturbance to local communities (including risk of construction materials falling from the top). The ESIA/ESMP will include mitigation measures to address work related health risks; works and road safety; excessive noise and dust levels; site safety awareness; traffic management; and access restrictions in accordance with good international industry practice and WBG EHS Guidelines . The Project will ensure community safety during the works by adopting adequate OHS protocols following the World Bank Group Environmental Health and Safety Guidelines. Further detail of environmental risk assessment is described in under ESS 3,4, and 6.

The capacity of the Ministry of Transport (MOT) and sub-national governments (SNGs) to identify and address E&S impacts is limited based on initial assessment. ESMF provides E&S capacity building under Component 1.

The project will result in closure or adjustments of some of the angkot (mini bus) routes. The exact scale and scope of impact on job and income of angkot operators will only be known when routes to be cancelled, modified (e.g. route shortening, transformation into feeder routes) or maintained are determined based on the on-going technical as well as demand assessment, it is expected that the project would affect about 1,300 Angkot operators in Bandung and 2,300 operators in Medan. The project plans to use a similar approach to mitigate impact on angkot operators as is done under BRT constructions in other cities in Indonesia and employ affected angkot drivers under BRT operations



with necessary training. Preliminary assessment shows that about 1,500 jobs may be created by the BRT operator in Medan while the equivalent figure is 900 in Bandung, although the exact number of jobs that can be created will only be known during implementation when the BRT operators get on board. Consultations with angkot operators conducted during preparation indicates that, while they support BRT construction, they are also concerned about their job and income, and requested they be informed of and consulted on changes in angkot routes and the development of mitigation measures including employment by BRT operators. A study including consultations with angkot operators is on-going to inform plans to ameliorate the project's impact on their livelihoods through employing angkot operators under Mass Transit System in Bandung and Medan as was done successfully in other parts of Indonesia.

Economic displacement risks for small businesses, street vendors and street parking lots due to BRT construction are low to moderate, partially because first, the designs will be adjusted to minimize such impacts, and second, BRT infrastructure will mostly be built within the existing roads and only in several spots along the routes will housing and commercial structures be affected and private lands be acquired. As for mobile street vendors and parking, alternative locations will be identified by Bandung subnational government and allocated to them through participatory processes when detailed designs are prepared and which vendors need to be moved become known. A livelihood restoration plan specifically for such small businesses (separate from the one for angkot operators) will be prepared. Temporary access will be installed during construction to minimize disruption in business.

The risk of gentrification is relatively low as the area along the BRT routes are mostly occupied by established, large to medium-scale businesses or public service/ government offices or facilities such as hospitals and schools. Private entities along the route may benefit from an increase in land value but will unlikely face risk of eviction without due compensation. No low-income residential structures or commercial entities are observed in the immediate neighborhood of new BRT line.

Feasibility studies for BRT construction in Medan were completed in early 2019 together with the AMDAL. The proposed alignment and design features in the FS and AMDAL have been reviewed to ensure that E&S aspects are fully considered and street level mitigation is provided. The environmental license, valid for 3 years, expired in July 2021. Discussion with the Provincial Government of North Sumatera has concluded that the ESMP needs to be updated, together with ESIA development. The task team has agreed that ESMP will be updated according to the TOR attached to the preliminary ESIA of BRT Medan and it will meet requirement of the GOI's regulation and the World Bank ESF, EHS Guidelines and GIIP.

For the BRT in Bandung, the FS and P-ESIA have been prepared. The ESIA will be completed in project implementation stage. As of Medan, the street level mitigation measures is also provided. The preliminary ESIA for Bandung was benefitted by the FS undertaken by the GIZ (Germany). Noting that the construction for the BRT will only start in the second year, or later, the ESIA will need to be completed prior to procurement of construction. The E&S team has been deployed to estimate the E&S impact, the team notes that the Bandung BRT will be within the existing roads. The Task Team has discussed with proponent of BRT Bandung to decide final alignment, the selected BRT has been assessed to be the most feasible and lowest E&S risks and impacts. The timelines for finalisation of the instruments was linked to DED consultants and detailed engineering design preparation which is expected between July 2022 to April 2023 and instrument preparation between January to April 2023.



The following E&S documents have been prepared and will be publicly consulted and disclosed by the Borrower:

- i) ESMF covering the entire project except Bandung and Medan BRT constructions, including LMP and LARPF
- ii) Preliminary ESIA for BRT Medan with inclusion of TOR as annex to complete the ESIA and ESMPs in compliance with the World Bank ESF during implementation,
- iii) Preliminary ESIA for BRT Bandung with inclusion of TOR as annex to complete the ESIA and ESMPs in compliance with the World Bank ESF during implementation,
- iv) Preliminary LARAPs for BRT Medan (to be completed during implementation when detailed design gets ready)
- v) Preliminary LARAPs for BRT Bandung (to be completed during implementation when detailed design gets ready)
- vii) Draft ESCP,
- viii) SEPs for Medan and Bandung BRT construction, and
- ix) Gender-Based Violence and Sexual Exploitation & Abuse (GBV/SEA) Risk Assessment and Draft Action Plan.

On environmental side, assessment on cumulative impact on traffic, air pollution and noise will be the key impacts to be addressed in ESIA. No major health and safety impacts including SEA/SH risks are anticipated during construction. However, there may be low to moderate risk of SEA/SH during BRT operations, as have been observed under other mass rapid transit operations such as the one in Jakarta. As such, the SEA/SH action plan includes a plan to develop SOP on the prevention of SEA/SH risks and to train operation-staffs in the field on preventing and responding to SEA/SH incidents.

The ESCP prepared provide details of E&S actions to be taken during implementation including the finalization of preliminary ESIA and the preliminary LARAPs for Medan and Bandung, and requires the Contractor to prepare its own ESMP, LMP, GRM for Contractor's employees, and Environmental, Social, Health and Safety Code of Conduct – requirements to prepare them will be included in bidding documents. The ESCP also includes a commitment to develop a Traffic Management Plan for construction and operation stage of the Project. A GBV assessment was conducted which assessed the risk as Substantial. GBV prevention measures such as provision of GBV/Sexual Exploitation and Abuse (SEA)/Sexual Harassment (SH) related training, a list of available GBV service providers, adoption and enforcement of Codes of Conduct, will be included in the Contractor's ESMP, based on the GBV//SEA Risk Assessment and Action Plan.

ESS10 Stakeholder Engagement and Information Disclosure

Urban transport and mass transit development programs such as the project require a systematic and intensive engagement of stakeholders to implement them effectively and successfully. There are a wide range of stakeholders that the project should engage including political leaders at subnational and national level; transport operators (both public and private); business and trade organizations; civil society organizations; other public sector institutions who have a large number of workforce commuting to the city for work; and the general public.

Engagement with broad stakeholders including public transport operators/ angkot drivers, public transport association (ORGANDA), bus depot staffs, and street vendors was conducted by DGLT MoT, the provincial-level Transport agency, and city-level Transport agency in the 2nd Week of August in Bandung and the 2nd Week of September 2021 in Medan. Based on these initial engagements, both public transport operators/ angkot drivers and



street vendors were worried of losing their means of livelihoods, which will affect their income during construction and operation of the BRT. They are also concerned about the availability and accessibility of grievance redress channels if they want to complain or negotiate on the compensation/agreement. These main concerns have been captured and incorporated in the ESMF and the SEPs at the city level. Aside of that, ORGANDA (public transport operators association) wishes the Project to engage with them on detailed BRT designs, including on the potential of integration of angkots to BRT operation (as feeders or as a consortium). These concerns and aspirations were also raised during public consultation of preliminary ESIA and preliminary LARAPs held by the subnational Transport Agencies in Medan on 9th of December and in Bandung on the 13th of December 2021. The project clarified to consultation participants its plan to integrate angkot operators in the BRT systems as a way to mitigate such impact, and to engage with angkot operators to seek inputs for the development and implementation of the plan.

The Stakeholder Engagement Plan (SEP) has been prepared for Bandung and Medan, respectively, which has incorporated feedbacks received at public consultations and interviews with key stakeholders, and presents a plan of actions for follow-up engagements with angkot drivers/ public transport operators and micro/ street/ market vendors, as relevant, during implementation. They will continue to be consulted through public forum/ face-to-face meeting involving local governments, timely, adequate, and accessible/ brief information of the Project design, following restrictions on social gathering in relation to COVID-19. With angkot operators, specifically, on-going assessment of angkot integration will establish a platform of engagement, including through the association of angkot drivers, to collect data, seek inputs and share options for angkot integration to mitigate impact on job and income loss. Care will be exercised so that not only angkot drivers but also support staff will participate in the discussion for the development of mitigation measures.

An accessible grievance redress mechanism (GRM) will be developed in Bandung and Medan, respectively, based on the SEP. A separate GRM will be established for angkot operators under the on-going assessment of angkot integration. Consultants and local facilitators will be hired to assist with stakeholder engagement at the local level.

Separately, a Stakeholder Engagement Framework (SEF) was prepared to illustrate strategies and implementation efforts to engage relevant, influential stakeholders in all the Project activity processes.

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

The Project work force will include direct workers (Medan and Bandung City Administration staff and consultants, staff of the MoT who are civil servants and are assigned to work on this project), and contracted workers (employees of civil works contractors and sub-contractors under Component 2, and short-term consultants who will be employed to deliver specific scope of work under Component 1). The borrower prepared a Labour Management Procedure



(LMP) for the Project outlining the expected number and type of workers, key gaps between national legislation and regulations that need to be addressed at the Project level, as well as monitoring and supervision arrangements.

It is expected that approximately 1510 workers would be hired throughout the project cycle, comprises of contracted workers, contractors, indirect workers, and workers associated with suppliers to the Project. Potential risks associated with these diverse range of workers include poor working conditions, occupational health and safety, child labor, labor influx, Gender Based Violence (GBV) issues, spread of Covid-19 (or other forms of transmittable disease), and possible conflict with local communities induced by social jealousy on economic opportunities. The large and diverse workforce also has the potential risks and impacts of community health, safety and security from the illicit behavior of the construction workers. Thus, the LMP has been developed to address these identified risks through several mitigation measures, including inclusion of no-child labor policy, inclusion of budgets for LMP implementation and Code of Conduct onto contractors' bidding documents.

Key aspects of the LMP pertaining to contracted workers, such as Occupational Health and Safety (OHS), adequate working conditions, adequate living conditions in the unlikely event of work camps, a functioning grievance and redress mechanism for workers, will be included in Contractor's ESMP. Bidding documents will make explicit reference to these aspects to ensure the commitment of selected contractors to adhere to ESS 2 principles. The LMP includes an assessment of the borrower's internal HR procedures to ensure consistency with ESS 2 requirements and propose any gap filling measures. Government of Indonesia legislation on labor and working conditions is relatively advanced. The Labor Code includes measures on equal opportunity and non-discrimination, regulates hiring and firing procedures, allows for collective organization and bargaining; however, it lacks the requirement to establish worker's grievance mechanism. Such a mechanism has been designed in the LMP for implementation at project level. All relevant requirements in the LMP on the management by the contractor of their own workers will be incorporated into the civil works contracts, and their compliance will be monitored by the supervision consultant.

ESS3 Resource Efficiency and Pollution Prevention and Management

Construction materials: Construction of the mass transit infrastructures in Bandung and Medan will require large quantities of the construction material, such as stone, sand, steel, concrete blocks and timber. Especially in shelter areas where the fleets stop, road structure will need to be improved using concrete. These materials (i.e. quarries for sand and stone) has to be obtained from the local sources and its surrounding which have obtained relevant licenses for the exploitation/mining. In addition to the national relevant licenses, the quarry should comply with the requirements of the WBG EHS guidelines for construction material extraction.

Noise and Traffic: During mobilization, construction, demobilization and operation phases, noise and traffic are generated from the use of construction machinery and vehicles/fleets movements. As the construction sites are located in the urban areas, noise should be managed by proper arrangement of working hours and physical



intervention as necessary to minimize noise to surrounding public areas. Construction of noise barriers may be needed in some sections, e.g. school, mosque. On the other hand, to minimize the traffic, works should start during the traffic off-peak hours, e.g. 22:00 PM to 5:00 AM, yet traffic during these hours shall also consider the noise level that will be generated. The ESIA's will assess impacts to nearest sensitive receptors and propose mitigation measures to minimize and manage the noise levels and simulate the traffic to minimize the congestion by applying standard restrictions to hours of site work. Also part of the ESIA's will include the baseline noise monitoring and operational phase related cumulative traffic noise modeling. The traffic management plan (i.e. Traffic AMDAL) will be required before the commencement of work.

Management of air pollution: During mobilization, construction, demobilization and operation phase, fugitive dust generated by construction activities (e.g. excavation, heavy equipment operation) is expected to be main air pollution issue, in addition to air emissions from operation of heavy vehicles and machinery and to minimize air emission using fuel meeting Euro 4 specification will be mandatory. As well as during operational phase, the fleets will be properly maintained or using Euro 4 grade fuel to minimize air pollution. The air pollution will affect not only the workers but also people living within the proximity of the construction sites and corridors. Several buses in Medan and Bandung will use e-buses, and thus are expected to contribute to lower gas emission. In addition, road users, street sellers, people deriving income from facilities adjacent to the road will also be affected. The implementation of mitigation measures such as dust suppression and regular vehicles maintenance, using proper specification fuel, regulation of car speed will be applied to minimize the impact of air emissions during mobilization, construction, demobilization and operation phase. Transportation of materials for construction and residual impacts is expected to be limited in scope and duration. The ESIA's will also assess expected increased impacts to ambient air quality from projected increased road utilization by vehicles, using established models.

Management soil erosion and runoff: Large construction work which will may involve massive excavation (e.g. for construction of bus shelters) will affect vegetation and soil that ultimately result in erosion and runoff, particularly during storm events. And this could adversely impact surface waters. The scope of work that will affect the soil erosion and runoff will be assessed as part of each ESIA. Mitigation measures would also be expected to be proposed in the ESMP to avoid, reduce or mitigate runoff from the project sites during construction activities. The ESIA's will also assess potential for surface runoff from road surfaces during the operations phase and propose appropriate mitigation measures where erosion risks are high, such measures to improve drainage and/or slope stability.

Management of hazardous and nonhazardous wastes: Hydrocarbon (e.g. gasoline, diesel and lubricant) are used to run vehicles and machinery. Construction of storage for those hydrocarbon will have to meet the international standards (e.g. at minimum the volume of containment has to be 110% of the tank capacity). The ESIA's will identify all source of hazardous and nonhazardous waste and propose mitigation measures proportional to the level of risk. The ESIA's will also identify the presence and locations of licensed facilities for the transport, treatment and disposal



of solid and hazardous wastes in the vicinity of project sites. The contractor will be responsible of developing and implementing a waste management plan during the Project implementation.

Management of natural disaster: in the two areas, both floods and earthquake are the main natural disasters, the Bank team has prepared the disaster management plans, that is site-specific for BRT Bandung and Medan and it will be attached as annex of preliminary ESIA

ESS4 Community Health and Safety

The main risks to community health and safety occur during construction and operational phase of the mass transit infrastructure and stem from the concentration of pedestrian movements in the vicinity of stations and construction areas. During the construction, the civil work activities will be managed carefully to minimize impact on traffic (e.g. from 10 pm to 5 am). Design and operational safety issues with the Commuter Rail, LRT and BRT systems will be identified in the final ESIAs in line with the detailed designs to be prepared during implementation. Specific attention will be given to provision of safe accessibility of passengers to the systems and due consideration of gender aspects of personal safety on stations and on-board. Rolling stock operational safety issues including rail operational safety and interaction between BRT vehicles and general traffic will be investigated. Furthermore, emergency preparedness and response planning will also be elaborated as the disaster risk management measures will be included in the design.

Further community health and safety risks associated with the construction of the mass transit system concern dust/noise, soil disturbance, traffic management, waste disposal, and associated disturbance to local communities (including risk of construction materials falling from the top). The ESIA/ESMP will include mitigation measures to address work related health risks; works and road safety; excessive noise and dust levels; site safety awareness; traffic management; and access restrictions in accordance with good international industry practice and WBG EHS Guidelines . The Project will ensure community safety during the works by adopting adequate OHS protocols following the World Bank Group Environmental Health and Safety Guidelines. Partition of construction area by putting in place fences, signaling, mitigation measures to control excessive noise and dust levels, and secure access to the area in the adjacent buildings for the office workers and public use will be ensured through a robust mitigation and management plan in the final (and contractor's) ESIA/ESMPs. The final ESIA will include an evaluation of potential traffic and road safety risks to workers, affected communities and road users throughout the Project life cycle.

Based on studies conducted for the two the BRTs, Flood risks of BRT stations in Bandung Basin Metropolitan Area are mostly low (0-0.7 m) to medium (0.7-3 m), and only 2 stations are high risk (>3 m). flood risks of BRT stations in Mebidang Metropolitan Area are mostly low and only 1 station is high. Noting on this condition, the project area may be situated in high-risk condition including those with risk of extreme event and malfunction. These may threaten the safety of riders and communities. The intervention to reduce flood risks will cover aspects of planning, design,



operation and maintenance, contingency planning, and business continuity planning. The detail of intervention will be part of DED studies. These includes the engagement of independent experts.

The Project implementing agency will identify, evaluate, and put in place a mechanism to manage potential road safety risks and risks to workers, nearby communities and other road users in relation to Component 2. The ESIA/ESMPs assessed the potential scale and risk due to natural hazards associated with flooding and landslides. The seismic resilience would be incorporated into the engineering designs of the final structures. Fencing will be installed around all construction sites and areas where there is a risk to community health and safety. A Grievance Redress Mechanism (GRM) for the public will be prepared and consulted on with local communities during the Project preparation. Besides Environmental Health and Safety (EHS) team, the contractor will be required to appoint designated social staff as part of the SEP plan who will keep local communities informed of construction schedule, expected impact and other issues of interest for them, and receive grievances or feedback from them.

The GBV risk was assessed Substantial. GBV prevention and management was approached through two-pronged strategy, including mitigating the risk and responding to incidents when it occurs. To mitigate the risk, GBV risk prevention and management will integrate GBV consideration into procurement process, conduct awareness raising and trainings, and establish the Code of Conducts which must be followed by all workers involved in the Project (including contractors). When incidents occur, victims/survivors may be referred to local service providers, if they so wish, under a grievance system specific to GRV incidents under the project. Trainings will be provided to local service providers to ensure proper case handling based on safety, victim-centred, and ethical principles. The GBV risk prevention and management has been prepared both for Bandung city and Medan city, and can be seen in SEA/SH Risk Prevention and Management Action Plan instrument.

There is no expectation that security forces will be used during construction. Universal access will be an important consideration as part of project design. Grievance Redress Mechanism (GRM) systems that are accessible to all stakeholders including the poor and vulnerable would be set up. Separate GRM arrangements that are specific to contracted workers and to address concerns of Gender Based Violence, Sexual Exploitation and Abuse and Sexual Harassment will be set up with carefully selected, trained and adequately sensitized functionaries.

ESS5 Land Acquisition, Restrictions on Land Use and Involuntary Resettlement

This standard is relevant. Project impact on private land and non-land assets have been significantly reduced since the concept stage. As Light Rapid Transit (LRT) has been dropped, the project will likely require limited land acquisition. A preliminary Land Acquisition and Resettlement Action Plan (LARAP) prepared for BRT construction in Bandung and Medan, respectively, shows that the proposed BRT lines will pass through densely populated areas, however, the scale of land acquisition will unlikely be significant because bus depots would be built on state lands, the BRT tracks will likely be built on existing roads, and only a limited amount of land acquisition will be necessary where bus stops and BRT platforms are built (22 of them are expected to be built). The exact scale and scope of land loss will be determined when detailed designs are ready during project implementation. No physical displacement is



expected, and detailed designs will be adjusted if necessary to avoid physical displacement. About 20 non-housing structures such as fences, walls, parking lots may be damaged under BRT construction in Medan. The scale of impact on structure is not known for BRT construction in Bandung, but the impact will unlikely be significant. No squatters are found to be present. A Grievance Redress Mechanism will be set up in Medan and Bandung, respectively.

ESS6 Biodiversity Conservation and Sustainable Management of Living Natural Resources

Based on information received, the Component 2 will be carried out in densely populated urban areas. As such, the works will not be carried out in or near any of the identified protected areas and natural habitats. The alignment of the BRT Medan and Bandung Metropolitan have been decided after considering few alternatives provided in the feasibility study.

Based on evaluation of the above information, it can be stated that there will be negligible impacts associated with ESS6. The ESIA/ESMPs will propose standard mitigation measures related to the indirect impacts on critical habitats and protected areas, if relevant. The evaluation will include off-site impacts of quarries and construction material sources, as identified under ESS3. Noting that cutting one tree will require planting minimum five trees.

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

ESS7 is considered relevant for a precautionary reason. The project will be implemented in the urban area of Bandung and Medan cities which do not have any Indigenous people that meet the requirements of paragraph 8 and 9 of ESS7 on Indigenous Peoples. However, there is a slim chance that an IP population that meet the definition of ESS7 may be present in the area of influence of the BRT lines in other cities which will be identified during implementation for project support to prepare detailed designs and associated environmental and social assessment. ESMF includes an Indigenous Peoples Planning Framework (IPPF) for IP screening, and meaningful consultations with IP communities in an unlikely event that an IP community is found to be present in project areas.

ESS8 Cultural Heritage

The ESMF has already provided chance find procedures to address the cultural heritage as defined in ESS8, then the ESIA will assess, the existence of tangible or intangible cultural heritage along the alignment of BRT and LRTs and propose adequate mitigation measures. It is very likely that the construction activities will affect the cultural heritage in old cities like Bandung and Medan, where buildings, mosques and temples have been declared as cultural heritage. In preparation of mobility plans and planning of the new routes, special focus will be given to protection of tangible or intangible cultural heritage. Heritage impact assessment (HIA) has been highly recommended for Medan and requested for Bandung.



For this reason, all construction contracts will include specific measures which will require contractors to preserve the cultural heritages that have been identified in project preparation. As for the cultural heritage found during project construction, contractor will stop the civil work if cultural property sites are encountered and follow national legal requirements for managing cultural heritage.

ESS9 Financial Intermediaries

This standard is not relevant for this project

C. Legal Operational Policies that Apply

OP 7.50 Projects on International Waterways No

OP 7.60 Projects in Disputed Areas No

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

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

Areas where “Use of Borrower Framework” is being considered:

None

Public Disclosure

IV. CONTACT POINTS

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VI. APPROVAL

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Practice Manager (ENR/Social)	Janamejay Singh Cleared on 18-Jan-2022 at 23:50:44 GMT-05:00
Safeguards Advisor ESSA	Nina Chee (SAESSA) Concurred on 20-Jan-2022 at 13:47:1 GMT-05:00