



# Report and Recommendation of the President to the Board of Directors

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Project Number: 52083-001  
April 2019

## Proposed Multitranche Financing Facility Republic of the Philippines: Malolos–Clark Railway Project

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Asian Development Bank

## **CURRENCY EQUIVALENTS**

(as of 25 March 2019)

Currency unit	–	Philippine Peso (₱)
₱1.00	=	\$0.0190
\$1.00	=	₱52.56

## **ABBREVIATIONS**

ADB	–	Asian Development Bank
ASEAN	–	Association of Southeast Asian Nations
BBB	–	Build, Build, Build
CIA	–	Clark International Airport
CPS	–	country partnership strategy
DOTr	–	Department of Transportation
EIA	–	environmental impact assessment
EMP	–	environmental management plan
FAM	–	facility administration manual
GDP	–	gross domestic product
ha	–	hectare
IPIF	–	Infrastructure Preparation and Innovation Facility
JICA	–	Japan International Cooperation Agency
km	–	kilometer
LRT	–	Light Rail Transit
MFF	–	multitranche financing facility
MRT	–	Metro Rail Transit
NAIA	–	Ninoy Aquino International Airport
NCR	–	National Capital Region
NEDA	–	National Economic and Development Authority
NSCR	–	North–South Commuter Railway
O&M	–	operation and maintenance
PDP	–	Philippine Development Plan
PMO	–	project management office
PNR	–	Philippine National Railways
RAP	–	resettlement action plan
RIPPF	–	resettlement and indigenous peoples planning framework
TA	–	technical assistance

## **NOTES**

- (i) The fiscal year (FY) of the Government of the Philippines and its agencies ends on 31 December.
- (ii) In this report, “\$” refers to United States dollars.

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INVESTMENT PROJECT<sup>a</sup> AT A GLANCE

1. Basic Data		Project Number: 52083-001		
Project Name	Malolos-Clark Railway Project	Department /Division	SERD/SETC	
Country Borrower	Philippines Republic of the Philippines	Executing Agency	Department of Transportation	
2. Sector	Subsector(s)	ADB Financing (\$ million)		
✓ Transport	Rail transport (non-urban)		2,750.00	
		Total	2,750.00	
3. Strategic Agenda	Subcomponents	Climate Change Information		
Inclusive economic growth (IEG)	Pillar 2: Access to economic opportunities, including jobs, made more inclusive	CO <sub>2</sub> reduction (tons per annum)	60,000	
Environmentally sustainable growth (ESG)	Global and regional transboundary environmental concerns	Climate Change impact on the Project	High	
Regional integration (RCI)	Pillar 1: Cross-border infrastructure	ADB Financing		
		Adaptation (\$ million)	6.00	
		Mitigation (\$ million)	2,744.00	
4. Drivers of Change	Components	Gender Equity and Mainstreaming		
Governance and capacity development (GCD)	Client relations, network, and partnership development to partnership driver of change	Effective gender mainstreaming (EGM)	✓	
Partnerships (PAR)	Bilateral institutions (not client government) Official cofinancing			
Private sector development (PSD)	Public sector goods and services essential for private sector development			
5. Poverty and SDG Targeting		Location Impact		
Geographic Targeting	Yes	Nation-wide	High	
Household Targeting	No			
General Intervention on Poverty	No			
SDG Targeting	Yes			
SDG Goals	SDG9, SDG13			
6. Risk Categorization:	Complex			
7. Safeguards Categorization [Tranche 1]	Environment: A Involuntary Resettlement: A Indigenous Peoples: B			
8. Financing				
Modality and Sources	Indicative Tranches (\$ million)			Amount (\$ million)
	I	II	III	
ADB				2,750.00
Sovereign MFF-Tranche (Regular Loan): Ordinary capital resources	1,300.00	1,000.00	450.00	2,750.00
Cofinancing				2,011.00
Japan International Cooperation Agency - MFF-Tranche (Loan) (Not ADB Administered)	2,011.00	0.00	0.00	2,011.00
Counterpart				1,378.00
Government	1,378.00	0.00	0.00	1,378.00
Total	4,689.00	1,000.00	450.00	6,139.00
Currency of ADB Financing: USD				

## INVESTMENT PROJECT<sup>a</sup> AT A GLANCE

9. Country Operations Business Plan		
CPS	<a href="https://www.adb.org/documents/philippines-country-partnership-strategy-2018-2023">https://www.adb.org/documents/philippines-country-partnership-strategy-2018-2023</a>	
COBP	<a href="https://www.adb.org/documents/philippines-country-operations-business-plan-2019-2021">https://www.adb.org/documents/philippines-country-operations-business-plan-2019-2021</a>	
10. Investment Project Summary		
<p>The project will support the construction of two sections, totaling 53.1 kilometers (km), of the North-South Commuter Railway (NSCR), a 163 km suburban railway network connecting the regional center of Clark in Central Luzon with Metro Manila and Calamba, Laguna. The Malolos-Clark Railway Project comprises: (i) Malolos-Clark section (51.2 km) from Malolos to Clark and Clark International Airport, and (ii) Blumentritt extension (1.9 km) connecting Solis and Blumentritt stations in Metro Manila District I (City of Manila). Both sections are part of the NSCR and extensions of the Tutuban-Solis-Malolos section financed by the Japan International Cooperation Agency. The NSCR will be completed during 2022-2025 as an integrated 163 km dedicated suburban passenger railway system comprising four sections: (i) Tutuban-Solis-Malolos, (ii) Malolos-Clark-Clark International Airport, (iii) Solis-Blumentritt-Calamba, and (iv) Clark-New Clark City. The project will provide affordable, reliable, and safe public transport; reduce greenhouse gas emissions; and contribute to cutting travel time from Metro Manila to Clark from 2-3 hours (by bus) to less than 1 hour by rail.</p> <p><b>Impact:</b> Local, national, and international connectivity improved</p> <p><b>Outcome:</b> Efficiency and capacity of transportation along the Manila-Clark corridor improved</p> <p><b>Outputs:</b> (i) New railway line commissioned, and (ii) Institutional capacity strengthened</p> <p><b>Implementation Arrangements:</b> Department of Transportation will be the executing agency.</p> <p><b>Project Readiness:</b> Project readiness is high, as the entire scope to be financed by the MFF has been appraised by ADB, the detailed engineering design has been completed, and bidding for the first three contracts financed under the MFF started in January 2019. The contractor will be mobilized by October 2019.</p>		
11. Milestones		
<b>Modality</b>	<b>Estimated Approval</b>	<b>Estimated Completion<sup>b</sup></b>
Multitranche financing facility	31 May 2019	31 December 2024
Tranche I	31 May 2019	31 December 2021
Tranche II	30 September 2021	31 December 2022
Tranche III	30 September 2022	31 December 2024
12. Project Data Sheet (PDS)		
PDS <sup>c</sup>	<a href="http://www.adb.org/projects/52083-001/main">http://www.adb.org/projects/52083-001/main</a>	

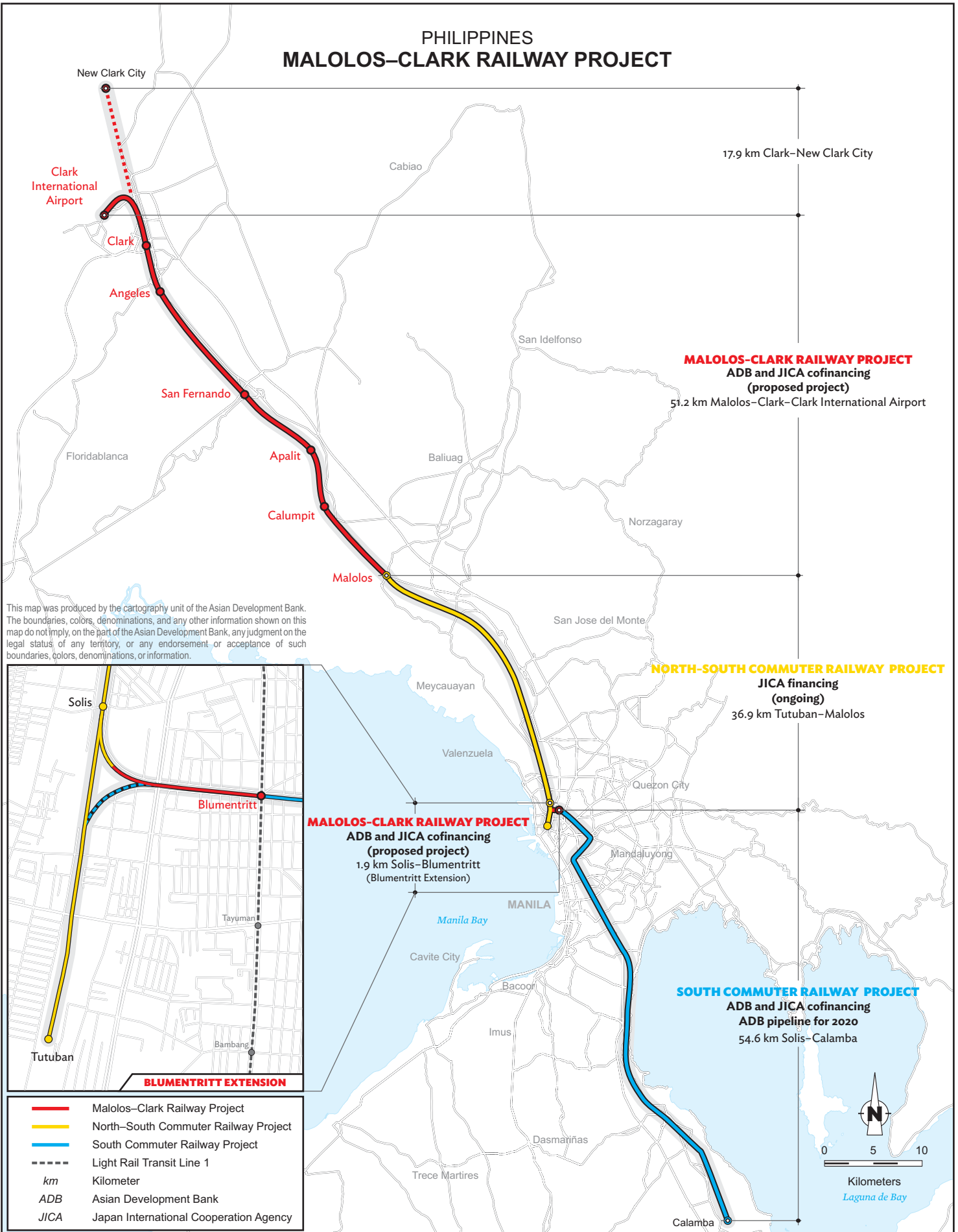
<sup>a</sup> Multitranchise Financing Facility (MFF).

<sup>b</sup> For MFF, this refers to the end of the availability period; for tranches, this refers to the tranche closing date.

<sup>c</sup> Safeguard documents can be viewed by clicking the Document's hyperlink in the Project Data Sheet (PDS) page.



# PHILIPPINES MALOLOS-CLARK RAILWAY PROJECT





## I. THE PROPOSAL

1. I submit for your approval the following report and recommendation on a proposed multitranche financing facility (MFF) to the Republic of the Philippines for the Malolos–Clark Railway Project. The project will support the construction of two sections, totaling 53.1 kilometers (km), of the North–South Commuter Railway (NSCR), connecting the regional center of Clark in Central Luzon with Metro Manila and Calamba, Laguna.<sup>1</sup> The Malolos–Clark Railway Project will provide affordable, reliable, and safe public transport; reduce greenhouse gas emissions; and contribute to cutting travel time from Metro Manila to Clark from 2–3 hours (by bus) to less than 1 hour by rail.<sup>2</sup> The project is included in the country operations business plan, 2019–2021 of the Asian Development Bank (ADB) for the Philippines.<sup>3</sup>

## II. RATIONALE

2. **Development problem.** The Philippines is among the fastest growing economies in Southeast Asia, with an average annual economic growth rate of 6.2% from 2010 to 2015. The Philippine Development Plan (PDP), 2017–2022 looks to maintain this momentum by continuing the government’s emphasis on inclusive growth.<sup>4</sup> Under the PDP, the government has set a strategic target to reach upper-middle-income status by 2022 by increasing gross domestic product (GDP) per capita from \$3,550 in 2015 to \$5,000 by 2022. However, while the national poverty rate fell from 25.2% of the population in 2012 to 21.6% in 2015, this still translated into 22 million poor people in 2015. Such a level is quite high for a middle-income country. Household income inequality in the Philippines is also among the highest in Southeast Asia. Wide income disparities across the country’s regions indicate that the benefits of economic growth have not been distributed evenly.

3. To sustain high growth and ensure it is more inclusive, the Philippines needs to increase both public and private investments in climate-resilient infrastructure. The World Economic Forum’s Global Competitiveness Report, 2017–2018 ranked the country’s infrastructure competitiveness 97th out of 137 countries surveyed, well behind regional peers Malaysia (22nd), Thailand (43rd), and Indonesia (52nd).<sup>5</sup> This is the result of years of low spending specifically on public infrastructure. At 35% of GDP in 2015, Philippine public capital stock is the lowest among members of the Association of Southeast Asian Nations (ASEAN). The ASEAN simple average is 69% of GDP (Figure 1). Not only is the infrastructure deficit an impediment to accelerating long-term economic growth and reducing poverty, but it also leads to significant economic losses because of pollution and time delays caused by road congestion. The PDP estimated economic losses due to road congestion in 2014 to be at least \$53.6 million per day (equivalent to around \$18 billion per year) in Metro Manila. Moreover, the lack of safe and efficient public transport

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<sup>1</sup> The Malolos–Clark Railway Project comprises: (i) Malolos–Clark section (51.2 km) from Malolos to Clark and Clark International Airport, and (ii) Blumentritt extension (1.9 km) connecting Solis and Blumentritt stations in Metro Manila District I (City of Manila). Both sections are part of the North–South Commuter Railway (NSCR) and extensions of the Tutuban–Solis–Malolos section financed by the Japan International Cooperation Agency (JICA). The NSCR will be completed during 2022–2025 as an integrated 163 km dedicated suburban passenger railway system comprising four sections: (i) Tutuban–Solis–Malolos, (ii) Malolos–Clark–Clark International Airport, (iii) Solis–Blumentritt–Calamba, and (iv) Clark–New Clark City (paragraph 7).

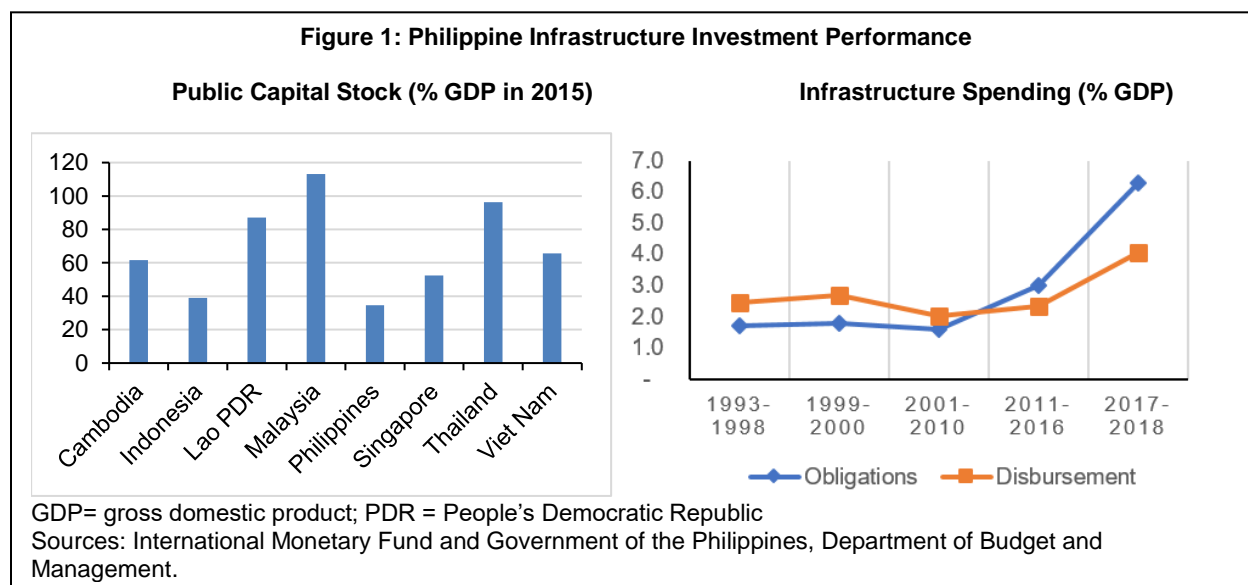
<sup>2</sup> Asian Development Bank (ADB). 2018. *Technical Assistance to the Republic of the Philippines for Railway Project Implementation Support and Institutional Strengthening*. Manila.

<sup>3</sup> ADB. 2018. *Country Operations Business Plan: Philippines, 2019–2021*. Manila.

<sup>4</sup> Government of the Philippines, National Economic and Development Authority (NEDA). 2017. *Philippine Development Plan, 2017–2022*. Pasig. <http://pdp.neda.gov.ph/wp-content/uploads/2017/01/PDP-2017-2022-07-20-2017.pdf>.

<sup>5</sup> World Economic Forum. 2017. *The Global Competitiveness Report, 2017–2018*. Geneva.

disproportionately hurts people from low-income families, especially children, women, the elderly, and persons with disabilities, as it impedes their access to schools, markets, employment, and social services.



4. In recognition of this challenge, in April 2017 the government launched Build, Build, Build (BBB), a comprehensive infrastructure development program.<sup>6</sup> Embodied in the spatial strategy of the PDP, the BBB program aims to attract investments, connect regions and markets, generate jobs, and spur economic growth through infrastructure development. The BBB program aims to raise public spending on infrastructure from 5.1% of GDP in 2016 to 7.0% of GDP by 2022. The total estimated funding requirement under the BBB program to achieve the targeted infrastructure outlays over this period is \$158 billion. To meet these requirements, the government plans to raise funds from three primary sources: direct government spending through the national budget, private capital, and official development assistance. BBB projects include railways, expressways, bridges, airports, urban public utilities, and flood risk management investments. For FY2018, actual public spending on infrastructure was equivalent to 6.2% of GDP in terms of budget obligations and 4.6% of GDP in terms of cash disbursements (Figure 1).<sup>7</sup> This has been the highest level attained in more than 10 years.

5. **Road map.** In the Philippines, substantial underinvestment in infrastructure has led to chronic capacity constraints in the transport sector, resulting in economic losses due to road congestion (paragraph 3) and in significant air pollution, as 98% of passenger transport and 55% of freight transport are by road.<sup>8</sup> It is however estimated that by 2040, 30%–40% of passengers in the corridor from Clark to the National Capital Region (NCR) will use the new rail line. Today, commuter railways are operated only in Metro Manila and the Laguna Province. Comprising just three elevated rail lines, Metro Manila's rail-based public urban transport system has a total length of 48.5 km; these transported 283 million passengers in 2015.<sup>9</sup> In addition, Philippine National Railways (PNR) operates a suburban commuter railway from Tutuban southbound to Alabang

<sup>6</sup> Build, Build, Build. <http://www.build.gov.ph>.

<sup>7</sup> Budget obligations refer to construction contract commitments made for projects, while cash disbursements refer to cash releases to pay for construction (footnote 5).

<sup>8</sup> The remaining 2% of passenger transport is by air and sea, and the remaining 45% of freight transport is by sea.

<sup>9</sup> JICA. 2018. *The Detailed Design Study (Including Supplementary Feasibility Study) of Malolos–Clark Railway Project: Feasibility Study Report*. Tokyo.

(28 km), which transported 21 million passengers in 2016.<sup>10</sup> Considering the population size and density of the NCR, the railway network is sparse, and the lack of high-capacity public transport is a primary reason for the NCR's chronic road congestion.<sup>11</sup> No northbound railway linking the NCR with Central Luzon exists, with buses and jeepneys being the only modes of public transport. The main highways—the North Luzon Expressway and the MacArthur Highway—serve very high levels of demand: up to 120,000 vehicles a day just north of Manila's circular road 4 (EDSA) in 2018, and more than 50,000 vehicles a day further north around Malolos. Demand on the corridor exceeds 50% of the network's capacity—a level at which traffic quickly builds up, especially during peak hours.

6. Air transport infrastructure in the NCR is also unable to satisfy growing demand for air transport because of capacity constraints. Ninoy Aquino International Airport (NAIA) and Clark International Airport (CIA) are the two major airports serving the NCR. NAIA handled about 42 million passengers in 2017, which substantially exceeded the airport's 35 million maximum capacity.<sup>12</sup> NAIA has become increasingly congested, but its location in the heart of Metro Manila limits the potential for further expansion. The government plans to decongest traffic at NAIA and meet growing demand for air travel by diverting more passengers to CIA, which will have an annual capacity of 12 million passengers when the new terminal is completed in 2020.<sup>13</sup> To achieve this, it is vital to have affordable, fast, and reliable transport links between CIA and Manila.

7. The project is in line with the PDP and the National Transport Policy,<sup>14</sup> and is part of the government's flagship NSCR project, a 163 km suburban railway network connecting Clark (including CIA and New Clark City) with Metro Manila and Calamba, Laguna, by 2025. To be constructed in sections, the network comprises (i) the 37 km Tutuban–Solis–Malolos section, construction of which will begin in early 2019, with operation expected to begin in 2022; (ii) the 53.1 km Malolos–Clark Railway Project (footnote 1), construction of which will launch in 2019, with partial operation scheduled to commence in 2022; (iii) the 55 km Blumentritt–Calamba South Commuter Railway Project, construction of which is expected to begin in 2020, with operation slated for 2024; and (iv) the extension from Clark to New Clark City, construction of which is expected to start in 2022 for operation by 2025. An extension for long-haul services to the port of Batangas and to Legaspi in Southern Luzon is planned beyond 2025.

8. **Policy framework.** The government is taking a threefold approach to developing transport infrastructure in the NCR and surrounding regions. Its first step was to streamline infrastructure policy to accelerate investment approvals and construction. In June 2017, the government approved the National Transport Policy, which guides transport-related agencies on policy decisions and future investment and coordinates national and local efforts. Embedded in the National Transport Policy is the Philippine Transportation System Master Plan, which will ensure a holistic, well-coordinated, and evidence-based project selection process. Additionally, the government has adopted a hybrid policy for financing and operating large and complex infrastructure investments. Under this policy, the government will finance public infrastructure through a combination of the national budget and official development assistance, with operation

<sup>10</sup> The Philippine National Railways (PNR) commenced limited services to General Pascual Station in the north of Metro Manila and to Calamba in Laguna Province in 2018. Limited local services are operated in the Bicol Region between Naga City and Legaspi City.

<sup>11</sup> The National Capital Region (NCR) comprises the 16 cities known as Metro Manila.

<sup>12</sup> Manila International Airport Authority. 2018. Operational Statistics, 2014–2018. [http://www.miaa.gov.ph/miaa/images/stories/Downloads/20181001\\_TotalStats\\_2014-2018.pdf](http://www.miaa.gov.ph/miaa/images/stories/Downloads/20181001_TotalStats_2014-2018.pdf).

<sup>13</sup> Clark International Airport Corporation. 2018. *2017 Annual Report*. Clark.

<sup>14</sup> Government of the Philippines, NEDA. 2017. *Approving the National Transport Policy*. NEDA Board Resolution No. 5. Pasig.

and maintenance (O&M) carried out by the private sector through operation contracts or public–private partnerships.<sup>15</sup> The project will help (i) strengthen the Department of Transportation’s (DOTr) capacity to manage such O&M contracts and (ii) establish a regulator for railway safety.

9. The second facet of the government’s threefold approach to transport infrastructure development is the national spatial strategy embedded in the PDP, which seeks to integrate leading areas with lagging areas and promote urban–rural links through improved transportation. The strategy emphasizes the development of regional growth centers providing affordable housing, quality education, quality health care, and other social and economic services. The regional growth centers will be linked by improved transport infrastructure to support accelerated economic growth. The government is developing Clark and New Clark City as a regional growth center, with CIA as a regional gateway integrating Central Luzon with the Asian region thereby further deepening regional cooperation. This will contribute to better integration of the Philippines with ASEAN economies and attract more foreign direct investment. New Clark City will accommodate 1.2 million residents and 800,000 jobs by 2045 and will become an administrative center and education hub for the country. The railway network will be the backbone of the public transport system. Connecting Clark, New Clark City, and CIA with the NCR by rail will also help relieve road congestion and reduce high transport and logistics costs. Developing Clark as a regional center and promoting a shift of population growth from the high-density NCR to Central Luzon will spur economic growth along the entire North-South corridor.

10. The third component of the government’s threefold approach is the 2017–2022 Public Investment Program, through which the government has approved several large transport infrastructure investments in the NCR to reduce congestion, environmental pollution and associated high transport and logistics costs.<sup>16</sup> These investments include (i) rehabilitating Metro Rail Transit (MRT) line 3; (ii) extending Light Rail Transit (LRT) lines 1 and 2; and (iii) constructing MRT line 7 and MRT line 4 (15 km Ortigas–Rizal line); constructing a Quezon City–NAIA subway; building elevated pedestrian walkways known as Edsa Greenways; building up to 10 new Metro Manila bridges across the Marikina and Pasay rivers; and constructing additional connector roads. The government is also improving interchanges between the MRT and LRT lines and improving intermodal integration with buses and with other transport modes. South of Metro Manila, the government plans to build a 50 km expressway along the shoreline of the Laguna de Bay lake to further ease traffic congestion.

11. **Strategic context.** To sustain high growth, the Philippines needs to significantly increase investments in climate-resilient infrastructure; improve connectivity between regions, communities, and people; and raise infrastructure competitiveness (paragraph 3). Investments in urban development are needed to address infrastructure deficits in large cities resulting from rapid population growth and urbanization. The government’s BBB program emphasizes physical connectivity, urban development, and water resource management to address the infrastructure deficit. ADB’s country partnership strategy (CPS), 2018–2023 for the Philippines consolidates lending activities into larger programmatic approaches and increases synergies across ADB operations.<sup>17</sup> ADB will add value to the financing it provides by helping the government design, prepare, bring to the market, and implement priority public investment projects under the BBB program through large-scale capacity development technical assistance (TA). The project is

<sup>15</sup> Selection of the O&M contractor for the NSCR is under preparation. The DOTr is targeting to award the contract for the first 10–15 years of service to an experienced international railway operation contractor by the end of 2020.

<sup>16</sup> Government of the Philippines, NEDA. 2018. *2017–2022 Public Investment Program*. Pasig. This 6-year programming document, which accompanies the PDP, sets out priority programs and projects to be implemented by the government, including all BBB transport projects.

<sup>17</sup> ADB. 2018. *Country Partnership Strategy: Philippines, 2018–2023—High and Inclusive Growth*. Manila.

aligned with pillar 1 of the CPS on accelerating infrastructure and long-term investments, which aims to develop climate-resilient infrastructure to meet expanding demand for transport; better connect regions, communities, and people; and raise competitiveness.

**12. ADB's experience in the Philippine's infrastructure sector.** ADB has supported the government's BBB program through a mix of modalities. First, ADB has provided TA to support the government in simplifying infrastructure policy and streamlining approval procedures.<sup>18</sup> Second, through policy-based lending, ADB has supported the government in establishing a policy framework for increased private participation in infrastructure projects and in reforming capital markets to improve the availability of long-term financing for infrastructure.<sup>19</sup> Third, ADB approved in October 2017 an Infrastructure Preparation and Innovation Facility (IPIF) TA loan of \$100 million to support the Department of Public Works and Highways and the DOTr to prepare quality, large, and complex infrastructure projects under the BBB program and to strengthen the capacity to implement the projects.<sup>20</sup> ADB has also provided an IPIF TA grant of \$5 million to develop the capacity of the Department of Public Works and Highways and the DOTr to manage large projects.<sup>21</sup> Fourth, ADB has increased financing for transport infrastructure projects in the Philippines. From 1990 to 2016, ADB financing for transport infrastructure totaled only \$860 million (nominal values)—an average of \$32 million per year. The CPS, 2018–2023 has substantially rebalanced the lending pipeline toward infrastructure projects, with transport accounting for at least 47% of the scaled-up indicative lending pipeline for 2019–2021. In addition to sovereign loans, the Private Sector Operations Department provided a nonsovereign loan to the Mactan Cebu International Passenger Terminal Project, which was completed in 2018.<sup>22</sup> Meanwhile, ADB's Office of Public–Private Partnerships has signed a mandate with the Philippine government-owned Bases Conversion Development Corporation to provide transaction advisory services for urban investments in New Clark City.

**13. ADB's value addition.** Cofinancing of the project and of additional segments of the NSCR by ADB and the Japan International Cooperation Agency (JICA) will help ensure that the project is delivered within a short time frame and with high technical, social, and environmental standards. Capacity development support for the DOTr through the IPIF TA loan and grant will support institutional strengthening of the DOTr throughout the project. A consulting firm financed by ADB through the IPIF with specialization in the railway subsector will support the DOTr, especially during project preparation and procurement, while the Railway Project Implementation Support and Institutional Strengthening TA project (footnote 2) supports the implementation of safeguard measures and gender action plan. The institutional development component under the project will further support the DOTr in managing the large investment by establishing an information technology system to handle the document flow for improved project management, scheduling, and coordination between the parties involved.

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<sup>18</sup> ADB. 2014. *Technical Assistance to the Republic of the Philippines for Strengthening Evaluation and Fiscal Cost Management of Public–Private Partnerships*. Manila.

<sup>19</sup> ADB. 2018. *Report and Recommendation of the President to the Board of Directors: Proposed Policy-Based Loan for Subprogram 2 to the Republic of the Philippines for the Expanding Participation in Infrastructure Program*. Manila; and ADB. 2017. *Report and Recommendation of the President to the Board of Directors: Proposed Policy-Based Loan for Subprogram 2 and Technical Assistance Grant to the Republic of the Philippines for the Encouraging Investment through Capital Market Reforms Program*. Manila.

<sup>20</sup> ADB. 2017. *Report and Recommendation of the President to the Board of Directors: Proposed Technical Assistance Loan to the Republic of the Philippines for the Infrastructure Preparation and Innovation Facility*. Manila.

<sup>21</sup> ADB. 2017. *Technical Assistance to the Republic of the Philippines: Strengthening Infrastructure Capacity and Innovation for Inclusive Growth*. Manila.

<sup>22</sup> ADB. 2014. *Report and Recommendation of the President to the Board of Directors: Proposed Loan to GMR Megawide Cebu Airport Corporation for the Mactan Cebu International Passenger Terminal Project in the Philippines*. Manila.



14. **Lessons learned.** ADB's experience with financing large railway projects provides several critical lessons that have been incorporated into the project. First, large railway projects financed by ADB in South Asia and Southeast Asia have shown that the following are vital to delivering high-quality projects in a timely manner: (i) conducting advance planning and detailed project preparation; (ii) making sure that executing agencies have strong capacity for project preparation, procurement, land acquisition and resettlement, and project implementation; (iii) integrating the design with other transport modes for strong intermodal integration; and (iv) considering O&M requirements at an early stage. A consulting team financed by JICA incorporated these lessons in preparing the design for the NSCR (including the Malolos–Clark section covered by this project). The addition of the Blumentritt extension will address the need for integrating the new system with the existing MRT lines in Metro Manila. The JICA-financed design consulting team will continue its services until the general consultant and construction supervision consultants, which will also be financed by JICA, are mobilized. To further strengthen the DOTr's capacity during project preparation and project implementation, consultants engaged through the IPIF are supporting the DOTr with railway-specific knowledge and will act as the "shadow operator" until the operation contractor is selected.<sup>23</sup>

15. The second lesson is that past greenfield railway projects implemented under public–private partnerships have failed because of a lack of sufficient revenues in the initial years of operation, or because of delays in project implementation. The DOTr will therefore cover the entire cost of O&M for the NSCR, using government resources, until traffic has picked up to a level that will allow the operation contractor to recover the full O&M costs, including replacement of equipment, from revenues.<sup>24</sup> The third lesson is that resettlement plans for large railway projects must (i) focus on large numbers of poor project-affected households and (ii) ensure adequate living standards and conditions at resettlement sites and provide an effective grievance redress mechanism. Railway-related resettlement can impact large numbers of informal settler households residing on government land near railway tracks, resulting in a much larger percentage of project-affected households living in poverty than for other infrastructure projects. The project's resettlement action plans (RAPs) will address poverty among displaced people through a robust livelihood restoration and improvement program that will provide additional support to vulnerable households and assist low-income informal settlers in gaining tenure of a home.<sup>25</sup> The site validation process will include criteria on accessibility to schools, health facilities, and transport; and the DOTr will be required to ensure that all utilities are in place and functioning at resettlement sites before families are relocated.

16. **Alignment with Strategy 2030.** The project is aligned with pillar 1 of ADB's Strategy 2030 on accelerating infrastructure and long-term investments of the CPS (footnote 17), which aims to develop climate-resilient infrastructure to meet expanding demand; better connect regions, communities, and people; and raise competitiveness.<sup>26</sup> The project supports the implementation of Strategy 2030 as summarized in Table 1.<sup>27</sup>

<sup>23</sup> The consultant firm engaged under this Technical Assistance Loan is the "shadow operator" for the project and acts as the operator of the railway during the design and construction phase of the project, until the operation and maintenance (O&M) contractor has been selected and mobilized.

<sup>24</sup> Once O&M cost including replacement of equipment are fully covered by revenues, the DOTr intends to replace the O&M contract with a concession agreement.

<sup>25</sup> TA for Poverty Reduction in Communities Affected by the Malolos–Clark Railway Project, which will be financed by an ADB-administered trust fund and will further support the livelihood restoration program for poor displaced persons, is under preparation.

<sup>26</sup> ADB. 2018. *Strategy 2030: Achieving a Prosperous, Inclusive, Resilient, and Sustainable Asia and the Pacific*. Manila.

<sup>27</sup> Alignment with Strategy 2030 (accessible from the list of linked documents in Appendix 2).



**Table 1: Alignment with Strategy 2030**

<b>Strategy 2030 Key Operational Priorities</b>	<b>Project Contributions</b>
Accelerating progress in gender equality	<b>Scaling up support for gender equality.</b> The project will support gender equity by encouraging contractors to employ at least 40% women during construction and operation. The project will also support programs to raise awareness amongst women, including project affected women, on employment opportunities created by the project. <b>Promoting women's economic empowerment.</b> The project will maximize women's access to markets and opportunities for skilled jobs.
Tackling climate change, building climate and disaster resilience, and enhancing environmental sustainability	<b>Accelerating low greenhouse gas development.</b> The project will support climate change mitigation by encouraging commuters to shift from road- to rail-based public urban transport with lower GHG emissions. <b>Ensuring a comprehensive approach to build climate and disaster resilience.</b> The project supports the implementation of climate- and disaster-resilient infrastructure, with designs addressing earthquake risks and flooding risks during strong rainfalls and typhoons.
Making cities more livable	<b>Providing integrated solutions.</b> By supporting sustainable and integrated public transport and equipping all stations with enhanced design features, all passengers—including women, the elderly, and people with disabilities—can switch easily and safely between modes of transport.
Strengthening governance and institutional capacity	<b>Strengthening service delivery.</b> By contracting operation and maintenance of the project to a private sector entity, the project will promote more effective and timely service delivery and encourage greater accountability for the services provided. <b>Strengthening capacity and standards.</b> The project will provide capacity development support to uphold environmental and social safeguards, adhere to procurement and financial management standards, and implement anticorruption measures.
Fostering regional cooperation and integration	<b>Enhancing connectivity and competitiveness.</b> The project will improve access to Clark International Airport, improve NCR–Central Luzon connectivity, and enhance the competitiveness of the Philippines by facilitating access to higher-capacity regional and international air transport.

GHG = greenhouse gas, NCR = national capital region.

Source: Asian Development Bank.

### III. THE INVESTMENT PROJECT

#### A. Impact and Outcome

17. The project is aligned with the following impact: local, national, and international connectivity improved (footnote 4). The investment project will have the following outcome: efficiency and capacity of transportation along the Manila–Clark corridor improved.<sup>28</sup>

#### B. Outputs

18. **Output 1: New railway line commissioned.** The project will help finance the construction of an elevated double-track railway lines totaling 53.1 km, including the 51.2 km Malolos–Clark–CIA section (Malolos–Clark section), and the 1.9 km Solis–Blumentritt section (Blumentritt extension) linking the project to the existing rail-based public urban transport system in Manila. The project also includes (i) construction of a depot near CIA for the maintenance of rolling stock and fixed assets, with a training center for railway staff and an operation control center; and (ii) seven stations integrating design features that are friendly to and safe for elderly people, women, children, and people living with disabilities.

19. **Output 2: Institutional capacity strengthened.** Implementing the project and preparing future O&M arrangements require a high level of capacity in managing projects, contracts, and

<sup>28</sup> The design and monitoring framework is in Appendix 1.

document flow. The component will (i) establish a training program for DOTr staff in procurement, project and contract management, railway operation, and asset management; (ii) establish a system to manage the document and funding flow among all parties involved in project implementation, including technical staff; and (iii) address the government's gender and development mandates to ensure the provision of quality railway services to women and marginalized segments of the population.

20. **Consulting services.** Project design, implementation, and capacity development for the entire NSCR network will be supported by the following consulting services: (i) detailed engineering design consultants financed by JICA; (ii) JICA-financed general consultant and construction supervision consultant who will coordinate all project activities and construction supervision for contracts financed by ADB and JICA; (iii) advisory services to the DOTr provided by the consulting firm recruited under the IPIF (footnote 20), which will also support procurement and serve as the shadow operator (footnote 23) until the O&M contract is awarded; and (iv) project preparation and implementation support consultants financed by ADB TA (footnotes 2 and 21).

21. **Use of multitranche financing facility.** These outputs are best financed by an MFF to achieve the outcome in an efficient and effective manner.<sup>29</sup> The Malolos–Clark Railway Project will be financed by an MFF with three tranches adopting the time-slicing approach for large-scale stand-alone projects. At the time of MFF processing, the design, procurement, and safeguards have been appraised for the entire MFF. Each tranche will finance slices of a group of contracts per the indicative tranche schedule, and the amount for each tranche will be requested per the disbursement progress and projection. The tranche schedule is based on the disbursement projection. The MFF modality enables ADB to support implementation of the road map under the policy framework through a long-term partnership with the government and to combine infrastructure investments with policy dialogue and sector reforms.

22. **Scope of project 1.** Tranche 1 will finance the first slice of the contract packages under the project.

### C. Summary Cost Estimates and Financing Plan

23. The investment project is estimated to cost \$6.139 billion, including taxes and duties, physical and price contingencies, interest, and other charges during implementation (Table 2).

**Table 2: Summary Cost Estimates**  
(\$ million)

Item	Amount <sup>a</sup>
<b>A. Base Cost<sup>b</sup></b>	
1. Output 1: New railway line commissioned	5,352.0
2. Output 2: Institutional capacity strengthened <sup>c</sup>	27.0
<b>Subtotal (A)</b>	<b>5,379.0</b>
<b>B. Contingencies<sup>d</sup></b>	<b>420.0</b>
<b>C. Financial Charges During Implementation<sup>e</sup></b>	<b>340.0</b>
<b>Total (A+B+C)</b>	<b>6,139.0</b>

<sup>a</sup> Includes taxes and duties of \$628 million. The government will finance taxes and duties of \$628 million by exemption and cash contribution.

<sup>b</sup> In mid-2018 prices as of September 2018.

<sup>c</sup> Additional support for engineering design and capacity development is provided by the Asian Development Bank and Japan International Cooperation Agency as described in paragraph 20.

<sup>29</sup> Comparison of Financing Modality (accessible from the list of linked documents in Appendix 2).

<sup>d</sup> Physical contingencies computed at 5.00% for civil works. Price contingencies computed at average of 1.85% on foreign exchange costs and 1.00% on local currency costs; includes provisions for potential exchange rate fluctuations under the assumption of a purchasing power parity exchange rate for cost estimates prepared in yen.

<sup>e</sup> Includes interest, commitment charges, and any other financing charges for all sources of financing. Interest during construction for the ordinary capital resources loans has been computed at the 5-year United States dollar fixed swap rate plus an effective contractual spread of 0.5% and maturity premium of 0.2%. Commitment charges for the ordinary capital resources loans are 0.15% per year to be charged on the undisbursed loan amount.

Sources: Asian Development Bank and Japan International Cooperation Agency estimates.

24. **Financing plan.** The government has requested an MFF in the amount of up to \$2.75 billion from ADB's ordinary capital resources to help finance part of the project. The MFF will consist of three tranches, subject to the government's submission of related periodic financing requests, execution of the related loan agreement for each tranche, and fulfillment of terms and conditions and undertakings in the framework financing agreement.

25. **Project 1.** The first tranche of the MFF will comprise a regular loan of \$1.3 billion and will have a 30-year term, including a grace period of 7 years; an annual interest rate determined in accordance with ADB's London interbank offered rate (LIBOR)-based lending facility; a commitment charge of 0.15% per year; and such other terms and conditions in the draft loan agreement. Based on the straight-line method, the average maturity is 18.75 years, and the maturity premium payable to ADB is 0.20% per year.

**Table 3: Summary Financing Plan**

(\$ million)

Source	Tranche (estimated year of PFR submission)			Amount	Share of Total (%)
	1 (2019)	2 (2021)	3 (2022)		
Asian Development Bank					
OCR (regular loan)	1,300.0	1,000.0	450.0	2,750.0	44.80
Japan International Cooperation Agency (loan) <sup>a</sup>	2,011.0	0.0	0.0	2,011.0	32.75
Government	1,378.0	0.0	0.0	1,378.0	22.45
<b>Total</b>	<b>4,689.0</b>	<b>1,000.0</b>	<b>450.0</b>	<b>6,139.0</b>	<b>100.00</b>

OCR = ordinary capital resources, PFR = periodic financing request.

<sup>a</sup> Not administered by the Asian Development Bank.

Sources: Asian Development Bank estimates.

26. Climate mitigation is estimated to cost \$6.133 billion and climate adaptation is estimated to cost \$6 million. ADB will finance 44.7% of mitigation costs and 100.0% of adaptation costs under the MFF. Details are in the facility administration manual (FAM).<sup>30</sup>

27. **Cofinancing arrangements.** The project will be cofinanced by JICA on a parallel collaborative basis, but the cofinancing will not be administered by ADB.<sup>31</sup> The JICA loan was approved in December 2018 and signed on 21 January 2019.

## D. Implementation Arrangements

28. The DOTr will be the executing agency for the project. A project management office (PMO) will be established under the office of the undersecretary for railways. A full-time project manager will head the PMO and will be directly responsible for day-to-day implementation of the project.

<sup>30</sup> Facility Administration Manual (accessible from the list of linked documents in Appendix 2).

<sup>31</sup> ADB is financing civil works (i.e., viaducts, bridges, stations, tunnels, and depot buildings) while JICA is financing the core system (i.e., tracks, depot equipment, power supply and electrification, signaling and telecommunication systems, and procurement of rolling stock) and consulting services. The audited project financial statements for the project will cover expenditures financed by ADB and/or the DOTr only, and will not include JICA cofinancing.

Consultants financed by ADB under the IPIF will advise the PMO on project preparation, procurement, and project management. The project will be implemented under the government's hybrid policy for infrastructure investments (paragraph 8); specific O&M arrangements will be established during project implementation. Under this framework, a private service contractor will operate and maintain the Malolos–Clark Railway, together with other sections of the NSCR. The DOTr will be assisted by consultants engaged under IPIF, who will also serve as the shadow operator (footnote 23), until the O&M contract is signed in 2020. The DOTr will cover O&M expenditures, especially in the initial years of operation before all sections have been completed and revenue is insufficient to cover the full cost of O&M. Implementation arrangements are summarized in Table 4 and described in detail, including specific arrangements for project 1, in the FAM.

**Table 4: Implementation Arrangements**

Aspects	Arrangements		
MFF availability period	May 2019–December 2024		
Estimated completion date	Tranche 1: December 2021; MFF: December 2024		
Management			
(i) Executing agency	Department of Transportation		
(ii) Project management office	Manila, 1 full-time project director with 2 senior project manager, 13 project manager (1 for each contract) and up to 330 staff in 12 divisions <sup>a</sup>		
Procurement	Open competitive bidding	6 civil works contracts	\$2.525 billion
Retroactive financing and advance contracting	Retroactive financing and advance contracting is proposed for works, goods and services, and consultant recruitment. Retroactive financing will be provided to finance expenditures incurred before loan effectivity, but not earlier than 12 months before signing the loan agreements and not exceeding 20% of the respective loan amount.		
Disbursement	The loan proceeds will be disbursed following ADB's <i>Loan Disbursement Handbook</i> (2017, as amended from time to time) and detailed arrangements agreed between the government and ADB.		

ADB = Asian Development Bank, MFF = multitranchise financing facility.

<sup>a</sup> The project management office will be established to manage the implementation of the Malolos–Clark Railway Project and the South Commuter Railway Project. The full quantity of 330 staff will be posted once implementation of both projects starts.

Source: ADB estimates.

29. ADB-financed works will be procured through open competitive bidding following the ADB Procurement Policy (2017, as amended from time to time) and Procurement Regulations for ADB Borrowers (2017, as amended from time to time). The DOTr will be supported by the Procurement Service of the Department of Budget and Management and the consultant team engaged under the IPIF in the procurement process. ADB will support to ensure timeliness and quality of the procurement process in accordance with ADB's procurement requirements.

30. **Project readiness.** Project readiness is high, as the entire scope to be financed by the MFF has been appraised by ADB, the detailed engineering design has been completed, and bidding for the first three contracts financed under the MFF started in January 2019. The contractor will be mobilized by October 2019.

## IV. DUE DILIGENCE

### A. Technical

31. Consultants recruited under the IPIF have confirmed the project's technical viability. The railway line is fully grade-separated; this will minimize the impact on communities along the line, reduce the risk of flooding and improve the safety of operations. Adaptation measures related to

the location and elevation of the depot, slope protection at river crossings, cross-drainage, and construction of the line mainly on the viaduct have been incorporated in the project design to reduce climate change risks. The design criteria are based on international best practices and proven technologies for suburban commuter railways and have been standardized for the NSCR to ensure interoperability and simplify O&M.

## **B. Economic and Financial**

32. Economic and financial analyses concluded that the project is economically viable and financially sustainable.<sup>32</sup> The project will provide faster rail connectivity for commuters along the Manila–Clark corridor, where road transport has traditionally been the primary mode of transportation. Demand forecasts were prepared using DOTr’s multi-modal transport model for the greater NCR. It is estimated that by 2040, 30%–40% of passengers in the corridor will shift to the new rail line. The project’s economic internal rate of return is 12.3%, and the net present value is \$1.9 billion using a 9% discount rate. The economic analysis compared the benefits and costs of with-project and without-project scenarios. The main project benefits relate to (i) savings in travel time for rail passengers: direct express rail services will connect Manila with CIA within 1 hour, while travel by bus from Manila to Clark takes 2–3 hours depending on the time of the day; (ii) savings associated with reduced congestion on parallel roads (traffic on these roads is projected to decline by about 10%); and (iii) reduced carbon dioxide emissions associated with road travel. A sensitivity analysis tested the effects of possible negative changes in the key parameters that determine the project’s costs and benefits. The analysis indicates that the project’s economic viability would remain satisfactory even under adverse scenarios.

33. A financial assessment was undertaken to examine the viability of the project investment. The project’s lending decision is based on economic viability rather than financial viability. The incremental revenues generated by the project during its first 40 years of operations will be sufficient to finance the project’s recurrent costs, including replacement of rolling stock. In the initial years of operation, particularly before the southern section is completed, revenues will be insufficient to cover all O&M costs. The government has committed to fully finance project O&M.

## **C. Governance**

34. **Financial management.** The financial management assessment was prepared following ADB’s *Guidelines for the Financial Management and Analysis of Projects* and *Financial Due Diligence: A Methodology Note*, and related technical guidance notes.<sup>33</sup> The assessment found that the DOTr has sound financial and accounting systems; adheres to the procedures, manuals, policies, guidelines, and reporting framework prescribed by the Commission of Audit; follows accrual-based accounting in an enterprise resource planning system based on Philippine Public Sector Accounting Standards; and has a robust internal control system with a separate internal audit division. The overall financial management assessment risk is *substantial*, with appropriate risk mitigation measures in place. Details of risks and key mitigating measures are in the FAM.

35. **Procurement and anticorruption measures.** ADB will review procurement-related documents at all major milestones before proceeding with bidding and contract awards. Six large works packages will be procured to complete the project and will be financed by ADB under tranche 1 and subsequent tranches. ADB’s Anticorruption Policy (1998, as amended to date) was

<sup>32</sup> Economic and Financial Analysis (accessible from the list of linked documents in Appendix 2).

<sup>33</sup> ADB. 2005. *Guidelines for the Financial Management and Analysis of Projects*. Manila; and ADB. 2009. *Financial Due Diligence: A Methodology Note*. Manila.

explained to and discussed with the government. The specific policy requirements and supplementary measures are described in the FAM.

#### **D. Poverty, Social, and Gender**

36. The project will contribute to economic growth and employment by facilitating mobility and improving accessibility to centers of job opportunities. By 2022, it is estimated that 81,000 passengers per day will travel along the Blumentritt–Malolos–Clark–CIA section of the NSCR. Construction activities under the project will create temporary employment for more than 23,900 workers, and the operation of the project railways will provide employment to more than 1,400 people. The train services will help poor and low-income families, including women, access income-generating opportunities, health services, and educational facilities. This will reduce poverty and alleviate disparity among urban, peri-urban, and rural areas. The project benefits of reduced travel time, increased social mobility, and safety—factors that facilitate getting out of income poverty—will benefit women in particular by better access to jobs and education. Informal settlers along the PNR right-of-way will also benefit from secured tenure options through social housing programs included in the resettlement activities, as well as livelihood restoration and improvement programs included in the RAPs.

37. **Gender action plan.** The project is classified *effective gender mainstreaming*. The gender action plan includes the following key measures: (i) integrating gender-responsive and inclusive design features in the new rail stations; (ii) implementing interventions to prevent and address sexual harassment in public transport and during executing civil works; (iii) strengthening capacity for gender mainstreaming within the DOTr and partner agencies; and (iv) strongly encourage the O&M contractor to promote gender equality and to employ 40% women in the O&M workforce.<sup>34</sup> For women directly affected by the project, the gender action plan will also ensure that livelihood skills programs are gender-responsive in line with the gender mainstreaming mandate of partner government agencies, such as the technical education and skills development authorities and the public employment service offices of the local government units.

38. **HIV/AIDS and human trafficking.** HIV infection and human trafficking are risks in the project areas. The influx of workers in the project area during construction could create additional HIV transmission risks. The project will mitigate these risks by providing HIV awareness and prevention programs to construction workers, as set out in the environmental management plan (EMP) that will form part of the contractor's obligations. Livelihood disruptions resulting from land acquisition and relocation will create additional human trafficking risks, that will be addressed by a detailed livelihood restoration and improvement program set out in the RAPs.

39. **Communication strategy.** A communication and participation strategy for the project is under preparation with support by ADB TA (footnote 2). Incorporating stakeholder analysis findings, the strategy will identify effective communication channels, best approaches to foster participation and partnerships, key messages, and means of integrating activities with the grievance redressal mechanism. The strategy will set forth implementation time lines, roles and responsibilities, budget, monitoring and evaluation requirements for project communication. Key components of the strategy will include proactively disclosing project information and activities to local communities and stakeholders; soliciting stakeholders' input and feedback on beneficial mitigation measures; encouraging community participation in project activities that affect or could benefit stakeholders, such as civil works construction; and conducting awareness-raising activities related to HIV/AIDS, human trafficking, and safety measures. The PMO will have overall

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<sup>34</sup> Gender Action Plan (accessible from the list of linked documents in Appendix 2).

responsibility for the implementation of the strategy, supported by the construction supervision consultant. Required resources will principally take the form of human resource input from local government units, local community-based organizations, and contractors involved in the project.

## E. Safeguards

40. The project comprises the (i) Malolos–Clark section (51.2 km) and (ii) the Blumentritt extension; (1.9 km). The project is cofinanced by JICA, and the facilities financed by JICA are included in the assessment of safeguard impacts.<sup>35</sup> Implementation of the project will follow ADB's Safeguard Policy Statement (2009). The Malolos–Clark section and the Blumentritt extension are extensions of the Tutuban–Solis–Malolos project, which was conceptualized earlier and is being implemented by the government with financial support from JICA. The Tutuban–Solis–Malolos project will be implemented following safeguard procedures agreed between the government and JICA. In compliance with ADB's Safeguard Policy Statement (2009), the safeguard categories of the project are as follows.<sup>36</sup>

41. **Environment (category A).** The project was assessed *category A* for the environment. Environmental impact assessments (EIAs) have been prepared for the Malolos–Clark section and for the Blumentritt extension in compliance with the Safeguard Policy Statement.<sup>37</sup> Key project environmental issues identified and addressed are dust emissions during construction, noise and vibration during construction and operation, waste generation, traffic congestion and impediments to public access, and occupational and community health and safety. Public consultations were undertaken during EIA preparation. The DOTr will ensure that (i) the EMP in the EIAs will be incorporated in bid documents for all packages regardless of financing source; (ii) consultations with people affected by construction activities are carried out throughout construction; and (iii) the grievance redress mechanism will be adequately resourced, and publicized before commencing civil works. The DOTr will allocate resources for proper EMP implementation and will designate staff to supervise and monitor EMP implementation, supported by the construction supervision consultant. The DOTr will engage an external environmental monitor and will submit semiannual internal and external monitoring reports to ADB for review and public disclosure. The environmental assessment and review framework for the MFF following the Safeguard Policy Statement will guide the preparation of environmental assessment documents, if required, for subsequent tranches. The environmental assessment and review framework and the draft EIAs were disclosed on ADB's website, the draft EIAs were published on 3 December 2018.<sup>38</sup>

42. **Involuntary resettlement (category A).** The project was assessed *category A* for involuntary resettlement. The project will require acquisition of 49 hectares (ha) of land: 46 ha for the Malolos–Clark section and 3 ha for the Blumentritt extension. Resettlement impacts have been minimized by using PNR-owned land and government-owned land wherever possible. Out of the estimated 1,889 project affected households, equivalent to a total number of 7,581 project affected persons, the majority are expected to be severely affected and required to relocate and most of them are informal settlers. A resettlement and indigenous peoples planning framework (RIPPF) has been prepared for the MFF following the Safeguard Policy Statement to guide the preparation of the RAPs. The RAPs have been prepared for the Malolos–Clark section and the Blumentritt extension based on resettlement surveys, social assessments, and consultations. The

<sup>35</sup> ADB and JICA will closely coordinate the implementation of the projects, including any safeguard matters.

<sup>36</sup> ADB. Safeguard Categories. <https://www.adb.org/site/safeguards/safeguard-categories>.

<sup>37</sup> The EIA for the Blumentritt extension is part of the EIA for the Solis–Calamba section, which will be financed as part of ADB's South Commuter Railway Project, planned for board consideration in 2020.

<sup>38</sup> Environmental Impact Assessments and Environmental Assessment and Review Framework (accessible from the list of linked documents in Appendix 2).

RAPs will be updated based on the detailed engineering design. The RAPs mitigate involuntary resettlement impacts by providing compensation at replacement cost along with assistance for relocation and livelihood restoration. Measures have been incorporated to improve the living standards of vulnerable affected people. As the DOTr has limited experience in implementing RAPs for foreign-assisted projects, capacity building will be supported by ADB TA (footnote 2). The DOTr has set up a right-of-way PMO and a technical working committee. A comprehensive grievance redress mechanism has been established, and ADB staff and consultants have initiated training sessions on rolling out the mechanism. RAP implementation will be financed by the government. The RIPPF and RAPs have been disclosed on ADB's website.<sup>39</sup>

43. **Indigenous peoples (category B).** The whole project is assessed *category B* for indigenous peoples because of the project's proximity to indigenous ancestral domain land in Pampanga province. However, due diligence confirmed that the project does not encroach on indigenous peoples' land and a certificate of non-overlap with ancestral domain land has been issued by the Philippines' National Commission on Indigenous Peoples. Furthermore, due diligence for the project indicated that impacts on indigenous peoples are not anticipated, and an indigenous peoples plan was not prepared. The RIPPF for the MFF follows the Safeguard Policy Statement to guide the preparation of indigenous peoples plans, should impacts on indigenous peoples be identified when subsequent tranches are processed.

## F. Summary of Risk Assessment and Risk Management Plan

44. Significant risks and mitigating measures are summarized in Table 5 and described in detail in the Risk Assessment and Risk Management Plan.<sup>40</sup> It is expected that the integrated benefits and impacts will outweigh the costs.

**Table 5: Summary of Risks and Mitigating Measures**

<b>Risks</b>	<b>Mitigation Measures</b>
Delay in releasing counterpart funds	NEDA approved the project in November 2018; land acquisition and resettlement costs and counterpart funds for works are budgeted in 2019. The GC/CSC will help flag the fund requirements well in advance.
O&M financial sustainability	The government has provided assurances that sufficient budget to ensure the financial sustainability of operating the railway will be provided in the initial years of operation, until fares and other revenues can cover the full O&M cost.
Delay in Tutuban–Solis–Malolos railway project completion	The loan agreement with JICA was signed in 2017 and sufficient funds for the project have been budgeted; cost estimates and financing plans will be updated based on final bid prices. The GC/CSC will help monitor the funding requirement and adjust the project budget, if required, to avoid project implementation delays caused by fund shortages or delays in adjusting the project budget.
Delay in capacity expansion of Clark International Airport	Capacity expansion of Clark International Airport commenced in 2017 and is expected to be completed by 2020, i.e., 2 years before the completion of the railway project. The government is closely monitoring the expansion under the Build, Build, Build program to ensure timely completion.
Delay in the development of New Clark City	Development of New Clark City is part of the government's strategy to develop regional growth centers to achieve upper-middle-income status by 2022. The government is closely monitoring the New Clark City project under the Build, Build, Build program to ensure timely completion.
Increase in building material costs	The cost estimates and financing plans are based on detailed price information and site conditions and will be reviewed based on bid prices. The GC/CSC will help flag funding requirements well in advance to avoid project implementation delays caused by fund shortages or delays in adjusting the project budget.

<sup>39</sup> Resettlement Plan: Blumentritt Extension; Resettlement Plan: Malolos–Clark–CIA Section; and Resettlement and Indigenous Peoples Planning Framework (accessible from the list of linked documents in Appendix 2).

<sup>40</sup> Risk Assessment and Risk Management Plan (accessible from the list of linked documents in Appendix 2).



<b>Risks</b>	<b>Mitigation Measures</b>
Delay in signing the O&M contract for the railway network	Recruitment of the O&M contractor for the railway network will start well in advance of commissioning, with contract signing targeted for 2020—i.e., 2 years before partial operation of the system commences. Consultants recruited under the IPIF will assist the PMO in the contracting process. ADB will closely monitor the timely signing of the O&M contract.
Financial management risk	The government will implement the agreed actions as outlined in table 10 of the facility administration manual. <sup>a</sup> ADB will closely monitor the implementation of the actions.

ADB = Asian Development Bank; GC/CSC = general consultant and construction supervision consultant; IPIF = Infrastructure Preparation and Innovation Facility; JICA = Japan International Cooperation Agency; NEDA = National Economic and Development Authority, O&M = operation and maintenance, PMO = project management office.

<sup>a</sup> Facility Administration Manual (accessible from the list of linked documents in Appendix 2).

Source: Asian Development Bank.

## **V. ASSURANCES**

45. The government and the DOTr have assured ADB that implementation of the investment project shall conform to all applicable ADB policies, including those concerning anticorruption measures, safeguards, gender, procurement, consulting services, and disbursement as described in detail in the facility administration manual and loan documents.

46. The government and the DOTr have given certain undertakings for the MFF, which are set forth in the framework financing agreement. Specific covenants agreed by the government and the DOTr with respect to individual tranches under the MFF are set forth in the loan agreement for the respective tranches.

## **VI. RECOMMENDATION**

47. I am satisfied that the proposed multitranche financing facility would comply with the Articles of Agreement of the Asian Development Bank (ADB) and recommend that the Board approve the multitranche financing facility to the Republic of the Philippines for the Malolos–Clark Railway Project in an aggregate principal amount not exceeding the equivalent of \$2,750,000,000, which comprises the provision of loans from ADB's ordinary capital resources, in regular terms, with interest and other terms to be determined in accordance with ADB's London interbank offered rate (LIBOR)-based lending facility; and is subject to such other terms and conditions as are substantially in accordance with those set forth in the framework financing agreement presented to the Board.

Takehiko Nakao  
President

24 April 2019

## DESIGN AND MONITORING FRAMEWORK FOR THE INVESTMENT PROJECT

Impact the Project is Aligned with Local, national, and international connectivity improved (Philippine Development Plan, 2017–2022) <sup>a</sup>			
Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting Mechanisms	Risks
<b>Outcome</b> Efficiency and capacity of transportation along the Manila–Clark corridor improved	<b>By 2025</b> a. Journey from Blumentritt to Clark by public transport reduced to less than 1 hour (2019 baseline: at least 2–3 hours by bus)  b. 171,000 passengers transported by rail between Manila and Clark daily (2019 baseline: 0)	a. Malolos–Clark Railway’s passenger timetable  b. Malolos–Clark Railway’s passenger records	Capacity expansion of Clark International Airport delayed because costs increase beyond estimate.  Development of New Clark City delayed because costs increase beyond estimate.
<b>Outputs</b> 1. New railway line commissioned           2. Institutional capacity strengthened	<b>By 2023</b> 1a. 51.2 km of railway line between Malolos and Clark in Central Luzon, as well as 1.9 km of railway line between Solis and Blumentritt in Metro Manila, constructed and commissioned (2019 baseline: 0 km)  1b. 7 stations constructed, integrating design features that are friendly to and safe for elderly people, women, children, and people with disabilities <sup>b</sup> (2019 baseline: 0 stations)  2a. Knowledge in project and contract management increased for 50 DOTr staff, at least 50% of whom are female (2019 baseline: not applicable)  2b. Information technology system for project management, documentation, and asset management established (2019 baseline: not applicable)	1a–b. Malolos–Clark Railway’s Project completion report           2a. Post-training program reports and surveys of DOTr staff       2b. Monthly project progress reports during project implementation and project completion report	Increase in cost of building materials beyond projections leads to construction delays           Lack of interest by international operation contractors leads to delay in signing the service contract for operation and maintenance of the railway network

Results Chain	Performance Indicators with Targets and Baselines	Data Sources and Reporting Mechanisms	Risks
	2c. 50 DOTr staff, 50% of whom are female, reported increased knowledge on the use of the Guidelines and Standards in Measuring the Gender Responsiveness of the Rail Sector Programs, Services and Facilities; and the DOTr web-based GAD monitoring and evaluation checklist system (2019 baseline: not applicable)	2c. Post-training program reports and surveys of DOTr staff	
<b>Key Activities with Milestones</b> <b>1. New railway line commissioned</b> 1.1 Publish bid documents (January 2019) 1.2 Award contracts (September 2019) 1.3 Mobilize contractor (October 2019)  <b>2. Institutional capacity strengthened</b> 2.1 Select consultants to support capacity strengthening (July 2019)  <b>Project Management Activities</b> Establish project management office and appoint project manager (Q4 2018) Mobilize construction supervision and project management consultants (Q2 2019)			
<b>Inputs</b> ADB: \$2,750,000,000 (regular loan) Government: \$1,378,000,000 JICA: \$2,011,000,000 (loan, not administered by ADB)			
<b>Assumptions for Partner Financing</b> Outputs not administered by ADB that are necessary to reach the outcome include: JICA: \$3,755,000,000 (loan, not administered by ADB) for the Tutuban–Malolos section			

ADB = Asian Development Bank, DOTr = Department of Transportation, GAD = gender and development, JICA = Japan International Cooperation Agency, km = kilometer, Q = quarter.

<sup>a</sup> Government of the Philippines, National Economic and Development Authority. 2017. *Philippine Development Plan, 2017–2022*. Pasig.

<sup>b</sup> Train station design features that are friendly to and safe for elderly people, women, children, and persons with disabilities include bay areas for passenger loading and unloading; ramps, functional escalators, and glass elevators; platform screen doors in all boarding areas; tactile surfaces; signages in gender-sensitive language; separate toilets for male, female, gender-neutral, and people living with disabilities, at a ratio of 1:2 male to female facilities. More details can be found in the Facility Administration Manual (accessible from the list of linked documents in Appendix 2 of the report and recommendation of the President).

Source: Asian Development Bank.

### **LIST OF LINKED DOCUMENTS**

<http://www.adb.org/Documents/RRPs/?id=52083-001-3>

1. Framework Financing Agreement
2. Periodic Financing Request for Project 1
3. Sector Assessment (Summary): Transport
4. Comparison of Financing Modality
5. Facility Administration Manual
6. Contribution to the ADB Results Framework
7. Development Coordination
8. Economic and Financial Analysis
9. Country Economic Indicators
10. Summary Poverty Reduction and Social Strategy
11. Environmental Assessment and Review Framework
12. Resettlement and Indigenous Peoples Planning Framework
13. Risk Assessment and Risk Management Plan
14. Climate Change Assessment
15. Gender Action Plan
16. Environmental Impact Assessment
17. Resettlement Plan: Blumentritt Extension
18. Resettlement Plan: Malolos–Clark–Clark International Airport Section

### **Supplementary Document**

19. Alignment with Strategy 2030