

Transport and Climate
Change Week

#TransportWeek23

Indonesia's Urban Mass Transit Development Program

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Portrait of Urban Transportation Issues In Indonesia

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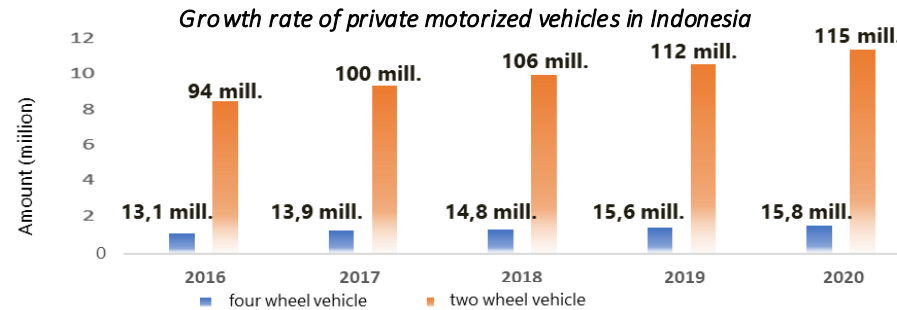
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- Efforts to build urban public transportation have been carried out in several main cities in Indonesia
 - BRT Jakarta has been built since 2004 (currently the BRT with the longest network in the world with a length of 251 km); MRT Jakarta has been operating since 2019 with a length of 16 km.
 - BRT system has also been developed in some metropolitan areas (Bandung, Bali, Medan, Yogyakarta, Makassar, Banjarmasin, Palembang) mostly limited to within the core cities.



- However, motorization has occurred so massively that had an impact on the low share of public transport users in Indonesian cities (<20%)

- The number of private vehicles in Indonesia has been increased rapidly (130,8 million units in 2020).
 - average growth rate of 8% per year in the past 5 years



- These issues have an impact on traffic congestion
 - externalities: economic and environmental losses as



Jakarta, Surabaya, Bandung are among the congested cities in Asia.

Due to congestion, a 1% increase in urbanization in Indonesia only resulted in an increase of **1.4% of GDP per capita**, below China and countries in East Asia and Pacific

INCREASE OF GDP PER CAPITA (%) BY 1% URBANIZATION GROWTH

Sumber: Bank Dunia, 2015



The GHG emission from the transport sector made up 26% (the second largest, 91% was from the road transport)



Strategic Issues/Challenges in the Development of Public Transport

Lack of: Institutional Capacity, Integrated Mobility Plans, and Local Fiscal Capacity



The development of urban mass transportation in Indonesia is still limited to the administrative area of the city (not yet covering the metropolitan/area around the core city), while demand comes from outside the city (i.e: MRT and BRT Jakarta)

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Responsibility for addressing urban transport in Indonesian cities has been decentralized. However, local gov't cannot build public transportation

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Lack of effective institution in metropolitan areas that is able to integrate the development and management of cross-border administration and intermodal transport in a metropolitan area

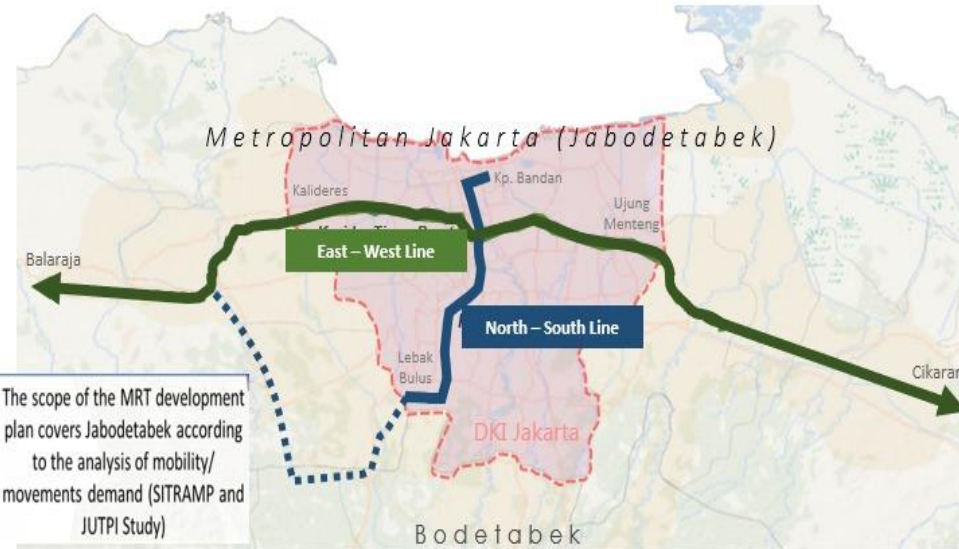


Regional Fiscal Capacity issues to build urban mass transportation. If only relying on the regional budget, apart from DKI Jakarta, there are no cities able to build MRT and LRT

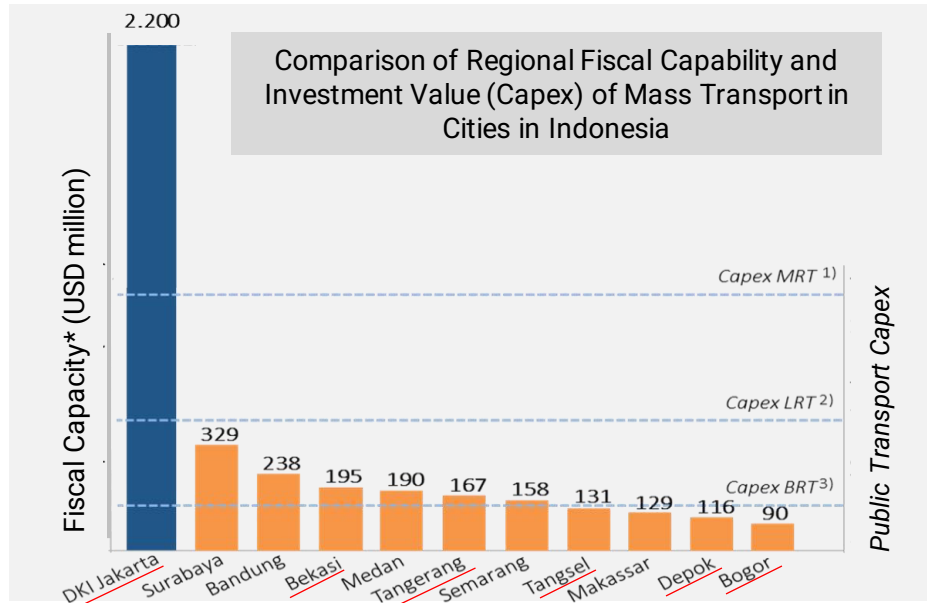
✓ **MRT Jakarta Case:**

In terms of funding, MRT Jakarta North – South line has been successfully built with a co-financing scheme between the central government and DKI Jakarta Government (on lending 51% and on granting 41%)

✗ **However, the implementation is limited within the Jakarta city (not the metropolitan area) due to institutional constraints**



Case: cities within metropolitan Jakarta have very low capacity compared to the city of Jakarta



*) Fiscal Capacity in terms of regional borrowing capacity

1) Capex MRT: USD 1 Billion/10 km; 2) Capex LRT: USD 460 Million/20 km; 3) Capex BRT: USD 140 Million/30 km

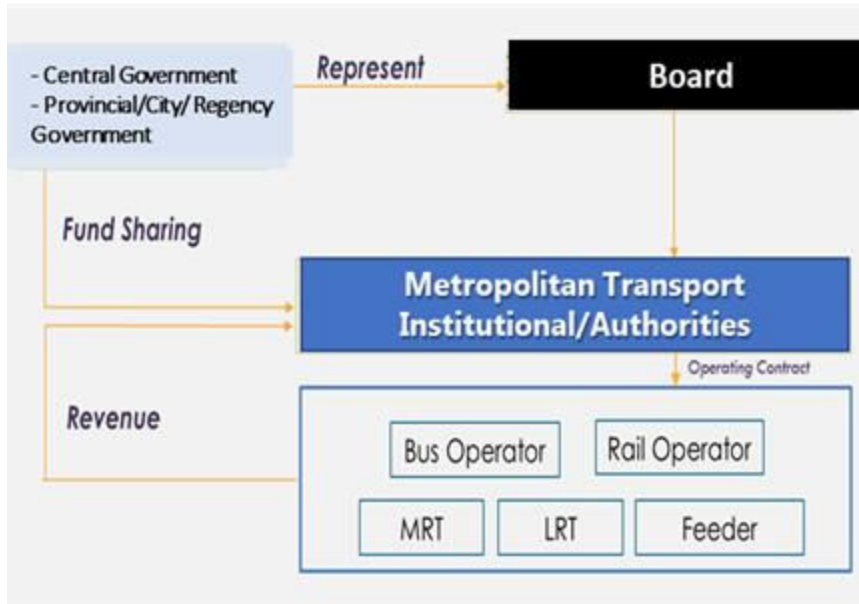
Bappenas initiated a mass transit program consisting of aspects of institutional development and funding integration

Metropolitan Transport Institution Development

Establishing metropolitan transportation institutions to ensure the integration of Urban mobility policy & Management and operation of public transport

- The institutional form based on best practice is a corporation (can be in the form of a State-Owned Enterprises / SOE-ROE Holding)
- Manage transportation funding (sourced from operating income, business development, equity contributions from each local government, etc.)

Metropolitan Transport Authority Model



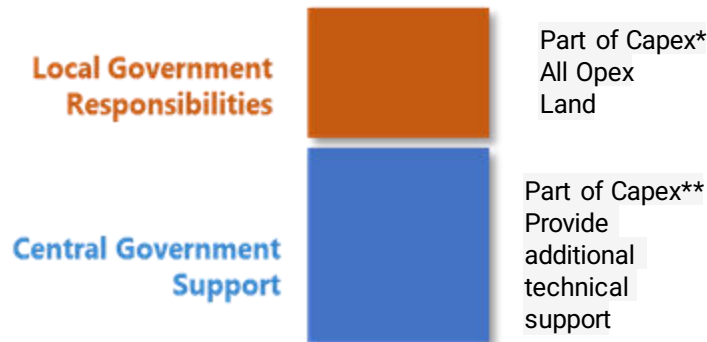
Integration of Funding Sources for Urban Mass Transport Development

Formulate a funding scheme for the implementation of mass public transport

- Ensuring the role of local governments in financing the construction and operation of public transport
- Optimizing investment of Business Entities
- Regulate the portion of Central Government support

Integration of funding sources

- Provincial and City/Regency Budget
- Alternative Regional Loans through Municipal Bond Issuance (requires legal umbrella), asset and capital investment
- Loan
- Central Government support through Grants or hybrid financing (combination):
 - Upfront Cash through Grants
 - AP support from the relevant Ministries for the Capex portion of central government
 - VGf
- Business Entity



*) Minimum 15% Total Capex
 **) Maximum 85% Total Capex



Sustainable Urban Mobility Plan

Shifting the planning approach from a conventional Master Plan (based on administrative areas, focusing on increasing traffic flow/capacity) to Sustainable Urban Mobility Plan (based on urban functional areas and focusing on accessibility of urban activity centers)



Urban Mass Transit Program

...Pilot Projects...



Examples of urban mass transit pilot projects: Construction of MRT Jakarta Metropolitan East-West Line, BRT Medan Metropolitan, and BRT Bandung Metropolitan

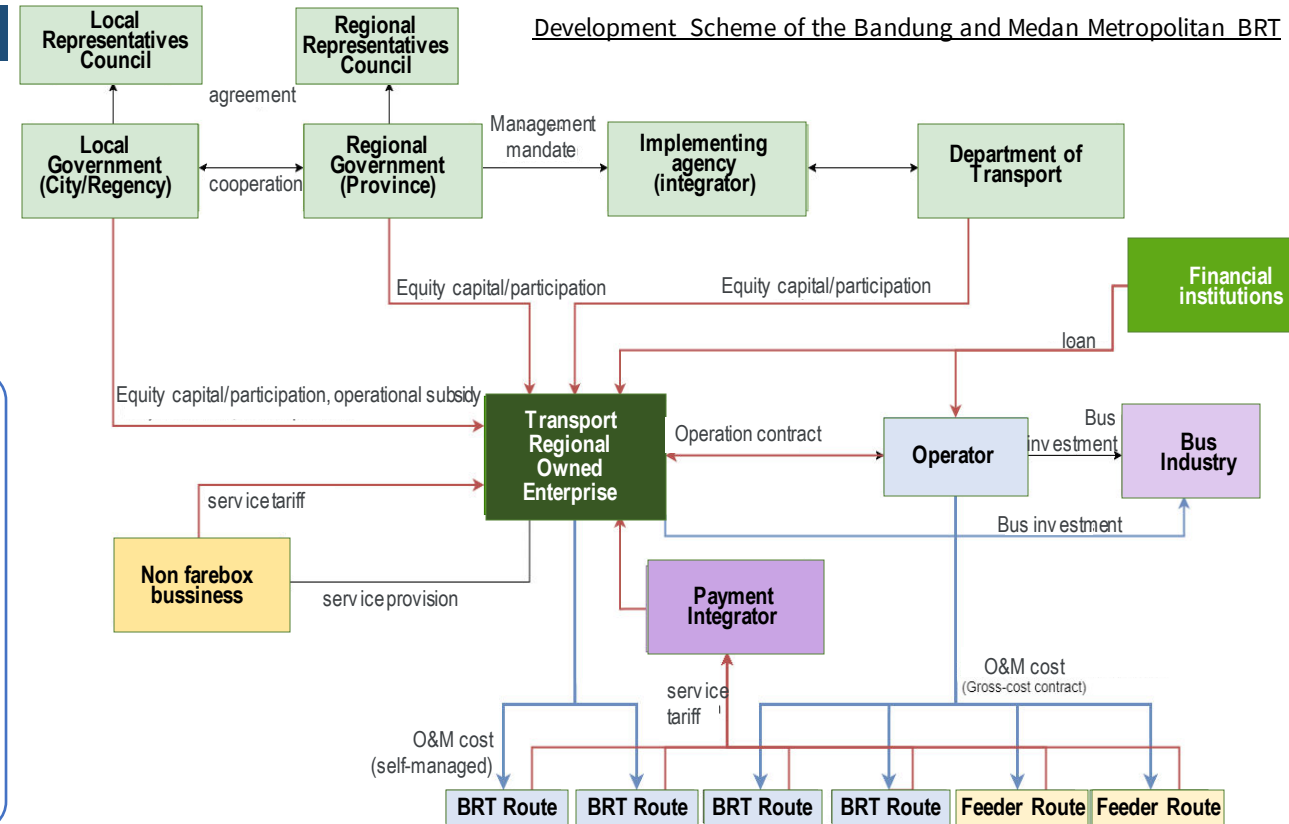
Scope, Institutional, and Funding

MRT Jakarta Metropolitan East-West Line :

- MRT line (84 km) connects Jakarta CBD and residential clusters along corridors in Banten and West Java Province
- Holding State Owned Enterprise and local government Owned Enterprises in the Jakarta Metropolitan Area (Jakarta, West Java, and Banten Provinces)
- Fase 1 with on-lending and on-granting scheme with Jakarta, West Java, and Banten Provinces

BRT Bandung and Medan Metropolitan

- BRT Bandung Metropolitan: 21.7 km dedicated line and 20 direct service routes mainly serving access from residential areas outside Bandung (Cimahi, Bandung and Sumedang regencies) to commercial areas in Bandung city center
- BRT Medan Metropolitan : 21 km dedicated line and 17 direct service routes mainly serving access from residential areas outside Medan (Binjai dan Deli Serdang regencies) to CBD areas in Medan city center
- Holding of Provincial and Local Government Owned Enterprises to manage and operate public transport infrastructure and services in metropolitan area
 - Province of Bandung currently has a Bandung Metropolitan management institution which will be part of the steering council
- The central government supports capex and the local governments provide rolling stocks, opex and land acquisition



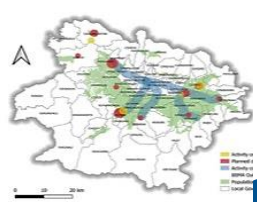
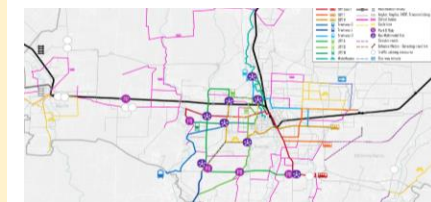
Sustainable Urban Mobility Plan (SUMP)

SUMP in Jakarta, Medan, Bandung Metropolitan is focused on developing integrated mass public transportation to serve priority corridors (incl. integrating network with residential areas, workplaces and activity centers) based on the demand/movement across metropolitan area administrations

SUMP and FS in metropolitan Jakarta, Bandung, and Medan were formulated through collaboration with development partners.

i.e: SUMP Bandung Metropolitan by World Bank, FS by GIZ and SECO (through Sutrinama-Indobus)

*FS by GIZ and SECO also conducted in Semarang, Surabaya, and Makassar



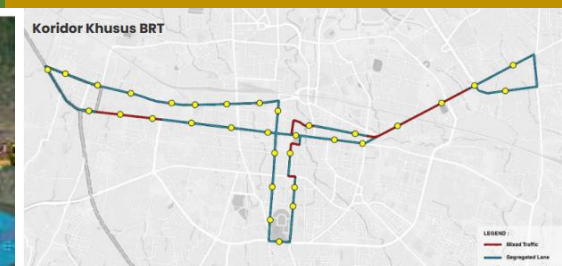
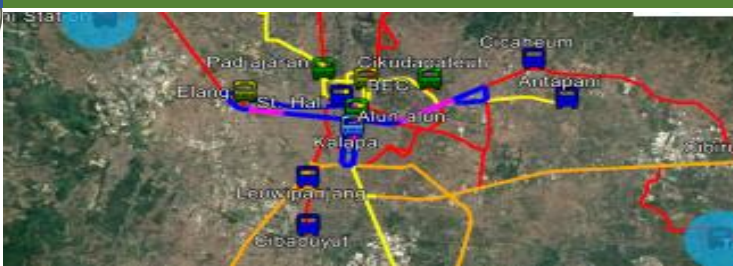
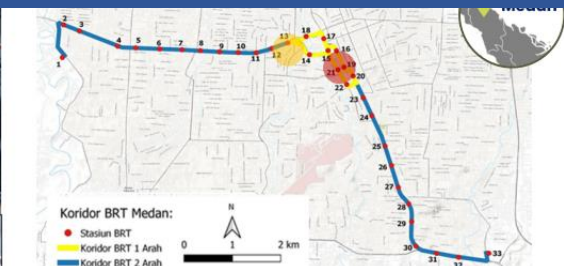
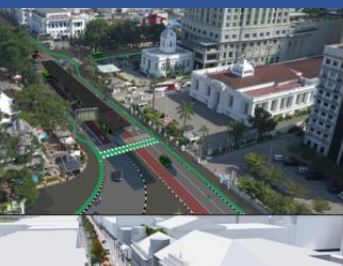


Way Forward

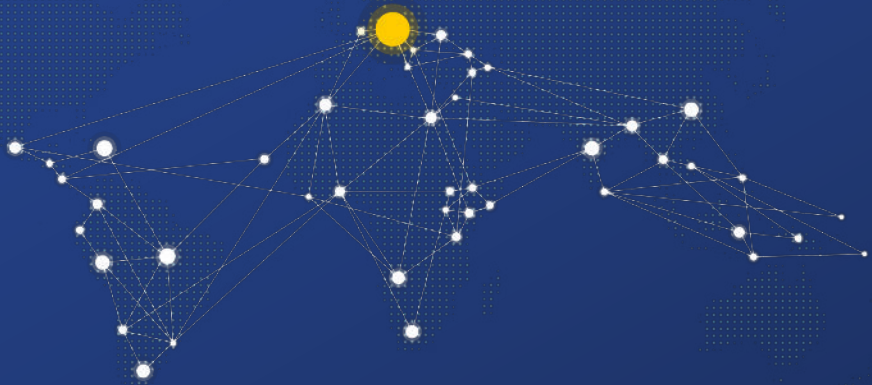
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- ❑ The implementation of the Bandung and Medan Metropolitan BRT will be electricity-based and is targeted to start operating in the end of 2024 (gradually until full operation in 2027) & the development of the MRT Jakarta Metropolitan East – West Line (currently is in the construction preparation stage) will be operational in 2030. Institutional set-up and fund sharing scheme are currently being implemented for each metropolitan area/project.
- ❑ Mass transit system development (and provision of funding supports) will be continued for other priority metropolitan areas (Semarang, Surabaya, Makassar, Denpasar) through a collaborative approach with development partners. In the medium-long term development plan, the program will be implemented in next large and medium cities.
- ❑ Regulatory framework to strengthen policy and strategy (including institutional and financial arrangement) on urban mass transit development



THANK YOU



Code 5367 2714



Which urban transport financing schemes are the most significant in your country?