INDONESIA ROAD SECTOR DEVELOPMENT

by Triono Junoasmono, Ph.D.
Deputy Director of Planning Integration and Network System
Directorate General of Highways

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OUTLINE

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1. INTRODUCTION
COUNTRY OUTLOOK

Indonesia is located between the Pacific Ocean and Indian Ocean thus bridging Asia with Europe, Middle East and Africa

15\textsuperscript{th} largest country in the world
Total Land Area: 1,811,569 sq km
Distant from furthest points: 5.2 thousand Km

17,508 islands

5\textsuperscript{th} largest population in the world (Population: 248 millions)
1. INTRODUCTION

ECONOMIC STRENGTH

Indonesia is the largest economy of ASEAN accounting for 33% of the total ASEAN GDP and is the 16th largest GDP in the world.

Indonesia has maintain positive economic growth even with the financial crisis that took place in 2009.
2. THE ROAD STATISTICS

<table>
<thead>
<tr>
<th>Road Status</th>
<th>Length (km)</th>
<th>Percentage of Total Road Length</th>
<th>Stable Road Condition</th>
<th>Authority</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Road</td>
<td>47,017 (non toll road)</td>
<td>11%</td>
<td>86 %</td>
<td>Central Gov’t</td>
</tr>
<tr>
<td>Provincial Road</td>
<td>46,486</td>
<td>11%</td>
<td>70.99 %</td>
<td>Provincial Gov’t</td>
</tr>
<tr>
<td>Municipal/Regency Road</td>
<td>346,294</td>
<td>78%</td>
<td>57.01 %</td>
<td>Municipal/Regency Gov’t</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>440,617</strong></td>
<td><strong>100%</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Composition of Road Length by Status

- Indonesia has the longest road network in ASEAN
- National road serves as the main primary-arterial road network and in general is in good condition
- However, a lot of provincial and municipal/regency roads are in poor conditions. This situation hamper Indonesia road network connectivity

Source: Statistics Bureau, 2010
Three Steps toward achieving long term goals:

• Creating new integrated economic activities by **improving accessibility** to natural resources, geographic and human resources potential.
• Improving production and marketing efficiency to enhance national economic competitiveness and resiliency
• Promoting innovation-driven economy

Improving Accessibility means the provision of decent and reliable infrastructure such as roads, toll roads and bridges.
4. Issues and Challenges in the Road Sector

Network
- Backlog and less competitive logistic infrastructure caused by high logistic cost and high travel time on main corridors (2.7 hr/KM).
- Unready and less spread of expressway development.
- Unbalance modal share; too dominant on the road sector (85%); congestion in metropolitan area
- Spatially unbalance road performance; the conditions of sub national roads are less stable compare to national roads.

Delivery
- Less optimal delivery system due to traditional procurement,
- Too many small size contracts
- Government bear all the risks

Financing
- Limited alternative financing models including less optimal Public Private Partnership (PPP) scheme; too dependant on the public resources

2016 Road Sector Budget Proportions & Loan Proportions By Donors
- State Budget 76.63%
- Loan 7.62%
- JICA 0.89%
- China 3.36%
- IsDB 0.33%
- ADB 0.95%
- World Bank 1.75%
- EDCF 0.34%
- Sharia Obligation 15.71%
- Public Service Agency (BLU) 0.04%

Diagram: Backlog in Toll Road Network Development
- Malaysia
- China
- Philippines
- Thailand
- Indonesia
- Vietnam

Diagram: High Cost of Land Transport - Low Connectivity between Economic Activity Center
- Vietnam
- Indonesia
- China
- Thailand
- Malaysia

Diagram: Expressway Density (km/1000 population)
- Malaysia
- China
- Philippines
- Thailand
- Indonesia
- Vietnam

Diagram: Trip time (hr/100 km)
- Vietnam
- Indonesia
- China
- Thailand
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With a very big dream, comes a huge responsibility to provide abundant of financial source. As the government could only provide ± 30% of the total needs, there should be another type of financial scheme. Instead of view the financial gap as a problem, it would be better to recognize this as an opportunity for private sectors to give a hand by investing their capital in the development of hard infrastructures.
6. ROAD DEVELOPMENT PLAN
NATIONAL MEDIUM TERM DEVELOPMENT PLAN 2015-2019

- Accelerating the development of Multimodal Transportation System

- Accelerating the development of National Logistic System

- Encourage the equilibrium of national-oriented transportation as well as local and regional-oriented transportation

- Building integrated transportation network in order to support investment on economic zones and outlets
6. ROAD DEVELOPMENT PLAN
DIRECTORATE GENERAL OF HIGHWAYS STRATEGIC PLAN 2015-2019

**Increased connectivity support to strengthen competitiveness (77%)**
- Reducing travel time in the main corridors down to 2.2 hr/100 km

**Increased stability of National Road (98%)**
- Utilization of National Road up to 133 billion vehicle km
- Facilitation for sub national road up to 100%

**Road Network Development**
- 1.000 KM Expressway
- 2.650 KM New Roads
- 3.072 KM Capacity Expansion (including FO/UP)

**Asset Management**
- Preservation of 47.017 KM National Road (including bridge)

**Support to Sub National Road**
- 500 KM Sub National Road Facilitation

**Utilization of National Road**
- 98 billion vehicle km
- Connectivity 70%
- Travel time 2.7 hr/100 km

**Stability of national road**
- 94%
- Utilization of national road 98 billion vehicle km

**2014 - 2019**
6. ROAD DEVELOPMENT PLAN
DIRECTORATE GENERAL OF HIGHWAYS STRATEGIC PLAN 2015-2019

- Support on Development of **24 New Seaports**
- Support on Harbour in **60 locations**
- Support on **urban areas** and rail crossings
- Support on **15 Priority industrial Areas**

- Expressway Construction (1,000 km)
- National Road Construction (2,650 km)
- Construction of FO/UP on the rail intersection and metropolitan area (15,000 m)
- Preservation of National Road (47,017 km)
- Support on local/provincial road (500 km)

- Development of Strategic Road to support Tourism and border area
- Construction on missing link (to seaport and airport)
- Construction of Ring Road

- Support on Development of **15 New Airports**
- Support on **Railways**
- Support on **25 Priority National Tourism Strategic Zones (KSPN)**
1. Regional approach to achieve “infrastructure for all” and “sustainable development”.
2. Toll Road provision, operation, and maintenance in the developed region involving private sector.
3. Government budget can be allocated to provide and improve road network in the developing and newly developing region.
Expressway Development

- Since the first toll road opened in 1978, Indonesia can only expand its toll road network up to 948 km (recent data).
- Toll Roads (Expressways) is important as the land transport backbone especially to support National Logistic System.
- In the long run, Indonesia plan to expand its Toll Road network up to 6,115 km, mostly located in Sumatera and Jawa.
Trans Sumatera and Trans Jawa Expressways

- Trans Sumatera and Trans Jawa Expressways serves as the land transport backbone for those two already developed islands and is important for logistical activities by reducing traffic loads on the existing non-toll roads.
- The Government plan to complete and operate additional 203 km Trans Sumatera expressway and 575.73 km Trans Jawa expressway by 2019.

Trans Sumatera
Total length: 2,840 km
Currently Operational: 43 km

Trans Jawa
Total length: 1,187 km
Currently Operational: 479 km
Traffic Conditions on Java in 2030 with Current (Trans-Java) Tollroad Plans

Traffic conditions on tollroads

Traffic conditions on other arterial roads

Red indicates heavy congestion
Required Additional Road Network to Achieve Acceptable Traffic Conditions on Java in 2030

Traffic conditions on tollroads

Traffic conditions on other arterial roads

Red indicates heavy congestion
7. DELIVERY METHODS FOR ROAD SECTOR DEVELOPMENT

- **Expressway**
  - **PPP**
  - SOE, SBOT/Lease, BOT
  - PBAS

- **National Road**
  - Traditional Procurement
  - PBC, PBMC

- **Metropolitan and Urban Road**
  - Traditional Procurement
  - PBC, PBMC

- **Sub National Road**
  - Traditional Procurement
  - Incentive Based Road Improvement and Maintenance
## 8. ON-GOING ROAD PROJECTS COOPERATION BETWEEN INDONESIA – JAPAN

<table>
<thead>
<tr>
<th>No.</th>
<th>Project</th>
<th>Type</th>
<th>Amount (JPY)</th>
<th>Scope of Work</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The Project for Construction of Bridges in the Province of Nusa Tenggara Barat Phase 3</td>
<td>Grand Aid</td>
<td>961,000,000</td>
<td>• Construction of 10 bridges (with various length between 20-50 m)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Construction of approach roads</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Construction of river bank protections</td>
</tr>
<tr>
<td>2</td>
<td>Expert on Road Policy</td>
<td>Grand Aid</td>
<td>22,073,000</td>
<td>Provide advice and/or guidance in the road sector and assisting the formulation of road and project policies</td>
</tr>
<tr>
<td>3</td>
<td>Aceh Reconstruction Project IP – 545</td>
<td>Project Assistance -Loan</td>
<td>11,593,000,000</td>
<td>• Civil works: Reconstruction of 141 KM roads</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Consulting services and construction supervision of the civil works</td>
</tr>
<tr>
<td>4</td>
<td>Tanjung Priok Access Road Construction Project Phase 1 IP – 529</td>
<td>Project Assistance -Loan</td>
<td>26,306,000,000</td>
<td>• Civil works: Construction of 8,3 KM flyovers as access roads for Tanjung Priok Port</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Consulting services and construction supervision of the civil works</td>
</tr>
<tr>
<td>5</td>
<td>Tanjung Priok Access Road Construction Project Phase 2 IP – 531</td>
<td>Project Assistance -Loan</td>
<td>26,620,000,000</td>
<td>• Civil works: Construction of 4 KM flyovers as access roads for Tanjung Priok Port</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>• Consulting services and construction supervision of the civil works</td>
</tr>
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</table>
## 9. BUSINESS OPPORTUNITIES ON THE TOLL ROAD DEVELOPMENT: PPP SCHEME

*IN TENDER PROCESS*

**UNSOLICITED PROCESS**

<table>
<thead>
<tr>
<th>No.</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Segment Name</td>
<td>Serpong-Balaraja *) **)</td>
<td>Manado-Bitung *)</td>
<td>Balikpapan-Samarinda *)</td>
<td>Pandaan-Malang *)</td>
<td>Cileunyi-Sumedang-Dawuan</td>
<td>Panimbang-Serang</td>
<td>Batu Ampar-Muka Kuning-Bandara Hang Nadim</td>
</tr>
<tr>
<td>Length (km)/ No of Sections</td>
<td>30,00/ 3</td>
<td>39,00/ 2</td>
<td>99,02/ 5</td>
<td>37,62/ 3</td>
<td>58,50/ 6</td>
<td>83,90/ -</td>
<td>25,00/ -</td>
</tr>
<tr>
<td>Land Cost (Rp. Milyar)/ Progress</td>
<td>1.751/ 0%</td>
<td>1.200/ Seksi 1 88,92%</td>
<td>1.200/ 85%</td>
<td>294 22,35%</td>
<td>1.295/ 31,28%</td>
<td>1.006/0%</td>
<td>- / -</td>
</tr>
</tbody>
</table>

### Status
- **Tender Preparation (Finished)**
- **Praqualification**
- **Praqualification**
- **Tender Announcement on 17th of September**
- **Tender Preparation (Tender Starting)**
- **Tender Preparation (Tender Starting)**
- **Tender Preparation (Tender Starting)**
## 10. POTENTIAL FUTURE COOPERATION BETWEEN INDONESIA-JAPAN

In addition to what Government of Indonesia and Government of Japan have done, the GoI feels the urge for more assistance/learning from the GoJ in terms of:

<table>
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<tr>
<th>Project</th>
<th>Location</th>
<th>Objective</th>
</tr>
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| Intelligence Transportation System           | Pilot project in main island for National Road (Toll and Non-Toll) | • Improve Incident Response Actions  
• Improve Traffic Response Actions  
• Synchronize data from Toll Road and Non-Toll Road authority  
• Synchronize data from Public Transport and Police authority |
| Urban Arterial Road Improvement Project      | Big cities/metropolitan areas                    | Improve connectivity and mobility, as well as alleviate traffic congestion in big cities/metropolitan areas (Palembang, Medan, Bandung, Semarang, Denpasar and Banjarmasin) by construction of bypasses/ring roads |
| Project Delivery Scheme                      | National Road (Non-Toll)                         | • Lesson learnt from Japan experiences on national road delivery system  
• Improve the national road delivery system (effective and efficient) |
| Construction of Flyovers and Underpasses     | National Roads in Big Cities and Railway Crossings | • Improve mobility in big cities  
• Improve safety for road users in railway crossings  
• Usage of barriers in flyovers to reduce noise pollution for surrounding area and wind impacts on vehicles |
| Construction of Tunnel                       | West Sumatera                                    | Improve connectivity and reduce travel time                                                                                                                                                |
| Long Span Bridge                             | Subject TBD                                      | Improve connectivity and reduce travel time                                                                                                                                                |
| Road Safety Audit & Road Safety Inspection   | Main corridors of Primary Roads                  | • Reducing traffic accidents numbers by taking ex ante evaluation and ex post evaluation                                                                                                     |
VIDEO OF
INDONESIA ROAD PROJECT
Ministry of Public Works and Housing supports infrastructure connectivity and logistic movement as one of crucial aspects in reducing and eliminating non-tariff barriers to trade and investment.

Future road development plan of DGH is focusing on road network development, road network management, and support to sub-national road.

In realizing such program especially road network development (capacity expansion), the main issues faced today are related to the land acquisition process and low feasibility of the projects (the need for Government support and guarantee to increase the project’s attractiveness to the private sector).

Innovative delivery is needed in infrastructure funding and financing to support Public Private Partnership in infrastructure provision especially on the road sector.

Indonesia welcome to all participation which will be beneficiary to the acceleration of road sector improvement and development.
THANK YOU