Spending More and Better to Strengthen National Roads for Enhanced Connectivity and Competitiveness

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National roads and expressways are strategically important to Indonesia’s productivity and competitiveness, carrying 40% of all traffic.
Road transport demand has outstripped network capacity, creating a backlog...

Indices of road space and network utilization (2010=100)

LPI (infrastructure) vs. GCI (road infrastructure quality) in 2018 and GDP per capita (2017)

Source: World Bank staff calculations from DGH Annual report (LAKIP), 2009-17, and Pagu Anggaran TA and DGH IRMS database.


Note: Bubble’s size is proportional to GDP per capita.
Although central government spending on national roads has risen substantially over the past decade, total spending is still insufficient.

In recent years, road preservation has received a greater portion of the spending.

**IDR Trillion - Central Government spending on national roads**

Note: Non-physical outputs include data collection; technical planning and programming; RPJMN and Renstra preparation; project M&E; land acquisition support; preparation and revision of environmental and social documentation; regional road support; quality testing; capacity building programs; maintaining e-monitoring systems; and other office services.

Source: MoF and DGH. Based on audited expenditures except for 2018, which refers to planned budget expenditures.

**47.5 - 51**

Trillion of IDR is the estimated annual public investment need for national roads.
Despite increased spending on national roads, physical output has not increased commensurately with expenditure.

This is partially due to more expensive treatments.
Indonesia is now addressing the backlog in its expressway network relying on SOEs, but this may not be the most efficient strategy.

In numerous cases, highly leveraged SOEs require Government support to reach/sustain viability.

<table>
<thead>
<tr>
<th></th>
<th>Indonesia</th>
<th>Malaysia</th>
<th>China</th>
<th>India</th>
<th>Vietnam</th>
<th>Philippines</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length (km)</td>
<td>1,745</td>
<td>2,021</td>
<td>136,500</td>
<td>24,000</td>
<td>2,150</td>
<td>286</td>
</tr>
<tr>
<td>Density (km/million inhabitants)</td>
<td>6.75</td>
<td>63.75</td>
<td>98.72</td>
<td>18.33</td>
<td>23.22</td>
<td>2.74</td>
</tr>
</tbody>
</table>

Travel times are high, travel speeds are low and **congestion** is prevalent on major roads in arterial corridors.

- **2.6** Hr. to travel 100 km
- **2/3** Vehicle traveled under slow or congested flow conditions
National road pavements are reported to be in generally good condition, but this may be misleading.

Indonesia uses lower standards to define road quality compared to other emerging market countries.

Sources: Indonesia – DGH; Georgia, Vietnam, and Peru – World Bank Country Offices; The Philippines – DPWH.
Actual life and performance of roads appear relatively short and road work quality is suboptimal

These problems with road performance are in part due to poor data collection and management systems, which have led to fragmented and ineffective program prioritization.
The highly decentralized nature of DGH has hampered the quality and speed of implementation of national roads projects.

DGH has an employment intensive structure and frequent job rotation hinders building stable technical skills.

Sources: Indonesia – DGH; India, Vietnam and Thailand – World Bank Country Offices; The Philippines – DPWH.
Recommendations to Improve the Quality of Spending
Recent Developments / Reforms

- The share of work with large contract sizes has increased and is expected to lead to gains in efficiency and effectiveness of spending.
- The recently launched legislation (PP 16/2018) is expected to encourage the implementation of performance-based contracts.
- More modern expenditure planning tools are beginning to be utilized.
- Budget execution has mostly improved over the period 2010-17.
Remaining Agenda of Reforms

Focus on efficiency and effectiveness rather than quantity:

1. Redefine strategic transport indicators to include efficiency and road safety indicators

2. Revisit the current condition rating and establish new, internationally-aligned roughness thresholds, as well as strengthening project design/supervision, quality control and compliance with vehicle load capacity restrictions

3. Monitor expenses more closely to ensure the higher costs of road treatments and lifecycle costs are justified

Develop longer-term strategies to address the backlog in road network capacity, such as by refocusing the current short-term widening program on longer-term objectives and by developing a long-term (about 50-year) funding strategy for expressways to account for the anticipated need of greater public investment

Increase the pool of funding for national roads and expressways, including by leveraging private sector investment; however, when insufficient fiscal resources are available, it is recommended prioritizing asset preservation over new investment
Remaining Agenda of Reforms

Identify other sources of revenues to ensure that EDP is fiscally sustainable

Address institutional challenges to implementing reforms, specifically by revisiting the structure of the DGH to improve the concentration of technical skills and better focus the responsibilities of staff on asset management

4 Take measures to leverage private sector investment for expressway development

5

6
Thank you!