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Transportation Development In Indonesia

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Republic of Indonesia
Indonesia

**Population** 237,556,363 (2010)

**The Capital City:** Jakarta (662 km²)

Population: 9,588,198 people

Consist of 33 Provinces with 497 Regencies

Cities in Indonesia:
- **11 Metropolitan** (> 1 m Pop)
- **15 Large Cities** (> 500,000 – 1 m)
- **48 Medium Cities** (> 100,000 – 500,000)
- **Other Small Cities** (≤ 100,000)
Emerging Asia

"The shift of economic power from West to East will continue, and Asia-Pacific will remain the most attractive economic region for the next 20 years,"

IHS Global Insight, 2011

Developing country growth rates to stabilize at historically elevated rates

Real GDP growth, ch%, 2009 to 2013

Asia’s rise will be led by PRC, India, Indonesia, Japan, Republic of Korea, Malaysia, and Thailand.

In 2010 these seven economies had a combined total population of 3.1 billion (78 percent of Asia) and a GDP of $14.2 trillion (87 percent of Asia). By 2050 their share in population is expected to fall to 73 percent of Asia, while the share of GDP rises to 90 percent. These seven economies alone will account for 45 percent of global GDP. Their average per capita income of $45,800 (PPP) would be 25 percent higher than the global average of $36,600.

Source: ADB, 2011
Indonesia’s Economy

- Indonesia managed to defy the world’s economic crisis and bounced with higher growth after the crisis.
- In 2004-2009 the average growth was 5.8%, and 6.1% in 2010.
Indonesia is The Best Place For Entrepreneurs to Start Business (BBC Survey)

Indonesia, the USA, Canada, India, and Australia are among the countries with the best cultures in the world for people to start a new business, while Colombia, Egypt, Turkey, Italy and Russia are the least friendly to innovation and entrepreneurship, according to the results of a global 24m country BBC World Service poll released today.

The GlobeScan/PIPA survey of more than 24,000 people asked people to say how hard they felt it was for people like them to start a business in their country, whether their country values creativity and innovation, whether it values entrepreneurs and whether people with good ideas can usually put them into practice. Taking all four questions into account, Indonesia ranked highest as the most entrepreneur-friendly of the countries surveyed, followed closely by the USA.
Global Competitiveness Index of Indonesia
To grow and to stay competitive, Indonesia aims to transform its economy

To stay competitive, we cannot afford to rely on “business as usual” scenario. We need to have economic transformation that is planned through the Master Plan of Economic Development Acceleration and Expansion, a plan that is integrated with other Government laws and plans.
Strategies of the Master Plan of Economic Development Acceleration and Expansion

1. **DEVELOP INDONESIA ECONOMIC CORRIDORS**
   - Build growth centers in every island, with industrial clusters development based on priority resources (commodity and/or sectoral)

2. **STRENGTHEN NATIONAL CONNECTIVITY**
   - Reduce transaction cost,
   - Realize synergy among growth centers,
   - Realize accessible services

3. **ACCELERATE ICT DEVELOPMENT**
   - Improve HR quality,
   - Improve quality and quantity of IT Infrastructure across Indonesia (especially to Easter Indonesia)
   - Narrow digital divide
Six Priority Commodity-Based Economic Corridors

- Sumatera Corridor
  - "Production, Agriculture, and National Energy Center"

- Java Corridor
  - "National Industry and Services Enhancer"

- Kalimantan Corridor
  - "Production, Mining, and National Energy Center"

- Sulawesi Corridor
  - "Gateway to National Tourism and National Food Annex"

- Bali-Nusa Tenggara Corridor
  - "National Agriculture, Fishery, Energy, and Mining Center"

- Papua-Maluku Corridor
Indications of Investment in 6 Economic Corridors

- To support the development of the main economic activities within the corridors, the total investment value has been identified at about USD 472 billion.

- The government will contribute around 10 percent of this cost in the form of basic infrastructure provision, such as roads, seaports, airport, railways, and power generation. The remaining will be provided by state owned enterprises, private sector, and through public private partnership (PPP).

- The estimated need of infrastructure investment for these 6 corridors reaches USD 210 billion.
TRANSPORTATION SECTOR DEMAND
• Total domestic movement is around 12 billion/year
• Java movement dominated for about 9.9 billion/year (81%)
• Sumatera 13%, 1.6 billion ton/year
• East Part of Indonesia 6%, 0.72 billion ton/year

Potential Demand: Freight Railway

In Java

- Volume ton ’000

In Sumatera

- Volume ton ’000

- Freight railway in Java potentially grows 47% per year in the next five years, while the one in Sumatra grows 26%.
- Total freight railway in Java in 2015 will reach 18 million tons, in Sumatra 58 million tons.
- Railway in Sumatra is needed to ship coal and CPO, while the one in Java serves several commodities, such as textiles, agricultural products, and machinery.
Potential Demand: Ports

Several forecasts and analyses for Sea Transportation and Ports in 2030:
- The largest port throughput will be in Kalimantan
- Port traffic in Kalimantan will be mainly dominated by coal distribution
- Container traffic will be concentrated in Java
- Petroleum distribution will be dispatched mostly from ports in Java and Sumatra
- Ports in Sumatra will handle most of CPO distribution
- Java will need an additional 1,139 Ha of land for port expansion needs

Source: National Port Master Plan: Vision 2030, DGST, 2010
47 Designated ports for ASEAN Connectivity (14 in Indonesia)

Source: JICA Study on Guidelines for Assessing Port Development Priorities 2009
## Ports Development

<table>
<thead>
<tr>
<th>25 Major Ports</th>
<th>7 Special Terminals Coal &amp; CPO</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Plb. Lhoukseumawe</td>
<td>1. Balikpapan</td>
</tr>
<tr>
<td>2. Pelabuhan Belawan</td>
<td>2. Samarinda</td>
</tr>
<tr>
<td>5. Pelabuhan Pekanbaru</td>
<td>5. Belawan</td>
</tr>
<tr>
<td>6. Pelabuhan Batam</td>
<td>6. Dumai</td>
</tr>
<tr>
<td>7. Pelabuhan Teluk Bayur</td>
<td>7. Pekanbaru</td>
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<td>8. Pelabuhan Panjang</td>
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<td>9. Pelabuhan Palembang</td>
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<td>10. Pelabuhan Banten</td>
<td></td>
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<tr>
<td>11. Pelabuhan Tj. Priok</td>
<td></td>
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<tr>
<td>12. Pelabuhan Pontianak</td>
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<td>13. Pelabuhan Tj. Emas</td>
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<tr>
<td>14. Pelabuhan Tj. Perak</td>
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<tr>
<td>15. Pelabuhan Banjarmasin</td>
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<tr>
<td>16. Pelabuhan Kupang</td>
<td></td>
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<tr>
<td>17. Pelabuhan Benoa</td>
<td></td>
</tr>
<tr>
<td>18. Pelabuhan Samarinda</td>
<td></td>
</tr>
<tr>
<td>19. Pelabuhan Makassar</td>
<td></td>
</tr>
<tr>
<td>20. Pelabuhan Balikpapan</td>
<td></td>
</tr>
<tr>
<td>21. Pelabuhan Bitung</td>
<td></td>
</tr>
<tr>
<td>22. Pelabuhan Biak</td>
<td></td>
</tr>
<tr>
<td>23. Pelabuhan Jayapura</td>
<td></td>
</tr>
<tr>
<td>24. Pelabuhan Ambon</td>
<td></td>
</tr>
<tr>
<td>25. Pelabuhan Sorong</td>
<td></td>
</tr>
</tbody>
</table>
• With almost 98 mn passenger in 2009, and less than 6% of total Indonesia population taking air travel, Indonesia is the most promising country in the region.

• In 2005-2009 the passenger traffic grew annually on average 7%. However, with higher target economic growth in the future, the number potentially could reach higher than 9% per year.

• Three biggest airports in Indonesia have experienced over-capacity. At Bali’s Ngurah Rai airport, the over-capacity reached 21%, while in Jakarta’s Soekarno Hatta airport, the number touched the staggering 68%.

• Airport infrastructure will need to grow for more than 17% per year, considering the increasing number of the passengers.

• This will be even higher with the entrance of new airlines operations as an impact to the ASEAN open sky policy.

Potential Demand: Air Transportation and Airports
Kualanamu Airport – Gateway on The West
## DATA COMPARISON

<table>
<thead>
<tr>
<th>CHARACTERISTIC</th>
<th>POLONIA (Existing Airport)</th>
<th>KUALANAMU (New Airport)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Area</td>
<td>144 Ha</td>
<td>1376 Ha</td>
</tr>
<tr>
<td>Runway</td>
<td>2900 m x 45 m</td>
<td>3750 m x 60 m</td>
</tr>
<tr>
<td>Parallel Taxiway</td>
<td>-</td>
<td>Taxiway 1 3.750 x 30 m</td>
</tr>
<tr>
<td></td>
<td>-</td>
<td>Taxiway 2 2.000 x 30 m</td>
</tr>
<tr>
<td>Terminal Area</td>
<td>13.811 m²</td>
<td>90.000 m²</td>
</tr>
<tr>
<td>Terminal Capacity</td>
<td>900.000 Pax/year</td>
<td>8.000.000 Pax/year</td>
</tr>
<tr>
<td>Cargo Warehouse</td>
<td>2.140 m²</td>
<td>13.000 m²</td>
</tr>
<tr>
<td>Apron Area</td>
<td>98.514 m²</td>
<td>300.000 m²</td>
</tr>
<tr>
<td>Apron Capacity</td>
<td>11 aircraft</td>
<td>33 aircraft</td>
</tr>
<tr>
<td>Parking Area</td>
<td>17.592 m²</td>
<td>50.820 m²</td>
</tr>
<tr>
<td>Parking Capacity</td>
<td>520 cars</td>
<td>407 Taxis, 55 Buses, &amp; 908 cars</td>
</tr>
</tbody>
</table>
Ministerial Decree No.11 Year 2010: National Airport Order

AIRPORTS

PUBLIC AIRPORT
(233 airports)

PRIVATE AIRPORT
(20 airports that was operated)

Operator
DGCA (164)
PT, AP I (13)
PT, AP II (12)

New Airport (44)
- Location Determination (30)
- Re-Location (8)
- Special Airport for General (4)
- Civil Enclave (2)

30 Heliport/Helipad
54 Helideck
447 Aerodromes for Light Aircraft (ALA)

Source: Directorate of Airports
New Airport

Sumatera : 12  
Jawa : 6  
Kalimantan : 7  
Nusa Tenggara : 1  
Sulawesi : 7  
Maluku : 5  
Papua : 6

Source : Directorate of Airports
TRANSPORTATION SECTOR INVESTMENT CLIMATE
Private Sector Involvement Is Made Possible through Regulatory Reform in Transport Sector

Previous Regulations

- Overlapping roles of regulator, operator and contracting agency
- Monopolistic / Single Provider
- Limited access for Private Sector
- Centralized
- More on supply approach
- Minimum access for the Government Support

New Regulations

- Clear separation of role between regulator, operator & contracting agency
- Multi-operator
- Wider access for the involvement of Private Sector
- Decentralized
- Combination of accessibility and market-driven approaches
- Wider access for the Government Support
Transportation Infrastructure Investment Needs in Economic Corridors is Almost USD 59 Billion
**Infrastructure Projects in Transportation Sector with PPP scheme**
*(Offered by the Ministry of Transportation in 2011)*

<table>
<thead>
<tr>
<th>Sector</th>
<th>Total value:</th>
<th>Projects</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Railway</strong></td>
<td>US$ 9,776 Million</td>
<td>10</td>
</tr>
<tr>
<td>1. Jakarta Soekarno Hatta Airport – Manggarai (PRIORITY)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Puruk Cahu – Bangkuang Railways*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Tumbang Samba – Nanga Bulik Railway*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Padang Monorail*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Maratuhup - Kalipapak - Balikpapan Coal Railway and Terminal*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Kudangan – Kumai Railway*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Kuala Kurun – Palangkaraya - Pulau Pisang - Kuala Kapuas Railway*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Jakarta Monorail*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Integrated Terminal Of Gedebage,*</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Bangkuang – Lupak Dalam Railway*</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| **Port**        | US$ 2,594 Million | 13       |
| 1. Tourism Port Of Tanah Ampo (PRIORITY) |
| 2. Expansion of Tanjung Priok at North Kalibaru |
| 3. Shipping Lane Development Of Belawan Port |
| 4. Bulk Terminal In Kuala Enok Port |
| 5. Bojonegara Port Development Plan |
| 6. Support to The Development Of Tanjung Perak Port |
| 7. Pelaihari Coal Terminal |
| 8. Maloy International Port |
| 9. Rembang Port* |
| 10. Expansion Of Teluk Sigintung Port* |
| 11. Expansion Of Kumai Port* |
| 12. Lupak Dalam Port* |
| 13. Expansion Of Anjir Kelampan and Anjir Serapat* |

| **Airport**     | US$ 2,848 Million | 7       |
| 1. Expansion of Tjilik Riwut Airport |
| 2. Expansion of Dewandaru Airport |
| 3. Kertajati Airport – Majalengka* |
| 4. Expansion of Singkawang Airport* |
| 5. Expansion of South Banten Airport, Banten Province* |
| 6. New Samarinda Airport* |
| 7. New Bali Airport* |

| **Inland Transport** | US$ 274 Million | 2       |
| 1. Pekanbaru Cargo Terminal* |
| 2. Karya Jaya Multimode Terminal* |

**Total**: US$ 15.5 Billion

*Note:*
* = proposed by Local Government
HOW PRIVATE SECTOR CAN BE INVOLVED IN TRANSPORTATION SECTOR INVESTMENT
Three Ways of Private Sectors Involvement in Transport Infrastructure Development

**Investments in Transport Sector**

1. **Special Purpose Transport Infrastructure**
   - Infrastructure specially developed for the purpose of a business entity and may operate exclusively for the business entity.
   - Usually *unsolicited*, i.e. initially proposed by the business entity (private sector)
   - Ministry of Transportation does the feasibility study and other technical matters, including safety issues
   - The investment procedure for the special purpose transport is done through the LICENCING (business licence, location licence, construction licence, and operation licence).

2. **SEZ/FTZ Transport Infrastructure**
   - Infrastructure is located in the Special Economic Zones (SEZ) or in Free Trade Zones (FTZ)
   - Several incentives such as reduced tax rates
   - More relaxed restrictions (compared to the Negative Investment List)
   - More incentives and exceptions for the projects in the Bounded Zones (Kawasan Berikat)
   - The investment procedure is through simplified LICENCING

3. **Public / Commercial Transport Infrastructure**
   - Infrastructure to be used by public and commercially oriented (tariff applied)
   - May be *solicited* (proposed by the GoI) or *unsolicited*
   - Ministry of Transport prepares the project documents and tender documents, including feasibility study
   - The business entity is chosen through TENDER (in accordance to Presidential Regulation No. 13/2010)
Transport Sector Negative List of Investment (DNI)

- PR No. 76/2007 on The Criteria and Establishment of Closed Business Line and Open Business with Conditions in Respect of Capital Investment
- PR No. 36/2010 on List of Business Closed and Opened with Reservation in the Investment Sector

**Indonesia Negative Investment List**

**Closed (7 areas)**
- Provision and management of Inland Terminal
- Management and the Operation of Weighing Bridge
- Shipping Telecommunications Facilities/ Navigation Support Facilities
- Vessel Traffic Information System (VTIS)
- Air Navigation
- Vehicles testing
- Periodical testing on vehicles

**Allowed with max. 60% capital ownership* (2 areas)**
- Maritime cargo handling services
- Sea transport (int’l passenger and freight, excl. cabotage)

*only for ASEAN investors

**Allowed with certain requirements (33 areas)**
- Provision of ferrycrossing transport
- Provision of river and lake transport ship<30GT
- Provision of river, lake, and ferrycrossing transport facilities
- Various goods transport (public, dangerous, special, container, heavy equipment goods)
- Supporting business in terminal
- Non commercial air transport
- Airport services
- Transport arrangement services
- Airplane forwarder services
- General selling agent for foreign air transport company
- Flight activities direct support service
- Sea Transport (domestic and int’l)
- Provision of waste facilities in Port
- Salvage and/or under water services

**Allowed with max. 49% capital ownership (18 areas)**

**Allowed with special permits (5 areas)**
- Provision and operation of ferrycrossing and port
- Provision and operation of river and lake transportsations and port
- Commercial air transport
- Passenger transportation – 100% domestic capital
- Traditional Sea Transport (Pelayaran Rakyat) – 100% domestic capital
Unsolicited Projects are Welcome

**Private**

- Criteria for Unsolicited Project:
  - Fit into regional spatial planning
  - Fit into national/local midterm development plan & infrastructure strategic plan
  - Cost analysis & social benefits
  - Does not need Government support in fiscal contribution

- Forms of Compensation:
  - Bonus points
  - Right to match
  - Buyout of project by Government or Tender awardee

**Public**

- Initial Consultation
- Government Review
- Tender Process
- Award
- Operation

- Project Identification
- Project Preparation
- Determine Government Support
- Participate in Tender
Government Commitment to PPP

- Infrastructure funds and guarantee fund have been established and are in operation.
- The seed capital for land fund has been provided.
Example: Connectivity in Sumatra Economic Corridor

Legend:
- Port
- Railway
- Rubber Production Area
- Palm Production Area
- Coal Production Area

Sei Mangke Area - Palm Oil
IDR 2.50 Trn (USD 294 Million)

Railway Development (CPO)

Port Development (CPO) in Kuala Tanjung & Dumai

Port Development (Rubber) in Pekanbaru, Dumai, Medan, Palembang, Jambi

Sunda Strait Bridge

Port Development (Rubber) in Pekanbaru, Dumai, Medan, Palembang, Jambi

Sunda Strait Bridge

Legend:
- Port
- Railway
- Rubber Production Area
- Palm Production Area
- Coal Production Area
Example: Connectivity in Java Economic Corridor
Greater Jakarta Transport Infrastructure Development
Traffic Demand

Demand and Capacity Port of Tanjung Priok (Container)

Existing Capacity

<table>
<thead>
<tr>
<th>Year</th>
<th>Traffic Demand</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008</td>
<td>3.97</td>
</tr>
<tr>
<td>2009</td>
<td>3.80</td>
</tr>
<tr>
<td>2010</td>
<td>4.48</td>
</tr>
<tr>
<td>2011</td>
<td>4.84</td>
</tr>
<tr>
<td>2012</td>
<td>5.23</td>
</tr>
<tr>
<td>2013</td>
<td>5.65</td>
</tr>
<tr>
<td>2014</td>
<td>6.10</td>
</tr>
<tr>
<td>2015</td>
<td>6.59</td>
</tr>
<tr>
<td>2016</td>
<td>7.12</td>
</tr>
<tr>
<td>2017</td>
<td>7.68</td>
</tr>
<tr>
<td>2018</td>
<td>8.30</td>
</tr>
<tr>
<td>2019</td>
<td>8.96</td>
</tr>
<tr>
<td>2020</td>
<td>9.68</td>
</tr>
</tbody>
</table>

Source:
- Tanjung Priok Development Review by David Wignall – June 2010
ILLUSTRATION OF NORTH KALIBARU TERMINAL

Example: Macau Bridge
## Estimated Construction Cost

<table>
<thead>
<tr>
<th>No</th>
<th>Description</th>
<th>Cost (USD Million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Civil works (Terminal)</td>
<td>611.76</td>
</tr>
<tr>
<td>2</td>
<td>Civil works (Access road + bridge)</td>
<td>253.29</td>
</tr>
<tr>
<td>3</td>
<td>Civil works (Breakwater)</td>
<td>232.47</td>
</tr>
<tr>
<td>4</td>
<td>Civil works (Dredging)</td>
<td>126.24</td>
</tr>
<tr>
<td>5</td>
<td>Equipments and Facilities</td>
<td>152.94</td>
</tr>
<tr>
<td>6</td>
<td>Others</td>
<td>NIL</td>
</tr>
<tr>
<td></td>
<td><strong>Total</strong></td>
<td><strong>1376.7</strong></td>
</tr>
</tbody>
</table>
Tanah Ampo Tourism Port: Project Description

- Tanah Ampo Sea Port is meant for development of a cruise terminal with international standard.
- There have been frequent requests of cruise ships to harbor in this port in recent years.
- The port is located in the international cruise line, not far from the capital (40 km from Denpasar, 65 km from Ngurah Rai Airport), and close to a number of renowned tourist sites.
- The area of the waterside is 98.89 ha, while the area of the landside is 1.5 ha.
- The causeway will be 50 m of length, while the jetty is 70 m.
- The facilities around the area will be developed with a supporting area of 25 ha.
## Construction Cost Allocation

<table>
<thead>
<tr>
<th></th>
<th>Budget allocation</th>
<th>Percentage</th>
<th>Work Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>State Budget</strong>*</td>
<td>Rp. 72,150,000,000 (USD 8.5 million)</td>
<td>77%</td>
<td>DED study on jetty and water side facilities development</td>
</tr>
<tr>
<td><strong>Local Govt Budget Bali Prov</strong></td>
<td>Rp. 14,73,127,000 (USD 1.7 million)</td>
<td>16%</td>
<td>Land side facilities: terminal, offices, powerhouse, etc</td>
</tr>
<tr>
<td><strong>Local Govt Budget Karangasem Regency</strong></td>
<td>Rp. 6,059,940,000 (USD 0.7 million)</td>
<td>7%</td>
<td>Study, land acquisition for access road</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>Rp. 92,940,067,000 (USD 10.9 million)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*State budget 2007-2009
Denpasar-Airport-Nusa Dua Toll Road Development Plan

Notes:
- Proposed toll route
- Mangrove Area
- Cruise Terminal Benoa
You're never going to catch any fish if you don't get your feet wet first...

Thank You