Indonesia’s Urban Development
Towards Inclusive and Sustainable Economic Growth

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Why Urbanization Matters

- Urbanization creates opportunities for increasing economic growth and poverty reduction

- Economic concentration creates agglomeration economies that boost regional development

- Increase the role of cities in boosting regional development, as opposed to creating new growth centers

- Many metropolitan areas are doing very well and should be supported by national government

- Policy needs to be stratified by city size and the challenges faced in each category
Structure of the Presentation

- **Urbanization trends**
  - Rapid urbanization consistent with global experience

- **Population and Economic Concentration**
  - Is Java too dominant?
  - Agglomeration as a measure of metropolitan areas

- **Regional Development and Urbanization**
  - Linking urbanization and economic development through the Master Plan for Regional Development (MP3EI)

- **Growth of Major Cities**
  - Which cities are growing fastest?
  - Core city versus periphery

- **Assessing Metropolitan Performance**
  - How does performance vary across metropolitan area?

- **Proposed Policy Actions**
  - Differentiate policy based on class size of metropolitan area
Urbanization Trends
As many countries continue their journeys through middle incomes and beyond, how can urbanization amplify economic prosperity and reduce poverty?

How can policies and investments be prioritized to address pressing challenges at different stages of urbanization?
Which one of these Asian Countries has Urbanized the Fastest?

- China
- India
- Indonesia
- Philippines
- Thailand
- Vietnam
Indonesia has Fastest Urbanization Growth Rate

Compound Annual Growth Rates of Urban Population, 1970-2010

[Bar chart showing growth rates for China, India, Indonesia, Philippines, Thailand, and Vietnam. Indonesia has the highest growth rate at 4.2%.]

Indonesia also has the Largest Share of Urban Population (2010)

- China 47%
- India 30%
- Indonesia 54%
- Philippines 49%
- Thailand 34%
- Vietnam 31%
Indonesia will be one of the most urbanized countries globally

Urbanization will Continue to be Rapid: 67% by 2025
Population and Economic Concentration
Indonesia as we know it
Java has the highest population density

58% of total population

Size shows proportion of provincial population relative to national population
Highest Economic Density in Java

- Major metropolitan areas of Jakarta and Surabaya are dominant in Java.
- Off Java, economic activity is also concentrated in major urban areas.
What we really need is to link population and economic density

- Agglomeration Economies
- Agglomeration Indices
Agglomerations

• Agglomeration Economies are positive effects of firms and people locating close to one another.

• Agglomeration Index (AI) provides a method to link population and economic densities.

• AI defines metropolitan areas based on co-location of economy and people.
Using Agglomerations to Determine Metropolitan Areas

• Criteria used to calculate agglomeration:
  – existence of core urban center
  – minimum population density
  – maximum population commute times to work

• AI defines a metropolitan area as an economic entity:
  – multi-jurisdictional; e.g. Jabodetabek
  – people and economic activity locate across political boundaries
Indonesia’s Largest Agglomerations / Metropolitan Areas

Jakarta Metropolitan Area (Jabodetabek)  Surabaya Metropolitan Area (Gerbangkertosusila)
Based on population and economic densities alone, Java appears to be highly urbanized. However, when we use the Agglomeration Index........
Java is not completely urbanized
Sumatera’s key agglomerations are Medan and Lampung
Sulawesi agglomerations are driven by Agribusiness and Fisheries
Regional Development and Urbanization
Agglomerations are areas of economic activity that the Government can support to boost regional growth.

This would be much more effective and less risky than creating new growth poles.

The Master Plan for Regional Development has already identified many existing growth centers.
Differentiated Regional Development Themes

"Plantations Production and Processing Center and National Energy Reserve"

"Mining Production and Processing Center and National Energy Reserve"

"National Plantation, Agriculture, and Fisheries Production and Processing Center"

"National Industry and Services Booster"

"Abundant Natural Resources Processing and Prosperous Human Resources"

"National Tourism Gate and National Food Support"
MP3EI implies treating each region differently with regard to Policy and Investment

- **Java**
  - improve intra-island connectivity through improved road networks
  - support higher valued manufacturing

- **Sumatra**
  - support natural resource economy
  - develop processing capacity for natural resources

- **Sulawesi**
  - improve maritime connectivity
  - focus on agribusiness and fisheries
First, we need to assess which metropolitan areas are growing and how they are urbanizing.

Second, determine the challenges by class of metropolitan area and opportunities for growth.

MP3EI Implementation can use Agglomerations to Boost Regional Development
Growth of Major Cities
Rapid population growth in major cities

Map showing compound annual growth of population from 2001-2007 in various Indonesian cities, with Medan, Jakarta, Surabaya, Balikpapan, Makassar, and Denpasar highlighted.

Legend:
-0.5 - 0.1
0.1 - 1.5
1.5 - 1.9
1.9 - 2.2
Metropolitan Areas Dominate
Especially Jakarta Metropolitan

- Jakarta Metro: 28%
- Jakarta: 28%
- Bandung: 2%
- Semarang: 2%
- Surabaya: 7%
- Makassar: 1%
- Medan: 3%
- Other urban: 14%
- Rural: 43%

Gross Regional Domestic Product (GRDP) share to Non-oil GDP
Is Jakarta too big and dominant?
**NO. Not if Compared to the Dominance of Core Cities Across Asia**

<table>
<thead>
<tr>
<th>City/region</th>
<th>Population (2007)</th>
<th>City Pop/ national pop</th>
<th>City GRDP/ national GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Seoul</td>
<td>9,820,000</td>
<td>20.8%</td>
<td>32.9%</td>
</tr>
<tr>
<td>Bangkok</td>
<td>11,971,000</td>
<td>17.8%</td>
<td>35.0%</td>
</tr>
<tr>
<td>Kuala Lumpur</td>
<td>4,815,000</td>
<td>17.4%</td>
<td>35.8%</td>
</tr>
<tr>
<td>Manila</td>
<td>11,553,000</td>
<td>13.0%</td>
<td>47.0%</td>
</tr>
<tr>
<td>Ho Chi Minh City</td>
<td>5,929,000</td>
<td>6.9%</td>
<td>24.2%</td>
</tr>
<tr>
<td>DKI Jakarta</td>
<td>9,146,000</td>
<td>4.1%</td>
<td>18.0%</td>
</tr>
<tr>
<td>Mumbai</td>
<td>16,434,000</td>
<td>1.3%</td>
<td>6.2%</td>
</tr>
<tr>
<td>Shanghai</td>
<td>16,407,000</td>
<td>1.3%</td>
<td>2.9%</td>
</tr>
</tbody>
</table>

City is defined only as core only
Also, Population is **De-Concentrating** from all Major Indonesian Metropolitan Areas

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>DKI Jakarta</td>
<td>15.1%</td>
<td>12.2%</td>
<td>9.7%</td>
<td>9.3%</td>
<td>8.9%</td>
</tr>
<tr>
<td>Surabaya</td>
<td>4.5%</td>
<td>3.7%</td>
<td>3.0%</td>
<td>2.8%</td>
<td>2.4%</td>
</tr>
<tr>
<td>Bandung</td>
<td>3.8%</td>
<td>3.1%</td>
<td>2.5%</td>
<td>2.4%</td>
<td>2.3%</td>
</tr>
<tr>
<td>Medan</td>
<td>3.2%</td>
<td>2.7%</td>
<td>2.2%</td>
<td>2.1%</td>
<td>2.0%</td>
</tr>
<tr>
<td>Semarang</td>
<td>2.3%</td>
<td>2.0%</td>
<td>1.7%</td>
<td>1.4%</td>
<td>1.3%</td>
</tr>
<tr>
<td>Makassar</td>
<td>1.5%</td>
<td>1.3%</td>
<td>1.2%</td>
<td>1.2%</td>
<td>1.2%</td>
</tr>
<tr>
<td>Palembang</td>
<td>2.1%</td>
<td>1.9%</td>
<td>1.7%</td>
<td>1.4%</td>
<td>1.2%</td>
</tr>
<tr>
<td><strong>Other Urban</strong></td>
<td><strong>67.6%</strong></td>
<td><strong>73.1%</strong></td>
<td><strong>78.0%</strong></td>
<td><strong>79.3%</strong></td>
<td><strong>80.6%</strong></td>
</tr>
<tr>
<td><strong>Total Urban</strong></td>
<td><strong>100.0%</strong></td>
<td><strong>100.0%</strong></td>
<td><strong>100.0%</strong></td>
<td><strong>100.0%</strong></td>
<td><strong>100.0%</strong></td>
</tr>
</tbody>
</table>

How are Indonesia’s Largest Cities Urbanizing?
Population growth is primarily in **periphery**, not in core city.

<table>
<thead>
<tr>
<th>Metro name</th>
<th>2005</th>
<th>CAGR 1995 - 2005</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Core</td>
<td>Periphery</td>
</tr>
<tr>
<td>Jakarta</td>
<td>8,820,603</td>
<td>12,799,559</td>
</tr>
<tr>
<td>Surabaya</td>
<td>2,611,506</td>
<td>5,974,090</td>
</tr>
<tr>
<td>Bandung</td>
<td>2,270,969</td>
<td>5,079,430</td>
</tr>
<tr>
<td>Semarang</td>
<td>1,446,533</td>
<td>4,335,017</td>
</tr>
<tr>
<td>Medan</td>
<td>2,029,797</td>
<td>1,812,196</td>
</tr>
<tr>
<td>Palembang</td>
<td>1,369,239</td>
<td>1,122,731</td>
</tr>
<tr>
<td>Makassar</td>
<td>1,194,583</td>
<td>1,106,362</td>
</tr>
<tr>
<td>Denpasar</td>
<td>574,610</td>
<td>1,208,004</td>
</tr>
</tbody>
</table>

Source: Indonesia Bureau of Statistics (BPS)
Cities are expanding beyond political boundaries: Example of Jabodetabek
Assessing Metropolitan Performance
Differentiate Metropolitan Areas

• Classify metropolitan areas by class size.

• Observe performance in each class size over time:
  – population growth
  – real per capita income growth
# Metropolitan Agglomeration by Population Size

<table>
<thead>
<tr>
<th>Size category</th>
<th>Cities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Megacities 10 million +</td>
<td>Jakarta, Surabaya</td>
</tr>
<tr>
<td>Large Metropolitan 5 – 10 million</td>
<td>Bandung, Yogyakarta, Cirebon, Semarang</td>
</tr>
<tr>
<td>Metropolitan 1 – 5 million</td>
<td>Medan, Kediri, Surakarta, Makassar, Bandar Lampung, Padang, Denpasar, Palembang, etc</td>
</tr>
<tr>
<td>Medium cities 0.5 – 1 million</td>
<td>Malang, Madiun, Pekan Baru, Banjarmasin, Menado, Samarinda, Pontianak, Balikpapan</td>
</tr>
<tr>
<td>Small urban 0.1 – 0.5 million</td>
<td>Jambi, Sukabumi, Palu, Kupang, Bengkulu, Ambon, Banda Aceh, Jayapura, Gorontalo, etc</td>
</tr>
</tbody>
</table>
How has each class of city performed based on population increase and real per capita income growth?
Performance of Agglomerations

Real Per Capita Growth, 1993 - 2007

- Large Metro
  1-5 m
  Medan, Makassar, Palembang, Denpasar, etc

- Metropolitan
  0.5 – 1 m
  Malang, Banjarmasin, Menado, Balikpapan, etc

- Megacities
  10+ m
  Jakarta, Surabaya

- Medium Cities
  0.5 – 1 m
  Medan, Makassar, Palembang, Denpasar, etc

- Small Cities
  0.1 – 0.5 m
  Jambi, Sukabumi, Gorontalo, etc

% Population Growth, 1993 - 2007

Agglomeration economies

Disagglomeration economies
Proposed Policy Actions
Based on performance, each class of city requires a different policy treatment and response
Megacities of Jakarta and Surabaya

- Population and income growth moderate

- Transforming economic landscape
  - increasing services, such as finance in core city
  - manufacturing decentralizing to periphery
  - important linkage to international markets

- Challenge with coordination between core city and periphery

- Insufficient trunk infrastructure
  - roadways, water and sewerage, solid waste management
Policy Actions for Megacities of Jakarta and Surabaya

• Improve international connectivity
• Large-scale investment required in infrastructure to facilitate intra-urban links between core and periphery
• **Core City:** Increase density and support rapid services sector growth
• **Periphery:** Create manufacturing estates to avoid sprawl of industries
• Improve coordination across districts and with central government regarding planning and priority investments
Large Metropolitan Areas

• Agglomeration sizes of 5-10 million
  – Bandung, Yogyakarta, Cirebon, Semarang (all in Java)

• Population and economic growth stagnant

• Policy Actions:
  – create better *domestic connectivity* to other high performing urban areas
  – improve business climate
  – assess major constraints to their development
Metropolitan Areas and Medium-sized Cities

• Agglomeration sizes:
  – metropolitan, 1-5 million
  – medium cities, 0.5 – 1 million

• High population and income growth

• Cities have adequate infrastructure

• Policy Actions:
  – greater support and coordination from central government in investment planning and implementation
  – focus on spatial planning and land-use as they continue to expand
• Declining population and contracting income
• Inadequate infrastructure
• Usually close to rural and border areas

• Policy Actions:
  – focus on improving the provision of basic services
  – improve links to rural areas to enhance access to markets
Urbanization Presents an Opportunity

- Urban areas are key drivers of non-oil growth
- Link implementation of Economic Transformation Master Plan (MP3EI) to urbanization and metropolitan development
- Focus on making agglomerations perform better, rather than create new growth centers
- Differentiate strategy by metropolitan class size
Terima kasih