KEYNOTE LECTURE

PLANNING FOR THE FUTURE CITIES IN MALAYSIA

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Thistle Hotel, Johor Bahru
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Our Cities must be places where human beings lead fulfilling lives in dignity, good health, safety, happiness and hope.

UN Habitat 1996.
Federal Department of Town and Country Planning: Commitment on Wellbeing

Vision
“A Leader in Town and Country Planning towards achieving quality and sustainable living environment by 2020”

Mission
“To spur national physical planning through implementation and monitoring of development plans which are systematic, comprehensive and innovative to ensure the well being of communities.”
## Total Land Area

<table>
<thead>
<tr>
<th>Region</th>
<th>Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peninsular Malaysia</td>
<td>131,805 sq. km</td>
</tr>
<tr>
<td>Sabah dan Labuan</td>
<td>73,997 sq. km</td>
</tr>
<tr>
<td>Sarawak</td>
<td>124,450 sq. km</td>
</tr>
<tr>
<td>MALAYSIA</td>
<td>330,252 sq. km</td>
</tr>
</tbody>
</table>

## Land Use Pattern in Peninsular Malaysia

<table>
<thead>
<tr>
<th>Type</th>
<th>Area</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Built-up areas</td>
<td>759,900 ha.</td>
<td>5.8%</td>
</tr>
<tr>
<td>Agriculture</td>
<td>6,268,300 ha.</td>
<td>47.5%</td>
</tr>
<tr>
<td>Forests</td>
<td>5,902,000 ha.</td>
<td>44.8%</td>
</tr>
<tr>
<td>Water Bodies</td>
<td>251,500 ha.</td>
<td>1.9%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>13,181,700 ha.</strong></td>
<td><strong>100.0%</strong></td>
</tr>
</tbody>
</table>

Source: National Physical Plan-2, 2010
Malaysia Population (1980 – 2020)

- Total Population in Malaysia (2013): 29,948
- Projected Population in 2030: 36.0 million
  - 2040: 38.6 million
- Average Annual Population Growth Rate (2013): 1.4%

Source: National Physical Plan-2, 2010

Population Distribution in Malaysia

Source: Department of Statistics Malaysia, 2013
Population

Population Projection by Age Group, Malaysia, 2010-2040

<table>
<thead>
<tr>
<th>Year</th>
<th>0-14 (%)</th>
<th>15-64 (%)</th>
<th>65+ (%)</th>
<th>Median age</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>27.4</td>
<td>67.6</td>
<td>5.0</td>
<td>26.3</td>
</tr>
<tr>
<td>2020</td>
<td>24.0</td>
<td>69.2</td>
<td>6.8</td>
<td>29.9</td>
</tr>
<tr>
<td>2030</td>
<td>22.5</td>
<td>68.2</td>
<td>9.3</td>
<td>33.0</td>
</tr>
<tr>
<td>2040</td>
<td>19.6</td>
<td>69.0</td>
<td>11.4</td>
<td>36.0</td>
</tr>
</tbody>
</table>

Malaysia Population Pyramid, 2010 and 2014

Malaysia Urbanization Rate (%)

Projected concentration of population (2030, 2040) in Selangor, Johor, Sabah

Source: Department of Statistics Malaysia, 2013
Rapid Urbanization

- Inadequate affordable housing
- Over burdened public amenities
- Urban poor
- Declining health condition and well being
- Traffic congestion
- Environmental pollution
- Shrinking green areas
- Public safety
Housing Affordability

Affordable housing should cost 3X annual median income
Source: Khazanah Research Institute, 2014

<table>
<thead>
<tr>
<th>Country</th>
<th>Multiple</th>
</tr>
</thead>
<tbody>
<tr>
<td>Malaysia</td>
<td>5.5 X</td>
</tr>
<tr>
<td>Singapore</td>
<td>5.1 X</td>
</tr>
<tr>
<td>United State</td>
<td>3.5 X</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>4.7 X</td>
</tr>
<tr>
<td>Ireland</td>
<td>2.8 X</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>14.9 X</td>
</tr>
</tbody>
</table>

• Fresh graduates are joining market with an average pay of RM2,500.
• 77% graduates said they have no savings.
• Top expenses – transport cost

• In 2012, 20% of degree holder under the age of 25 were unemployed

Jobsstreet 2014

WorldBank 2012

• Malaysia’s houses on average cost much more than 3X annual median income.
• In median income terms, our houses are more expensive than those in Ireland and even Singapore.
Dealing with Water

One of the worst floods in Malaysia’s history (Dec 2014)
Dealing with Water

Drought and Water Crisis (Jan - March 2014)
Health Issues and Challenges

**LEVEL OF HEALTH**

<table>
<thead>
<tr>
<th>Condition</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diabetes</td>
<td>2.6 million</td>
</tr>
<tr>
<td>Hypertency</td>
<td>5.8 million</td>
</tr>
<tr>
<td>Cholesterol</td>
<td>6.2 million</td>
</tr>
<tr>
<td>Obesity</td>
<td>2.5 million</td>
</tr>
</tbody>
</table>

*Source: Department of Statistics Malaysia, 2013 Ministry of Health Malaysia, 2013*
Sustainable Future Cities in Malaysia

**Sustainable Urban Environment**
- Efficient Public Transportation Services
- Green Neighbourhood
- Sustainable Living

**Sustainable Inclusiveness**
- Civic Engagement
- Social Interaction
- Increase of Employment
- Planning for the children, elderly and under privilege group
- Elimination of Poverty
- Safe from Crime
- Safe from disaster
- Healthy Community

**Economic Resilience**
- Affordable Housing
- Employment Opportunities
- Self Sustained Economy
- Efficient Urban Governance
- Efficient Waste Management
- Low carbon development
- Efficient Urban Management
- Promotion of Smart Technology and Innovation
- Transit Oriented Development
- Mixed Development

**Economy**
- Employment Opportunities

**Environment**
- Food Security
- Promotion of green building and infrastructure
- Pedestrian friendly cities

**Social**
- Healthy Community
- Safe from Crime
- Safe from disaster
- Social Interaction
- Increase of Employment

- Social Inclusiveness
- Efficient Public Transportation Services
- Green Neighbourhood
- Sustainable Living

- Use of Renewable Energy
- Efficient Water Management and Conservation
- Civic Engagement
- Social Interaction
- Increase of Employment
- Planning for the children, elderly and under privilege group
- Elimination of Poverty
- Affordable Housing
- Employment Opportunities
- Self Sustained Economy
- Efficient Urban Governance
- Efficient Waste Management
- Low carbon development
- Efficient Urban Management
- Promotion of Smart Technology and Innovation
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- Sustainable Future Cities in Malaysia

- Easy access to Public Amenities
• In Malaysia, the Healthy Cities Concept was first introduced in 1994.
• Healthy City Project was carried out in phases from 1996-2005, involving pilot projects in 5 cities namely Johor Bahru, Kuching, Melaka, Penang and Kuala Lumpur
Physical Planning and Urban Design
- Cleanliness
- Pedestrian Path
- Bicycle lanes
- Landscaping
- Elderly and disable facilities
- Solid waste management

Social and Community Programme
- Community farming
- Recycle campaign
- My Beautiful Neighbourhood
- CSR Programs for elderly

Healthy Lifestyle Programme
- Healthy lifestyle campaign
- Cycling campaign
- Tree planting campaign
- Promoting use of public transport
Malaysia’s Initiatives

Green Neighbourhood / Green Cities

- Practice green lifestyle;
- Protection and consumption of natural resources;
- Application of green technology;
- Recycling that seek to preserve the environment;
- Reduce the ecological footprint;
- Reduce the production of carbon emission;
- Improving of public health;
- Improving of safety;
- Improving of general welfare of the community.
5 Initiatives for Green Neighbourhood Development

1. Provision of pedestrian walkway
2. Provision of bicycle lane
3. Waste composting
4. Rain water harvesting system
5. Community farming
Safe Cities

City that is free from any form of physical, social and mental threats.

Living environment that is secured and conducive at all times.

Community able to live and perform daily activities in peace and harmony.
The Way Forward

Youth Cities

- For Malaysians age 18 to 40
- Redevelopment of Semi Urban Towns
- Affordable Housing
- Efficient transportation linkages
- Good Communication Networks
- Facilities for Active Living
- Friendly Neighbourhood
The Way Forward

Resilient Cities

Land Management ↔ Climate Change

Water Resources

Frequency ↓ Intensity ↓ Spatial Extent ↓ Duration of events ↓ Extreme events

FLOOD ↓ DROUGHT

Risk Management Through Spatial Strategies - Planning for Extreme Weather Events
Resilient Cities

FLOOD
Spatial Task - creating a robust city layout
- Incorporate scientific information (natural system) into spatial planning
- Developing risk map

Prevention of societal collapse
- Identify safe spots in the landscape
- Large concentrations of people should be protected against disasters
- Safeguarding the functioning of basic amenities - transport network and energy

Minimizing undesirable effects
- Neighbourhoods and buildings need to be able to withstand floods
- Evacuation routes and plan shall be incorporated
- Reserves for green
- Design of infrastructure needs to be based on anticipated future changes
Resilient Cities

The Way Forward

DROUGHT

Integration River Basin Management into Spatial Planning

- Assess water supply
  - Availability of water in future (rain, dam capacity)
- Assess water demand
  - Based on current and future development scenarios
  - Changes in demographic
- Matching supply and demand
Thank You