

Melaka Sustainability Outlook: Rapid Assessment Diagnostic

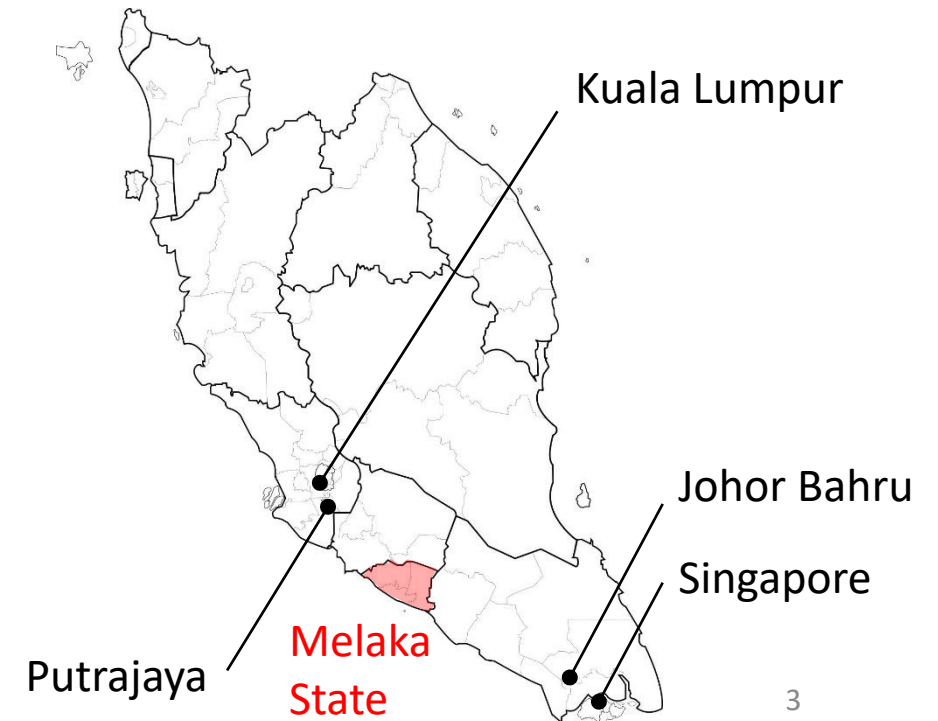


Introduction to the Process

- **Project Initiation:** Green Technology Melaka, the local stakeholder, requested the assessment be performed for Melaka.
- **October 2017:** A team of sectoral experts performed the first assessment lasting 3 days in Melaka, which focused on stakeholder consultations.
- **November 2017:** A follow-up assessment was performed focusing on municipal finance, data, and inclusiveness.
- **January 2018:** The preliminary findings of the report were shared with local stakeholders in Melaka.
- **June 2018:** A final draft of the report will be shared with the national stakeholders and then finalized for release shortly thereafter.

Melaka's Vision and Challenges

- **Melaka State** is a state in peninsular Malaysia, which is comprised of three districts and four municipalities. **Melaka City** is the historic area's municipality.
- **A strategic location** for trade and defense throughout history.
- **Melaka wants to boost its prominence in Malaysia and the World.**
- **Second-tier urban area** within Malaysia, in relatively close proximity to the economic focal point of Kuala Lumpur, and nearby the capital of Putrajaya.

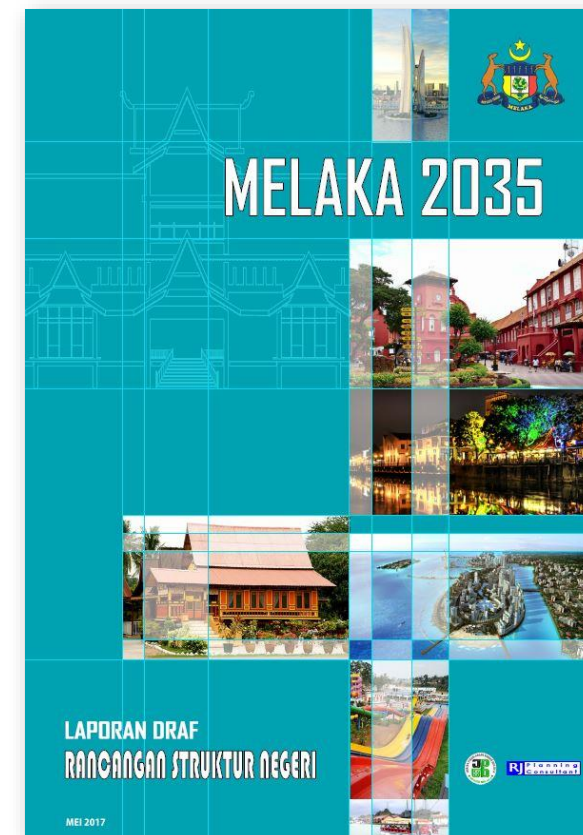


Analysis Sectors

- Initial stakeholder engagement informed the determination of the sectors of analysis.
- Fiscal sustainability scope was added later, once a need was determined.

1. Economic Competitiveness
2. Land use, Urban Form, Identity
3. Inclusiveness in the Built Environment
4. Integrated Approach to Mobility
5. Resilience, Env. and Resource Efficiency
6. Data Capacity for Integrated Planning
7. Fiscal Sustainability

Melaka State Structure Plan



Analytical Framework

1. Vertical Assessment

- Assessment of Melaka's trends & patterns
- Identification of key strategic objectives from government policies & planning documents

2. Horizontal Assessment

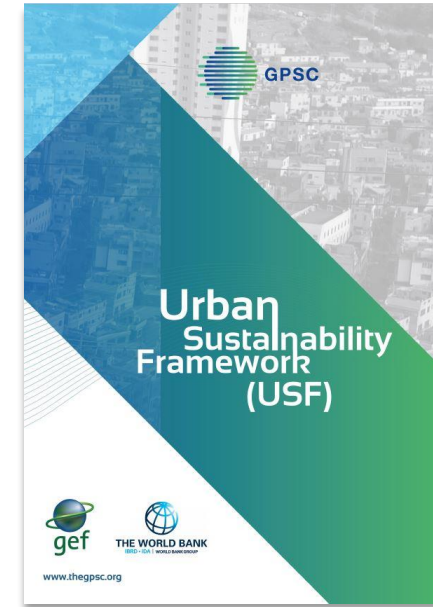
- Assessment of Melaka's performance on key indicators in comparison with international peer cities (Singapore, Porto, Penang, Recife, Izmir, Da Nang)

3. SWOT Analysis (Strengths, Weaknesses, Opportunities, Threats)

- Carried out by sector, with an overall holistic summary analysis

4. Key Messages & Recommendations for Action

- Focusing on advantages (strengths & opportunities) and constraints (weaknesses & threats)



Peer City Comparison

Aspirational:

- Singapore
- Porto (Portugal)

Comparable:

- State of Penang (Malaysia)
- Recife (Brazil)
- Izmir (Turkey)

Lower Development:

- Da Nang (Vietnam)

Data comparable

Data missing or not comparable

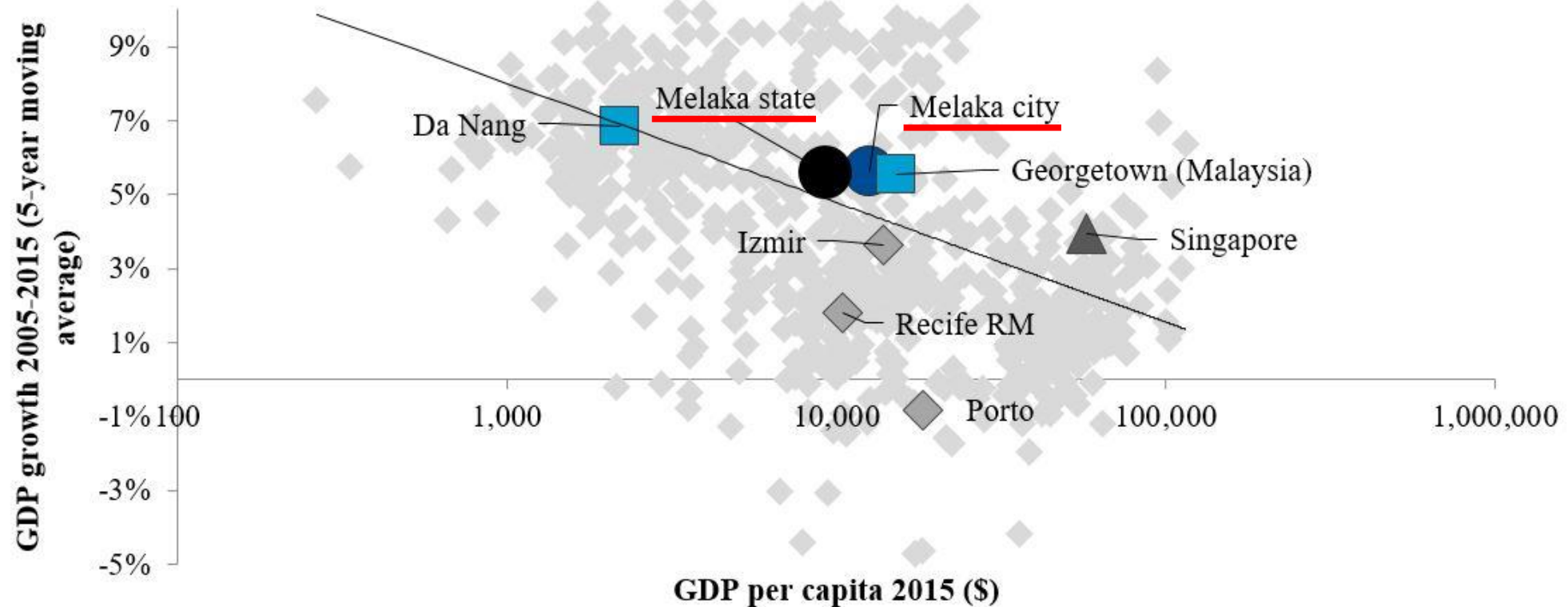
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Sector 1: Economic Competitiveness

Example Key Message:

1. Melaka Achieved Rapid Economic Growth Driven by Heritage and Health Tourism, Yet Productivity Gains Were More Modest

GDP per capita, 2015 and GDP growth 2011-2015: Melaka and comparators



◆ 775 world cities ● Melaka city ● Melaka state ■ Regional comparators ◆ International comparators ▲ Aspirational cities

Source: Oxford Economics database, 2017 (except Melaka state).

Sector 2: Land use, Urban Form, and Identity

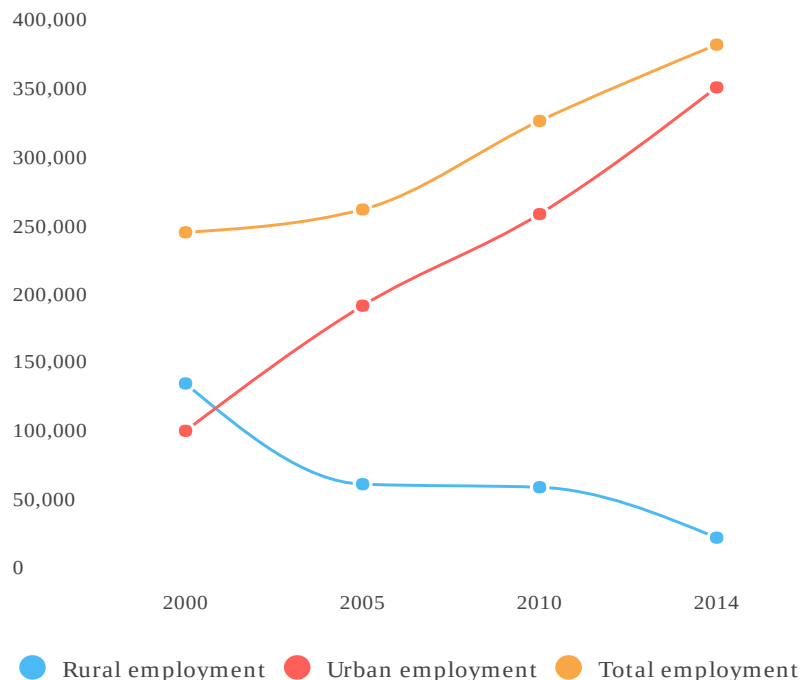
1. Despite its Strategic Planning Process and Mechanisms for Setting Financed Priorities, Melaka Faces Challenges Implementing Plans

- Challenges in coordination, linkages, and timing of plans preparation do not allow to fully integrate bottom-up knowledge from local plans into federally prepared master plans
- A monitoring system and data sharing platform is needed to assess policy implementation and assist decision making on development projects
- Capacity building of local authorities needs enhancement in the face of new and future challenges
- Centralization/federalization of urban service delivery is not always increasing effectiveness

Sector 2: Land use, Urban Form, and Identity

2. Land Oversupply and very low densities are a Liability

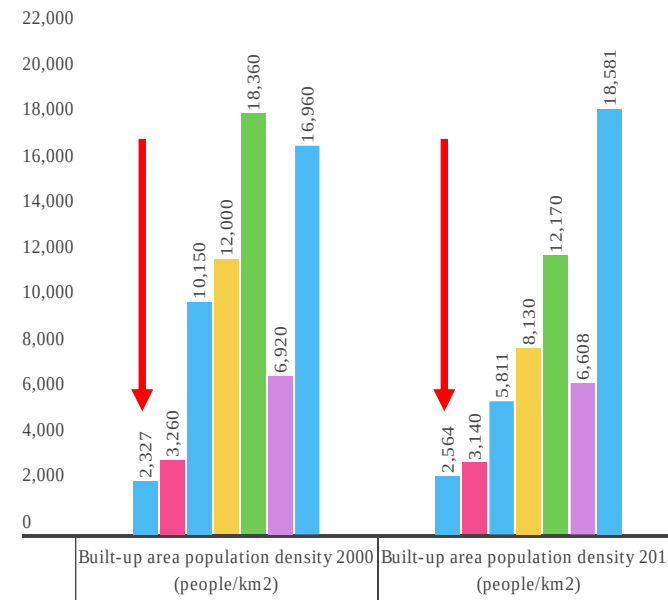
- Over the last 15 years, Melaka has turned **from rural to urban** and the gains in productivity of urbanization have fueled economic growth. Melaka has now reached **86.5 percent** rate of urbanization and will face new productivity challenges to sustain its growth.
- Melaka is expected to increase its population by + 70 %** in the next 20 years



Melaka rural and urban employment from 2000 to 2014

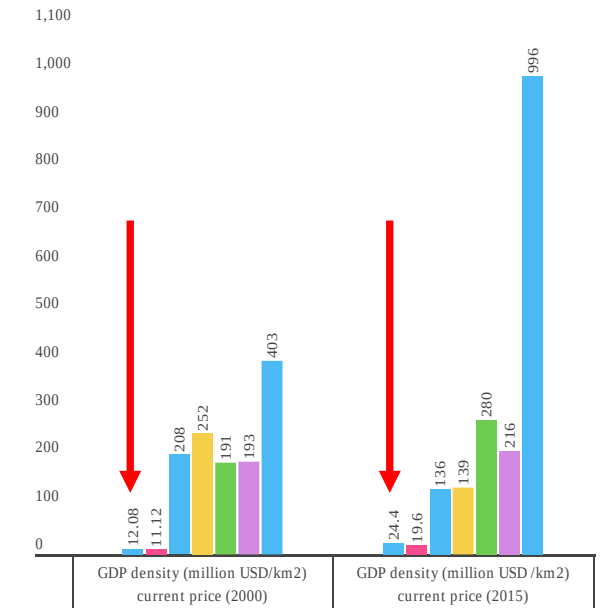
Melaka has provided for excessive amounts of land for development and population and economic densities are extremely low.

- The very low economic density limits severely agglomeration benefits and impedes transformation into a knowledge-based service economies.
- Melaka has to finance infrastructure per capita and per km² with an economy that generates only a minimal fraction of the value-added per capita and per unit of land compared to benchmark cities.



● Melaka ● Ipoh ● Palermo ● Thessaloniki ● Busan
● Fukuoka ● Singapore

Compared population densities 2000 - 2015

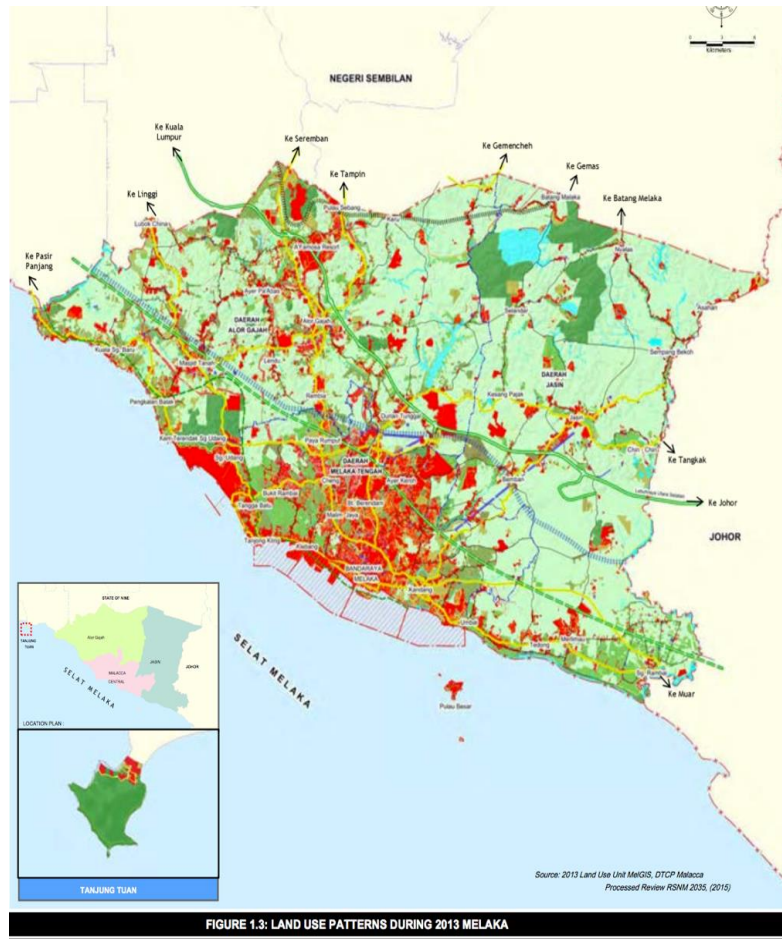


● Melaka ● Ipoh ● Palermo ● Thessaloniki ● Busan
● Fukuoka ● Singapore

Compared GDP densities (GDP/km²) 2000-2015

Sector 2: Land use, Urban Form, and Identity

3. Melaka Needs to Shape an Efficient and Compact Urban Form



The developable land in Structure Plan 2035 (848 km²) represents the equivalent of 1.2 times the entire Republic of Singapore and about 80 % of Hong Kong SAR

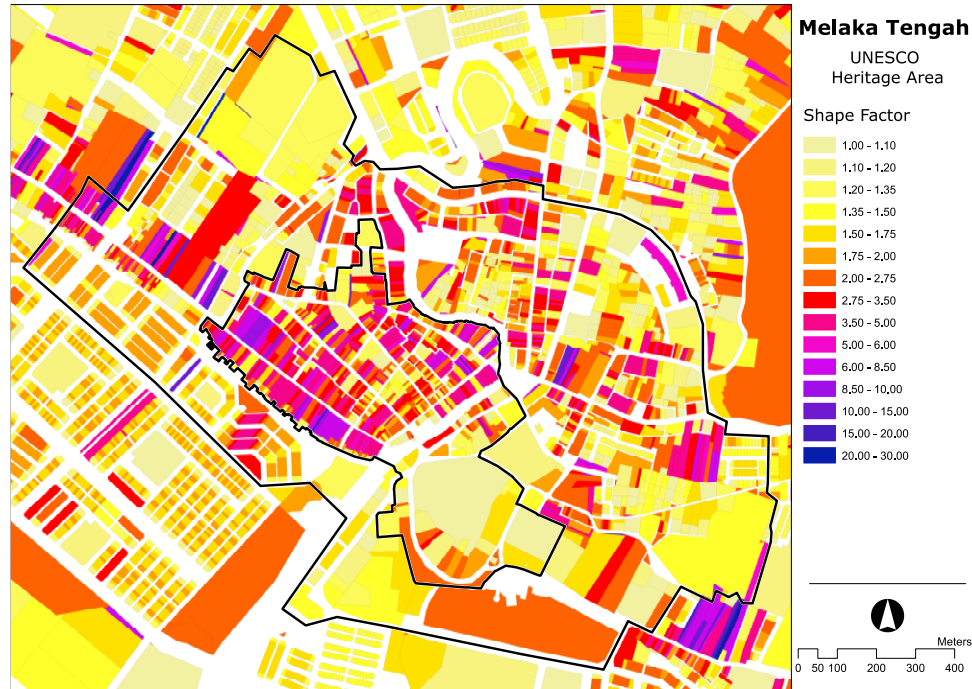
	Population	Built-up land
Melaka Structure Plan 2035	1.7 million	Developable land: 848 km ²
Singapore 2015	5.8 million	284 km ²
Hong Kong 2015	7.2 million	270 km ²

Envisioning multiplying by 2.5 the built-up land is a major liability if predictions about GDP growth are not realized. Expansion of the urban extent leads potentially to a reduction by one-third of protected and agriculture land.

Melaka 2013 saturated architecture land (in red in the map on left) and amount of land for potential future development in Structure Plan 2035 (in pink in the map on the right). Source: Melaka Structure Plan 2035.

Sector 2: Land use, Urban Form, and Identity

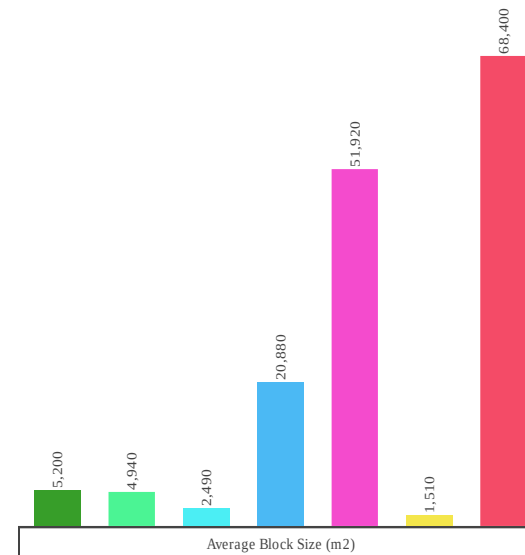
Key message: Develop a Dynamic Historic Living City and Harmonize urban fabrics



Melaka's recent urban fabrics do not present elongated lot patterns characteristic of shophouses with a depth of the plot on average more than three times its façade street width. It presents lesser deep lots outside the buffer zone and much bigger lots.

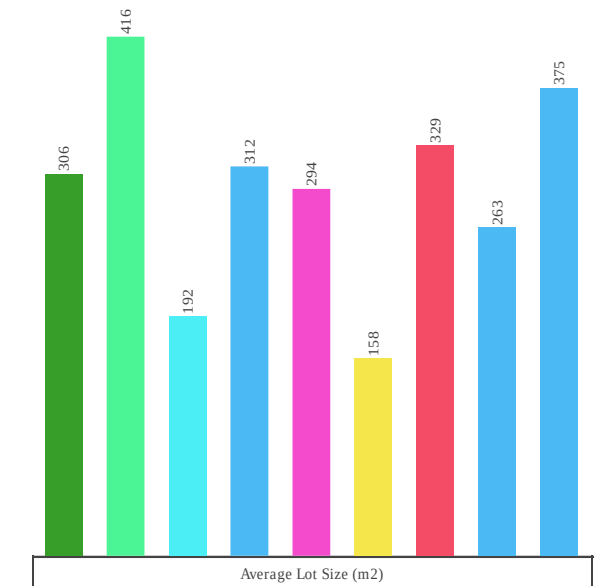


Urban lots shape factors in Melaka historic core



- UNESCO Heritage core
- Heritage buffer zone
- Walk-ups
- Tower blocks
- Industrial or warehouse
- Residential regular street pattern
- Low density linear developments

Average block size of Melaka urban fabric types



- Melaka Core Heritage Zone
- Melaka Heritage buffer zone
- Singapore Shophouse
- Kyoto Kyo-Machiya
- Tokyo Mini-House
- Shanghai Lilong
- London Terrace with Mews
- Montreal Plex-House
- Quito Patio House

Average lot size of Melaka Heritage /comparator cities

Sector 2: Land Use, Urban Form, and Identity

SWOT:

Strengths

- Long-term vision and strategic plan, with budgeted priority actions
- Multiple agencies and civil society participatory processes
- Goals and indicators to monitor progress
- Fast population and employment growth
- Anticipated doubling of GDP/capita and multiplication by 5 of GDP catapulting Melaka in middle-high income cities

Weaknesses

- Coordination and timing challenges between local and federal agencies and plans
- Weak integration of planning dimensions (e.g. land use and transportation)
- Insufficient specialized staff
- High land consumption and much lower densities than Asian counterparts
- Urban form fragmentation
- Very low economic density and low economic agglomeration

Opportunities

- Improvements in capacity, coordination and urban service delivery
- Efficient use of the present developed land through infill growth
- Creation of a growth boundary to protect agriculture land and ecosystems and limit land expansion
- Polycentric compact growth
- Integration of transport and land use with TOD planning

Threats

- Excessive amount of land classified as developable in Structure Plan 2035, leading to potential lower densities
- Higher costs of low density for citizens and public finance (infrastructure costs) and reduced economic productivity
- Negative impacts of low density on congestion and transportation emissions

Sector 2: Land Use, Urban Form, and Identity

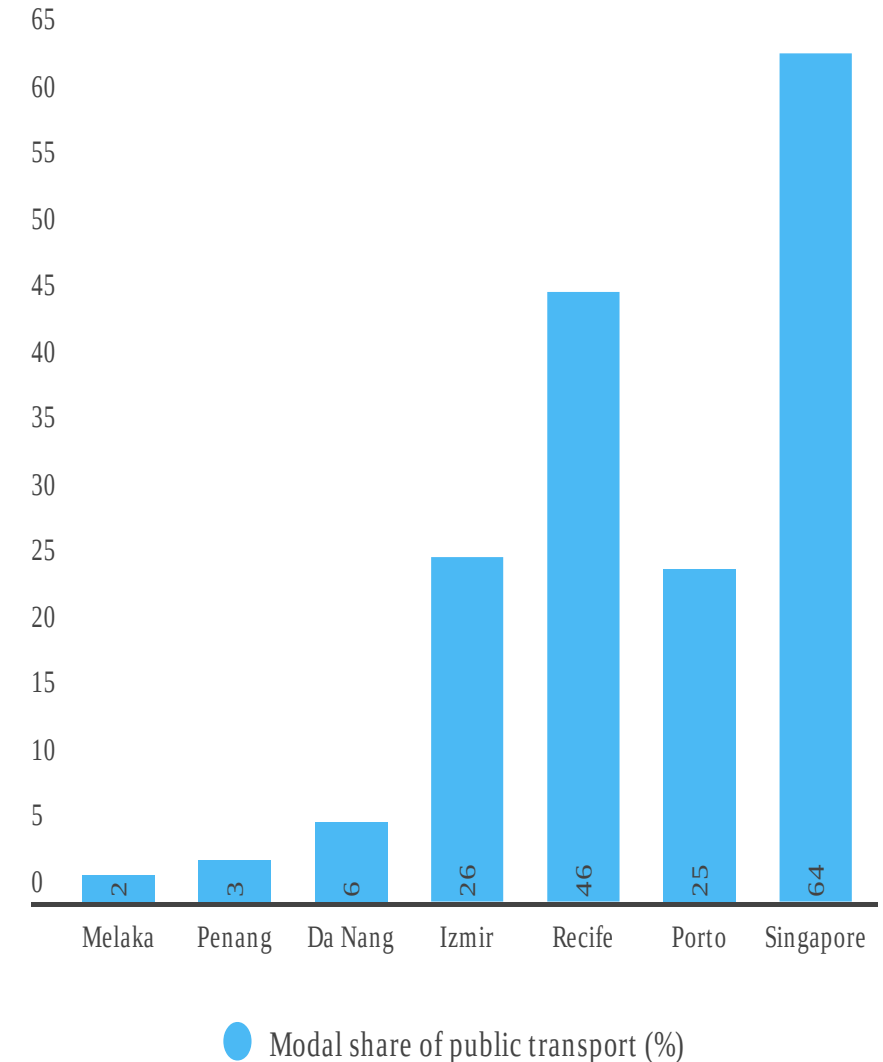
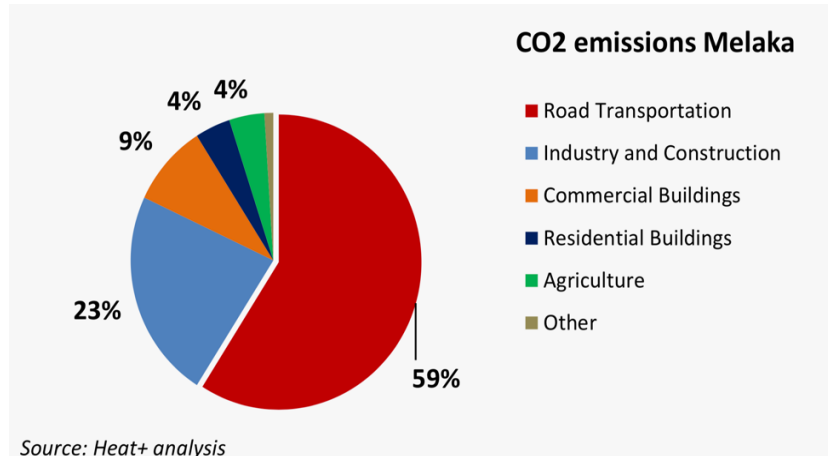
Recommendations:

1. Increasing institutional capacity and coordination for more effective integrated urban planning
2. Shaping the city with a compact polycentric urban form and development nodes well-connected by public transport
3. Incentivizing higher density, mix use and compact development with flexible land use regulations
4. Integrating disaster risk reduction into urban planning and management

Sector 3: Integrated Approach to Mobility

1. Focus on Public Transport and Integrate Green Mobility in Land Use Planning with TOD Policies

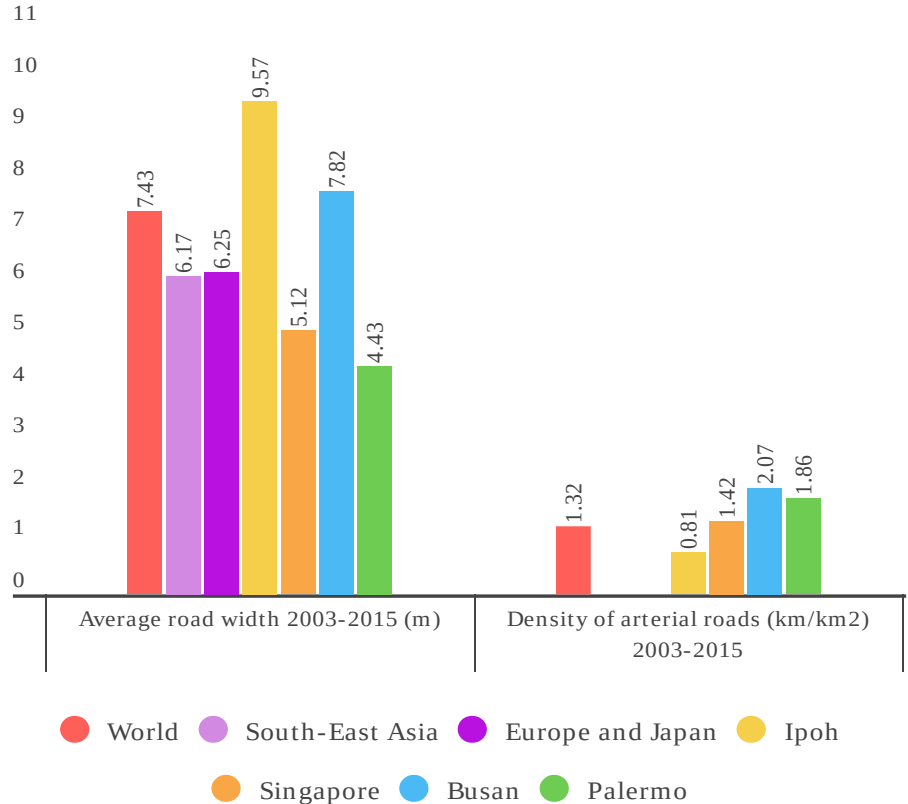
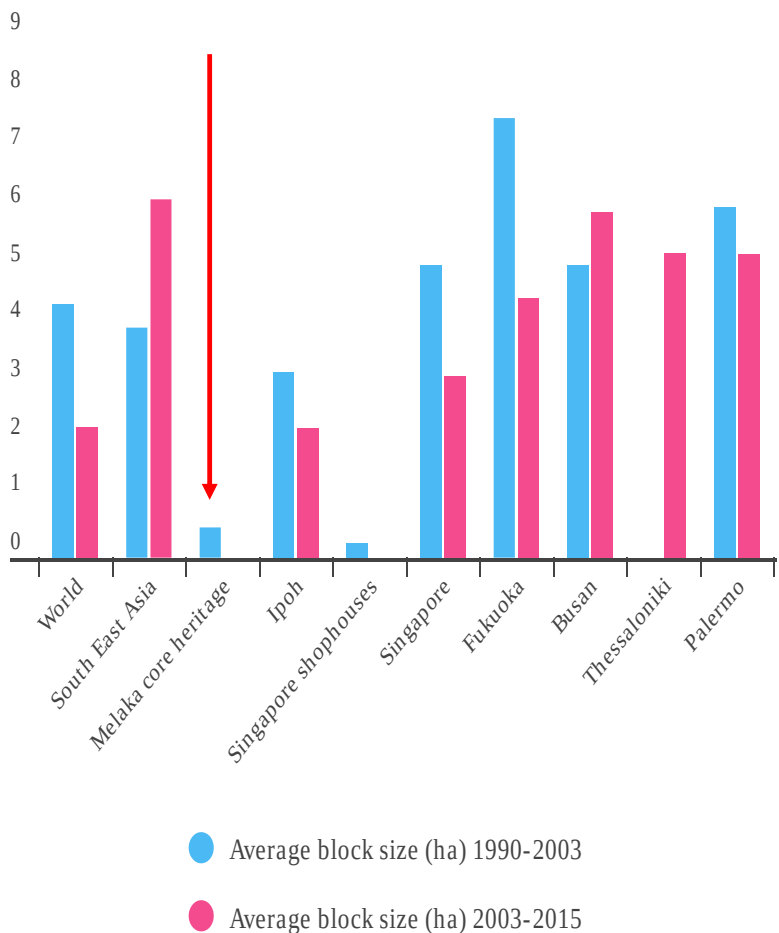
- 59% of Melaka's Emissions are Caused by Road Transportation
- Cars occupy a disproportionate space
- Modal share of public transport is extremely low
- Integrating transport and mobility in land use plans and enhance walkability should become a priority



Sector 3: Integrated Approach to Mobility

2. Enhance Walkability

Average block in Melaka recent extensions is more than 6 times bigger than in Melaka core heritage zone, reflecting a huge block size increase with larger roads characteristic of South East Asian cities recent growth.



The walkability in Melaka is in general **poor** due to the absence of walkways in combination with parking on the road-side. Even for short distances the car is used. Those who walk are forced to use the road space. The presence and quality of public spaces in most areas is poor.

Sector 3: Integrated Approach to Mobility

SWOT:

Strengths

- Geographical location in the Straits of Malacca
- High road infrastructure provision

Weaknesses

- Lack of Transport Master Plan
- Car dependent city with high car ownership
- Excessive road and parking space
- Low level of accessibility within the city; in particular to the World Heritage Site
- Very low modal share of public transport
- Transportation affordability issues
- Poor walkability and pedestrian facilities
- High share of transportation emissions in total emissions

Opportunities

- Future High-Speed rail line between Singapore and Kuala Lumpur
- Create a TOD corridor between the future HSR station and city center
- Increase modal share of public transport and enhance industry structure
- Integrate transport and land use planning with TOD policies
- Enhance walkability across the city
- Pedestrianize the World Heritage Site

Threats

- Pressure on transportation system of anticipated 25 million tourists
- Pressure of large scale projects on traffic
- Car culture hindering bicycle use as well as the access of disabled persons and pedestrians
- High level of congestion

Sector 3: Integrated Approach to Mobility

Recommendations:

1. Deliver an integrated and coordinated land use and public transport solution for Melaka
 - a. Integrating public transport in a comprehensive strategy of regional economic corridor: high quality connectivity between new High-Speed Rail and Melaka City Center is essential.
 - b. Moving towards a public transport modal share of 40%.
 - c. Enhancing transport industry structure.
 - d. Coordinating land use planning and transport with Transit-Oriented Development (TOD).
 - e. Developing pedestrian friendly design.

Sector 6: Data Capacity for Integrated Planning

Key Messages:

1. Data integration through cross-agency collaborations
2. Addressing the Data Gap with Alternative Data Sources and Partnerships
3. Think Open Source
4. Embrace Open Data

Sector 7: Fiscal Sustainability

Key Message

1. Overall Fiscal Sustainability Needs to be Demonstrated

Recommendations:

1. For Melaka State:

- a. Obtain a credit rating.
- b. Undertake a concerted effort to increase the state's own-source revenue.
- c. Achieve a reliable surplus operating margin.
- d. Improve debt management.

2. For Melaka City:

- a. Obtain a credit rating.
- b. Substantially increase recurrent own-source revenues, **and reduce reliance on non-recurrent revenues.**
- c. Return to maintaining an operating margin surplus.
- d. Work closely with Melaka State to prepare the city's own multi-year capital investment plan.
- e. Improve debt management.

Key Take-aways

- 1. Determine clear goals for the analysis**
- 2. Choosing the sectors of analysis is important.**
- 3. Benchmarking comparison with peer cities important, necessary to be able to collect data.**
- 4. Making the report accessible and readable.**



For more information:

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