



Achieving a System of Competitive Cities in Malaysia

Main Report



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Main Report

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LIST OF ACRONYMS AND ABBREVIATIONS

AC	autonomous community
ASEAN	Association of Southeast Asian Nations
BRT	bus rapid transit
CCKB	Competitive Cities Knowledge Base
CCT	conditional cash transfer
CDP	Comprehensive Development Plan (of the Iskandar Region)
COG	Council of Governments
CSR	corporate social responsibility
DAK	Dana Alokasi Khusus (Specific Allocation Fund, Indonesia)
DAU	Dana Alokasi Umum (General Allocation Fund, Indonesia)
DBH	Dana Bagi Hasil (Resource Sharing Fund, Indonesia)
DBKK	Dewan Bandaraya Kota Kinabalu (Kota Kinabalu City Hall)
DBKL	Dewan Bandaraya Kuala Lumpur (Kuala Lumpur City Hall)
DOSM	Department of Statistics, Malaysia
DoSW	Department of Social Work
DoYS	Department of Youth Services
ECER	East Coast Economic Region
EPP	Entry Point Project
EPU	Economic Planning Unit
ERM	Enakmen Rizab Melayu (Malay Reservation Enactment)
ETP	Economic Transformation Programme
FAR	floor area ratio
FDI	foreign direct investment
FGD	focus group discussion
FISM	Fondo para la Infraestructura Social Municipal (Fund for Municipal Social Infrastructure, Mexico)
FIZ	free industrial zone
FORTAMUN	Fondo para el Fortalecimiento Municipal (Fund for Municipal Strengthening, Mexico)
FTKL	Federal Territory of Kuala Lumpur
GCIF	Global Cities Indicator Facility
GDP	gross domestic product
GHG	greenhouse gas
GIS	geographic information system
GoM	Government of Malaysia
GTP	Government Transformation Programme
GVA	gross value added
HNDP	Highway Network Development Plan
ICT	information and communication technology

IKBN	Institut Kemahiran Belia Negara (National Youth Skills Institute)
IRDA	Iskandar Regional Development Authority
ISO	International Organization for Standardization
JKR	Jabatan Kerja Raya (Public Works Department)
JPA	Jabatan Perkhidmatan Awam (Public Service Department)
JPBD	Jabatan Perancangan Bandar dan Desa (Town and Country Planning Department)
JPS	Jabatan Pengairan dan Saliran (Drainage and Irrigation Department)
JPSPN	Jabatan Pengurusan Sisa Pepejal Negara (National Solid Waste Management Department)
KPKT	Kementerian Kesejahteraan Bandar, Perumahan dan Kerajaan Tempatan (Ministry of Urban Well-being, Housing and Local Government)
LEP	local enterprise partnership
LLM	Lembaga Lebuhraya Malaysia (Malaysian Highway Authority)
MARRIS	Malaysian Road Records Information System
MBPJ	Majlis Bandaraya Petaling Jaya (Petaling Jaya City Council)
MIDA	Malaysian Industrial Development Authority
MITI	Ministry of International Trade and Industry
MoE	Ministry of Education
MoF	Ministry of Finance
MPAJ	Majlis Perbandaran Ampang Jaya (Ampang Jaya Municipal Council)
MPPP	Majlis Perbandaran Pulau Pinang (Penang Island Municipal Council)
MPSJ	Majlis Perbandaran Subang Jaya (Subang Jaya Municipal Council)
MRL	Malay Reserve Land
MRT	Mass Rapid Transit
MURNInets	Malaysian Urban-Rural-National Indicators Network on Sustainable Development
NCIA	Northern Corridor Investment Authority
NEM	New Economic Model
NKEA	National Key Economic Area
NKRA	National Key Results Area
NLC	National Land Code
NPP	National Physical Plan
NUP	National Urbanization Policy
PBT	pihak berkuasa tempatan (local authority)
PEMANDU	Performance Management and Delivery Unit
PMR	Penilaian Menengah Rendah (Lower Secondary Assessment)
PPSPPA	Perbadanan Pengurusan Sisa Pepejal dan Pembersihan Awam (Solid Waste and Public Cleansing Management Corporation)
PSC	Public Service Commission
RECODA	Regional Corridor Development Authority, Sarawak
SEDIA	Sabah Economic Development and Investment Authority
SEZ	special economic zone

SJER	South Johor Economic Region
SKUP	Society for the Kuching Urban Poor
SPAD	Suruhanjaya Pengangkutan Awam Darat (Land Public Transport Commission)
SPAN	Suruhanjaya Perkhidmatan Air Negara (National Water Services Commission)
SPM	Sijil Pelajaran Malaysia (Malaysian Certificate of Education)
SPB-PBT	Sistem Penarafan Bintang – Pihak Berkuasa Tempatan (Star Rating System for Local Authorities)
TFP	total factor productivity
TOD	transit-oriented development
UGB	urban growth boundary
UKAS	Unit Kerjasama Awam Swasta (Public Private Partnership Unit)
UPEN	Unit Perancang Ekomi Negeri (State Economic Planning Unit)

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GLOSSARY

Agglomeration economies. The benefits, savings or (average) cost reductions resulting from the clustering of activities.

Urbanization economies. These arise from a larger number of different industries in the same place. Sources of urbanization economies include access to specialized financial and professional services, inter-industry information transfers, and availability of general infrastructure such as telecommunications and transportation hubs. Urban diversity that can foster the exchange of ideas and technology to produce greater innovation and growth can enable firms in different industries to share indivisible facilities or public goods. They also have access to a wider variety of intermediate input suppliers, a larger pool of narrowly specialized workers, and risks.

Localization economies. These arise from a larger number of firms in the same industry in the same place. There are three sources of localization economies. The first is the benefit of labor pooling, which is the accessibility that firms have to a variety of skilled laborers, which in turn provides employment opportunity for the laborers. The second benefit is the development of industries due to the increasing returns to scale in intermediate inputs for a product. The third source is the relative ease of communication and exchange of supplies, laborers and innovative ideas due to the proximity among firms.

Portfolio of cities. In order to enhance economic efficiency and foster agglomeration economies, policymakers need to treat cities as a portfolio of assets, each differentiated by characteristics that include size, location, and density of settlement. Businesses and people can exploit economies of scale and agglomeration if their settlements perform their intended functions.

Density. This is measured as the mass of the population per unit of land is the defining characteristic of urban settlements. Given that high productivity requires the geographic concentration of labor and capital, it is highly correlated with economic density.

Economic density. The geographic compactness of economic activity, which can be measured as value added (GDP) or jobs created per square kilometer. Economic density is important for agglomeration economies and the economic competitiveness of cities.

Distance. The ease or difficulty for goods and services, labor, capital, information, and ideas to traverse space, capturing both time and monetary aspects of costs. Locations close to markets have a natural advantage as they tend to have lower transport costs and easier access to knowledge and other resources. Distance-to-density is one of the factors in low income per capita, labor productivity, and real wages; it is also a factor in high rates of poverty and unemployment.

Division. This affects density and distance. Within-city disparities in welfare and housing and associated social issues, such as crime, persist well past high levels of urbanization and upper-middle incomes. Some divisions, such as geographic barriers, are beyond control, while others are self-imposed and include ethnic and cultural divisions, or those caused by inappropriate institutions and regulations.

KEY FACTS

Malaysia's recent urbanization landscape

5th In demographic terms, Malaysia is the 5th most urbanized economy in East Asia after Singapore, Japan, the Republic of Korea, and Taiwan, China.

40% Kuala Lumpur alone accounts for more than 40 percent of Malaysia's urban population.

60% Together with George Town and Johor Bahru, Malaysia's three largest cities account for more than 60 percent of the national urban population.

10x Jobs per km² in Hong Kong are 10x that of Kuala Lumpur.

22x Gross value added per km² of Hong Kong is 22x that of Kuala Lumpur's economic density.

30% Industry accounts for more than 30 percent of Kuala Lumpur's GDP, while it accounts for less than 10 percent of the GDP in Seoul and Hong Kong.

0.46% Gross value added per worker in Kuala Lumpur is only around 0.46 of that in Hong Kong for financial and business services.

59% The share of transport costs in household expenditure in Kuala Lumpur is 59 percent higher than in Hong Kong and Tokyo.

83% Kuala Lumpur is 83 percent as expensive as New York City.

23% ... with the cost of living increasing 23 percent from 2009 to 2012.

OVERVIEW

As Malaysia looks toward the future, there is a strong recognition that urbanization will play an increasingly important role as a driver of economic growth. The evidence linking higher levels of urbanization, higher productivity and overall economic growth is well established. Yet cities can grow in different ways that will affect their competitiveness and livability. They can be successful at creating opportunities, providing services for residents and citizens, and enhancing public spaces to create vibrant and attractive places to live. But cities can also neglect investments in critical infrastructure and basic services, and mismanage land, environmental and social policies which result in traffic congestion, sprawl, slums, pollution, and crime.

This study is part of a work program carried out by the World Bank under the guidance of the Economic Planning Unit (EPU) of Malaysia and Khazanah Nasional Berhad. The overall objectives of the work program are to support the Government of Malaysia (GoM) in i) formulating a set of strategies to enhance urban development and the role of cities in Malaysia; and ii) strengthening systems of benchmarking cities in Malaysia for informed policy decisions.

This study focused on understanding three key aspects of city competitiveness: economic growth, urban governance, and social inclusion. The analysis is based on existing data provided through the Malaysian Department of Statistics, GIS data from local authorities, international comparative data, and primary data collected through extensive field work carried out from April to October, 2014. The study covers six main conurbations in Malaysia: Kuala Lumpur, Johor Bahru, George Town, Kuantan, Kota Kinabalu and Kuching. Lessons from international experience were used as guidance in the context of Malaysia's own experience and provided critical input to the set of recommended policy options.

The main report includes an introductory chapter covering the context, analytical framework, and methodology for the study; Chapter 2 covers main findings and policy recommendations related to economic growth in cities; Chapter 3 provides detailed spatial analysis on land use and a review of local development strategies for the cities covered in the report; Chapter 4 discusses institutional issues related to urban planning, development and service delivery; Chapter 5 includes analysis on urban poverty, inequality and social inclusion, particularly as it relates to urban youth as broader issues of social inclusion are covered in other recent studies; and the concluding chapter (6) presents cross-cutting issues related to implementation of the recommended policy options including institutional responsibilities, time horizon and prioritization, and data sharing. Several annexes provide additional information on international experiences, and details on methodology used in the analysis.

A separate report was produced from the strengthening city benchmarking work program. The Malaysian Urban-Rural-National Indicators Network on Sustainable Development (MURNInets) benchmarking platform was assessed, with a set of core indicators for benchmarking city performance consistent with international experience. Analysis based on data provided by MURNInets, as well as some international comparators from the Global City Indicators Facility (GCIF) database was carried out, and followed by a joint workshop with GCIF and JPBD on global best practices for benchmarking. There was also an in-depth analysis of the new international standard for city indicators, International Organization for Standardization (ISO) 37120; on Sustainable Development of Communities; Indicators for City Services; and Quality of Life. The report submitted in parallel with this report summarizes key findings and recommendations which point to the proposed adoption of international benchmarking to allow cities to compare how they are doing relative to other cities with similar attributes.

ECONOMICALLY COMPETITIVE AND ENVIRONMENTALLY SUSTAINABLE CITIES

From an economic perspective, maximizing the gains from urbanization to strengthen the role of cities as the growth engines of the national economy is fundamental to helping Malaysia transform from a middle-income country to a high-income one. Continued investments in rural areas will ensure equity and balanced development at the national level. Analysis based on the framework developed in the World Bank's World Development Report 2009, which characterizes geographic transformations for economic development in three dimensions: density, distance and division, points to three main constraints to the economic competitiveness of Malaysian cities¹:

- ▶ **Low economic density.** Global experience suggests that economic density, as measured by either jobs per km² or gross domestic product (GDP) per km², rises with the level of development; and the densest places in the world are in the richest countries. The economic density of Malaysian cities, however, is relatively low compared to other large cities in East and Southeast Asia. For example, the employment density of Seoul, Singapore and Hong Kong is 2.5, 5 and 10 times that of Kuala Lumpur respectively, while the gross value-added per km² of these cities is 4, 13 and 22 times that of Kuala Lumpur. This limits the benefits of agglomeration and impedes transformation to a knowledge-based service economy.
- ▶ **Inefficient urban form that results in high transport costs and negative environmental impacts.** Sprawling urban form can undermine livability, affordability and environmental sustainability. The relatively low spatial density of Malaysia's cities results in long commutes for work, and ultimately affects transport costs which are high compared with other East Asian cities. The share of transport costs in household income is 50 percent higher than in Hong Kong and Tokyo. Adding to the high transport costs is traffic congestion, currently a serious problem in the larger cities of Malaysia. Urban sprawl also contributes to greenhouse gas emissions. Temperature records for the past 40 years already show that temperature anomalies in Malaysia's cities have increased faster than the global average. In the medium to long term, climate change is expected to result in more heat waves and to exacerbate the urban heat island effect, in turn increasing energy demand for cooling and increasing water consumption. Heavy, more frequent precipitation events are expected and will increase the risk and severity of urban flooding and landslides, requiring careful land use planning and attention to spatial form.
- ▶ **Insufficiently integrated institutions and policies.** Institutional complexity and coordination issues across various levels of government affect the efficiency of urban planning and implementation. For example, land use planning and urban transport are generally not well integrated. Institutional coordination and strong capacity in execution and enforcement are important for integrating land use with strategic and structural investment planning across sectors in Malaysia's cities.

The framework for analysis also denotes cities as a portfolio of assets, each differentiated by characteristics that include size, location, and density of settlement. Extensive research highlights the fact that businesses and people can exploit economies of scale and agglomeration if their settlements perform their intended functions. Settlements of different sizes complement one another with large cities, secondary cities, market towns and villages all linked through complementary functions. Large cities typically would concentrate services and innovation, whereas secondary cities and medium sized cities, which tend to have more land, would concentrate manufacturing and can specialize on specific industries according to their comparative advantages and designated strategies. Smaller towns connect rural and urban areas and act as market centers for agricultural products and other rural outputs. The structure of Malaysia's cities included in this study is

¹ Density refers to the size of population and economic activities per km², distance refers to the ease of reaching markets and determines access to opportunity, and division arises from barriers to economic interactions created by social, cultural and other barriers which restrict market access. These three spatial dimensions can drive markets and affect competitiveness.

roughly as follows: Kuala Lumpur is the large primary city, followed by two large secondary cities (Johor Bahru and George Town), and several medium-sized cities (Kuantan, Kota Kinabalu, and Kuching). Each city faces some specific challenges with regard to its economic productivity, land use patterns and spatial development. Key points related to economic, land use and spatial factors were analyzed at the individual urban level, these points are described below for each of the six conurbations.

Kuala Lumpur. Greater Kuala Lumpur is the economic center of Malaysia and has considerable potential to become a world-class business center. To allow this to happen, Kuala Lumpur would benefit from growth in services and innovation sectors, with more standardized industries moving to smaller cities and towns, as has been the experience of other developed countries. The relative degree of specialization in financial, business and consumer services in Kuala Lumpur decreased from 2003 to 2012, although industry is still a large part of its economy. Kuala Lumpur's labor productivity is behind most competitor cities in the East Asia region as well as global comparators with similar economic structure. With regard to land use and spatial development, Greater Kuala Lumpur has low density, partly due to the underutilization of land in the central areas of the city. Nearly half the land within 1 km of the city center is used by institutions, is designated as open/recreational. Although the Kuala Lumpur Structure Plan 2020 envisioned large residential development projects, land use analysis shows that the Federal Territory of Kuala Lumpur (FTKL) actually lost residential area between 2000 and 2010, especially in areas close to the city center. This suggests that these large projects have occurred mostly outside FTKL, which could make commuting times to jobs in the city center even longer.

Johor Bahru. Johor Bahru benefits from the economic spillovers of its neighbor, Singapore, as is evident from the growing share of consumer services in the local economy. However, Johor Bahru still has low productivity, including in the service sector, which suggests that economic efficiency needs to be enhanced. There is much potential for Johor Bahru to leverage its proximity to Singapore. Different approaches would exploit the city's comparative advantages: land availability, cheaper labor, lower-cost housing, all of which could help promote new industries. A strong understanding of the economic dynamics of both cities is essential to finding the most productive direction for Johor Bahru's economic development. With regard to land use and spatial development, institutional land dominates the center of Johor Bahru, occupying 80 percent of land within the first 1km buffer zone. It may be more efficient to use this centrally-located land for commercial or business purposes, i.e. for an economic purpose that reflects its high value. Residential areas, mainly located in the 3 km buffer zone are largely co-located with industrial and commercial use, which is a good sign for mixed-use developments.

George Town. Georgetown is recognized as a leading hub for electronics and high tech manufacturing and has a strong focus on instruments (including medical, instruments) and pharmaceuticals. Overall, industrial productivity is significantly higher than in Kuala Lumpur. The economy, however, has struggled in recent years, and has been weaker than the national average. Land use and spatial analysis show that of the four cities analyzed, George Town had the least amount of land allocated to institutional use. Most new industrial land has been the expansion of existing industrial clusters, indicating that further spatial concentration of manufacturing firms show signs of agglomeration economies. This also corresponds to the conurbation's spatial development plan, which locates specialized manufacturing centers largely based on existing industrial clusters.

Kuching. Kuching has performed well in the past decade with strong growth and substantial increases in per capita income; both above the national averages. It has relatively high industrial productivity which can be attributed to the spatial concentration of its industrial firms, and to the nature of their industrial activities. Kuching's clusters of manufacturing industries are located in the Sama Jaya Free Industrial Zone (FIZ), and in other industrial parks/zones. Reports suggest that industries are attracted to Sarawak as it has more competitive electricity rates than other cities

in the region. The federal government, with the support of the state government, offers incentives and import duty exemptions to investors, which creates a favorable business environment.

Kota Kinabalu. Kota Kinabalu's economic output appears to have experienced more volatility than the other Malaysian cities reviewed in this study. This may be related to data issues and/or reflect patterns of investment driven by the 2008-09 financial crisis and subsequent recovery. With regard to spatial and land use patterns, Kota Kinabalu has a higher proportion of residential land than other Malaysian cities, and its green/open space accounts for nearly half the city's total area. This amount of unbuilt land so close to the city center is unusual, but is a result of the large hills/steeply sloping terrain close to the center.

Kuantan. Kuantan city is less industrialized than Kuching and Kota Kinabalu, and of the six Malaysian cities reviewed for this study, it has the highest share of agriculture in its economy. Consumer services are a significant component of the local economy, accounting for over 25 percent of the city's GDP. Kuantan stands as the gateway to the broader East Coast Economic Region, which offers a significant source of raw materials for various industries. Kuantan also hosts the main port for the east coast of peninsular Malaysia. Given its existing economic structure and geographic location, Kuantan could focus on its comparative advantage of internal (plant-level) scale economies. In this regard, improved connectivity to large rural areas, as well as to the large cities on the west coast of the peninsula, could facilitate access to raw materials as well as to markets. This needs to be accompanied by continued enhancements in infrastructure and by the provision of services such as quality education and healthcare.

URBAN GOVERNANCE

Governments have an important role to play in the delivery of effective and efficient urban services and infrastructure. They need to design and support policies for land and housing markets; raise and equitably redistribute revenues; and promote a safe and sustainable urban environment through strong institutions, both at the national and local level.

The scope of the analysis related to governance in this study focuses on institutions as they pertain to urban planning, development and service delivery in Malaysia. It includes aspects such as: the roles and responsibilities of government agencies; the system of strategies, plans, policies, laws and regulations; implementation arrangements and coordination mechanisms; and monitoring and evaluation. The analysis involved desk reviews, extensive stakeholder interviews with various government agencies at all levels and across all six conurbations, as well as a review of selected global case studies.

In carrying out the analysis, many of the issues in relation to urban planning, development and service delivery may appear to be of technical or financial nature at first glance, but with further analysis the underlying causes tend to be institutional. For example, despite differences in legal frameworks and specific institutional arrangements between Peninsular Malaysia, and Sabah and Sarawak, many of the institutional issues identified were confirmed during stakeholder interviews as being similar to those on the peninsula.

Three main institutional issues were identified.

Centralization/federalization of urban service delivery. Local development and urban service delivery in Malaysia are highly centralized through federal/national-level government agencies. Local authorities in Malaysia are responsible for delivering relatively few services, and many functions related to the delivery of core urban services such as public transport, roads, water supply, sewerage, solid waste management, drainage, public health, police and emergency services, and education come under federal government control. The challenges identified in the delivery of

urban services suggest that the high degree of centralization has not always had the intended benefits of increasing efficiency and effectiveness. The creation of new agencies has also made coordination and implementation more complex.

Challenges in urban and spatial planning. Although Malaysia has a comprehensive planning system that guides urban development, weaknesses exist in coordination and linkages within the planning system. The current National Physical Plan has not been well implemented in sectoral planning and budget allocations. Large project investments that are designed and planned centrally may not reflect local knowledge and priorities, while some local plans and zoning may be inconsistent with state-issued land titles and projects initiated at higher levels.

Financial and technical constraints facing local authorities. Local authorities in Malaysia have limited financial resources. Most local authorities rely on property assessment tax for the majority of their revenue, but in many cases assessment rates and assessed property values have not been updated regularly. At the same time, the fiscal transfers that local authorities receive as grants from federal and state levels are relatively limited and unevenly distributed. Local authorities continue to face growing pressure from the public for service delivery and maintenance, and often end up using their own funds for stop-gap repairs of facilities or infrastructure that are not their responsibility. In addition, local authorities face constraints in terms of staff and their technical expertise. They have difficulty recruiting, motivating and retaining the right staff; they face staffing controls exercised by the federal-level Public Service Department, and offer relatively lower pay and fewer opportunities for career development compared to federal and state level agencies.

SOCIAL INCLUSION

A key aspect of a city's competitiveness is its ability to be socially inclusive and allow all people, including the disadvantaged, to share in and to contribute to rising prosperity. Malaysia has made great strides in reducing poverty in recent decades: the incidence of poverty is just one percent in urban areas (not including foreign workers). Inequality, however, remains a challenge. The Gini coefficient for Malaysia is one of the highest in Asia, and is substantially higher in urban areas than in rural areas.

The movement from rural areas to urban areas is significant and has been taking place in Malaysia for decades. In the last five years alone, about 2.5 percent of households moved out of rural to urban areas. Young people between the ages of 20 to 30, account for the largest share of internal rural to urban migration. While the move to cities can offer opportunities, not everyone benefits from these opportunities. This can create divisions in society that can be quite evident in urban areas and can lead to social problems, especially for young people who may have dropped out of school or who may be unemployed.

The analysis focused on at-risk youth in urban areas (aged 15-30) as this group is often identified as particularly vulnerable to exclusion, and given that other recent studies have covered broader aspects of social exclusion. Four aspects of social exclusion were covered: economic, political, socio-cultural, and spatial. Qualitative field work was carried out in the six areas included in the study, and included focus group discussions, key-informant interviews and round table discussions with key stakeholders. Some of the key findings are noted here.

Economic aspects. Three main dynamics were identified through the field work as contributing to vulnerability and to a sense of social exclusion. They deal with individuals as well as the broader family: i) youth unemployment linked to lack of education or skills training; ii) poverty and rising costs of living; and iii) irregular work patterns and dysfunctional families.

Political aspects. At-risk youth found it difficult to make their voices heard; they also believed that they had limited influence on decision-making, which contributed to a sense of exclusion. This has negatively impacted their perceptions of their role in neighborhood committees, also in places of worship and religious organizations especially at the local community level.

Socio-cultural aspects. Difficulties in accessing the education system were identified as key contributing factors to both vulnerability and exclusion. Recurring themes in all six cities were issues related to discipline in school resulting in absenteeism and expulsion. Issues identified through focus group discussions relate to a lack of interest in classes that do not cater to students' learning needs, to teachers' disciplinary style that discourages students from attending, and family problems. Broader issues concerned problems with the education system that could hinder the development of non-academically inclined students. The issue of criminalization of young people involved in anti-social behavior was also raised. Police reports, arrests and lock-ups have created bad experiences for many of the young people the research team encountered. Some groups expressed strong distrust of institutions and saw little hope for the future.

Spatial aspects. The majority of the urban poor and low-income families live in public housing – high-rise flats for newer construction, and 5-story walk-up flats for older construction. Regardless of the type of flats, the issues raised by flat dwellers were similar and included: issues of affordability, the lack of appropriate community spaces, poor maintenance and limited public transportation. Safety concerns, including the prominence of crime and violence were also identified.

POLICY RECOMMENDATIONS

It is important to acknowledge that Malaysia has done well on many fronts. Its economic and social indicators demonstrate impressive progress in recent decades. Achievements in poverty reduction have been remarkable: the share of households living in poverty dropped from over 50 percent in the 1960s to less than two percent in 2012.

As Malaysia sets its sights on high income status, it will be essential to harness the benefits of urbanization through a system of competitive cities that draws on the advantages of each individual city. When analyzing key opportunities to attain this goal, several policy recommendations emerge based on the analysis summarized above. Some will require major policy shifts and strong political will to implement, and these changes may benefit most from phasing in gradually. Other policy options may be easier to implement and could be initiated within a relatively short time frame. Over time, however, these recommendations will best achieve results when implemented in their entirety rather than through partial or selective implementation. The recommendations are summarized below and are discussed in greater detail in the full report. Chapter 6 provides details on implementing agencies, prioritization, and time horizon required.

1 Fostering Economic Growth

- a. **Strengthening institutions for managing land markets and developing land policies.** Well-functioning institutions are important to help promote economic density and dissipate economic and social divisions. This can be achieved by encouraging: flexible land use regulations and better utilization of land; coordination of land use planning with development of connective infrastructure; and use of public transport

Flexible land use regulations. Malaysia needs flexibility in land use to cater to the changing demand for land and to accommodate more dense and compact urban development. Relaxing any overly stringent restrictions on land use, such as low plot ratios is crucial for achieving this. Realizing the potential of low-use land for more productive uses,

such as affordable residential and commercial developments, would contribute to increasing economic density and foster economic growth.

Coordination of land use planning with transport infrastructure development. Besides relaxing stringent regulations and ensuring fluidity of the land market, there are other urban planning tools, such as mixed-use planning, that can help change the spatial structure of cities and limit urban expansion and sprawl. Efficient land use through transit-oriented development (TOD) or smart growth that prioritizes new developments along established public transport routes may help Malaysian cities reduce distances from places where jobs are concentrated.

- b. Target interventions to improve efficiency in the system of cities.** These can include incentives to cluster service- and knowledge-based sectors in large cities and to relocate land-intensive manufacturing industry to smaller cities and towns. Initiatives to repurpose old industrial districts could include infrastructure redevelopment and catalytic projects to make the city's spatial structure more efficient, livable, and sustainable. At the same time, continued investments in rural areas are necessary for equity and balanced development across the country. While some of these initiatives are already underway in Malaysia, there are opportunities for deepening them to improve efficiency.

At the city level, analysis indicates optimal utilization of available land close to the Kuala Lumpur city center² could facilitate agglomeration economies and increase economic density through a number of policy actions. The spatial development strategy for the center of KL focuses mainly on mixed-use development and on ensuring that the residential component remains strong; the success of this strategy depends on the pattern of these residential areas close to the city center, i.e. high density residential, as reflected by high plot ratio, can be commensurate with the high value of land and can promote mixed-use development and more compact urban form.

For the Johor Bahru/Iskandar Region, a key recommendation is to adjust the existing strategy to pursue more vertical linkages with Singapore. This would need to focus on selected sub-sectors in manufacturing and in finance and business services. Further analysis of successful and failed initiatives and the most dynamically growing industries could indicate possible growth areas.

In the case of the George Town conurbation/Penang area, significant work has been done in recent years on its economic and urban strategy. This study recommends a deepening of the implementation of existing plans. The recent slow-down in the electronics sector, and weakness in other sectors of the economy, point to the need for George Town to move the manufacturing sector up the value chain, along with the services sector. This is taking place already and is supported by the government, as reflected in its spatial development plan.

As for Kota Kinabalu, Kuching and Kuantan, further study would be required to match the extent of analysis that has been done for Kuala Lumpur, Johor Bahru and George Town; a specific recommendation would be to perform this analysis in any future work.

2 Ensuring Environmental Sustainability

Encouraging the use of public transport. The provision of public transport infrastructure and services could be accompanied by fiscal incentives to encourage the use of public transport and reduce reliance on private vehicles. This would help reduce congestion and transport costs in Malaysian cities. Fiscal instruments are primarily price-based and take advantage of market mechanisms. Examples of these instruments include: congestion charges, emission and/or pollution tax or charge (e.g. carbon tax, sulfur tax), fuel tax (e.g. any excise tax on fuel), vehicle tax (e.g.

² Federal Territory of Kuala Lumpur and adjacent areas in the state of Selangor

ownership, licensing or registration fee) and subsidies (e.g. subsidies for clean fuels, efficient vehicles, and public transport). These instruments are expected to cut travel demands, encourage commuters to use public transport; substitute polluting fuels (e.g. petroleum products) with clean fuels (e.g. ethanol, hydrogen, compressed natural gas), and encourage the public to use vehicles with higher fuel economy.

Integrating policies for climate change and disaster risk reduction into urban planning and management. Given climate change projections, Malaysia can expect more frequent precipitation events and an increase in the risk and severity of urban flooding and landslides. This is likely to disrupt economic activity and infrastructure. In the longer term, sea-level rise also threatens many Malaysian cities: all six cities in this study are located at or near the coast. Incorporating risk reduction into land use and infrastructure planning could have positive economic impacts and ultimately save lives.

3 Strengthening Institutions for City Competitiveness

- a. **Localizing the delivery of selected urban services.** There are substantial opportunities for transforming institutional structures to improve the effectiveness and efficiency of service delivery. This can be done by shifting more management and decision-making roles to the local level and promoting an enhanced system of local performance indicators.

Identify services to be delivered locally. The criteria for identifying the appropriate level for service delivery include: economies of scale; externality effects; equity; and local responsiveness and accountability. Based on these criteria, some services that are currently managed centrally could be devolved to lower levels of government. Such services could include: intra-urban highways and federal intra-urban roads; urban public transportation including buses and rail; drainage and flood mitigation; solid waste management and disposal; and emergency services.

Metropolitan governance. In certain cases, localization would mean that some functions and services, particularly planning, would be organized at the conurbation level, involving several local authorities and possibly more than one state. This would facilitate improved planning and coordination across local authorities within a conurbation, while also allowing for prioritization of local needs. Globally, various institutional arrangements for metropolitan management exist, for example, a metropolitan-level agency for one specific sector, controlled jointly by a group of local governments.

City performance indicators. Indicators are essential for tracking improvements in urban service delivery. For each localized service, one or more quantitative indicators should be measured, and needs to be supported by a baseline and regular monitoring. Malaysia has the building blocks for this, including the Star Rating System and the Malaysian Urban-Rural-National Indicators Network on Sustainable Development (MURNInets). There are opportunities for enhancing these systems through the use of internationally standardized indicators to benchmark performance and identify good practices from leading cities worldwide.

- b. **Increasing the capacities of local authorities.** Ensuring that service delivery at the local level is optimized will require some strengthening of the financial and technical capacities of local authorities, including own-source revenues, fiscal transfers, and staffing.

Property assessments. Dismantle the barriers, political or otherwise, that have prevented the property assessment system from working the way it was intended to work. This could include revising assessment rates and updating

assessed values. Safeguard mechanisms could be built into the system to avoid placing sudden or excessive property tax burdens on individual property owners, particularly for lower- and middle-income groups.

Fiscal transfers. The system of fiscal transfers to local authorities could be revised to be more transparent, predictable and formula-based. The specific formula for grant transfers, including constituent variables, needs to be carefully considered, and needs to take into account the diversity of needs across the country. At least part of the grant formula could be based on needs, such as level of development, extent of land area, and number of residents served. In principle, transfers could also be structured as performance-based grants. Based on performance indicators for a particular service, incentive payments in the form of increased grant funding could be given to local authorities for excellent performance.

Staffing. The technical capacities of local authorities could be improved to help them recruit, motivate and retain the right staff. Options for this could include: relaxing some centralized staffing controls, and increasing opportunities for career development by enabling local authority staff to rotate and serve at other government agencies. To the extent that some of these changes would be undertaken with the proposed PBT Transformation Plan, the implementation of this plan should be a priority.

4 Fostering Social Inclusion

Strengthening programs for at-risk urban youth. Some policies and programs targeted at enhancing support for at-risk youth have been successful in other countries. Such programs help to: prevent school dropouts; encourage entry to the labor market; and facilitate inclusion through spatial integration (e.g. housing, transport).

Support policies aimed at keeping children in school. Global evidence shows that implementing policies that encourage children to remain in secondary school is one of the most important preventive investments a country can make for at-risk youth, both in terms of improving their educational outcomes and in reducing almost all risky kinds of behavior. Completing secondary school can serve as one of the strongest protective factors for young people in two key ways: i) through the knowledge and skills that they acquire, which enable them to make informed decisions; and ii) through the sense of connectedness that students often feel to adults within the school. Promoting school connectedness through efforts to improve school quality; providing financial incentives to stay in school; incorporating life skills training into the curriculum; and revising disciplinary policies can have a range of benefits. These include decreases in: absenteeism, fighting, bullying, and vandalism, and the promotion of educational motivation and classroom engagement. It also helps to improve academic performance, school attendance and completion rates.

Scale up targeted programs for vulnerable youth. While Malaysia has been spending a significant amount of its fiscal resources on social protection, much of that has been devoted to non-targeted programs which do not necessarily reach vulnerable youths. International experience points to a range of programs that could be supported including: “provide second chance programs” such as literacy and comprehensive educational/job training programs that provide school dropouts with an opportunity to complete high school and enter tertiary education or the labor market; job training programs that include a mixture of technical skills, life skills and internships; and mentorship programs. The *My Skills Foundation* program in Malaysia provides a good example that could potentially be scaled up.

Invest in safe neighborhood programs. Safe neighborhood programs are another way to foster a sense of belonging and support participants’ aspirations, ultimately having a powerful impact in changing the lives of youth at risk, as well as changing the dynamic between young people and other community members. Such programs should be

informed by a clearly articulated design principle, a coherent structure and should focus on measuring impact on the ground.

Improve coordination, design and implementation of programs. Given the multidimensional and cross-sectoral nature of youth interventions, the implementation of any such program would need to be well coordinated by several government ministries. The establishment of an interagency task force on youth-at-risk could enhance coordination. There are also important opportunities to engage the community, local government and civil society organizations in the design and implementation of programs at the local level.

5 Promoting Innovation through Information

Deepen open data policies. Providing open access to data from Government and other sources can create new business opportunities, and help solve civic problems. As technology advances, cities around the world are experimenting with ways to use data from a number of sources to better understand their urban environment and their citizens, trying to use technology to respond more effectively to citizens' needs. As a technologically advanced society, Malaysia is in a good position to take advantage of new and innovative means of data-enabled urban management. Many Malaysian government agencies collect large amounts of data, some of which are available publicly online, and some agencies have developed mobile phone applications to help citizens access these data. However, more could be done to use the data to facilitate collaborative decision-making between government agencies and between the government and citizens. Numerous examples are raised throughout the report where having more open access to data could help to enhance competitiveness in cities.

Summary Table of Issues and Recommendations

Issues	Recommendations
1. Fostering Economic Growth	
1.1 Low Economic Density	<ul style="list-style-type: none"> • Increase the flexibility of land use in cities to facilitate increased economic density <ul style="list-style-type: none"> – Relax some restrictions (e.g. plot ratios, mixed use) – Repurpose ‘low land use’ areas where feasible • Manage a system/portfolio of cities; Align sectors with city size: i.e. cluster service and knowledge based economies in large cities, and relocate manufacturing to smaller cities
1.2 Large Distances within Cities	<ul style="list-style-type: none"> • Improve urban connectivity through public transport, transit-oriented development, ensure service for low income communities
1.3 Challenges of Division	<ul style="list-style-type: none"> • Coordinate land use planning with development of infrastructure • Institutional coordination across different levels of government (Chapter 4)
1.4 Addressing City Specific Needs	<ul style="list-style-type: none"> • Target interventions to improve efficiency in the system of cities • Further develop city level plans
Kuala Lumpur <ul style="list-style-type: none"> • Room to grow the services and innovation sectors, while relocating industrial activities to other cities • Low density and potential for improving the utilization of land near the city center 	<ul style="list-style-type: none"> • Ensure optimal utilization of land close to the city center <ul style="list-style-type: none"> – Identify areas of low-use land that could be feasibly developed for more productive use – Plan and implement new developments on specific land parcels, including affordable housing for middle income groups – Encourage the relocation of industrial activity to other cities, possibly through a programmatic approach
Johor Bahru <ul style="list-style-type: none"> • Proximity to Singapore not fully leveraged, productivity is still low • Existing strategies have not achieved full economic returns 	<ul style="list-style-type: none"> • Consider adjusting the Iskandar region’s strategy to pursue more vertical linkages with Singapore <ul style="list-style-type: none"> – Review the existing strategy (including the new CDP2) and identify opportunities for adjustment – Implement specific actions/investments related to vertical linkages identified
Georgetown <ul style="list-style-type: none"> • High industrial productivity but other sectors are weaker 	<ul style="list-style-type: none"> • Deepen implementation of existing plans
Kota Kinabalu Kuching Kuantan	<ul style="list-style-type: none"> • Carry out follow-up studies at the specific city level
2. Ensuring Environmental Sustainability	
2.1 Low density and long distances have negative impact on the environment	<ul style="list-style-type: none"> • Encourage the use of public transport <ul style="list-style-type: none"> – Instruments could include congestion charges, emission and pollution tax, fuel tax, vehicle tax, subsidies for clean fuels, efficient vehicles and public transport, substitute polluting fuels with clean fuels
2.2 GHG emissions and climate change	<ul style="list-style-type: none"> • Prioritize green growth policies <ul style="list-style-type: none"> – e.g. public transport use, LED lighting, green buildings – Integrating policies for climate change and disaster risk reduction into urban planning and management – Risk reduction for land use and infrastructure planning
3. Strengthening Institutions for City Competitiveness	
3.1 Centralization of urban service delivery	<ul style="list-style-type: none"> • Localize the delivery of selected urban services <ul style="list-style-type: none"> – Improve the efficiency and effectiveness of service delivery by shifting more management and decision making to the local level – Use an enhanced system of local performance indicators to track performance
3.2 Challenges in urban and spatial planning	<ul style="list-style-type: none"> • Develop metropolitan governance arrangements to improve planning and coordination

Issues	Recommendations
3.3 Financial and technical constraints facing local authorities	<ul style="list-style-type: none"> • Strengthen the capacities of local authorities <ul style="list-style-type: none"> – Enable the property assessment system to work as designed while protecting property owners from sudden or excessive tax increases – Revise the system of fiscal transfers to local authorities to be more transparent, predictable and formula based – Improve the ability of local authorities to recruit, motivate and retain staff
4. Fostering Social Inclusion of At-risk Youth	
4.1 Economic aspects <ul style="list-style-type: none"> • Youth unemployment, poverty, low wages, work patterns 	<ul style="list-style-type: none"> • Support policies aimed at keeping children in school • Improve school quality, financial incentives to stay in school, including life skills training, revise disciplinary policies • Job training programs including technical and life skills, internships
4.2 Socio-cultural aspects <ul style="list-style-type: none"> • School absenteeism, school expulsion, underperforming • Discrimination, stateless children • Gender, safety issues 	<ul style="list-style-type: none"> • Support programs that specifically target at-risk youth in urban areas • Rehabilitation and second chance opportunities for ‘dropouts’, e.g. literacy, education/job training, life skills • Mentoring programs • Ensure access for all • Public awareness programs
4.3 Spatial aspects <ul style="list-style-type: none"> • Limited public transport, safety concerns (in low cost housing), crime and violence 	<ul style="list-style-type: none"> • Invest in safe neighborhood programs • Youth-friendly spaces and activities in public buildings • Foster good police-community relations • One stop centers in high-risk communities • Review the design of low-cost housing • Ensure public transport access in low-income communities • Review of current routes and hours of operation
4.4 Political aspects <ul style="list-style-type: none"> • Limited voice in decision-making 	<ul style="list-style-type: none"> • Engage communities in the design of programs
4.5 Program design and implementation challenges	<ul style="list-style-type: none"> • Improve coordination, design and implementation of programs to meet needs • Establish an interagency task force on youth-at-risk • Follow-up study
5. Improving Data Access and Quality	
5.1 Data access is very difficult	<ul style="list-style-type: none"> • Deepen open data policies at all levels of government
5.2 Limited availability at the city and intra-city level	<ul style="list-style-type: none"> • Invest in ensuring data representation at the city and intra-city level <ul style="list-style-type: none"> – Spatial data – Economic data – Socio-economic data
5.3 Data is not always reliable or comparable	<ul style="list-style-type: none"> • Improve standardization • Consider international system of benchmarking for city level indicators with third party verification <ul style="list-style-type: none"> – ISO standard 37120 – Participate in GCIF for those cities not ready
6. Urban Growth Boundaries	
6.1 Conurbation boundaries cross administrative and service boundaries	<ul style="list-style-type: none"> • Gain consensus and implement approach to redrawing the conurbations’ boundaries to take into account jurisdictional, administrative and service boundaries as well as economic, social, transportation and environmental aspects. <ul style="list-style-type: none"> – Guidelines for drawing boundaries provided in the report
6.2 Urban management challenges within conurbations	<ul style="list-style-type: none"> • Improve approaches to metropolitan governance



1. INTRODUCTION

1. Malaysia's economic performance over the past 30 years has been impressive. Gross domestic product (GDP) increased at an average annual rate of 5.8 percent. GDP per capita has now surpassed the United States dollar (USD) 10,000 mark at market rates. Its progress in reducing poverty has also been remarkable with the share of households living in poverty dropping from over 50 percent in the 1960's to less than two percent (2012). These gains have made Malaysia a global success story.
2. Looking ahead, the Government of Malaysia (GoM) has set laudable goals to transform Malaysia from a middle-income to a high-income economy, while ensuring that growth is also sustainable and inclusive as outlined in its 2010 New Economic Model (NEM) and Economic Transformation Programme (ETP).
3. Urbanization is an important part of this vision for Malaysia. The evidence linking higher levels of urbanization, higher productivity and overall economic growth is well established. Cities create proximity and facilitate the flow of knowledge that drives innovation. They are centers of productivity, human capital, and greater market access.
4. Yet cities can grow in different ways. They can be successful at creating opportunities, providing services for residents and citizens, and enhancing public spaces to create vibrant, livable cities. But city management can also neglect investments in critical infrastructure and basic services, and mismanaged land, environmental and social policies can result in traffic congestion, sprawl, slums, pollution and crime.
5. The GoM has identified the need to develop a comprehensive and coordinated strategy and action plan for urbanization to enhance the competitiveness of its cities, both in terms of economic activity and livability. This would strengthen the ability of Malaysia's cities to become centers of innovation and strong economic clustering, as well as attractive places for people, businesses and jobs, and contribute to achieving the long-term development goals outlined in the NEM.

1.1 Study Objectives

6. This study is part of a work program carried out by the World Bank under the guidance of the Economic Planning Unit of Malaysia and Khazanah Nasional Berhad. The overall objectives for the work program as set out in the Concept Note are to support the GoM in a) formulating a set of strategies to enhance urban development and the role of cities in Malaysia; and b) strengthening systems of benchmarking cities in Malaysia for informed policy decisions.
7. The study focuses on three aspects of city competitiveness: economic growth, urban governance, and social inclusion. It covers six conurbations in Malaysia: Kuala Lumpur, Johor Bahru, Kuantan, George Town, Kota Kinabalu and Kuching. It is based on analysis of existing data from the Department of Statistics; international comparative data; spatial data at the city level; and primary data collected during extensive field work carried out from April to October, 2014.
8. This introductory chapter (1) of the report lays out a framework for thinking about competitive cities and the methodology used in this study. Chapter 2 covers main findings and policy recommendations related to economic growth in cities, Chapter 3 provides detailed spatial analysis on land use and a review of local development strategies for the cities covered in the report, Chapter 4 discusses institutional issues related to urban planning, development and service delivery; Chapter 5 includes analysis on urban poverty, inequality and social inclusion, particularly as it relates to urban youth, and the concluding Chapter (6) presents cross-cutting issues related to the implementation of recommended policy options including institutional responsibilities, time horizon and prioritization, and data sharing. The annexes provide extensive supporting materials and case studies.

1.2 Defining Competitive Cities

9. Despite the large international body of research on the competitiveness of cities, a standard definition or common understanding of competitive cities has not emerged. Most definitions focus on economic prosperity and growth potential. Some definitions also include aspects of quality of life which also contribute to an urban environment conducive to economic growth and competitiveness (see Box 1-1). Drawing from these approaches, a multi-dimensional framework for defining competitive cities was used for analysis with the aim of developing a set of recommendations that could help Malaysia move toward a system of competitive cities. This analytical framework was used to reflect Malaysia's vision for development as outlined in recent strategies and plans for the country (see section 1.4). Key elements include: economic growth; good urban governance; social inclusion; and environmental sustainability.
10. **Economic growth.** Growth happens in cities that are characterized by high concentrations of human capital, excellent connectivity, and a vibrant knowledge-based economy. Cities foster economic growth because density increases the ease of moving goods, people and ideas. They remove the physical spaces between people and firms, and proximity makes connections easier. Firms value this agglomeration. In the context of a system of cities, each city has a role in maximizing efficiency and competitiveness. But they cannot take full advantage of agglomeration economies if transport and other infrastructure is limited; if land markets do not allow for economic density; or if distortionary policies inhibit opportunity and result in negative environmental consequences.
11. **Good urban governance.** Governments have an important role to play in the delivery of effective and efficient urban services and infrastructure. They need to design and support policies for land and housing markets; raise and equitably redistribute revenues; and promote a safe and sustainable urban environment through strong institutions. While urbanization policies are important at the national level, many urban issues are best handled by local governments. Good urban governance ensures transparency, accountability, equity, and local participation, all of which contribute to city competitiveness.
12. **Social inclusion.** Broadly understood, an inclusive city is one that allows all people, including the disadvantaged, to share in and contribute to rising prosperity. Inclusion is concerned with both consumption and production including those elements that are related to human well-being, shared prosperity, and social justice. Such concepts are particularly important in urban areas where inequalities are highly visible; it is common to observe low-income populations alongside wealthy residents. Such stark differences can exacerbate frustration and feelings of exclusion resulting in crime and other costs to society.
13. **Environmental sustainability.** Sustainable cities can be defined broadly, to integrate environmental, economic, and social objectives. Given the potentially negative consequences of specific urban planning decisions that can lead to congestion, pollution and high greenhouse gas emissions, cities today need to consider the trade-offs of infrastructure investments as these are likely to be locked in for hundreds of years. This is all the more urgent for cities that are rapidly urbanizing. Such decisions can ensure investments that are green and resilient, ultimately generating higher economic returns and improving quality of life for residents, as well as improving a city's chance to attract and retain talent. Such investments contribute to competitive cities.
14. This study also builds on earlier work on smart cities in the World Bank's Malaysia Economic Monitor (World Bank 2011). Smart cities were defined as cities that are innovative, green and resilient. It was recognized that Malaysian cities face a number of challenges in becoming "smart". In relation to skills and knowledge to enable more innovation, the report noted that Malaysia's leading universities are performing below potential and not contributing sufficiently to the cities that host them, and that skills shortages have persisted. On the green and resilience agendas, it was also noted that car ownership is spreading; public transport options remain limited; and that GHG emissions are high and rising while urban densities are declining (World Bank 2011).

Box 1-1 Approaches to defining competitive cities

Despite the fact that a large international body of research exists on the competitiveness of cities, a standard definition or common understanding of competitive cities has not emerged. However, by identifying common themes in existing definitions or approaches to measuring the competitiveness of cities, we can arrive at a working definition for the purpose of understanding and promoting competitive cities in Malaysia.

Most approaches to competitiveness have a particular focus on economic issues; specifically the economic advantage that locating in the city gives to private enterprises within it. An ongoing World Bank study defines city competitiveness as “the ability of a city to use its administrative leverage and capacity to make the most of resources at its disposal in order to create an environment in which the private sector can grow, create jobs, improve incomes of employees, and adapt to external shocks through innovation, improved productivity and access to external markets.”³ Similarly, according to a definition by Webster and Muller for another World Bank study (Webster and Muller 2000), also cited recently by the Asian Development Bank (Choe and Roberts 2011), “[u]rban competitiveness refers to the ability of an urban region to produce and market a set of products (goods and services) that represent good value (not necessarily lowest price) in relation to comparable products of other urban regions.”

However, Webster and Muller then broaden the definition to include the concept of livability or quality of life, by adding that “[n]on-tradables, e.g., local services, are part of the competitiveness equation. An urban economy that produces goods and services for local people of high value relative to price, supports the export economy of the city, making it more competitive, as well as directly raising the quality of life and standard of living for people living in the urban region.”

A report by the Organisation for Economic Co-operation and Development (OECD 2006) on competitive cities asks whether there is a choice between having economic dynamism and having a livable city, and concludes that a “good and attractive environment may not be an alternative to economic success but may contribute to it.” The report also points out that the attractiveness of a city for investment and human capital depends, in part, on its inclusiveness. It explains that while it may be possible for cities to create elite enclaves that represent their desired image to the world, metro-wide economic growth depends partly on social cohesion.

A number of competitive city frameworks invoke the notion of sustainability. A study by the World Economic Forum (2014) begins with an economic perspective and then expands its definition to emphasize the need for sustainability. It defines city competitiveness as “the set of factors: policies, institutions, strategies and processes that determine the level of a city’s sustainable productivity. Sustainability encompasses economic, environmental and social issues.”

Other studies focus on measuring what would contribute to a city’s competitiveness without providing an explicit definition. Yet the indicators that they use suggest a broad understanding of competitiveness and its enabling conditions. For example, a comparison of the competitiveness of Australian cities used 20 indicators grouped under the categories of productivity, sustainability and livability (University of Canberra n.d.)

Some of these multi-dimensional approaches consider governance as one contributor to competitiveness. A recent study by the Economist Intelligence Unit (EIU 2013), describes competitiveness as a “holistic concept”, and uses 32 indicators to calculate the level of competitiveness of a city. Indicators are grouped into eight thematic categories and assigned weights: economic strength (30 percent), physical capital and financial maturity (10 percent each), institutional character and human capital (15 percent each), global appeal (10 percent), social and cultural character (5 percent), and environment and natural hazards (5 percent). “Institutional character” can be seen as a term describing governance. The McKinsey Global Institute (2011) uses an Urban Performance Index (using the terms “performance” and “competitiveness” interchangeably) which again takes an “integrated” and “holistic” approach. The Index is built from 100 quantitative measures across four dimensions: economic performance, social conditions, sustainable resource use, and finances and governance.

³ Competitive Cities Knowledge Base

1.3 Methodology

15. The approach for the analysis in the study draws on a broad range of international literature for understanding specific aspects of urban development as it links to competitive cities. The analysis is based on existing data resources from the Malaysia Department of Statistics, international resources, and qualitative field work carried out from April to October, 2014.
16. Lessons from international experience were used to assess Malaysia's experience and provided critical input to the set of policy options. Parallel work programs carried out by the World Bank for Malaysia on a National Transport Strategy and a National Social Protection Strategy also provided input to this work.
17. The six conurbations included in this study are defined in various ways in the data sets used in this study. For clarity, the report has defined the urban areas and definitions using the terminology summarized in Box 1-2.
18. The **economic analysis** draws heavily on existing data sources obtained through the Department of Statistics, Malaysia; as well as the Oxford Economics Global Cities dataset; the World Bank East Asia Urban Expansion dataset; CEIC Malaysia data; the Global Risk Data Platform from the United Nations Environment Program (for calculation of GDP per km²); and analysis carried out for the World Bank work program on the Malaysia National Transport Strategy. A summary of the how these datasets are utilized is provided in Annex 1. The analytical framework of this report builds on the "3-D" framework: *density*, *distance* and *division*, as developed in the World Bank's World

Box 1-2 Definitions and terminology in relation to the six urban areas of focus in this study

As a point of departure, this study uses the existing conurbation names and boundaries, as defined and used by the Federal Department of Town and Country Planning, Peninsular Malaysia (JPBD) and in recent documents such as the 2010 National Physical Plan 2 (NPP-2) for the four urban areas in the peninsula: Kuala Lumpur conurbation, George Town conurbation, Johor Bahru conurbation, and Kuantan conurbation.

When these names appear in conjunction with "conurbation", the specific meaning and the area referred to is the entire area within the specified conurbation boundary. Note that the conurbation boundaries encompass large areas, although substantial portions of these areas are not currently built up (i.e. not considered urban), particularly in the cases of Johor Bahru and Kuantan.

The conurbation names are also used throughout this report as the preferred name for each urban area: "George Town" instead of "Penang", and "Johor Bahru" instead of "Iskandar Malaysia".

In Sabah and Sarawak, conurbation boundaries have not been defined. The urban area of Kota Kinabalu is taken to be the City of Kota Kinabalu itself, as administered by Kota Kinabalu City Hall (DBKK). The urban area of Kuching refers to the whole area administered by the two local authorities of Kuching North and Kuching South.

Where applicable, other names/terms are used in this report with specific meanings as follows:

- Greater Kuala Lumpur: as defined by the ETP National Key Results Area (NKRA) consists of the federal territories of Kuala Lumpur and Putrajaya, plus eight adjacent local authority areas in Selangor;
- Penang Island refers to the island only, while Penang state refers to the whole of the state: island and mainland;
- Iskandar Malaysia/Iskandar region: as defined and used by the Iskandar Regional Development Authority (IRDA) the area of Johor Bahru district and Kulaijaya district;
- Greater Kota Kinabalu: as defined in the Sabah Structure Plan, refers to the City of Kota Kinabalu (administered by DBKK) and the adjacent districts of Penampang and Putatan.

The term "city" is also used throughout this report in a non-specific way to refer to the six selected urban areas.

Development Report 2009 (WDR 2009) to study the constraints to economic competitiveness of cities (see Section 2.2 for an introduction to the framework).

19. An analysis of individual cities examines sectoral composition, productivity and cost of living based on the framework of a portfolio of cities. Under this framework, each city should perform its intended function based on its comparative advantage. The policy recommendations follow the WDR 2009's framework, categorized as follows: institutions with common approaches; connective infrastructure; and targeted interventions. It includes a discussion on sequencing and prioritization according to different levels of urbanization. Relevant international experience is integrated with analysis and policy recommendations to draw lessons from other countries.
20. City level economic performance was also assessed relative to comparators to assess city competitiveness for the six conurbations in the study. This benchmarking exercise uses the Competitive Cities Snapshot methodology, recently designed as a part of Competitive Cities Knowledge Base initiative of the World Bank. The methodology provides a quick overview of a city's economic performance with comparisons to others with similar characteristics on economic outcomes and their key drivers. The approach uses the following data sources for comparisons: Oxford Economics Global Cities database, World Bank Doing Business, EIU Competitiveness Index, EIU Livability Index, Mercer City Index, UN-Habitat City Prosperity Index, tothinknow database. The criteria for comparator selection are defined separately for each city and are explained in Chapter 3.
21. The **spatial analysis** in Chapters 2 and 3 is conducted with GIS data⁴ on land use and spatial structure, examining how urban land is allocated among different uses (residential, agricultural, industrial, commercial, etc.) as a function of distance to the city center, and how this land use pattern changes over time (2000 versus 2010, for the Federal Territory of Kuala Lumpur (FTKL) and George Town only due to data availability). The actual conurbation boundaries in the analysis may be different from the administrative boundaries of the metropolitan areas for which land use data have been provided by local governments. Analysis is therefore conducted only for areas within the conurbation where data are available as is elaborated in Chapter 3. Based on the key findings from the economic and spatial analysis, a review of local development strategies⁵ was conducted, documenting current and former strategies for the city; and comparing the strategies to the situation on the ground.
22. The **institutional analysis** in Chapter 4 focuses on the role of institutions as they pertain to urban planning, development and service delivery in Malaysia. The focus of the analysis has been mostly on the administrative and fiscal dimensions of institutions, and less on the political. For these purposes, the term "institutional" is used in the broad sense to include aspects such as: the roles and responsibilities of various government agencies; organizational structures; the system of strategies, plans, policies, laws and regulations; implementation arrangements and coordination mechanisms; and monitoring and evaluation.
23. The methodology involved a combination of desk research and interviews with a range of stakeholders. Specifically, the analytical steps included identification of a list of "core" urban functions and services that are of particular interest for cities; mapping of institutional roles and responsibilities; and a review of relevant plans, policies, and laws/regulations related to urban planning, development and service delivery. They also included interviews and meetings with a range of stakeholders: government agencies at federal, state and local levels; and private sector representatives. A review of selected global case studies was also undertaken to identify some examples of good practice and successful institutional change that could be relevant for Malaysia.

⁴ For Greater Kuala Lumpur, Johor Bahru conurbation, George Town/Penang State, and Kota Kinabalu City only, due to data availability.

⁵ For Greater Kuala Lumpur, Johor Bahru/Iskandar Malaysia region, and George Town only.

24. The **social analysis** in Chapter 5 uses a social exclusion lens defined as a multidimensional process which weakens the links between individuals and the rest of society (Rodgers and others 1997). The study explores three key challenges related to the livability and competitiveness of cities: social exclusion, youth and crime rates, and places a focus on how these challenges relate to livability and competitiveness of cities. It is understood that there are several vulnerable groups living in Malaysian cities, such as the elderly, disabled, and single-headed households. Given the relationship between competitive cities and at-risk youth, and the existence of other ongoing work, this study focused on at-risk youth in urban areas specifically.
25. The methodology uses qualitative techniques, specifically focus group discussions, key-informant interviews and round table discussions with key stakeholders. This field work was carried out in the six conurbations included in this study. Four aspects of exclusion were explored: economic, political, socio-cultural, and spatial. In addition, the work also included a literature review and identification of international good practice; and a mapping of government policies and programs. Media coverage on the topic of crime and violence in urban areas was also reviewed.
26. A separate report was produced from the strengthening **city benchmarking** work program. The Malaysian Urban-Rural-National Indicators Network on Sustainable Development (MURNInets) benchmarking platform was assessed, with a set of core indicators for benchmarking city performance consistent with international experience. Analysis based on data provided by MURNInets, as well as some international comparators from the Global Cities Indicator Facility (GCIF) database was carried out, and followed by a joint workshop with GCIF and JPBD on global best practices for benchmarking. Training on global benchmarking and international comparators was conducted at the workshop. There was also an in-depth analysis of the new international standard for city indicators, International Organization for Standardization (ISO) 37120; on Sustainable Development of Communities; Indicators for City Services; and Quality of Life.
27. The findings from this work show that the MURNInets system currently in place for local benchmarking in Malaysia is fairly well established and is now being used by many local authorities (PBTs). For Malaysian cities to be globally competitive, a system for international benchmarking should be adopted. International benchmarking is vital to achieving sustainable and competitive cities, which is why many cities participate in local and international benchmarking initiatives. In order to be globally competitive, cities need to be able to see where they stand against other cities with similar attributes. The Global City Indicators Facility and the World Council on City Data provide international benchmarking platforms that can assist the Government of Malaysia and cities in Malaysia to become more competitive through comprehensive benchmarking efforts. Two options were presented for consideration with details on the implementation of these options elaborated in the Benchmarking report:
 - » Option 1: Cities in Malaysia adopt ISO 37120 and be certified to be part of the World Council on City Data.
 - » Option 2: Cities in Malaysia that are not ready to adopt ISO 37120 can participate in the Global City Indicators Facility and report on indicators within the GCIF framework.
28. In reviewing the boundaries of the six conurbations included in the study, guidance was provided based on international best practice for consideration. Recommendations for Malaysia include: redrawing the conurbation boundary to take into account jurisdictional, administrative and service boundaries as well as economic, social, transportation and environmental issues. Recommendations also include the development of an urban growth boundary (UGB) manual. These points are discussed in detail in the Benchmarking report.

1.4 Context

29. Malaysia is among the more urbanized countries in East Asia, and its urban population continues to increase rapidly. With a high concentration of population in large cities, Malaysia has good opportunities to harness economies of scope, scale, and agglomeration. The urban population of Malaysia (in urban areas of more than 100,000 people) increased over the period 2000 to 2010 from 10.2 million (43 percent of the total population) to 15.0 million (53 percent), making it one of the more urbanized countries in the region in demographic terms, after Singapore, Japan, and the Republic of Korea (and Taiwan, China) (World Bank 2015). The urban population now comprises approximately 70 percent of the country's total population. The rate of urban population growth, at an average of four percent a year, has been among the fastest in the region. This rate was surpassed only by Lao PDR, Cambodia, and Vietnam; these first two have much smaller urban populations than Malaysia. As of 2010, Malaysia had 19 urban areas of more than 100,000 people each (World Bank 2015).
30. According to 2010 census data, the total population of the six selected conurbations accounts for nearly half of the national population, with Greater KL alone accounting for a quarter of the national population. There were a total of 19 urban areas of more than 100,000 people.

Table 1-1 Population of the six selected conurbations based on 2010 population census

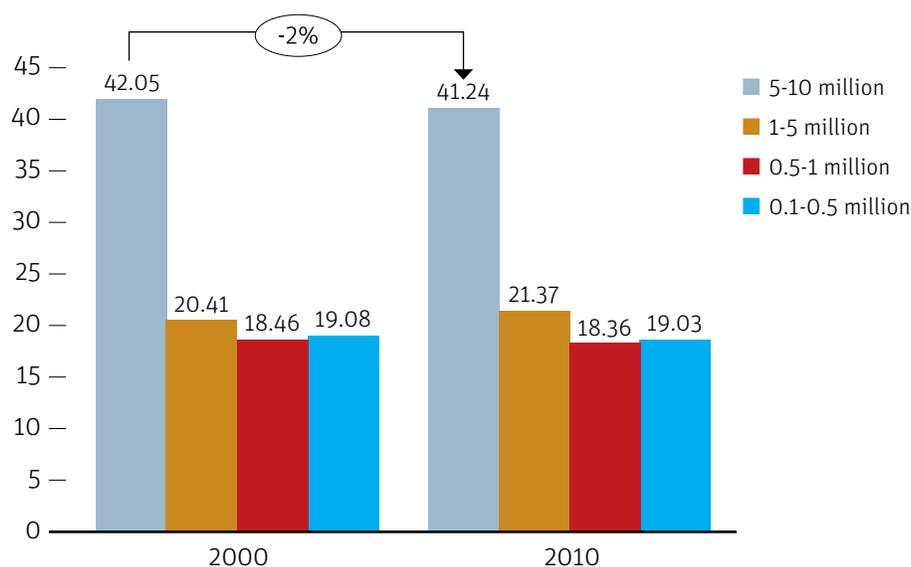
Conurbation	Population 2010 (excluding partial mukims)	Population 2010 (including partial mukims)
Greater KL	7,275,257	7,550,169
Iskandar region (Johor Bahru area)	1,344,047	1,783,034
George Town (Penang)	1,933,648	2,347,913
Kuantan	564,480	677,314
Kota Kinabalu	506,791	731,136
Kuching	684,112	684,112

Source: Malaysia Population Census (2010) from DOSM

Note: Calculation of the population of each conurbation is based on sub-district (mukim)-level population data from the census. Since the conurbation boundary crosses some mukims, these mukims are only partially included in a conurbation. The left column shows the population of each conurbation, excluding mukims that are partially included in a conurbation; the right chart takes into account the population of mukims that are partially included in a conurbation.

31. Kuala Lumpur alone accounts for more than 40 percent of Malaysia's urban population. Kuala Lumpur, George Town and Johor Bahru, Malaysia's three largest cities account for more than 60 percent of the national urban population (see Figure 1-1).

Figure 1-1 Percentage of national urban population in cities of various sizes, 2000–2010



Source: World Bank 2015⁶.

32. Malaysia's urban land grew from around 3,900 km² to 4,600 km² between 2000 and 2010: an average annual growth rate of 1.5 percent, which was lower than the average of 2.4 percent for the region. The absolute amount of urban spatial expansion was among the highest in the region, lower only than China, Indonesia and Vietnam. Urban areas covered approximately 1.4 percent of the total area of the country in 2010, among the highest in the region, making urban areas in Malaysia among the least dense in East Asia (World Bank 2015).
33. Malaysia's development strategy has recognized the role of cities as the nexus for economic growth and for attracting mobile talent, jobs, and capital. Policies to operationalize this vision of growth have been included in the New Economic Model (NEM), which is driven by 'innovative processes and cutting-edge technology, supported by a healthy level of investment and talent, for high value added goods and services'. Supporting policies and plans include:
 - » Initiative-22 (Driving Growth by Urban Agglomeration): this is part of the 10th Malaysia Plan (2011-2015) which embraces the key message of the World Bank's 2009 World Development Report (World Bank 2009). It outlines the need to develop clusters of high population and economic density, also to improve livability to attract talent, linked to National Key Economic Areas (NKEAs).
 - » The 2010 National Physical Plan 2 (NPP-2) is aligned with the vision outlined in the 10th Malaysia Plan. It is based on the concept of "concentrated decentralization" to "concentrate the nation's scarce resources to a few priority urban centers with the greatest growth potential for job creation while protecting the rural areas and natural environment" (NPP-2 2010)

⁶ Urban land was defined as the built-up land in urban areas with populations of 100,000 or more, using built-up areas as observed from satellites, see World Bank, 2015.

» The National Urbanization Policy has been developed in tandem with the NPP-2 and outlines principles which will “guide and coordinate the planning and urban development of the country to be more efficient and systematic particularly to handle the increase in the urban population by 2020 with emphasis on balancing the social, economic and physical development within urban areas”. The federal Town and Country Planning Department has begun work on a National Urbanization Strategy for Malaysia based on this.

34. While it is evident that the Government of Malaysia is committed to developing policies and strategies to tap into the vast economic potential of cities, it is unclear how well the implementation of these various initiatives is coordinated. There are other gaps which could potentially hinder Malaysia’s ability to fully leverage the economic benefits of urbanization. These include: a paucity of socioeconomic data at the local level; the absence of an operationalized strategy to develop economic clusters, one that takes into account the spatial relationships between “primary” and “secondary” cities within the urban hierarchy as well as with their hinterlands; and weaknesses in policy coordination across levels of government.



2. BUILDING ECONOMICALLY COMPETITIVE CITIES

2.1 Introduction and Analytical Framework

35. This chapter analyzes the economic competitiveness of Malaysian cities and provides policy options based on local and international experience. It focuses on the critical issues of maximizing economic gains in urban areas, providing the right enabling conditions, and balancing the costs and benefits of population density, in order to make cities the growth engines of the national economy. It examines how Malaysian cities can move from an industry-based economy to a service- and knowledge-based economy, and shows how this can help Malaysia transition from a middle-income to a high-income country.
36. Section 2.1 lays out the analytical framework for the analysis; Section 2.2 presents key analytical findings and accompanying policy recommendations. Selected case studies and examples from other countries/cities are presented to help recognize constraints to economic competitiveness and to identify corresponding policy priorities. The following chapter, Chapter 3, takes a city-by-city approach, providing additional analysis and policy recommendations for each of the six conurbations, including economic analysis of industrial structure and productivity, spatial analysis of land use, and review of local economic development strategies.
37. The analytical framework of this chapter builds on the “3-D” framework on the geography of economic development based on research from the World Bank’s World Development Report, 2009: density, distance and division (World Bank 2009). International experience suggests that cities do well when they focus transformation on these dimensions. Increased density is reflected in the growth of cities; shorter distances are important for the time and cost of commuting; and fewer divisions are needed to consolidate knowledge and the skills base and to bring people and firms closer to the institutions that support economic growth.
38. Population density, measured the population per unit of land, is the defining characteristic of urban settlements. High productivity requires geographic concentration of labor and capital and is highly correlated with economic density. Economic density is the geographic compactness of economic activity, which can be measured by GDP or jobs created per square kilometer. Economic density is important for agglomeration economies and for the economic competitiveness of cities. Tokyo, the world’s largest city, is home to 35 million people, one quarter of Japan’s population, but occupies only four percent of the country’s land area.
39. A city needs to find the right balance between the costs and benefits of density to be truly competitive. The benefits of density include productivity gains and the ability to share public amenities, two factors that lead to the urban wage premium. (See Box 2-1 for some examples of the benefits of economic agglomeration in cities.) High, but poorly managed, density is often associated with the urban cost penalty, marked by such issues as land scarcity, high commuting costs, congestion, and high crime rates.
40. Distance affects the ease of moving goods and services, labor, capital, and information; distance also needs to consider time and financial costs. Locations close to markets tend to have lower transport costs and easier access to knowledge and other resources. Eight million Americans relocate to a different state every year to move closer to economic opportunity. A high ratio of distance to density has been found to be one of the causes of low per capita income, low labor productivity, and low real wages. It is also associated with high rates of poverty and unemployment.

41. Density and distance are also affected by division. Disparities in welfare and housing across the same city, and attendant social issues such as crime, persist even where there are high levels of urbanization and upper-middle incomes. Ethnic and cultural divisions, or divisions caused by failing institutions and inadequate regulations can be detrimental to communities; geographic divisions can also hinder economic concentration and reduce fluidity of market access, and thus negatively impact cohesion and economic growth.

Box 2-1 The benefits of economic agglomeration in cities

On New York's Wall Street and in the City of London, financial firms, insurance companies, and banking syndicates benefit from being close to one another. Co-location stimulates the growth of other specialist services, such as legal, software, data processing, advertising, and management consulting firms. These clustered firms, by providing a thicker market for highly educated individuals, benefit from drawing on the same large pool of human capital. They also gain from the generation and diffusion of knowledge amongst one another. Although much of the evidence of urban agglomeration economies comes primarily from developed countries, there is also evidence from developing countries: a survey of 12,400 manufacturing firms in 120 cities in China points to the higher productivity of firms in more populous cities.

Source: World Bank 2009

2.2 Analysis and Broad Policy Directions

42. The analysis uses data from the Oxford Economics dataset of some 750 cities globally, as well as from the Department of Statistics, Malaysia. It identifies the following main constraints to the economic competitiveness of Malaysian cities: i) low economic density, ii) high transport costs, and iii) institutions and policies that are not well integrated, especially with regard to urban planning, land use, and housing.

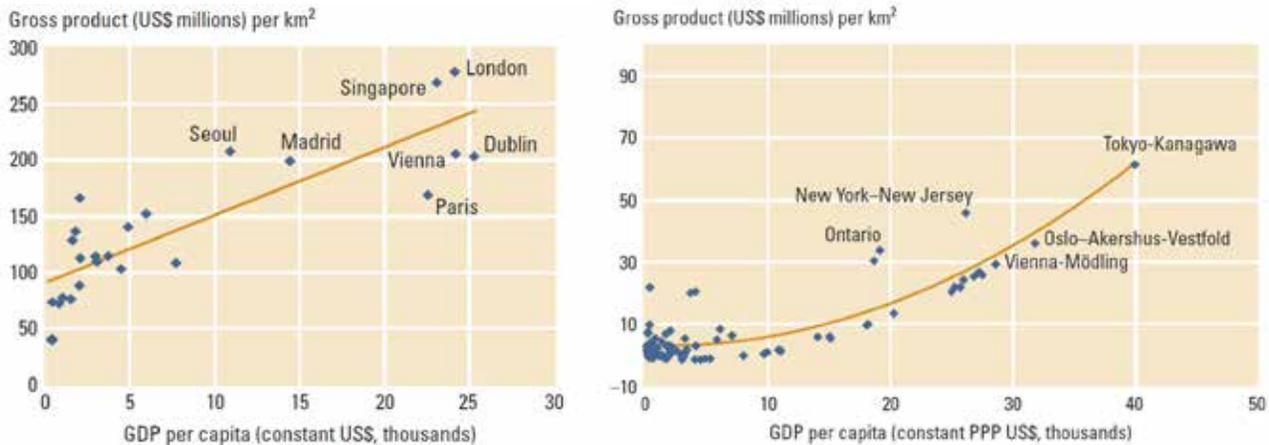
2.2.1 Low economic density

43. Economic density is a major contributing factor to productivity in cities, for the reasons stated below.
- » Density⁷ reduces transport costs making it easier and less expensive to move goods and people
 - » Density cuts communication costs allowing for frequent face-to-face interactions that are important for exchanging ideas and building trust, which in turn promote innovation and productivity
 - » Density promotes knowledge transfer among workers and between firms.
44. High density in large cities is the key to innovation. Larger cities tend to produce more high-tech and experimental items, which require a diversity of skills and production types to thrive (Jacobs 1970; Duranton and Puga 2000). In the high-tech industry, urban diversity and cross-sector fertilization aid innovation and nurture new products. Evidence from electronics firms in Japan shows that highly-skilled research and development, and trial production are located in larger metropolitan areas, while mass production of standard items takes place in non-metropolitan areas. Leading universities also have a key role in fostering innovations, and it has recently been pointed out that Malaysia's universities can help drive innovation and growth by working to improve student skills in communication, problem-solving, and information technologies (World Bank 2014a).

⁷ Density here refers to well-managed density, density that allows a city to be truly competitive as described in paragraphs 38-39 above.

45. Economic density, defined as GDP in purchasing power parities per square kilometer, rises with the level of development. The densest places in the world are in the richest countries. In 2005, Dublin, London, Paris, Singapore, and Vienna ranked at the top, with more than USD 200 million in gross product per square kilometer. Likewise, Tokyo-Kanagawa, New York-New Jersey, Oslo-Akershus-Vestfold, and Vienna-Mödling were the densest grid cells of 1° longitude by 1° latitude, generating more than USD30 million of gross product per square kilometer (see Figure 2-1).

Figure 2-1 The richer a country, the more concentrated its economic mass

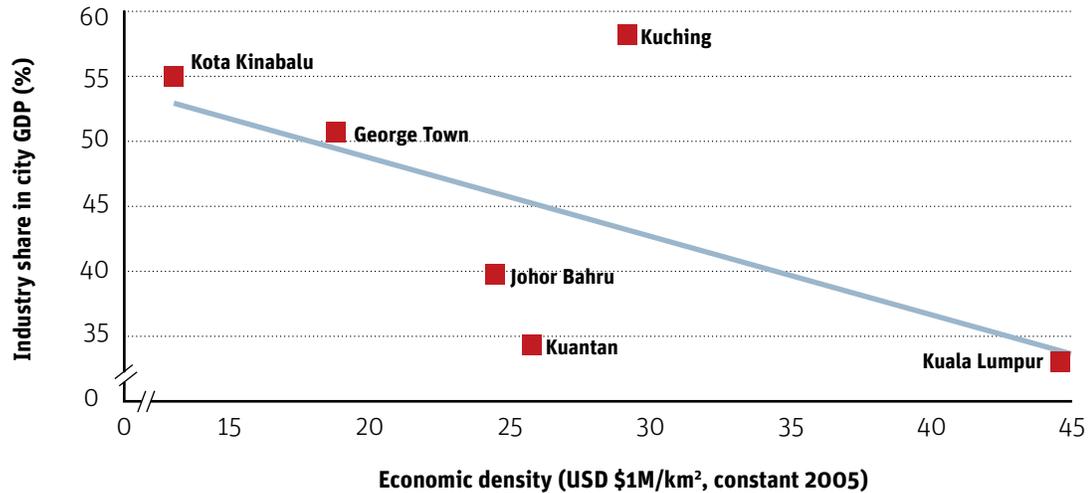


Source: World Bank 2009; www.citymayor.com; www.gecon.yale.edu.

46. Economic density is critical for transitioning to a knowledge-based service economy and tends to happen as countries move to a more mature phase of development. Service economies tend to have higher population densities than industrial economies because:
- » service economies require less land per employee. Banks, insurance companies, hospitals, and schools can operate comfortably in high-rise buildings that allow for high density;
 - » given external economies, business services have greater potential for agglomeration as firms serve one another. Every bank needs advertising; every advertising firm needs a bank account. The potential for codependence and agglomeration is thus intrinsic to services.
47. Services are prominent among the most agglomerated industries in the United States of America. Larger cities have been amassing service jobs from areas less than 20 kilometers away. Between 1972 and 1992, jobs in the U.S. became more spatially concentrated and medium-size counties lost jobs to more urban areas. In the United Kingdom, financial and insurance services are 35 times more concentrated than manufacturing; and information and communications services are seven times more concentrated (Campos 2012).
48. Cities in Malaysia with more service- and knowledge-based firms and fewer manufacturing and other industrial-based firms tend to have higher economic density. Figure 2-2 shows how Kuala Lumpur, Johor Bahru and Kuantan, cities where manufacturing's share of the economy is between 30 percent and 40 percent, have significantly higher economic density than George Town and Kota Kinabalu, where the share of manufacturing and/or heavy industry is more than 50 percent. The only exception is Kuching, which has a high share of manufacturing (58 per-

cent) and also high economic density. This can be explained by the concentration and clustering of manufacturing industries in Kuching, where factories and industrial parks/zones are supported by good infrastructure, transport and preferential policies. The manufacture of silicon wafers and other electronics is a mainstay in Kuching's high levels of productivity. Further discussion of Kuching can be found in Chapter 3.

Figure 2-2 The lower the industry share (higher service share), the higher the economic density



*Economy density = Gross value added (value of output less the value of intermediate consumption)/km²

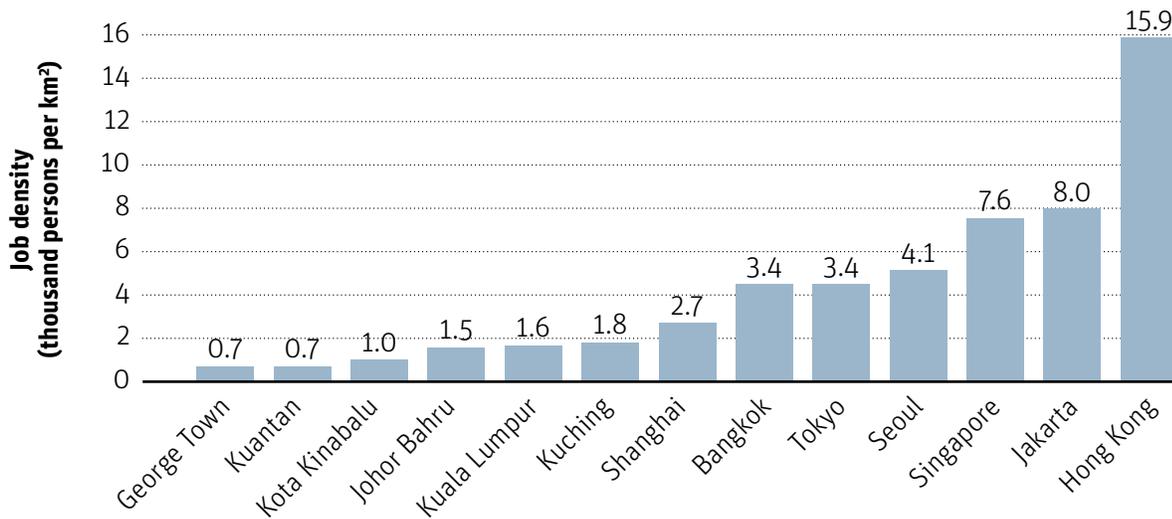
*Industry share = Gross value added contributed by industry sector / Total GDP in the city

Source: Oxford Economics 2012⁸. World Bank 2014b.

49. The overall economic density of Malaysian cities is relatively low. Economic density for the six conurbations in this study is lower than other large cities such as Bangkok and Jakarta, as measured by gross value added per km² or jobs per km². Low economic density limits the benefits of agglomeration and may impede a city's structural transition to a knowledge-based service economy.
50. While Kuala Lumpur has the highest economic density within Malaysia, its employment density is only around 1,600 jobs per km². In comparison, the employment densities of Seoul, Singapore and Hong Kong are 2.5, five, and ten times that of Kuala Lumpur respectively (see Figure 2-3).

⁸ A number of the cross-city comparative analyses are based on Oxford Economics data. However, it is important to note that some of our six conurbations in the datasets have different boundaries from those defined by the Government of Malaysia.

Figure 2-3 Job density (1000 persons / km²) of Malaysian cities is relatively low compared to other large cities in East Asia



*Job density = Persons employed by geographical location of work/km²

Source: Oxford Economics 2012; World Bank 2015.

51. Figure 2-4 shows economic density as measured by GDP per km² for major cities of ASEAN countries, represented by the height of the bars.⁹ Figure 2-5 and Figure 2-6 display this same data – in 2D format for greater clarity – for peninsular Malaysia, and Sabah and Sarawak, respectively. Kuala Lumpur’s GDP per km² is comparable to that of Jakarta and Ho Chi Minh City, even though overall per capita GDP is higher in Malaysia than in Indonesia or Vietnam (per capita GDP in Indonesia and Vietnam is only one-third and one-fifth of that of Malaysia, respectively). As a potential competitor to Kuala Lumpur, Bangkok’s economic density is substantially higher, even though Thailand’s per capita GDP is only around half of that of Malaysia’s. Compared to other large cities in high-income countries of East Asia, the difference is even greater. GDP per km² in Seoul, Singapore and Hong Kong is 4, 13 and 22 times that of Kuala Lumpur, respectively.

⁹ In the distributed global GDP dataset, sub-national GRP and national GDP data are allocated to 30 arc second (approximately 1km) grid cells in proportion to the population residing in that cell. The method also distinguishes between rural and urban populations, assuming the latter has a higher GDP per capita. Input data are from: 1) a global time-series dataset of GDP, with subnational gross regional product (GRP) for 74 countries, compiled by the World Bank Development Economics Research Group (DECRG); 2) population projections for 2009, based on a population grid for 2005 provided by LandScanTM Global Population Database (Oak Ridge, TN: Oak Ridge National Laboratory). This dataset was extrapolated to 2010 by UNEP/GRID-Geneva. Unit is estimated value of production per cell, in thousands of constant 2000 USD. Cell level anomalies may occur due to poor alignment of multiple input data sources, and users are strongly recommended to attempt to verify information, or consult original sources, to determine suitability for a particular application. This product was compiled by DECRG for the Global Assessment Report on Risk Reduction (GAR). It was modeled using global data. For a detailed description of the data sources and methodology, see <http://preview.grid.unep.ch/index.php?preview=data&events=soc&evcat=1&lang=eng>

Figure 2-4 Economic production density in Malaysian cities: relatively low compared to other large cities in East Asia

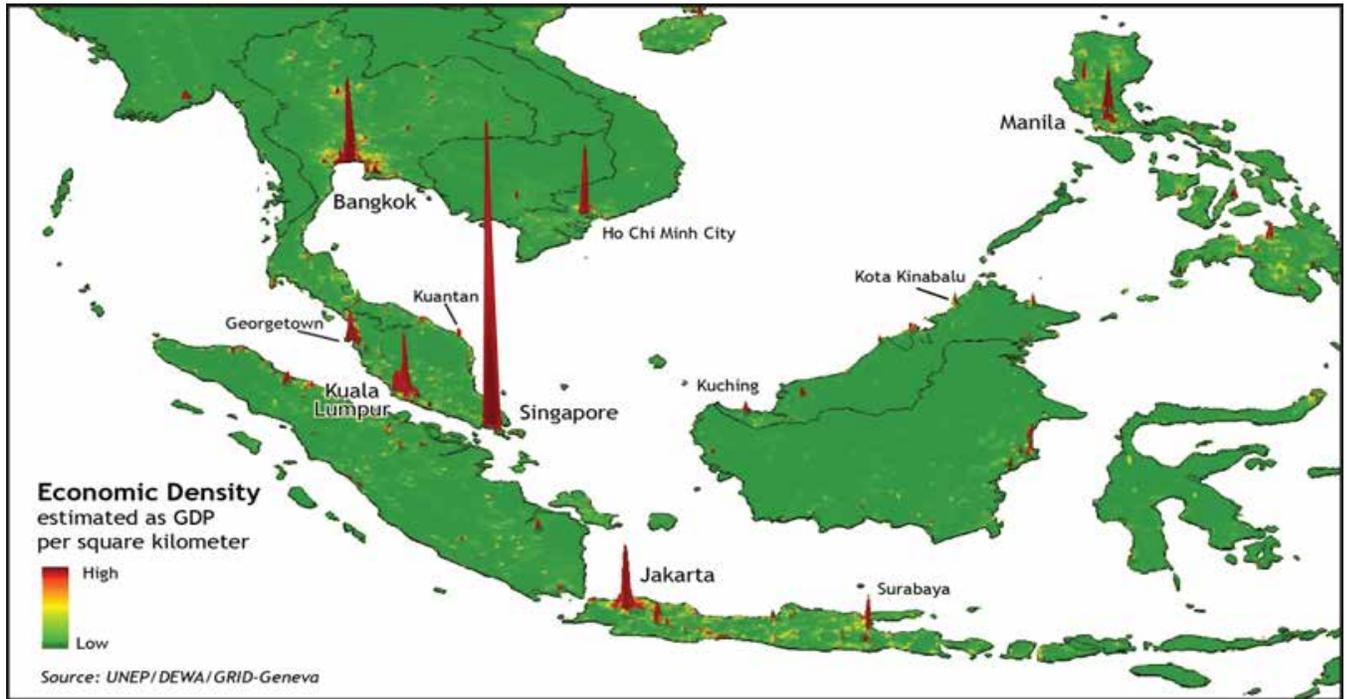


Figure 2-5 Economic production density in peninsular Malaysia

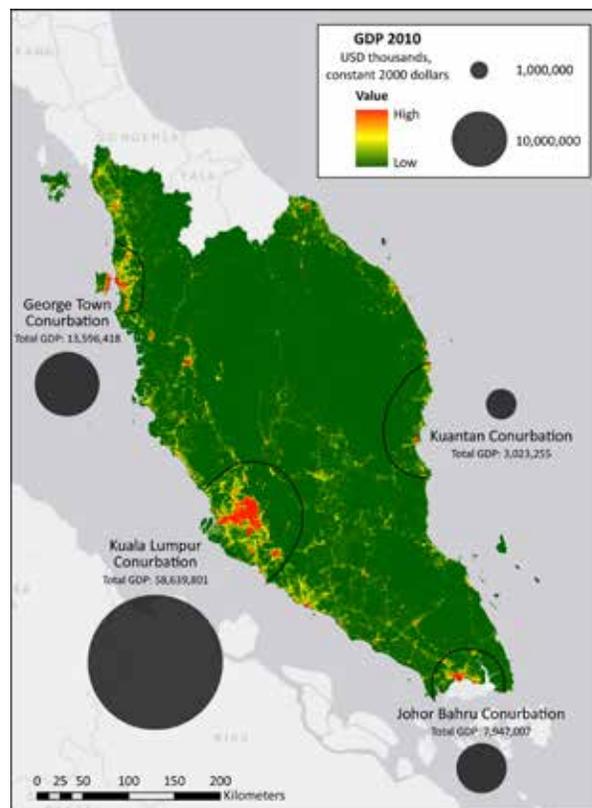
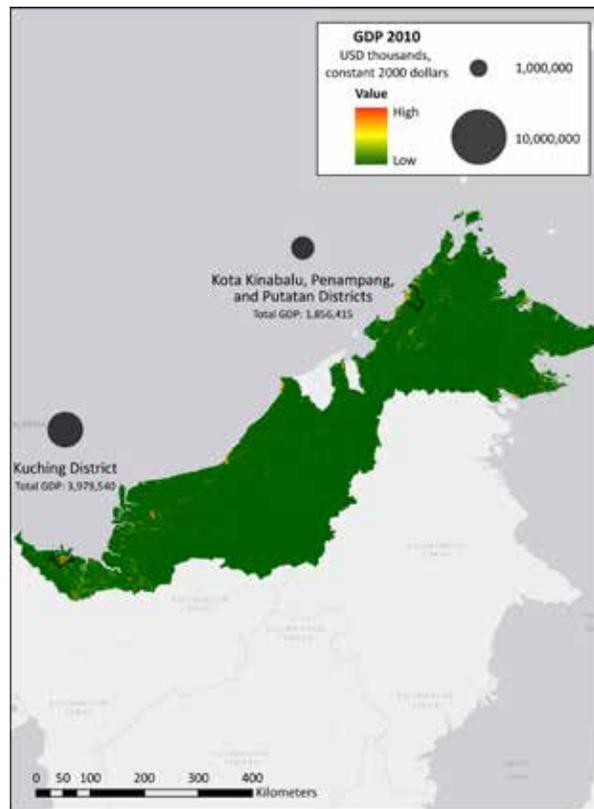


Figure 2-6 Economic production density in Sabah and Sarawak



52. While the population density of the selected Malaysian cities has grown rapidly in recent years, increase in employment density has lagged. Population density increased by 22 percent from 2003 to 2010 but employment density only increased by an average of 13.5 percent. George Town and Johor Bahru have even witnessed a decline in job density. The population density of these six cities is now close to half the average level of Shanghai, Tokyo, and Singapore, while the employment density is only 27 percent of the average level in the three East Asian cities¹⁰. Correspondingly, the average overall economic production density of the six Malaysian cities is only eight percent of that of Shanghai, Tokyo, and Singapore.¹¹

2.2.2 High transport costs and urban expansion

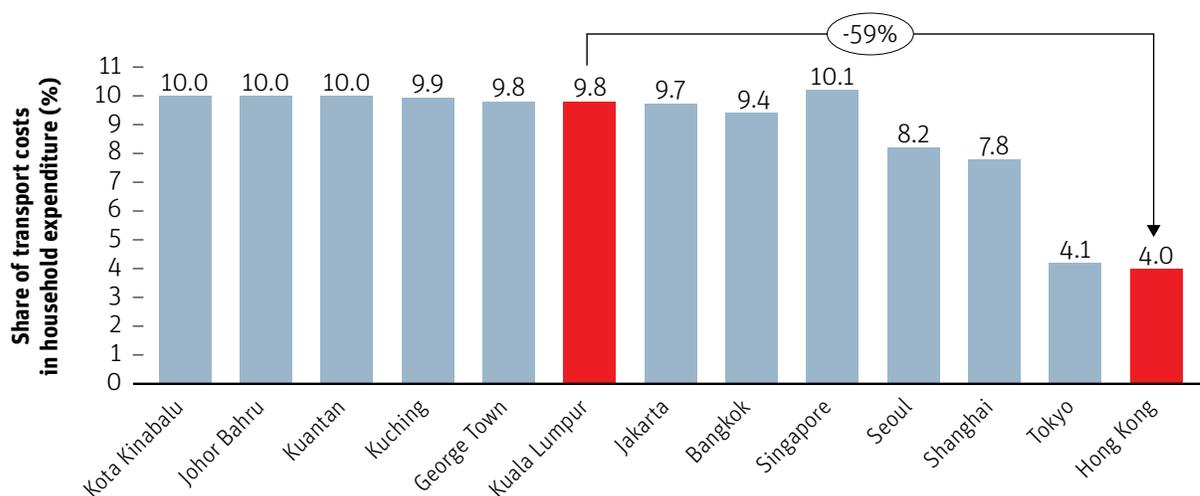
53. Transport costs in the six Malaysian cities are high compared to other East Asian cities. Figure 2-7 and Figure 2-8 show that the share of transport costs in household expenditure in Kuala Lumpur is 59 percent higher than that in Hong Kong and Tokyo, and the share of transport costs in household income in Kuala Lumpur is 50 percent higher than that of Hong Kong and Tokyo.
54. Adding to transport costs are the costs of traffic congestion, currently a serious problem in the larger urban areas of Malaysia, and particularly in Kuala Lumpur. The recently completed World Bank advisory service on a national strategy for Malaysia's transport sector found that federal roads in nearly 50 percent of Malaysia's main urban

¹⁰ Shanghai, Tokyo and Singapore have an average population density of 7.037.7 persons per km², the six Malaysian cities have an average population density of 3,244 persons per km².

¹¹ Employment data and gross value added data are extracted from Oxford Economics. Urban land area and population data are obtained from World Bank 2015; Urban land was defined as the built-up land in urban agglomerations with populations of 100,000 or more, using built-up areas as observed from satellites.

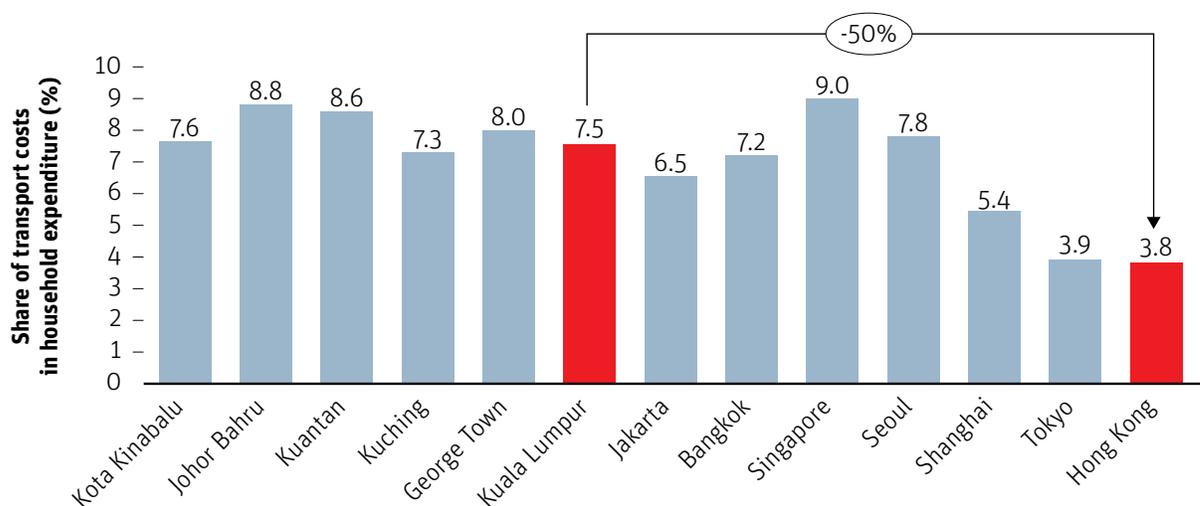
areas are at or above capacity. The situation is less critical for state and local roads, but around a third of these still see heavy congestion. Not surprisingly, when asked about top challenges to the efficient movement of people and freight, states consistently list traffic congestion. They also see inadequate and insufficient infrastructure in urban areas as a top challenge, primarily in terms of public transport solutions and road maintenance.

Figure 2-7 Share of transport costs in household expenditure: 59 percent higher in Kuala Lumpur than in Hong Kong



Percentage of transport costs in household income (2012)
Source: Oxford Economics 2012.

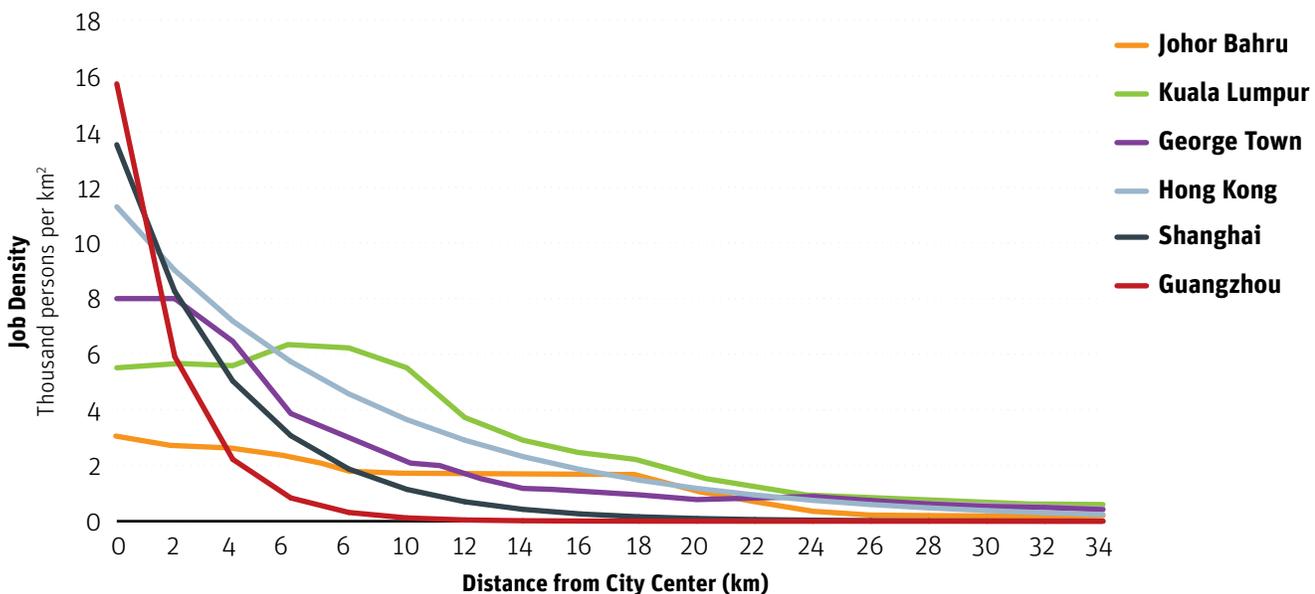
Figure 2-8 Share of transport costs in household income: 50 percent higher in Kuala Lumpur than in Hong Kong



Percentage of transport costs in household income (2012)
Source: Oxford Economics 2012.

55. An underlying driver of high transport costs is the spatial expansion and urban sprawl of Malaysian cities. This is reflected in the population density gradients by distance from the city center shown in Figure 2-9, a result of the relatively flat spatial form of Malaysian cities compared to their East Asian peers.¹² This expansion is also reflected in the fact that Malaysia had the fourth-largest built-up landmass in the East Asia and Pacific region as of 2010, when urban areas covered approximately 1.4 percent of the total area of the country. Malaysia’s urban space grew from around 3,900 km² to 4,600 km² between 2000 and 2010, an average annual growth rate of 1.5 percent. In absolute terms, urban spatial expansion was among the highest in the region, lower than only China, Indonesia, and Vietnam.
56. Urban sprawl and weaknesses in urban transport mean that Greater Kuala Lumpur faces the unusual combination of longer journey times for public compared to private transport, and highly congested roads and highways (World Bank 2015a). As a consequence, public transport use is relatively low and the corresponding high use of private vehicles is exacerbating the problem. The modal share of public transport in Kuala Lumpur is only 19 percent, compared to 62 percent in both Shanghai and Singapore (World Bank 2015a).

Figure 2-9 Malaysian cities exhibit a relatively flat spatial form



Source: Oxford Economics, 2012.

2.2.3 Inefficient urban form can undermine livability, affordability and environmental sustainability

57. When the cost of living outweighs the economic gains from increased density, “agglomeration diseconomies” set in. Inefficient urban form, such as sprawl that results in high transport costs, contributes to this. In the case of Kuala Lumpur, this is reflected in the city’s high cost of living. According to the Economist Intelligence Unit’s (EIU)

¹² The measure of city form that has been most often studied by urban economists is the population density gradient from a negative exponential function. More specifically, the population density of a city is hypothesized to follow: $D(u) = D_0 e^{-\gamma u}$ where D is population density at distance u from the center of a city; D_0 is the density at the center; e is the base of natural logarithms; “the gradient,” or the rate at which density falls from the center (Bertaud and Malpezzi 2003).

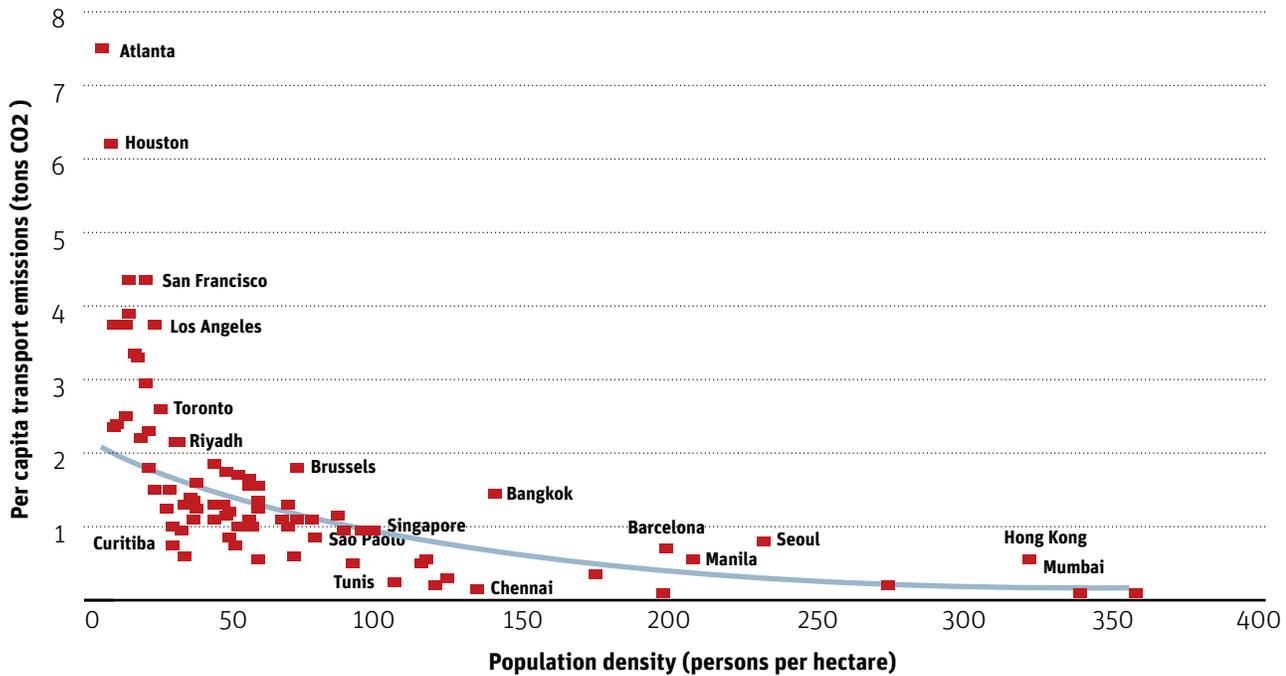
Worldwide Cost of Living survey,¹³ Kuala Lumpur ranked 74th on the 2012 list of the world's most expensive cities. The index value for Kuala Lumpur is 83, meaning that Kuala Lumpur is 83 percent as expensive as New York City, although its salaries are nowhere near as high. The cost of living in Kuala Lumpur has been increasing rapidly: the index value rose from 67 in 2009 to 83 in 2012, an increase of 23 percent in three years.

58. The benefits from increasing density can be offset by the high cost of living, especially for non-tradable goods such as housing. According to Demographia, a U.S.-based urban development research group, Malaysia has a “severely unaffordable” residential homes market, with housing even more out of reach for its residents than in Singapore, Japan and the U.S.¹⁴ Malaysia’s median house price is 5.5 times higher than median annual income, this is higher than Singapore’s at 5.1. Housing in the U.S. and Japan is classified as “moderately unaffordable” (The Malay Mail online 2014).
59. Low density and long distances can have a negative impact on the local and global environment, increasing per capita energy consumption and per capita greenhouse gas (GHG) emissions. This in turn represents a challenge for city competitiveness, in terms of environmental sustainability and overall livability. Evidence from around the world has found that living in low-density areas where people drive long distances to work increases per capita energy consumption leading to increased production of greenhouse gases (e.g. Kahn 2006). Senbel *et al* (2014) found that compactness, when coupled with mass transit, can yield considerable reductions in emissions. Figure 2-10 illustrates the relationship between per capita transport emissions and population density.
60. Based on available evidence, Malaysian cities appear to have moderately high per capita GHG emissions. The Economist Intelligence Unit (EIU) estimated per capita energy-based CO₂ emissions in the Federal Territory of Kuala Lumpur at 7.2t in 2007 (EIU 2011); the corresponding figure for the Iskandar Malaysia Region in 2005 was estimated at 9.3t (Ho *et al* 2009). A study of Putrajaya modeled per capita GHG emissions at 8.7t CO₂e in 2007 (UTM *et al* 2011), while a more recent study suggests that per capita GHG emissions in 2014 for the area encompassing Johor Bahru and Pasir Gudang were approximately 11.5tCO₂e (21MtCO₂e total emissions with a population of 1.82 million) (Gouldson *et al* 2014).
61. Urban resilience and disaster preparedness are an important aspect of sustainability that merit increasing attention. Malaysia’s cities face increasing environmental challenges, with attendant economic and social impacts. Temperature records for the past 40 years already show that temperature anomalies in Malaysia’s cities have increased faster than the global average (see Figure 2-11). In the medium to long term, climate change is expected to result in more heat waves and to exacerbate the urban heat island effect, in turn increasing energy demand for cooling and increasing water consumption. Heavy, more frequent precipitation events are expected and will increase the risk and severity of urban flooding and landslides. This is likely to disrupt economic activity and infrastructure (World Bank 2011). In the longer term, sea-level rise also threatens many Malaysian cities: all six cities in this study are located at or near the coast; the costs of coastal protection are expected to increase over time. These concerns, as well as the possibility of rare disasters such as earthquakes, would be an important consideration for building the resilience of Malaysian cities, especially since these are not currently well covered in many existing plans and strategies.

¹³ The EIU takes into account more than 160 items, from food, toiletries and clothing to domestic help, transport and utility bills, in 140 cities worldwide to formulate a cost of living index, which uses New York City as a benchmark.

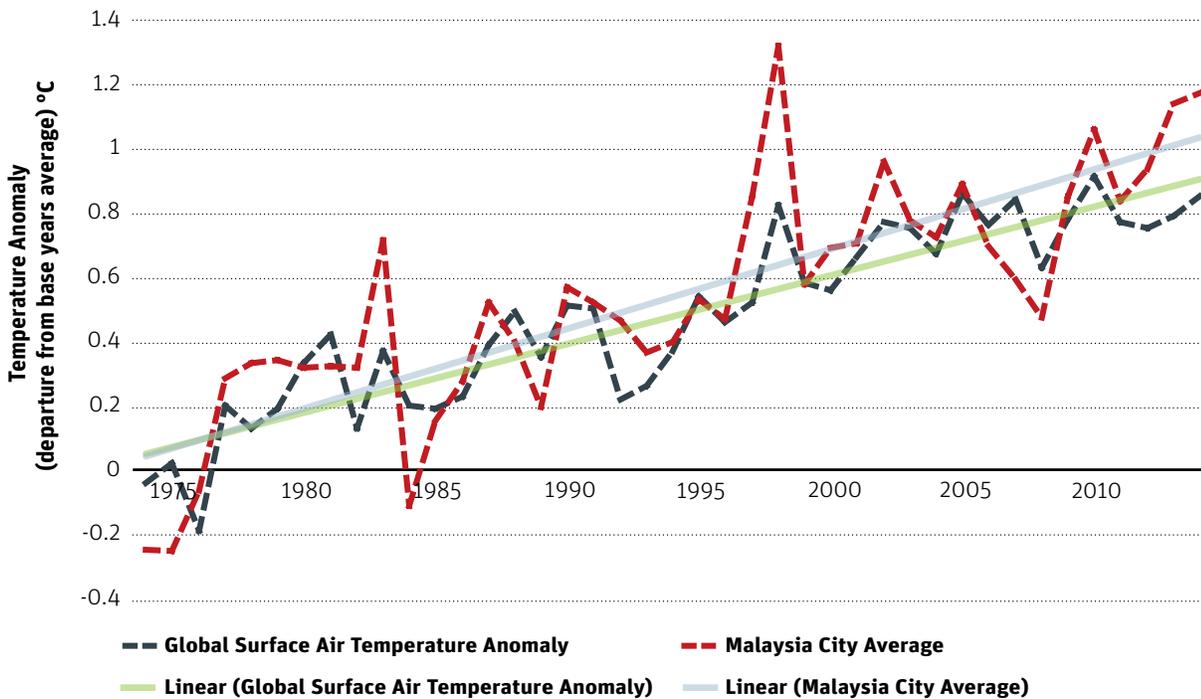
¹⁴ Demographia rates housing as severely unaffordable if it is 5.1 times median annual income. 4.1-5.0x is seriously unaffordable; 3.1-4.0x is moderately unaffordable; less than 3.0x is affordable).

Figure 2-10 Per capita transport emissions decline with urban density



Source: World Bank analysis based on Kenworthy 1998, Kenworthy and Laube 2001.

Figure 2-11 Average temperature anomalies in Malaysian cities: increases greater than the global average



Global data source: http://data.giss.nasa.gov/gistemp/graphs_v3/fig.A.txt

Malaysian cities data source: Malaysian Meteorological Department

Long term avg. of base years: Global (1951-1980); Bayan Lepas (1966-1980); Kota Kinabalu (1961-1980); Kuantan (1966-1980); Petaling Jaya (1971-1980); Senai (1974-1980)

62. In this context, “green growth” has emerged in recent years as a priority for countries and cities in order to ensure that economic growth is environmentally sustainable. Green policies can contribute to growth by helping to increase the amount of natural, physical, and human capital available; by promoting efficiency; and by stimulating innovation (World Bank 2012). Environmental performance is an essential component of city competitiveness, and can become an important source of competitive advantage. For example, prioritizing green growth in a city could help it become a hub for innovations in renewable energy such as in the design and production of green products like solar panels. Better environmental performance will also help to lower the overall cost of doing business, through resource efficiency that lowers production costs.
63. The environmental sustainability of Malaysian cities has been gaining more attention in recent years, and various plans have emphasized environmental considerations. There is a growing recognition of the need to prioritize green growth now. Penang has been recognized for improving the quality of its urban environment (see Box 2-2), and is also the location of several strategic projects to promote green urbanization (Abdul-Majeed and Ismail 2013).

Box 2-2 Green urbanization in Penang

From 1971 to 1990, Penang industrialized rapidly. This growth provided job opportunities and increased living standards. However, there were also negative effects from this growth, including urban sprawl associated with increased population. The waters around Penang Island had some of the highest E. coli content in Malaysia and the island’s rivers had become increasingly polluted. The Sungai Pinang in Penang Island was declared a “dead river” in 1990. Management of both industrial and household waste was poor, with little enforcement of regulations.

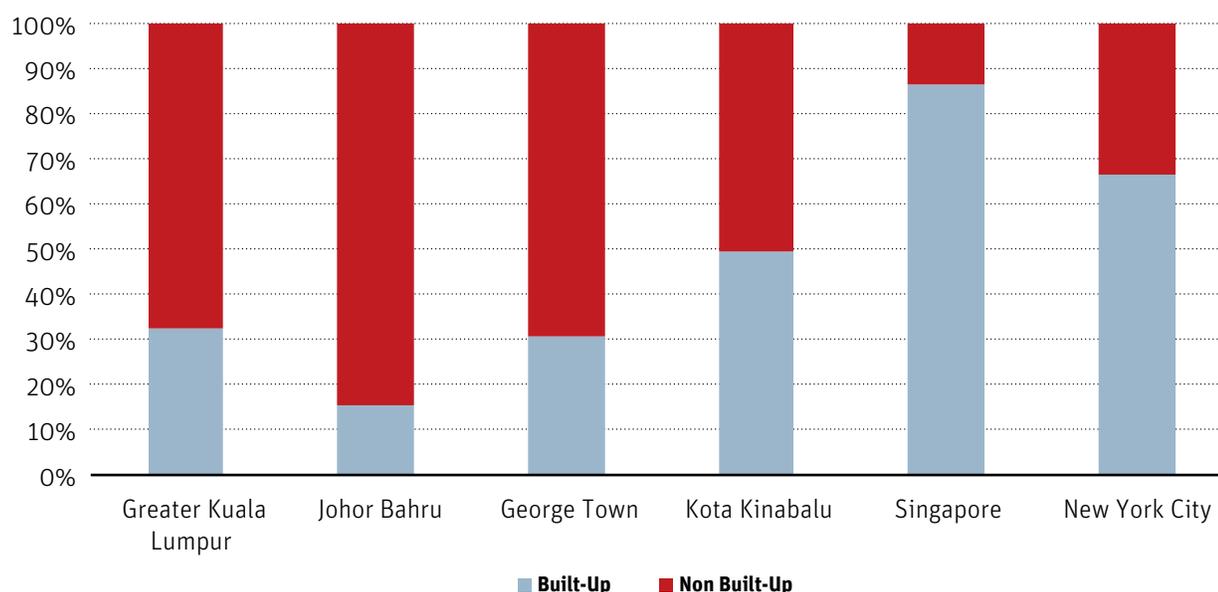
The Malaysian government introduced several policies related to the construction industry, water, and waste management from the mid-1980s onwards to deal with these problems. It strictly implemented zoning in the industrial area. The Penang water supply authority introduced a water conservation surcharge in 2010 to reduce water consumption; and the government established a fully integrated waste disposal system that has revitalized the city’s most polluted river. International standards in waste management have been applied to Penang’s industrial parks and its hospitals. In 2010, Sungai Pinang was certified by the Drainage and Irrigation Department as having improved to Class 3 (moderate level) after the local government built a waste discharge system at the River Road abattoir. Penang was ranked the 8th most liveable city in Asia by the ECA International in 2010.

Source: adapted from Abdul-Majeed and Ismail 2013

2.2.4 Potential for more efficient land use

64. Economic density and transport costs are usually related to the spatial distribution of economic activities within cities. This section analyzes land use in three Malaysian conurbations (Kuala Lumpur, George Town, Johor Bahru and Kota Kinabalu). The land use data was used to draw comparison with New York City and Singapore, for which comparable data were available. Chapter 3 discusses land use patterns in each Malaysian conurbation in more detail.
65. Due to the varying extents for which land use data were available, different amounts and categories of non-built-up land were present in the data, including agricultural land. The data showed that 85 percent of land use in the Johor Bahru conurbation was for non-built-up areas, compared to 50 percent for Kota Kinabalu, and 34 percent for New York City (Figure 2-12). Although this may be indicative of how much open space there is in each of these cities, it is more likely a function of how the conurbation boundaries were drawn. As defined currently, the Johor Bahru conurbation includes vast areas of agricultural land.

Figure 2-12 Built-up vs non built-up area from available land use data



Source: World Bank analysis based on Malaysian land use data, Singapore Ministry of National Development (2013), and New York City Department of Planning (2014a, 2014b).

66. Table 2-1 and Figure 2-13 show comparison of built-up areas only. Land use classifications were consolidated into five standard classes: residential, commercial, industrial, institutional, and infrastructure. While these standard land use classes may not contain exactly the same land uses within them from one city to another, they allow for illustrative comparison.

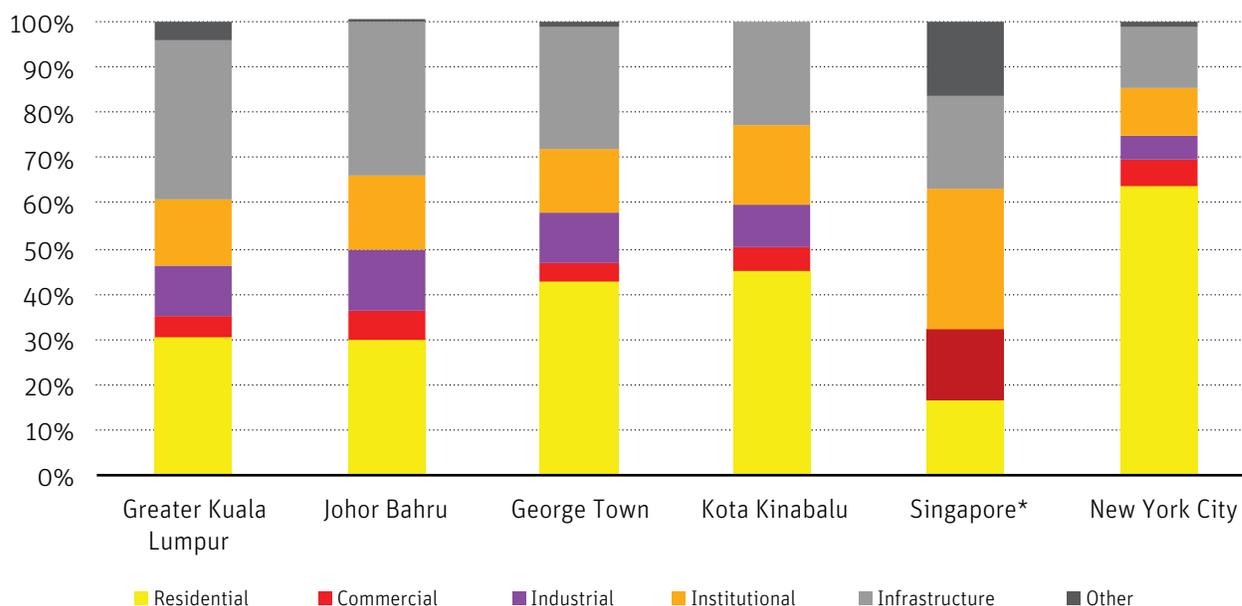
Table 2-1 Breakdown of land uses (in km²)

	Residential	Commercial	Industrial	Institutional	Infrastructure	Other	Agricultural	Green/Open	Water Bodies	Grand Total
Greater KL	331	49	123	155	378	47	773	1,429	61	3,347
Johor Bahru	112	24	50	62	125	1	1,271	682	118	2,445
George Town	138	13	36	46	86	4	382	292	57	1,054
Kota Kinabalu	39	5	8	15	20	0	1	84	4	176
New York City	266	25	22	43	56	5	-	211	-	629
Singapore*	100	97	-	187	124	100	-	57	37	702

Source: World Bank analysis based on Malaysian land use data, Singapore Ministry of National Development (2013), and New York City Department of Planning (2014a, 2014b).

*Singapore's commercial and industrial land uses are combined in a single category.

Figure 2-13 Breakdown of land uses (built-up only), conurbations



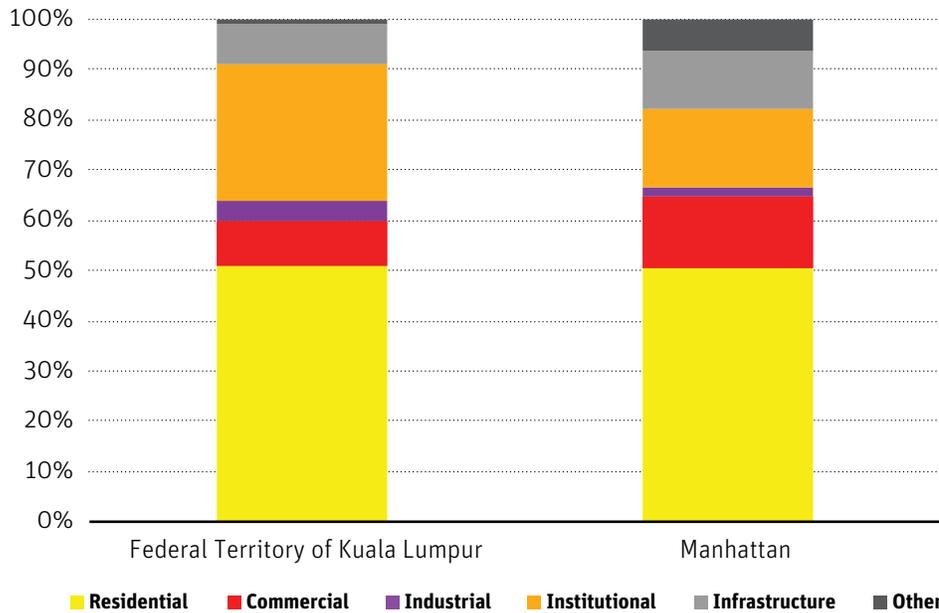
Source: World Bank analysis based on Malaysian land use data, Singapore Ministry of National Development (2013), and New York City Department of Planning (2014a, 2014b).

*Singapore's commercial and industrial land uses are combined in a single category.

67. Greater Kuala Lumpur and Johor Bahru use around 30 percent of their built-up land for residential purposes, while George Town and Kota Kinabalu use more: 43 percent and 44 percent respectively. New York City has a much higher proportion of residential land at 64 percent, although it is important to note that New York City has a mixed commercial and residential class that has been included here under the residential category. Singapore, where most housing takes the form of dense high-rise apartment blocks, uses only 16 percent of its built-up land for residential purposes.
68. These four Malaysian conurbations and New York City have a similar proportion of land dedicated to commercial use: between four percent and six percent. The Malaysian conurbations use between 10 percent and 13 percent of land for industrial purposes, around twice that used for commerce, whereas New York City has slightly less land area dedicated to industry than commerce (note that New York City does not include the industrial areas in New Jersey that are part of the larger New York metropolitan area). Singapore has a combined “industry and commerce” category which makes up 16 percent of the total built-up area.
69. Institutional land occupies 14-18 percent of the built-up area within the four Malaysian cities. New York City's institutional land takes up only 10 percent of the built-up area, while Singapore's makes up over 30 percent of its built-up area, although this includes a large area set aside for defense: 20 percent of all built-up area.
70. Infrastructure, including transportation infrastructure, makes up a much larger proportion of the built-up area in the Malaysian cities than in Singapore or New York. In Greater KL and Johor Bahru, infrastructure is the largest land use. Around a third of all built-up land in these two conurbations is used for infrastructure. This compares with only 13 percent in New York City and 20 percent in Singapore.
71. Figure 2-14 compares the borough of Manhattan in New York City with the Federal Territory of Kuala Lumpur (FTKL). Both use just over 50 percent of built-up land for residential purposes. Manhattan dedicates more land to

commercial use than FTKL but FTKL has more industrial land; and 27 percent of land in FTKL (33 km²) is for institutional use, compared to just 16 percent in Manhattan (5 km²).

Figure 2-14 Breakdown of land use (built-up land only) – Federal Territory of KL and Manhattan



Source: World Bank analysis based on Malaysian land use data and New York City Department of Planning (2014a, 2014b).

72. This comparison illustrates how improving land use efficiency can increase economic density in Malaysian cities. Kuala Lumpur has a lot of open space close to the city center: almost half the land within 1 km of the city center is used for institutions, or for public recreational space. Some of this land should remain unchanged due to the public amenity value; some other parts are unlikely to be redeveloped due to civic or historical importance. Yet so much undeveloped, or sparsely developed, land in Kuala Lumpur provides scope to focus on a more efficient use of land, including carrying out detailed assessments on whether land close to the city center can be put to more productive use without undermining the quantity or quality of public amenities. The authorities also need to consider whether any institutional sites could be consolidated or relocated in favor of residential or commercial use¹⁵.
73. Considering options to promote development of Malay Reserve Land (MRL) near city centers has potential to improve land use efficiency, even where tracts of MRL do not occupy much land in the city. Restrictions on the use of such land also result in a lower-than-average market value (Ariffin 2013). Almost half the MRL inside FTKL has been kept as open/green space¹⁶, this is greater than the share of open/green space for non-MRL land in the city. Kuala Lumpur City Plan 2020 proposes to “encourage and facilitate the development of Malay Reservation areas, traditional kampungs and new villages.”

¹⁵ Comprehensive analysis in this respect is constrained by data availability, but more discussion on some individual cases in Chapter 3 for Kuala Lumpur.

¹⁶ Kuala Lumpur City Plan 2020 notes the MRL in KL are predominantly agricultural smallholdings, or residential.

74. A standard urban economics model¹⁷ was applied to demonstrate how segregating MRL from the rest of the land market could potentially impact the affordability of housing and land. Annex 2 includes an explanation of the results and model analysis, which is based on the MRL data for the Johor Bahru conurbation. The results show that the impacts are not large, but are also not negligible. In Johor Bahru conurbation, where approximately 14.5 percent of the land is MRL, the model shows that rents and land values where MRL is excluded from urbanization would achieve an increase of 1.3 percent and 4.6 percent respectively, based on a value of 0.16 for β (the share of income devoted to housing expenditures).

2.2.5 More flexible land-use regulations can increase economic density

75. Tools and regulations for land use planning such as minimum plot size, limits on plot ratio¹⁸, road widths, setbacks (to the front, rear and sides of a plot), land for public use, and pedestrian and vehicular access have direct influence on economic density and the overall spatial form of cities. Regulations should be flexible enough to respond to changing market conditions. Overly stringent regulations that can restrict increases in economic density and potentially distort land and housing markets should be relaxed, while incentives can also be offered at certain locations where the economic return of land is high, agglomeration benefits are prominent, and infrastructure and public services are sufficient to accommodate high density. It is also important to take a long-term perspective of the demand and supply for real estate, and to take account of this in the planning process.
76. In this context, a re-examination of planning guidelines in Malaysia is needed to maximize land use in cities. Some policy initiatives have already been implemented; for example the Penang Island Municipal Council (MPPP) has revised plot ratio guidelines for high-rise properties on the island to allow developers to construct a total of 122,000 ft² per acre compared with 42,000 ft² per acre previously. The Kuala Lumpur City Plan 2020 states that “mixed-use development incorporating high density residential, high plot ratio commercial as well as community and business facilities shall be encouraged.” The transit planning zone in and around KL Sentral is a good example of zoning for mixed commercial use with plot ratios of up to 6.5 at KL Sentral itself, and between 4 and 5.5 in parts of Brickfields.
77. In Malaysia, the National Land Code (1965) plays a vital role in controlling and managing land use and urban-rural development. Rules and restrictions imposed by the Code have been progressively amended to cater to social, political and economic changes in the country, but shortcomings persist in the use of the present legislative framework to foster a competitive economic environment. There have been past cases where development planning and land administration procedures and requirements have prolonged the development process (Singh 1995). For example, the National Land Code technically only allows for a given plot of land to have a single use; this means that recent mixed-use developments are typically categorized as commercial, with residential units within such developments paying assessment and utility rates based on commercial rates.
78. Even where there is flexibility in changing land use, it may not always promote efficiency and density. Land market and real estate experts in Malaysia have pointed out that property developers often find it more financially attractive to build on rural land next to existing urban areas, rather than redevelop brownfield sites within cities. A developer typically buys rural land from the previous landowner at relatively low market values, pays a premium to the Land Office to convert the land to non-agricultural use, and then sells the newly-built property at a good profit.

¹⁷ Due to limited data availability, this model has been constructed based a certain number of simplifying hypotheses without detailed calibration; the outputs of the model should be considered with caution.

¹⁸ Plot ratio is defined by the Town and Country Planning Act 1976 (Act 172) as: “the ratio of the total floor space area of a building to the area of the building plot as measured between the boundary lines.” Different terms for this same concept are in use around the world: floor area ratio, floorspace index, floor lot ratio, plot ratio; despite subtle differences, all are essentially similar.

Recalibrating such factors as the premium payable for conversion of use, and the allowable maximum plot ratio in and near city centers, would help shift incentives toward redevelopment and increasing density, rather than sprawl.

79. The experience of Los Angeles demonstrates how changes in land policies have been used to densify one of the most sprawling cities in the world. The city has supported a shift toward a more compact spatial structure through:
- » zone change ordinance allowing higher Floor Area Ratio (FAR), population density and building heights around transit stations and specially designated boulevards and plots;
 - » change of land-use regulations allowing a mix of residential, commercial and special industrial uses i.e. media and entertainment, and the right to adapt and reuse commercial buildings as housing, especially in boulevards and transit station areas;
 - » significant investment in metro, light rail and bus networks that have made Los Angeles the third-best city in the U.S. in terms of transit ridership.

Box 2-3 describes these changes in greater detail.

Box 2-3 Los Angeles (1995): Redesigning spatial structure

The need for a policy turnaround: The 1970 Los Angeles “Centers Plan” acknowledged that: “Many of the problems which have surfaced in recent years could have been avoided by a comprehensive planning process.” This document was more conceptual than implementable but its principles are recognizable in the General Plan Framework of 1995 prepared by the City Planning Department. The framework established a vision for the long-term development and physical form of Los Angeles that would steer economic growth; address congestion through investment in public transport and reduce the need for long and frequent private vehicle trips. It would also promote multi-family residential neighborhoods and pedestrian-oriented districts.

The use of community plans to stimulate compact development: The General Plan Framework is to be implemented through amendments to the community plans of the 35 Los Angeles communities. The Hollywood Community Plan, approved in 2012, projects an increase in population, employment, and housing in Hollywood by 2030. Plans to invest in mass transit provide an opportunity to accommodate employment and population growth in mixed-use centers and along transit corridors. The plan increases density within 400 meters of transit stations, and creates incentive areas that allow increases in FAR for preferred types of development. Policies in Downtown Los Angeles have encouraged the private sector to build almost 20,000 market residential units since 1999, about double the number of then-current units. Financial incentives and FAR bonuses have made affordable housing possible, accounting for about 20 percent of all units built.

Source: World Bank and Development Research Center of the State Council 2014

2.2.6 Coordination of land-use planning needs with transport infrastructure development

80. Land use planning and urban transport are generally not well integrated: see Chapter 4 here, and World Bank (2015a). A city’s transport choices can generate positive as well as negative externalities as the city grows; as such, transport is best addressed as part of an integrated urban strategy that can cater to various user groups and anticipate long-term needs. The World Bank’s advisory service on a national transport strategy (World Bank 2015a), recommends a conurbation-level lead urban transport agency as the “integrator” for strategic planning, policy formulation, and infrastructure and services planning.

81. Central business districts and other economically dynamic areas of cities normally have the highest plot ratio. Those that are well connected to public transit can accommodate large daytime populations. Outlying areas that are also linked to the transit system, for example those adjacent to transit stations or those at major highway intersections, should also be assigned high plot ratios by planners. Greater population densities also generate a greater need for infrastructure services, and governments need to be careful to not overwhelm infrastructure when planning for increased population density. It is equally important not to impose low-density caps where infrastructure can support increased density.
82. Research (e.g. Barter 2004) points out that Malaysian cities' heavy dependency on private vehicles may be caused by outdated structures which encourage and rely on car use. Efficient land use through transit-oriented development (TOD) or smart growth that gives priorities to new developments along established public transport routes may help Malaysian cities reduce distance to employment in dense urban areas. Attention should also be paid to the needs of lower income groups; the recent EPU-UNDP study on housing issues in Malaysia highlights that areas of lower income housing in Malaysian cities are poorly served by public transportation, which disadvantages residents there. Outside of the largest cities, a related challenge that also affects lower income groups disproportionately is the need to improve public transport service levels and coverage in small and medium-sized cities/towns.
83. TOD often includes a mixture of residential, commercial, and/or other amenities integrated into a walkable neighborhood and located within a short distance of quality public transport. Hong Kong suffered from high congestion costs and an increase in the number of vehicles in the 1960s and early 1970s. With the launch of several spatially connective policies, such as building the Mass Transit Railway and modifying building height restrictions around the Kai Tak airport, Hong Kong now ranks among the world's top five in infrastructure efficiency, and the slums are gone. Box 2-4 summarizes some lessons from global success stories in TOD, while Box 2-5 details the specific experience of Copenhagen.
84. The Kuala Lumpur Structure Plan 2020 recognizes the benefits of TOD and proposes to "provide priority and incentives to development in areas around transit terminals." To reinforce this, the Plan mentions more intensive development near transit terminals; mixed-use development incorporating high-density residential use; high plot ratio for commercial as well as community and business facilities; bus services integrated with rail terminals and interchange facilities provided to facilitate fast, convenient, efficient transport; and pedestrian and traffic linkages.

Box 2-4 Lessons from TOD success stories

TOD is a high-value complement to mass transit development. Compact, mixed-use, high density development around key mass transit stations can have the dual benefits of creating a ridership base that enhances the economic and financial viability of the mass transit investment and compounding the accessibility benefits a mass transit system can bring to a city's residents. The following are some lessons drawn from examples of successful TOD from around the world.

First, realizing TOD requires coordinated efforts across multiple sectors and a series of inter-linked development phases, where attention to detail is crucial. TOD should ideally be an integral element in a city's master plan. An urban design scheme for TOD would be contextual and consider various dimensions including integration with and access to the transit station, supporting a right mix of land uses and density, and the creation of a walkable, human scale environment around it. Getting TOD right is often about getting the details right: for example, planners in Singapore often reserve direct pedestrian links to the entrances/exits of stations, guiding pedestrian circulation through sheltered walkways.

Second, successful TODs require not only the city's support of high density, mixed use development around transit, but also prioritizing the development of these areas over others in the metropolitan area. In the best scenario, this priority is reflected in an urban growth pattern that mirrors the mass transport network, as in Curitiba, with little or no development outside the system.

Box 2-4 Continued

Third, the transit accessibility of successful TODs has to be higher than auto accessibility. Achieving this requires a number of deliberate actions: for example, Singapore’s transport and land use policies promote greater convenience and lower cost for public transport than driving; London and Boston reduced the amount of parking spaces in downtown buildings to prioritize public transport.

Fourth, implementing successful TOD requires strong legal backing, sound financial planning and appropriate timing. At a technical level, it is necessary to formulate detailed development control guidelines and enforce such guidelines in a manner that is transparent and consistent, yet not perceived to be overly burdensome. The legal environment is critical and defines the role that the government plays beyond providing access to infrastructure and appropriate zoning. Financing considerations are also important. TOD offers a variety of land-value capture opportunities for recouping the financial costs of mass transit development such as through joint development at stations; tax-increment financing; and selling air rights in up-zoned areas. However, experience suggests that it is not easy to avoid conflicts of interest between financial gains for the public sector and safeguarding the interests of area residents. Timing issues are also critical: the construction schedule of the transit station and the adjacent public infrastructure needs to be carefully coordinated with market demand and therefore, the release and development of land parcels around it.

Source: Huang and Mehndiratta 2014

Box 2-5 Copenhagen 1946: A regional framework that anticipated transit-oriented development

A vision depicted by a memorable analogy. The regional plan for Greater Copenhagen was prepared on behalf of the Danish Town and Planning Institute. Under the plan, commonly known as the Finger Plan, urban growth would be concentrated along five corridors or “fingers” oriented toward historical villages in the periphery, while central Copenhagen, the palm of the hand, would remain the principal regional center. The areas in between the “fingers” - “wedges” - were to remain as green areas. The intent of the Finger Plan was to prevent sprawl, guiding growth along fingers, which would have a radial S-train line (the first opened in 1934) running through them. Small independent communities of 10,000 inhabitants were planned for each “finger” with commercial space, schools and other facilities built around stations, connected to the city core by the S-train. The regional scale was remarkable at a time when planning was not geared toward such cross-municipal reach. Equally remarkable is that although the Finger Plan was a non-binding and initially private document, the government’s role was critical to ensuring its success. The government safeguarded the principle of coordinated land use and transport, and ensured its application in municipal plans. It also created the conditions for land markets to develop along the axes established in the plan.

A precursor of coordinated land and transport planning. The Finger Plan has guided growth in the Copenhagen region for more than 60 years. The use of rail infrastructure investment to steer growth to desired areas can be considered a precedent for TOD. During the 1950s and 1960s, the population of Greater Copenhagen doubled and the built-up area expanded dramatically. The principles of the Finger Plan were followed by other planning instruments, including the Outline Plan of 1960, which first introduced the concept of multiple centers in the metropolitan area

In the 1970s, policies were included to ensure the conservation of the green wedges. The 1972 Structure Plan identified four new nodal towns and the 1989 Regional Plan refined the concept of a multi-center structure by increasing investment to link the nodes. The “fingers” have grown longer and tubbier than what was anticipated six decades ago, but the plan has been largely successful in absorbing the growing population and continues to be relevant in the city’s highly functional structure today. The Danish national government has been involved in developing a 2007 update of the Finger Plan, already enacted into a national directive. The principles have been incorporated into national spatial planning, and local authorities are responsible for compliance.

Source: Galland 2013

85. In Johor Bahru, efforts have also begun to promote TOD. The Iskandar Regional Development Authority (IRDA) has developed plans to enhance regional and local public transport systems by initiating several projects, for example the high-speed rail network linking South Johor Economic Region (SJER) to Kuala Lumpur and the Light Rail Transit. Likewise, the current Penang state transport master plan also emphasizes TOD and transit corridors as a priority for the George Town conurbation. Sustained and integrated efforts by all relevant agencies at federal, state and local levels are needed to ensure the success of TOD plans in Johor Bahru and George Town.
86. Fiscal incentives are necessary to encourage the use of public transport and reduce reliance on private vehicles. International experience shows that urban areas shrink in size as transit subsidies increase, but they increase in size with auto subsidies. Instruments that take advantage of market mechanisms include: congestion charges or tolls, emission and/or pollution tax, fuel tax, vehicle tax and subsidies. Singapore, London, Amsterdam and Stockholm have congestion tax schemes to reduce peak-time car traffic (World Bank 2009). These policies are implemented to promote the use of public transport which reduces congestion costs and increases liveability, eventually leading to higher productivity in cities. Hong Kong is a good example of a city where the use of public transport is encouraged (see Box 2-6).

Box 2-6 Mobility and density in Hong Kong

In the second half of the 1970s, Hong Kong experienced real growth of about 10 percent a year, combined with an influx of immigrants, and roaring demand for private cars. Car registrations more than doubled in a decade. The results were long commuting times for private cars and freight transporters; as well as health costs from air pollution. The Transport Department reacted with draconian measures. In 1979, it defined a transport policy to increase road capacity, and expand and improve the mass transit system.

The government trebled the annual license fee for cars, doubled the first registration fee (to between 70 percent and 90 percent of the import price of a vehicle), and doubled fuel taxes. Private and public vehicle ownership fell quickly. In 1985, the share of private registered cars had fallen to 50 percent, 10 percent of these were taxis. The public transport system consists of a 74-kilometer underground mass-transit railway; a 34-kilometer heavy rail line (linking Kowloon with China); a 32-kilometer light-rail system in the northwest of the New Territories, and a 16-kilometer tram on the northern side of Hong Kong Island. Five private bus companies operate franchised services with more than 6,000 buses. These are complemented by minibuses with fixed fares and exclusive rights to provide service on certain routes. Entry to this submarket is strictly regulated.

Today, road charges in Hong Kong are seen as a device, not to reduce congestion, but to curtail air pollution and maintain the city's attractiveness. Hong Kong ranks fifth in the infrastructure index of the Global Competitiveness Report, with a score of 6.2 out of 7; it also ranks first in product market efficiency and financial market sophistication.

Source: World Bank 2009

2.2.7 Strengthened institutional capacity for more effective urban planning

87. Limited coordination across different levels of government contributes strongly to division in Malaysian cities. Chapter 4 discusses this in more detail (see Section 4.2.2.).
88. Implementation difficulties can contribute to inefficient land use in urban areas. The implementation of the National Land Code differs across states as land is a state matter (Article 74 of the Malaysian Constitution). There have been cases where a conflict of interest between federal and state authorities has led to unresolved cases of land acquisition for development, potentially restricting the supply of land for development purposes (see, for example, Omar 2002; Awang 2008). Box 2-7 describes some of these implementation issues. Given that there are existing

Box 2-7 Land use inefficiencies due to institutional weakness

State-level planning inefficiencies: The Town and Country Planning Act 1976 (TCPA) was established to integrate matters between the federal government and state authorities relating to town and country planning. In addition to the TCPA, the Local Government Act (1976) allows local authorities to control and guide land development. Section 18 of this Act stipulates that land development may be controlled and initiated through the formulation and identification of a “structure plan” and a “local plan.” The structure plans are the general proposals of the local government for the development and use of land in each state. They are normally prepared by the state-level offices of the Federal Town and Country Planning Department, and have to be adopted by the states. However, changes made by the states often create uncertainties in planning, giving rise to concerns among land developers (Usilappan 1994).

Overlapping jurisdictions between the National Land Code (NLC) and the TCPA: The NLC and the TCPA govern the land development systems of Peninsular Malaysia. This means that there are two separate sets of legislation on land use and development control (Awang 2008), which has given rise to overlapping land use policies. One example is the case of Yow Chuan Plaza in Kuala Lumpur: a development plan was approved in contravention of the zoning plan. The land in question was zoned as a residential area under the TCPA, but the approval given by the Land Office under Section 130 of the NLC was for commercial use. Landowners may also experience conflict with planning law in terms of their right, under the NLC, to apply to the appropriate land office for conversion to a different land use. Some such applications could be contrary to the local plan because the NLC does not require the Land Office to take planning laws into consideration when an application for approval of a conversion is submitted¹⁹.

¹⁹ Refer to “Conflict between land and planning legislation over land use and development control” (page 7) of Awang (2008)

proposals to revise the National Land Code, the overarching priority in this regard is to ensure that the entire legal and regulatory framework is supportive of flexible land use in cities, and does not create unintended distortions such as those mentioned in this chapter.

89. Taking a metropolitan-wide approach to planning could enhance coordination across jurisdictions in a metropolitan area; in Malaysia’s case this spans several local authorities and sometimes more than one state. Section 4.3.1 discusses metropolitan governance in further detail, stressing the importance of planning and coordination.

2.2.8 Targeted interventions to formulate a more efficient system of cities

90. Malaysia needs to maximize productivity gains from agglomeration and economic specialization by managing its main metropolitan areas. Policymakers can treat their cities as a portfolio of assets, considering size, location, and density. Government interventions can be used to target a more efficient network of cities, and providing the right enabling conditions: more clustering of service- and knowledge-based sectors in large cities, and relocation of land-intensive manufacturing industry to smaller cities and towns.
91. Limits on industrial decentralization can hurt the economy; these limits can also lock cities into patterns of land use that are not environmentally sustainable. As industry leaves the urban core, city land should be redeveloped to accommodate firms in tradable services. Initiatives to repurpose old industrial districts typically include infrastructure redevelopment and projects to make the city’s spatial structure more efficient, livable, and sustainable. Experience from Barcelona (see Box 2-8) shows how the public and private sectors can work together to improve the industrial and spatial structure of a city.
92. In Malaysia, some policy initiatives have been developed to enable cities to realize their comparative advantages. Kuala Lumpur has focused the policy initiatives of its Structure Plan 2020 on strengthening its service- and knowledge-based sectors and promote urbanization economies, including:

- » prioritize development in economic clusters, e.g. finance, business services, education, tourism, retail;
- » develop amenities, enhance connectivity for these clusters;
- » increase foreign investment by establishing incentive packages to attract multinational corporations and by using a specialized entity, InvestKL, to enhance institutional support;
- » talent acquisition through overseas talent acquisition programs; strengthen the local talent base with an emphasis on up-skilling and re-skilling;
- » reduce the cost of doing business and increase government efficiency, establishing e-Government portals and integrating various agencies' services;
- » increase livability by creating a comprehensive pedestrian network; developing an efficient solid waste management ecosystem; and increasing urban green space.

93. These policy incentives and interventions are already planned or implemented individually by cities or states. In order to form an efficient network of cities, policymakers at the national level need to play a role in coordination and integration.

Box 2-8 22@Barcelona: A best practice example and its possible demise

How should cities manage the redevelopment of urban cores when industries move out? This was handled effectively in Barcelona by allowing businesses and residents to take the lead. Since the late 1990s the city of Barcelona has transformed itself, using its post-Olympics momentum to redevelop 180 hectares of city land that had been languishing under warehouses after industry left the area 20 years earlier. Led by the private sector and enabled by public policy, the redeveloped area is now home to more than 1,500 companies, 10 universities with 25,000 students, 12 technology centers, and 3,000 new housing units for low-income residents.

The project started as a government initiative to offer preferential real estate, an initiative that met with limited success. In 2004, the private sector entered, chiefly in four traded services: media, energy, medical technology, and information and communications technology. These services already existed in Barcelona but were spread across the city. A market-induced relocation of interrelated activities allowed for rapid growth and attracted international companies. This was done without subsidies; the initiative employed a requalification mechanism that allowed private developers to convert industrial zoning to zoning with higher building ratios in exchange for returning 30 percent of the land to the city for green spaces, social housing, and technology centers in equal amounts (World Bank 2011).

Key to the success of “22@Barcelona” was the project’s ability to include public and private sectors. Initial leadership, from the city’s mayor and the public sector, focused on restructuring poorly used space close to the city center. The danger, in the mature phase of such projects, is that the government may react to the initial success by attempting to replicate it in projects that it funds directly, without including the private sector.

Source: World Bank 2014c

3. CITY-LEVEL ANALYSIS AND POLICY REVIEW

3.1 Introduction

94. Enhancing economic efficiency and fostering agglomeration economies relies on policies that treat cities as a portfolio of assets, each differentiated by characteristics that include size, location, and density of settlement. Three decades of worldwide research highlight the fact that businesses and people can exploit economies of scale and agglomeration if their settlements perform their intended functions (World Bank 2009). In practice this means the following.
- » Towns and small cities should allow firms and farms to reap benefits from **internal scale economies** by providing roads to move inputs and outputs, and by providing schools for workers' families.
 - » Medium-size cities should allow producers to benefit from proximity to each other, this allows producers to choose workers and materials from a larger pool and creates beneficial competition as they can shop around. These are called **localization economies**.
 - » Large metropolises provide the urban diversity that can foster the exchange of ideas and technology to produce greater innovation and growth. This enables firms in different industries to share facilities or public goods, a wider variety of intermediate input suppliers, a larger pool of specialized workers, and risks. They provide what are called **urbanization economies**.
95. To this end, government policies can be oriented toward fostering a more efficient system of cities: more clustering of service- and knowledge-based sectors in large cities; and relocation of land-intensive manufacturing to smaller towns and cities. Investments in rural areas are also necessary for balanced development. In terms of the six Malaysian cities covered in this study, Kuala Lumpur has the role of a large primary city; Johor Bahru and George Town are large but secondary cities; and Kota Kinabalu, Kuching and Kuantan are medium-size cities.²⁰ Each city has its own comparative advantage and agglomeration economies, depending on size, location, and sectoral structure. The aim for policy-makers is to provide an enabling environment for each city to perform its intended function and to maximize benefits from agglomeration economies. Box 3-1 describes the experience of the Republic of Korea.

Box 3-1 The shifting role of major cities in Korea

In the Republic of Korea, as rural-urban migration accelerated between 1983 and 1993, the share of national manufacturing employment in large cities like Seoul, Busan, and Daegu fell from 44 percent to 28 percent, while the share in small cities and rural areas rose from 26 percent to 42 percent. Rising labor and land costs drove labor- and land-intensive manufacturing industries out of central Seoul. As manufacturing's share in employment in Seoul fell from 32 percent in 1980 to 11 percent in 2010, the share attributable to the service sector rose from 58 percent to 81 percent. A tax credit for manufacturing firms that moved factories from Seoul to its suburbs and other cities incentivized the regional development plan.

Source: World Bank and Development Research Center of the State Council 2014

²⁰ This categorization largely corresponds to the top two categories in Malaysia's National Urbanization Policy (NUP): the National Growth Conurbation (Kuala Lumpur); and Regional Growth Conurbations (George Town, Johor Bahru and Kuantan). For the purposes of this report, the distinctions among the four other categories of smaller urban settlements in the NUP (Sub-regional Growth Conurbations; State Growth Conurbations; District Growth Conurbations; and Major and Minor Settlement Centres) are less marked, and such settlements can be collectively referred to as smaller towns and cities.

96. Cities surrounded by large rural areas, such as Kuching, Kota Kinabalu and Kuantan, need common institutions for more efficient rural-urban transformations. Low-density areas should build economic density through stronger links between villages and towns. Policy priorities would be the provision of basic social services and the improvement of land markets. Regulations need to be versatile enough to facilitate efficient land-use conversion, and building standards should be enforceable without being overly restrictive. Flexible supply of land in these areas is essential for relocation of land-intensive manufacturing from larger cities to smaller cities.
97. For cities with intermediate urbanization, such as Johor Bahru and George Town, policy priorities need to include common institutions and connective infrastructure to increase density and reduce congestion. This includes providing social services for rural and urban residents; ensuring fluid land markets; and investing in infrastructure in and around the growing city centers. Increases in congestion and therefore transport costs could undermine attempts to improve integration; connective infrastructure is essential to ensuring this integration.
98. Advanced, primary cities like Kuala Lumpur need institutions and infrastructure compatible with higher density and shorter distances. An inclusive mix of institutions, infrastructure and incentives is needed to improve livability, creativity and social integration. Successful metropolitan areas in both developed and developing countries have well-functioning land markets, representative management, state-of-the art transport infrastructure, and social policies to integrate low-income residents.
99. This chapter consists of individual sections focused on each of the six Malaysian cities. The basic analytical approach consists of the following three components.
- » Economic analysis on growth, productivity, sector composition and specialization. This analysis includes an examination of trends over time, as well as benchmarks from comparable cities from around the world.
 - » Spatial analysis using GIS data on land use (e.g. residential, industrial, commercial) to show urban land use allocation as a function of distance from the city center. Given limitations in available data, the analysis is presented for four city areas: Greater Kuala Lumpur (the Federal Territory of Kuala Lumpur (FTKL), plus eight adjacent local authority areas in Selangor); Johor Bahru (all land within the conurbation boundary); George Town (land from the state of Penang only); and Kota Kinabalu (the DBKK-administered local authority area).²¹ A review of how land use patterns have changed over time is provided for FTKL and George Town only (owing to limitations in data availability) for 2000 and 2010. All data was based on current (“semasa”) land use data for the years in question.
 - » A review of existing city/local economic development strategies is provided for Kuala Lumpur, Johor Bahru and George Town, based on key findings of the economic and spatial analysis. This takes stock of development efforts and strategic priorities over the last decade, comparing strategies against measurable economic outcomes. The review attempts to evaluate the extent to which the strategies have achieved the intended results. Any discrepancies between intended plans and actual results are used to formulate suggested revisions to the cities’ strategic priorities. The results of this analytical exercise need to be validated through in-depth discussion and further analysis as needed.

²¹ The raw data for each of the four city areas had slightly different land use categories. For the analysis, these existing categories were grouped into a set of standard categories: Residential, Commercial, Industrial, Institutional, Public and Community Facilities, Infrastructure, Agricultural, Green/Open Space, Water Bodies, and Others. The relevant table in Annex 2 explains how the existing land use categories in each city were grouped.

3.2 Greater Kuala Lumpur

3.2.1 Economic performance and specialization

100. Over the last decade, Greater Kuala Lumpur strengthened its position as the economic center of Malaysia. Between 2003 and 2012, the city's economy grew at an average rate of two percentage points higher than the national economy as a whole. Over the same period, the city's economy created more than 750,000 new jobs. Per capita income in the city grew by more than 50 percent, and average income is currently more than 147 percent of the national average. This suggests that Kuala Lumpur remains the most attractive city for talent in Malaysia.
101. As part of the analysis, Kuala Lumpur was compared to other capital cities in small, upper middle-income and high-income countries with highly centralized economies (see Box 3-2 for an explanation of the selection of comparator cities). While Kuala Lumpur has the lowest GDP per capita in the comparator group, it grew significantly faster than any of the comparators over the last four years, and weathered the global financial crisis much better (see Figure 3-1). For its level of development, Kuala Lumpur has shown high rates of growth (it lies above the trend line in Figure 3-2), while all other comparators in the region have been underperforming.

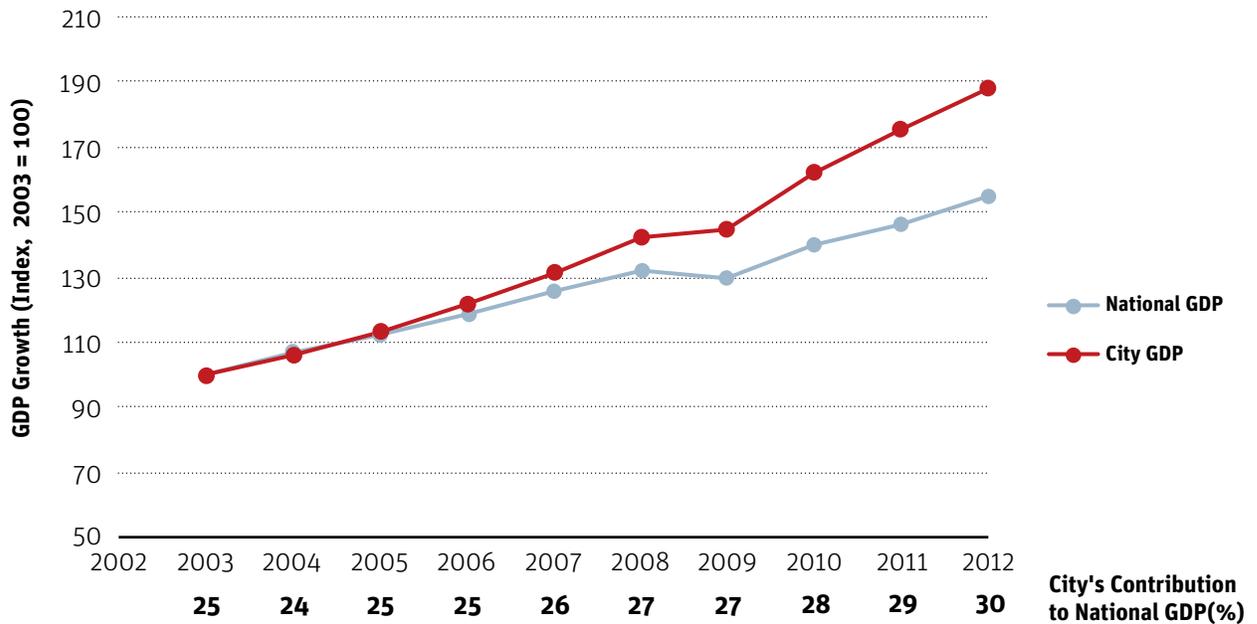
Box 3-2 Comparator selection for Kuala Lumpur

Kuala Lumpur is the capital city and main economic hub of a relatively small but dynamic country. The most relevant comparators for Kuala Lumpur would be capital cities in small upper middle-income and high-income countries with highly centralized economies. Most of the cities selected have completed the transition from industrial center to business services hub, which makes their experience directly applicable to Kuala Lumpur. Comparator cities were also selected from large metropolises in the East Asia region, given regional competition.

The following cities were selected:

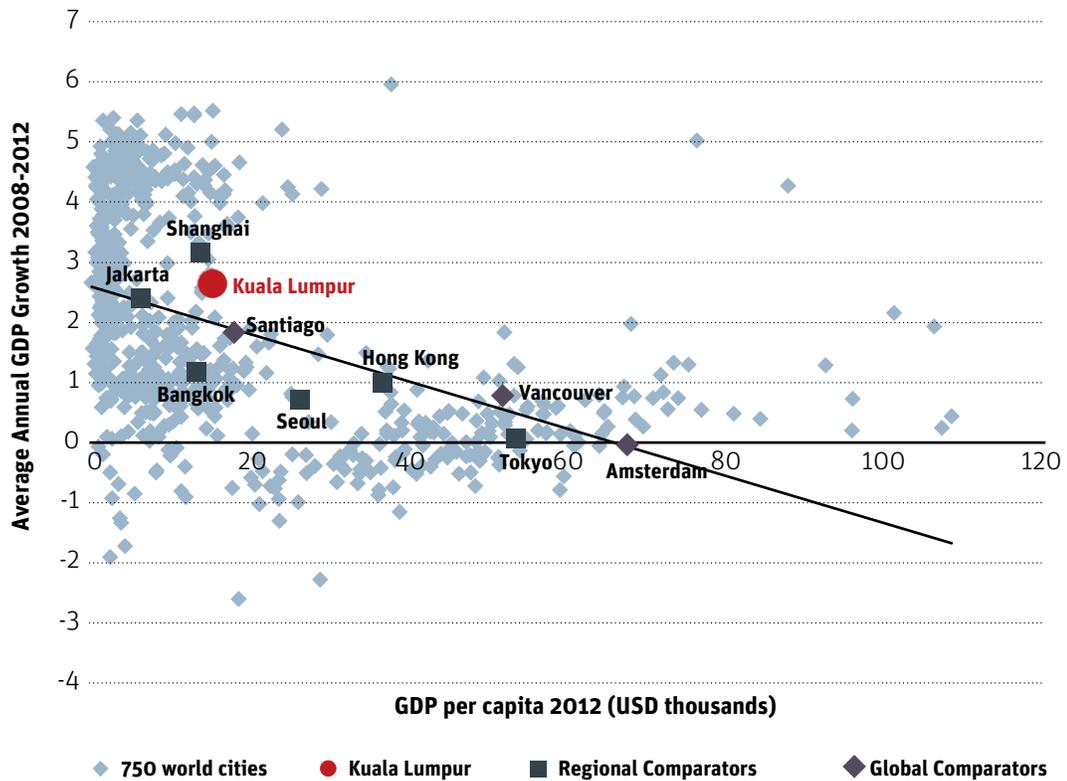
- a. Seoul – capital of the Republic of Korea and dominant city in the national economy. Seoul has led the country's transition from low value-added to high value-added/high-tech manufacturing; R&D and business services.
- b. Shanghai – one of the largest cities in China, it has experienced sustained growth in recent decades. Its economy is largely driven by manufacturing, and the transition to business services is already taking place.
- c. Tokyo – the capital of Japan is widely recognized as one of the world's global cities and an international financial capital. Tokyo accounts for 30 percent of Japan's economy. According to a study by PriceWaterhouse Coopers, Tokyo is the largest urban economy in the world, although the city has experienced a lengthy stagnation in the last two decades, as has Japan as a whole.
- d. Hong Kong – one of the world's leading financial centers, it has successfully transformed its economic structure from a manufacturing-intensive to a services-oriented economy. Key industries include consumer services, finance and business services, and high-tech manufacturing.
- e. Jakarta – the capital and largest city of Indonesia. Jakarta is one of the most populous urban agglomerations in the world, and has outperformed Beijing and Kuala Lumpur in terms of economic growth. Its economy has been largely driven by the services sector.
- f. Bangkok – the capital and most populous city in Thailand. Its economy is mainly driven by trade, tourism, and lower value-added manufacturing.
- g. Amsterdam – largest city/economic hub of the Netherlands. Considered one of the best European cities to locate an international business. Business services make up the core of the economy along with tourism.
- h. Santiago – capital of Chile and its dominant economic center. Santiago has led the country to high-income status. Home of the headquarters of large Chilean agricultural companies, copper producers and other mining companies, it is also a vibrant business services economy. Since the early 1990s, the city has successfully implemented regeneration initiatives and business development programs; it also invested in infrastructure, which helped it diversify away from traditional manufacturing sectors into business and consumer services.
- i. Vancouver – the economic center of the west coast of Canada: the city has been widely recognized as one of the most livable cities in the world. It has achieved impressive rates of growth through attracting talent and building on skills and a high level of entrepreneurship in the local economy.

Figure 3-1 GDP growth: Kuala Lumpur and Malaysia. 2003-2012



Source: Oxford Economics 2012

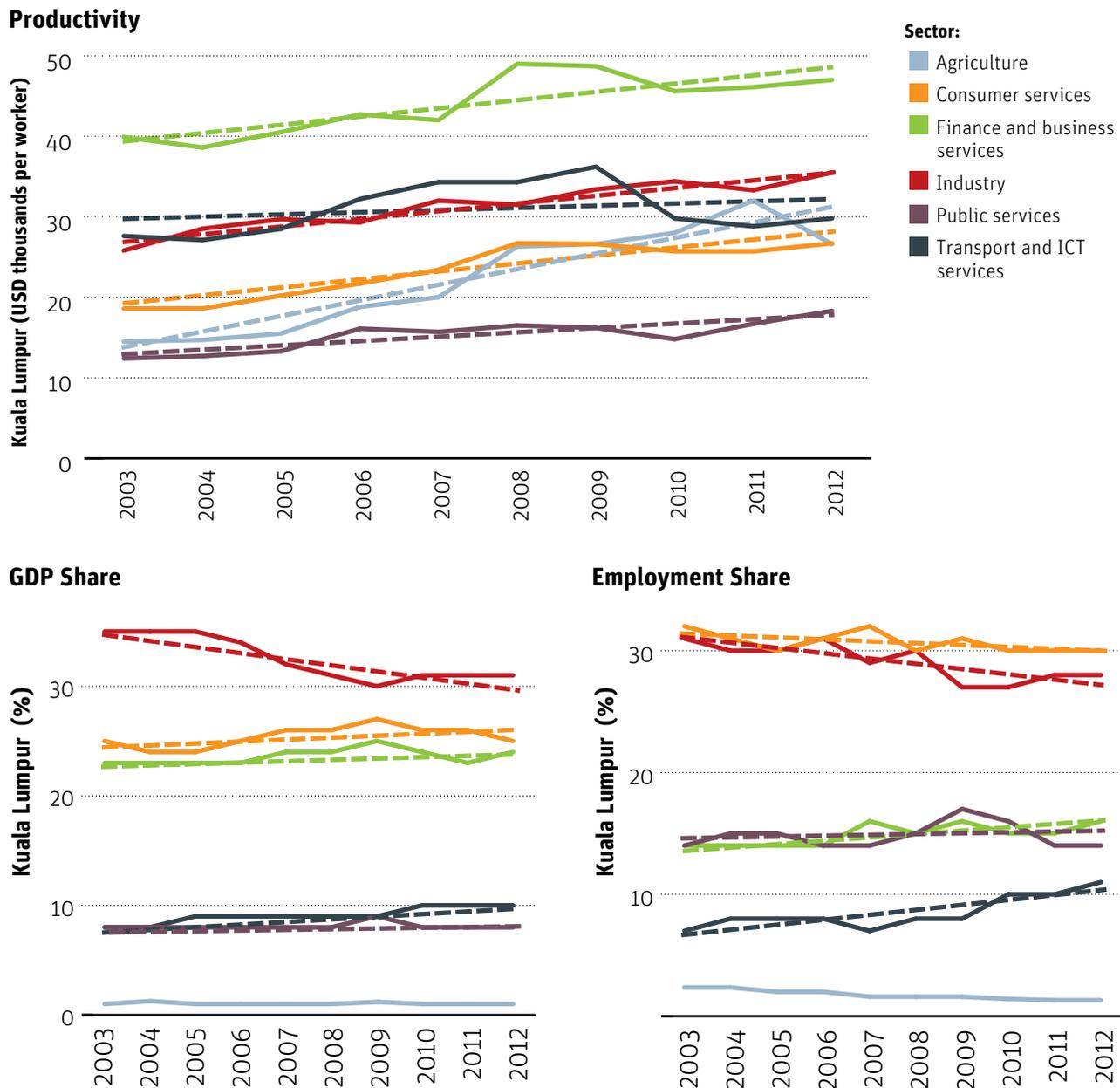
Figure 3-2 GDP per capita and average annual GDP growth in Kuala Lumpur, comparator cities and the 750 largest cities in the world



Source: Oxford Economics 2012

102. The industrial structure of Kuala Lumpur's economy has not changed much in the last ten years, although the city has been undergoing a process of gradual deindustrialization. Manufacturing and construction still constitute the largest share of gross value added (GVA), although this has declined by 3.5 percentage points over the decade (see Figure 3-3). Financial and business services have outgrown the rest of the economy, adding 1 percentage point to their GVA share. The transport and communications sector, including the ICT industry, have also grown. The contribution of public services and consumer services to the economy remained relatively stable over the same period.

Figure 3-3 Kuala Lumpur: labor productivity, GDP shares and employment shares by sector, 2003-2012²²

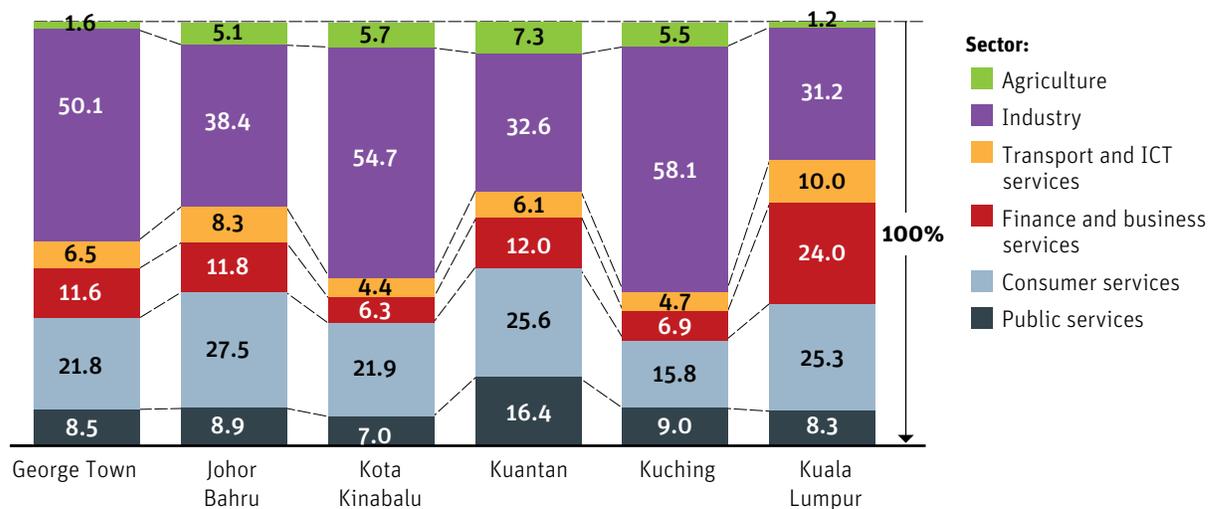


Source: Oxford Economics 2012

²² Productivity: GDP by industry. Labor productivity: number of workers (USD1000/worker) GDP share: Contribution made by an industry or sector to GDP Employment share: Number of workers in an industry, sector or conurbation.

103. The gradual shift towards tradable services is more evident in the employment structure. As industry and consumer services have seen their share of employment decrease, employment in financial and business services has grown from 13.5 percent to 16 percent and in the transport and communications sector it has grown from seven percent to 10.5 percent.
104. Greater Kuala Lumpur's development potential lies in its role to serve as an interlocutor between Malaysia and the global economy. As Malaysia's largest city with a population of more than 6 million, Kuala Lumpur's economy should ideally be service-dominated with high economic density and strong diversity. Relative to other Malaysian cities, Kuala Lumpur has a strong services sector, especially in financial and business services, which accounts for 24 percent of city GDP (see Figure 3-4). This growth in services such as legal, banking or insurance should be encouraged in Kuala Lumpur.

Figure 3-4 GDP share of financial & business services in Kuala Lumpur and the six selected cities in Malaysia

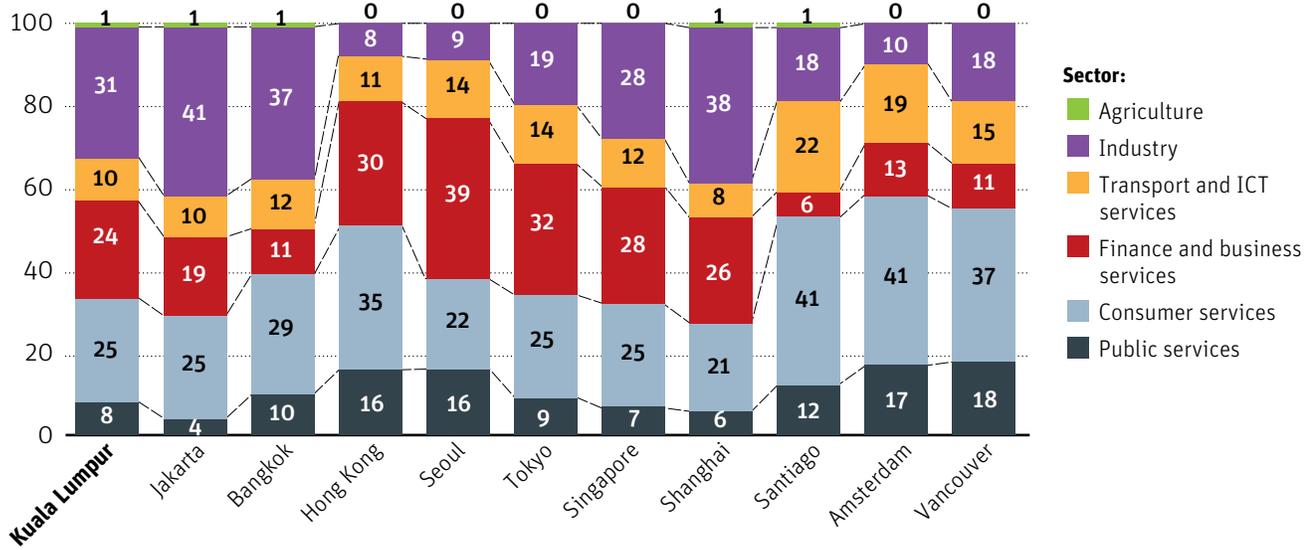


Source: Oxford Economics 2012

105. The degree of specialization in financial and business services in Greater Kuala Lumpur is low in relation to international comparators (see Figure 3-5). The mining and extraction, manufacturing, utilities and construction category still represents a large share of the economy, especially when compared to other large cities in the region. Kuala Lumpur has a lower share (31.2 percent) of these industries than Jakarta or Bangkok where the share is 41 percent and 37 percent respectively. Their share is greater than in Seoul and Hong Kong where this industry accounts for less than 10 percent of GDP.²³ Kuala Lumpur has the one of the highest shares of industry in the global comparator group, and a relatively low share of financial and business services (Figure 3-5).

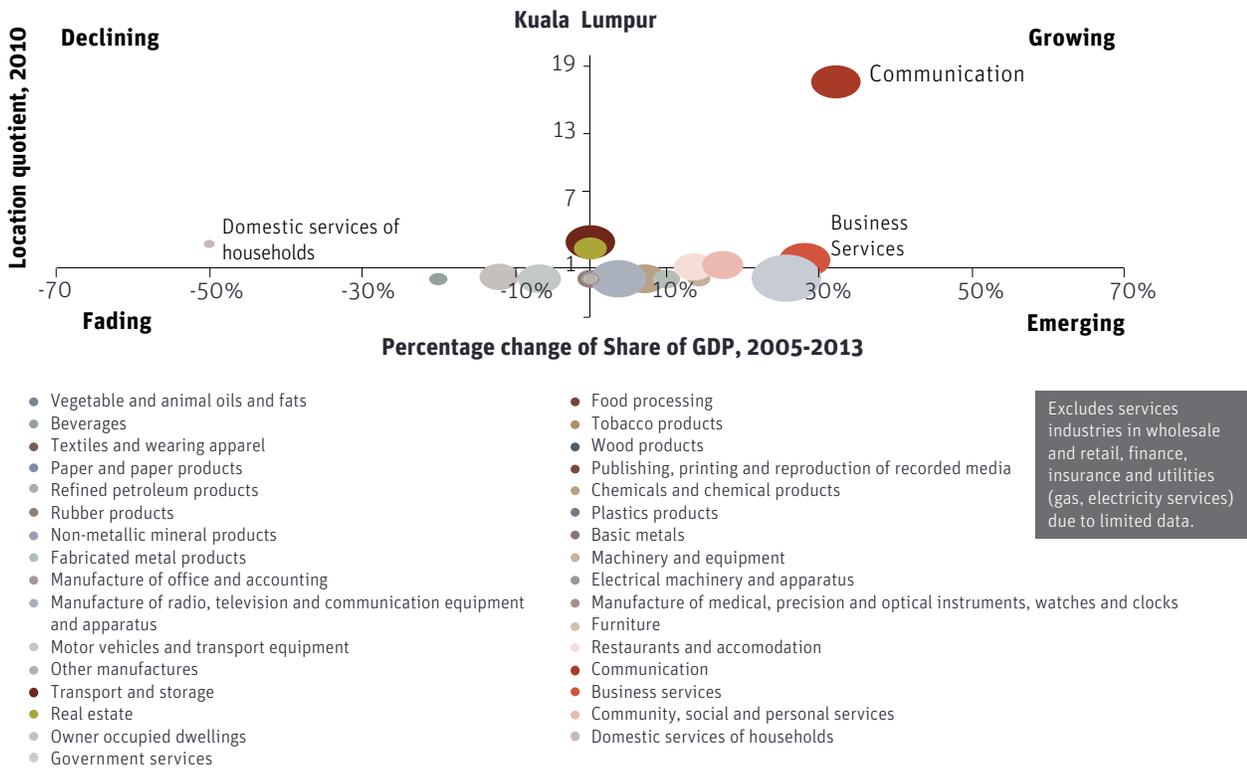
²³ Singapore also has a relatively high industrial share in its economy. About 28 percent of Singapore's GDP comes from industry, and it employs a fifth of the workforce. The petrochemical industry is very important for the economy in Singapore as it has the third largest oil refinery in the world, behind Rotterdam and Houston. Singapore places great emphasis on high-end manufacturing: semi-conductors and consumer electronics, as well as machinery, transport equipment, and ships. The government is fostering future growth in sectors such as aerospace, precision engineering, and life sciences. Source: *InterNations.org 2015; EconomyWatch.com 2015*

Figure 3-5 Industry sector in Kuala Lumpur and in comparator cities



Source: Oxford Economics 2012

Figure 3-6 Kuala Lumpur's sectoral specialization and drivers of national growth²⁴

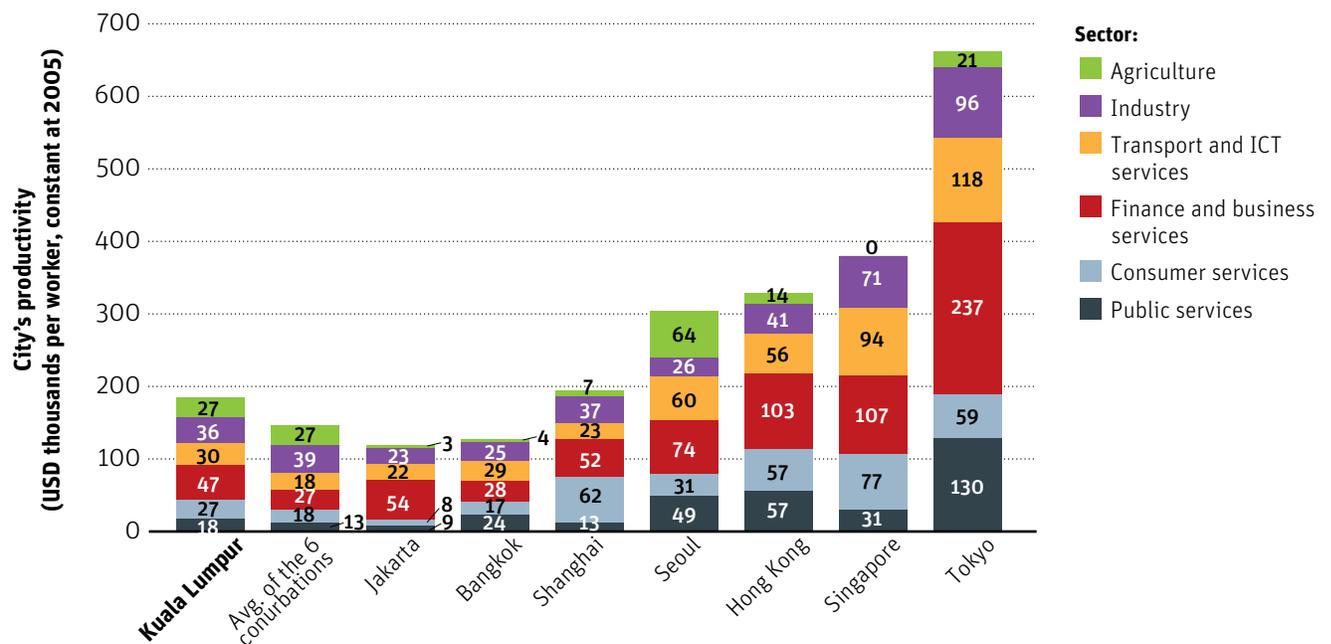


Source: World Bank analysis based on data from the Economic Census, DOSM

²⁴ X-axis: percent change of national sectoral share of GDP (2005-13); Y-axis: Location quotient calculated by local sectoral GDP share/national sectoral GDP share, showing the degree of concentration of a particular sector in a city. Size of bubble: share of national GDP by sector in 2013. Data retrieved from Department of Statistics Malaysia, DOSM. In particular, the local industrial GDP share is calculated based on the Economic Census dataset provided by DOSM. Due to the variation in firm-level data across the six conurbations in the Economic Census dataset, not every conurbation has the same set of sectors.

106. Figure 3-6 shows economic sector specialization in Greater Kuala Lumpur against the rates of economic growth in those sectors as measured by share of GDP from 2005 to 2013. In 2013 Kuala Lumpur focused on communication services, business and professional services, and hospitality. Personal services like private clinics and counseling were among the fastest growing industries in terms of share of GDP from 2005 to 2013. These services are in the top right-hand quadrant under: “growing” sectors, and indicate the trend towards tradable services.
107. Productivity is crucial to Kuala Lumpur’s economic competitiveness but it continues to lag most comparators. Output per worker is 50 percent lower than in Seoul and Taipei, and 20 percent lower than in Santiago. Figure 3-7 shows that gross value-added per worker in industry is around USD 36,000 (2012 constant prices) in Kuala Lumpur, while it is around USD 70,000 in Singapore and USD 96,000 in Tokyo. This figure is only around USD 47,000 for financial and business services, compared to USD 107,000 in Singapore and USD 237,000 in Tokyo. Productivity in other services is also significantly lower than other large East Asian cities. Low productivity in public services is particularly evident.

Figure 3-7 Low productivity in Malaysian conurbations. Comparison with other East Asian cities



Source: Oxford Economics 2012

108. The Kuala Lumpur Structure Plan 2020, from 2000, indicated that Kuala Lumpur would benefit from growth in the services and innovation sectors; it recommended that more traditional industries move to smaller cities and towns. Recent growth trends and productivity analysis confirm that this remains a feasible track.
109. Kuala Lumpur has potential to become a world-class business center. Ranked 18th in the World Bank’s *Doing Business Report* (World Bank 2015b), Kuala Lumpur has performed well in providing an attractive environment for business. Despite this, its performance falls below the East Asian average in property registration (see Table 3-1), even though online stamping to reduce the time and cost to transfer property was introduced in 2005 (World Bank 2015b).

Table 3-1 The total number of procedures legally required to register property in Kuala Lumpur is higher than the East Asian average²⁵

Indicator	Kuala Lumpur	East Asia	OECD
Procedures for registering property (number)	8.0	5.2	4.7

Source: World Bank 2015b.

3.2.2 Land use and spatial structure

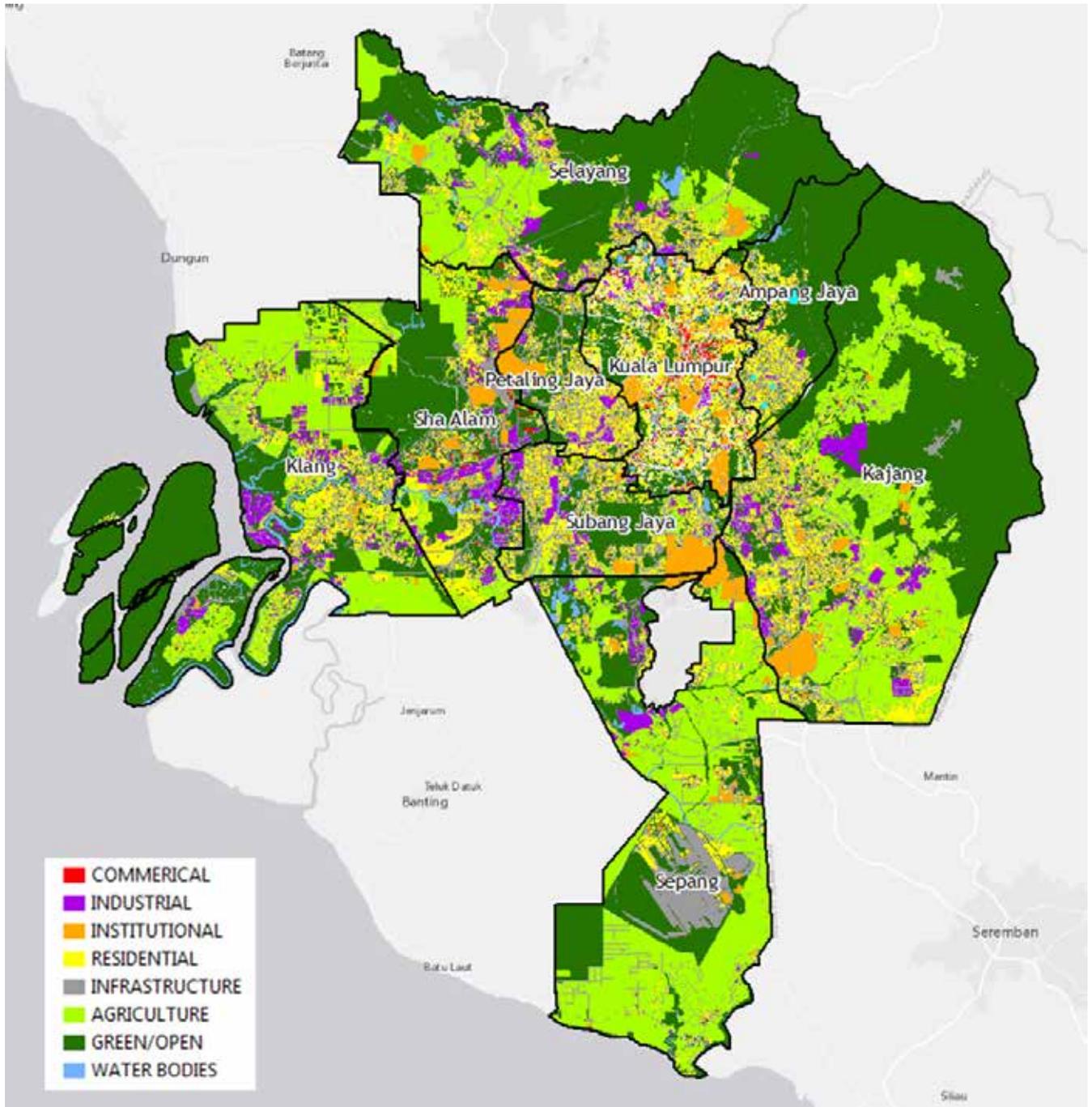
110. Spatial analysis was undertaken using current (“semasa”) land use data for Greater Kuala Lumpur, consisting of FTKL and eight local authority areas in Selangor, for 2008-2010.²⁶ This area lies entirely within the Kuala Lumpur conurbation boundary. Figure 3-8 shows how land use in the Greater Kuala Lumpur area is allocated; overall, FTKL is mostly urbanized but other parts of the Greater Kuala Lumpur area retain a lot of green/open space and agricultural land, especially in outlying areas. Most land in some local authority areas in Selangor is green/open space or agricultural.
111. Spatial analysis was conducted with 1km radial buffer zones from the center of Kuala Lumpur, as illustrated in Figure 3-9 (Greater Kuala Lumpur) and Figure 3-10 (the central area of Kuala Lumpur).
112. Figure 3-11 and Figure 3-12 present the percentages and absolute areas of land use by category for each 1km buffer zone in Greater Kuala Lumpur for 2008 - 2010. These charts identify key features of the land use pattern:
- » Commercial land use is concentrated in the central part of the city, accounting for over 20 percent of land in the first 1km buffer zone; it diminishes very quickly as distance from the city center increases, and accounts for only four percent of land in the 5km buffer. This is in line with the usual land use pattern seen in other cities around the world: land close the city center has the highest rent per km², and is usually allocated to commercial use as this generates the highest return per km².
 - » A large share of land close to the city center is occupied by institutions: more than 40 percent within the first 1 km buffer zone, and 23 percent in the 3 km buffer zone. This makes the share of land for institutional use higher than that for commercial use in most parts of the city. Since public services account for a small share of GDP with relatively low productivity, alternative uses for current institutional land in the high value zones closest to the city center could lead to higher economic density and productivity²⁷.
 - » A lot of land close to the center of Kuala Lumpur is used for residential purposes, it accounts for the largest share of land use between the 3km and 9km buffer zones. The efficiency of this land use depends on the nature of the residential areas: high density residential, as reflected by high plot ratios, can be commensurate with the high value of land and is well-suited to mixed-use development and a more compact urban form. The standard urban economics model suggests two fundamental mechanisms in this regard. First, when choosing where to live, households make a trade-off between proximity to the city center and real estate prices, or size of dwelling; second, project developers, or landowners, maximize their profits and choose the quantity and density of housing

²⁵ A procedure is defined as any interaction of the buyer or the seller, or their agents with external parties. (World Bank 2015).

²⁶ For FTKL, land use data provided by DBKL were for the years 2000 and 2010; for Selangor, land use data provided by JPBD Selangor were for 2002 and 2008. For analytical purposes, the 2000 DBKL and 2002 Selangor land use maps were merged as one time point, as were the 2010 DBKL and 2008 Selangor land use maps.

²⁷ Further analysis of this issue would require a case by case consideration of specific institutional sites, which is beyond the scope of this study.

Figure 3-8 Land use in Greater Kuala Lumpur. 2008 - 2010



to build depending on the level of real estate prices. The higher the real estate prices, the denser the developers choose to build.

- » Green/open space accounts for a significant proportion of land near the city center – around 22 percent of land within a 3km radius of the center. These areas may offer potential for more efficient land use, as discussed in section 3.2.3.

Figure 3-9 Land use in Greater Kuala Lumpur, with 1km buffers. 2008 - 2010

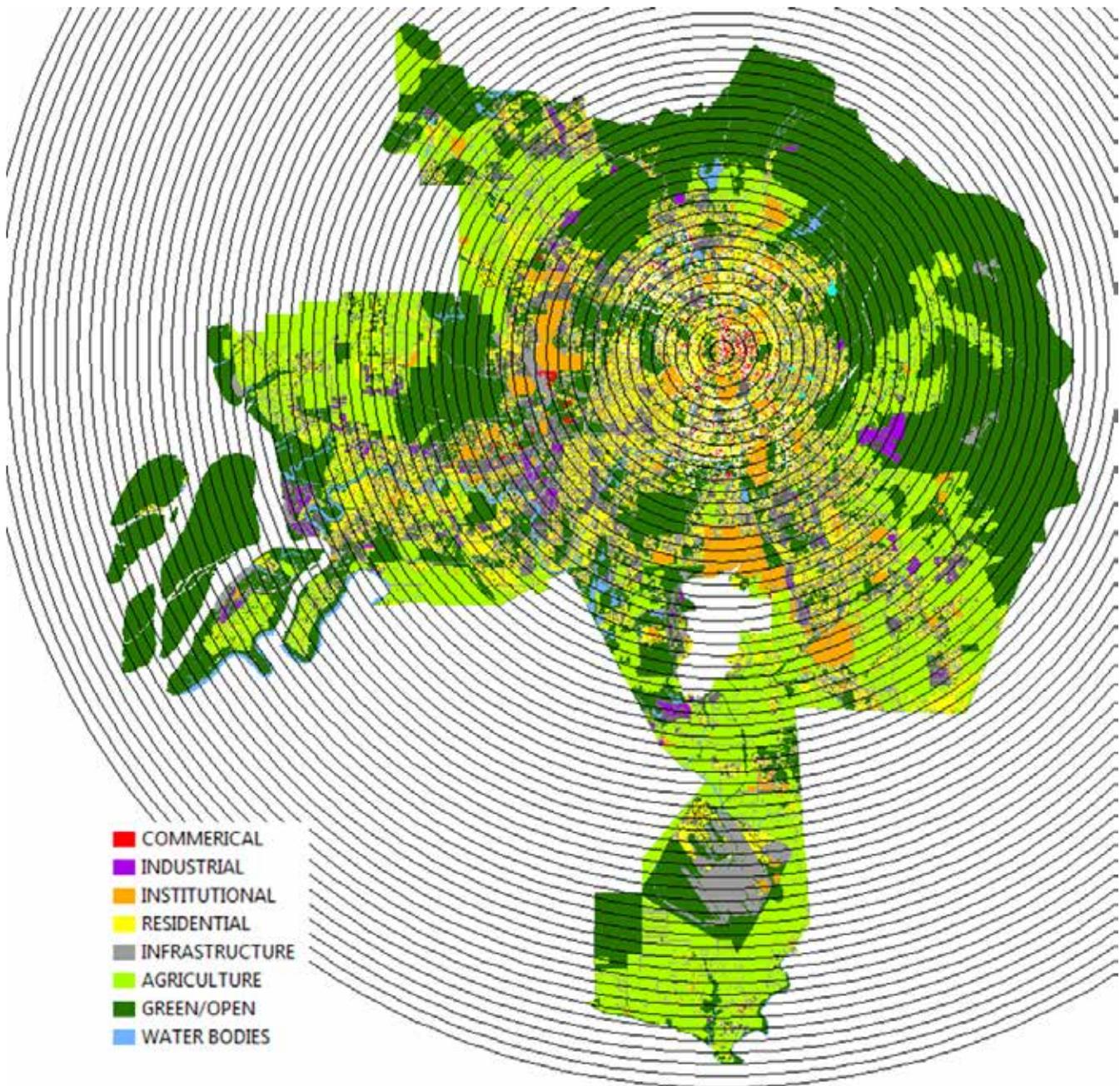


Figure 3-10 Land use in central Kuala Lumpur, with 1km buffers. 2010

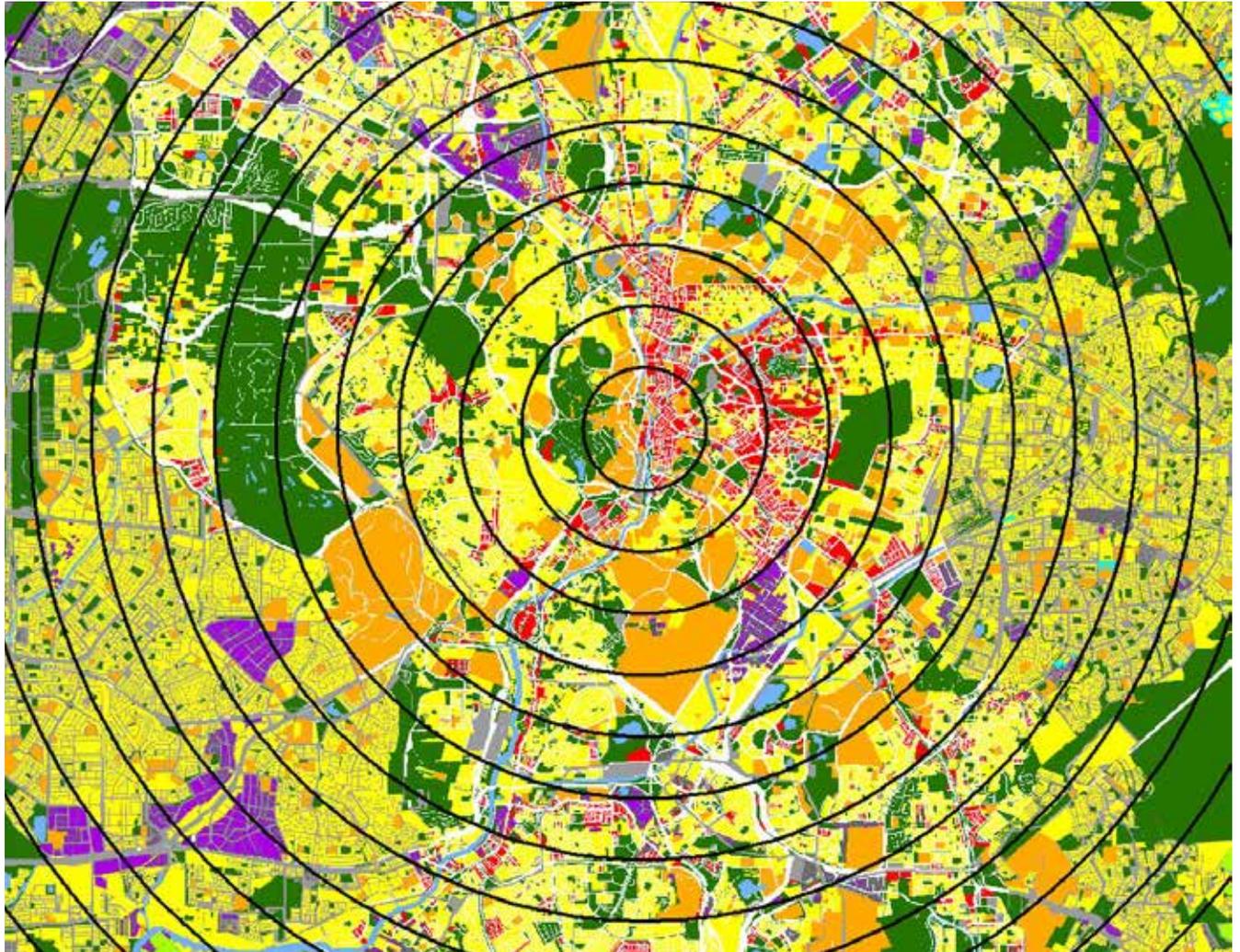


Figure 3-11 Proportional land use within each 1km buffer. Greater Kuala Lumpur. 2008 - 2010

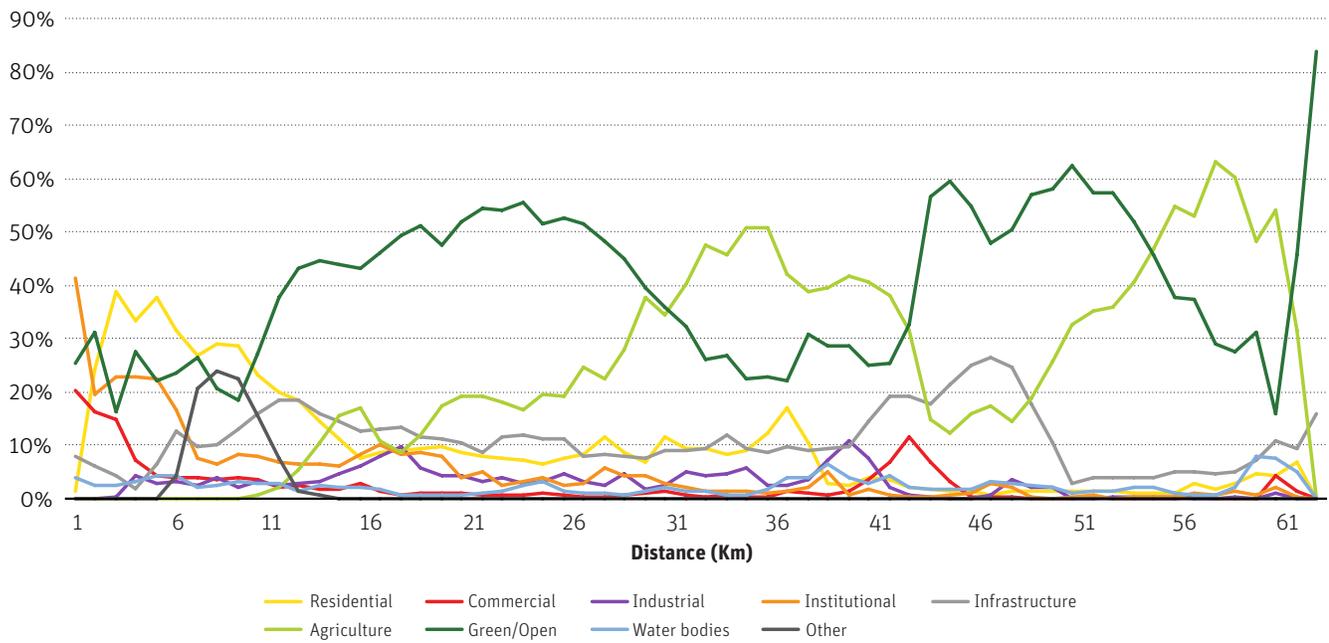
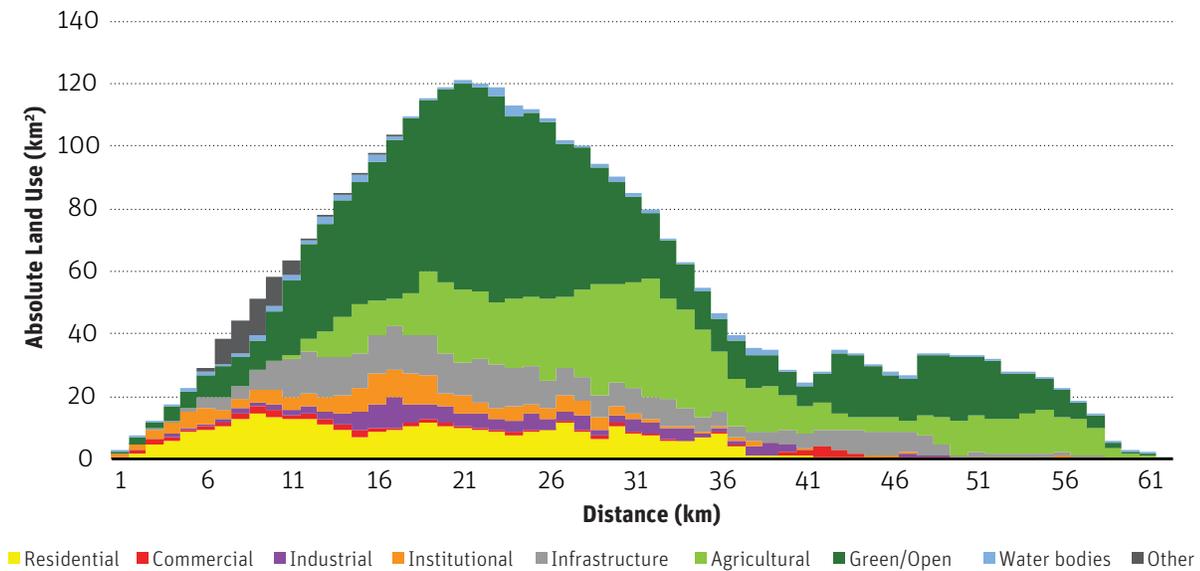


Figure 3-12 Absolute land use within each 1km buffer. Greater Kuala Lumpur. 2008 - 2010



113. Changes in land use between 2000 and 2010 were analyzed for FTKL. Figure 3-13 summarizes the overall changes and Figure 3-14 presents these changes in 1km buffers. Figure 3-16, Figure 3-17 and Figure 3-18 display these changes in residential, commercial and industrial land.

114. Key features of the changes in land use in FTKL for 2000 to 2010 can be summarized as follows:

- » Residential use has decreased substantially, and is most evident close to the city center. Some of this decrease in residential use appears to have made way for institutional use. Population density and the intensity of residential land use increased over this period; the population of FTKL grew from 1.31 million to 1.63 million. Over this period also, the population growth rate in Selangor was higher than that of FTKL, meaning that overall urban population growth in Greater Kuala Lumpur was distributed over a wider area and not concentrated near the center.
- » The use of land for institutional purposes has increased substantially; it has also increased for commercial purposes, but to a lesser extent.
- » There has been a large decrease in green/open space, mostly within the 5km to 13km buffer zones. Green/open space has increased in the 3km buffer zone. In some cases the decrease in green/open space only reflects a change in land use classification from 2000 to 2010 where pre-existing water bodies had been classified as green/open space in 2000, and then corrected in 2010.
- » Industrial land use showed very little change, with only a minor decrease. Figure 3-17 shows that land classified as industrial remained almost the same from 2000 to 2010.

Figure 3-13 Land use changes in FTKL. 2000-2010 (km²)

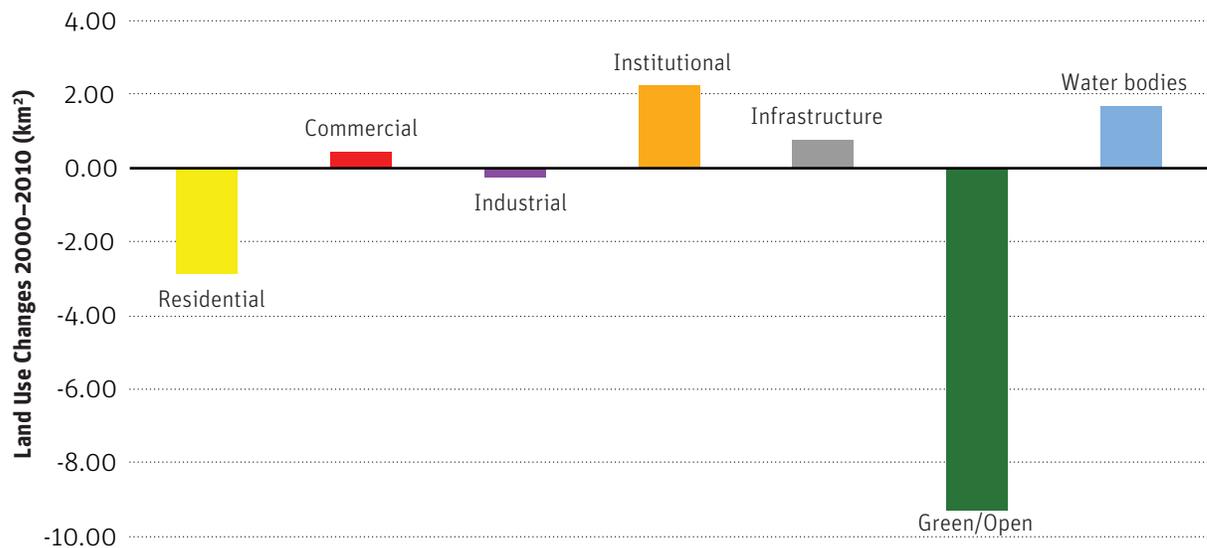


Figure 3-14 Breakdown of land use changes in FTKL by distance from the city center. 2000-2011

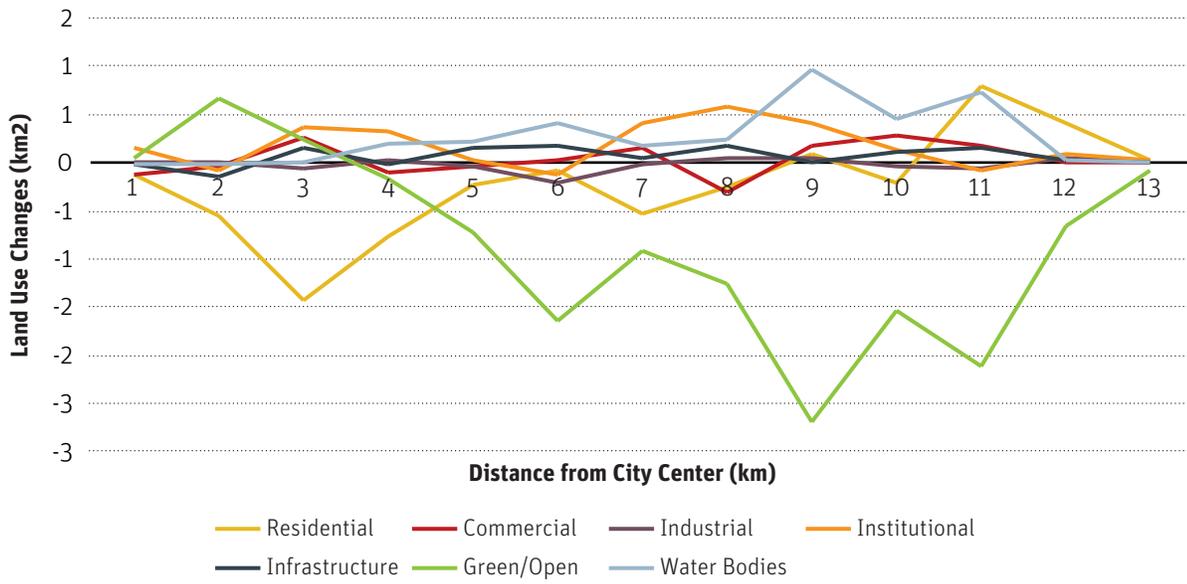


Figure 3-15 Changes in residential land use in FTKL. 2000-2010

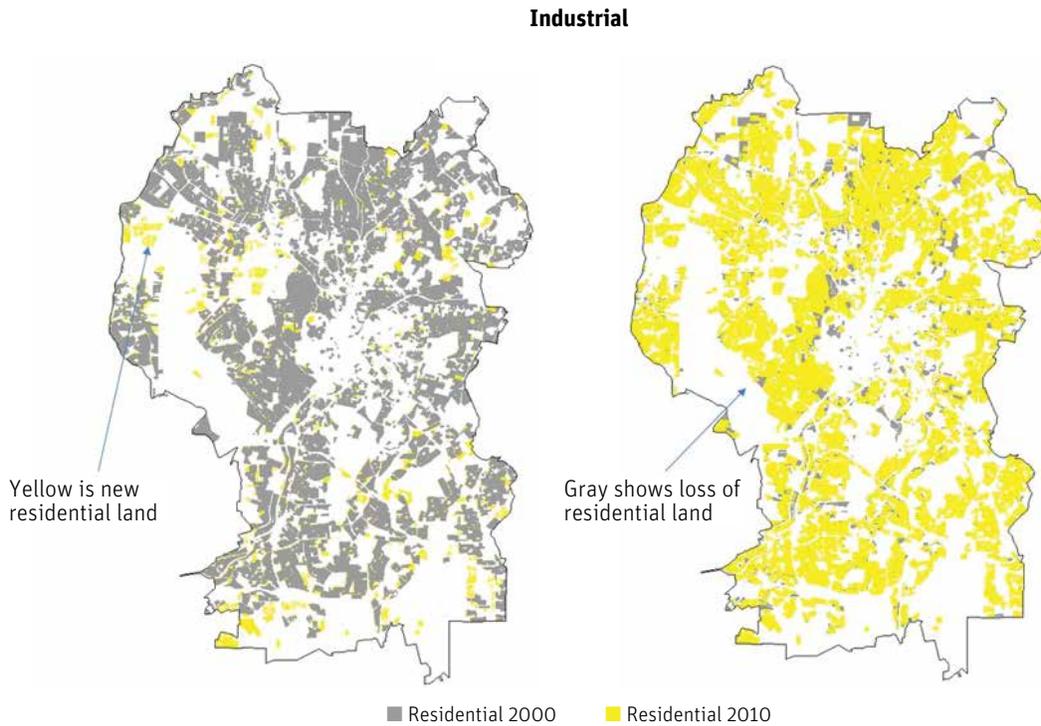


Figure 3-16 Changes in commercial land use in FTKL. 2000-2010

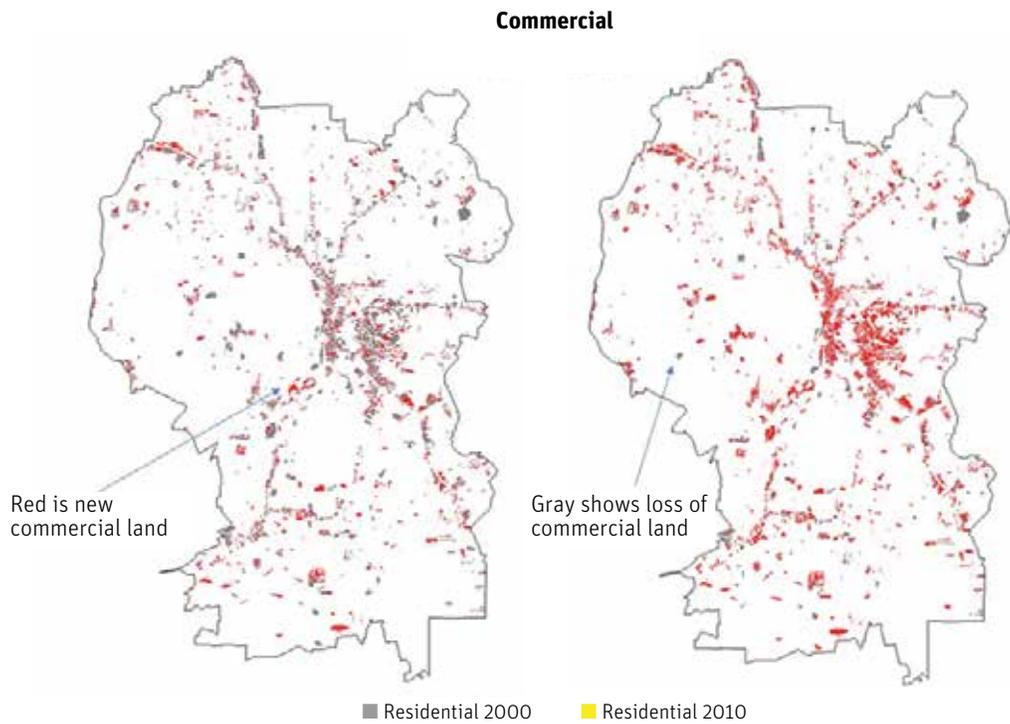
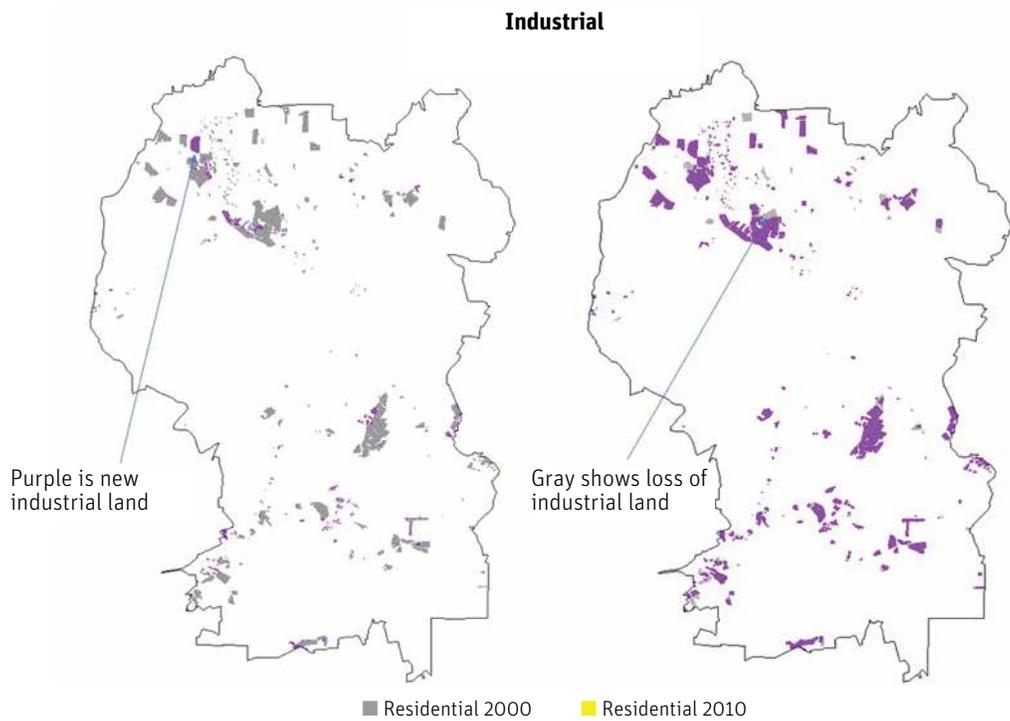


Figure 3-17 Changes in industrial land use in FTKL. 2000-2010



3.2.3 Low-use land in central Kuala Lumpur

115. For a city of its size, Greater Kuala Lumpur has low density, in population terms and economic terms. The average population density for all urban areas with populations greater than 100,000 in East Asia was around 5,800 people per km² in 2010; this figure was almost 6,700 people per km² for urban areas in the same population class as Kuala Lumpur, i.e. those with between 5 and 10 million people. The equivalent figure for the Kuala Lumpur urban area²⁸ was just 3,300 people per km² (World Bank 2015).
116. One cause of this low density may be the underutilization of land in the central areas of the city. Initial analysis of land use data from 2010 revealed that there were 13,838 parcels of land labeled ‘undeveloped’ within a 10 km radius of the city center, an area of 31,160 ha. These parcels covered 3,271 ha: almost 12 percent of this area. Upon closer inspection, some of these land parcels were found to be of no actual concern. A few of these have recently been developed, e.g. the site of the new Istana Negara, Desa Park City, etc. Several other tracts of land labeled as undeveloped appear to have been subdivided among multiple owners and are being prepared for development. Elsewhere, a few large undeveloped areas are too steep to be built on, e.g. Bukit Dinding, and hilly areas in Melawati and Taman Connaught.
117. Unlike many other East Asian cities, Kuala Lumpur has a large amount of open space close to the city center. Nearly half the land within 1 km of the city center is used by institutions, or is designated open/recreational space. Many of these serve as public amenities, and need not be developed. Others are unlikely to be redeveloped due to their civic importance. As so much central land in KL is open or sparsely developed, it is important to develop it to its full potential to improve production and economic density.
118. Examples of areas near the city center that appear to be under suboptimal use include:
- » The Chan Sow Lin industrial area adjacent to the Bandar Malaysia site, zoned for light industrial use with a maximum plot ratio of 2. The development plans for Bandar Malaysia suggest that an alternative, higher value use for this industrial area should be considered.
 - » Jalan Semarak, between Jalan Tun Razak and the DUKE highway: this area features substantial parcels of low density institutional land within 5km of the city center, currently occupied by institutions such as the Ministry of Defense and universities. It appears that there are some plans for development in this area, for example for the Pulapong site.
 - » Golf courses: RSGC and KLGCC are within 4km and 7km of the city center, respectively.
 - » The University of Malaya campus, within 5km of the city center.
 - » Malay Reserve Land in the Penchala area, which is sub-divided into individually-owned parcels, mostly undeveloped and vacant, it is zoned for residential use (see Figure 3-18). It should also be noted that this terrain is mostly steep, limiting its development potential.
 - » Large cemeteries around Bukit Petaling/behind the former Istana Negara, within 3km of the city center and also adjacent to the Bandar Malaysia site.

²⁸ The study from which these population density figures are drawn used a spatial definition of the ‘Kuala Lumpur urban area’ based on built-up areas as observed in satellite imagery, this is slightly different from the areas defined as Greater Kuala Lumpur and the Kuala Lumpur conurbation.

The potential for the development or redevelopment of sites like these should be considered, although for some types of sites such as Malay Reserve Land or cemeteries, this may be very difficult or impossible. Singapore offers an example of how old cemetery areas can be freed up for development.

Figure 3-18 Malay Reserve Land in FTKL



119. In light of the above, key policy and planning questions for Greater Kuala Lumpur currently relate to the types and quantity of development on land near the city center. Given the existing ample supply and pipeline of commercial space (office, retail etc.), as well as the current issues around housing affordability, there is scope for ensuring the adequate supply of housing for middle and lower-income households, including within FTKL. A detailed discussion of housing issues, however, is beyond the scope of this study.
120. Another possible consideration would be pursuing a more polycentric, rather than monocentric, urban form. Box 3-3 discusses some examples of polycentric urban form, and its advantages and disadvantages.

3.2.4 Review of the development strategy

121. In 2000, Kuala Lumpur Structure Plan 2020 was developed. This comprehensive strategy document combined aspects of economic and social development of the city, identified key growth areas across the city, and outlined implementation structures and actions required. Although the Structure Plan recognized that it was premature for Kuala Lumpur to aspire to be a global city, it declared a focus on export-oriented industries for the city, and an ambition for greater integration into international markets and supply chains. This ambition was based on the recognition of Kuala Lumpur's main competitive advantages: highly skilled labor, a major hub airport, a rapidly developing port, and successful trade and finance liberalization reforms.
122. The economic ambitions of the strategy were defined separately for the city center and the broader conurbation of Kuala Lumpur.
 - » Central Kuala Lumpur was supposed to prioritize HQ activities; financial and business services; high-end retail and tourism services; cultural activities; education, and high-tech manufacturing activity. These priorities were earmarked for the areas identified as part of the Multimedia Super Corridor.

Box 3-3 Polycentric Urban Form

A polycentric city traditionally has a central business core as well as some combination of a secondary business core, a tertiary business core and inner and outer edge cities (Lin *et al* 2010). Over time and as their size grows, most monocentric cities begin to exhibit a degree of polycentrism (Bertaud 2003). This box presents information on several cities which have been able to increase economic efficiency by moving away from a monocentric to a polycentric urban model.

Examples of Polycentric Cities:

1. The **Boston** metropolitan area is a good example of polycentrism promoting innovation and hi-tech manufacturing as well as research and design for many industries, in several city centers. Greater Boston comprises the central city of Boston, as well as several surrounding cities, including Providence, Worcester, Manchester, Lowell and Cambridge. All together they are home to more than a half-dozen distinct industries, and the overall economy has benefited greatly from the large and diverse labor force and from agglomeration economies.
2. **Seoul** is one of the clearest examples of a planned polycentric city in Asia and supports many new employment centers in the form of outer edge cities. In the 1980s, several new town projects in the Seoul capital region were planned and executed by the government, to provide affordable and social housing for the large influx of population following industrialization. After the Asian financial and economic crisis of 1998, the development of new town projects has primarily been led by the private sector (Lee *et al* 2012). The new town projects now being developed are both closer to old central Seoul, and have developed without the hollowing out of inner central Seoul. The efficiency of Seoul's public transit system has been a strong factor in the economic vibrancy of the vast metropolitan area.
3. **Hangzhou**, a mid-size city of about 4.19 million people, has evolved as an example of polycentric development over the last two decades. Hangzhou has a multi-functional main city center and three sub-centers (Xiasha - a hi-tech zone, Jiangnan - industrial and commercial zone, and Linping - industrial city). There are four state economic zones where foreign firms can enjoy cheaper facilities, less congestion and lower costs. The move towards a polycentric form has enabled the growth of complementary industry agglomerations as well as changed population densities in the various sub-centers (Yue *et al* 2009).

Advantages and Disadvantages:

The chief advantage of the polycentric urban form is that land prices fall on average leading to a more universal spread of rents and potentially better access to housing for the city's vulnerable poor (Bertaud 2003). In addition, it can help to revitalize ailing neighborhoods by an investment in services and potential commercial centers.

The main disadvantage is that labor markets tend to fragment and thus one of the primary benefits of scale from agglomeration is lost. However, there are attendant competitive advantages with localized access to specialized and skilled work forces in each sub-center or business core. Finally, it is much harder to create and maintain high quality, public transport networks for polycentric cities (Bertaud 2003) and control emissions.

Key Takeaways:

It is important to note that to promote a polycentric urban form significant investment in urban services is required as well as strong support for infrastructure and transportation (Bertaud 2003). Polycentric cities require specialized transport structures which promote ease of access to each business core while also allowing for linkages across the entire metropolitan area. They are also well suited to transportation networks with high private car usage (like many American cities with large suburbs). While there is some evidence that polycentric cities lead to shorter travel times (Lin *et al* 2010), it is also undoubtedly true that actual commuting volumes are far higher, reinforcing the need for well-planned transportation networks.

- » For the rest of the Kuala Lumpur area, the priorities were federal and state government services; logistics activities; education; recreation; and a wide range of industrial facilities.

123. The key economic targets identified for Kuala Lumpur supported the general idea of building a diversified economy that builds on its core advantages and aims to gradually move up the value-added ladder. According to the sector level targets, by 2020 Kuala Lumpur was supposed to become:

- » A leading center of the knowledge-based economy;
- » An international commercial & financial center (by focusing on attracting large international companies);
- » An attractive tourist destination;
- » An international shopping center;
- » A major meeting, incentive, convention and exhibition (MICE) center;
- » A dynamic cultural and entertainment center;
- » A regional educational and health center;
- » A city with a revitalized manufacturing sector.

124. The spatial development strategy for the center of Kuala Lumpur focuses largely on mixed use development and on ensuring that the residential component remains strong. This priority was driven by the idea that further concentration of office-based activities in the city center along with suburbanization of residential areas may put too much stress on the transport system and make the core city less attractive or livable. Meanwhile, the land use analysis has shown that while the Plan envisioned large residential development projects, FTKL actually lost residential land between 2000 and 2010, especially in areas close to the city center. While the intensity of residential land use in FTKL increased during the same period, it is important to note that many residential projects, especially those not targeted at high-income households, have occurred mostly outside FTKL.

125. The Greater Kuala Lumpur and Klang Valley area was identified as one of the 12 national key economic areas (NKEAs) in the Economic Transformation Program (ETP) (Pemandu 2012) in 2010. As a part of this strategy, a much more ambitious strategy for development was presented. By 2020, Greater Kuala Lumpur aims to be among the 20 fastest-growing and most livable cities in the world; and the priority sectors were more narrowly defined: financial services, business services, education, tourism and retail. Four key challenges were identified:

- » strong regional competition in target industries;
- » relatively poor livability performance (79th in the EIU livability rankings);
- » poor public transport; and
- » under-utilization of natural assets.

126. The following two key economic goals were set out for the city.

- » Attracting 100 of the world's most dynamic firms, with a focus on large companies in financial and business services; and ICT and related activities. Greater Kuala Lumpur's value proposition was identified as having a strong talent base with high English proficiency; a strategic location at the heart Asia; superior infrastructure; a lower cost of living compared to competitor cities such as Singapore and Hong Kong; and a livable environment. Malaysia will also need to see significant improvements in order to increase its competitive edge, especially in the ease of doing business, e.g. as measured by number of days required to start a business; corporate tax rates; and investor protection indexes.

- » Attracting the right mix of internal and external talent, including an increase in the foreign-born population of the city from 9 percent to 20 percent. The set of actions also includes schemes to attract and support relocation of skilled Malaysians from around the world back to the country, and to attract qualified expatriates through relaxing immigration regulations and associated schemes.

127. Other key objectives include.

- » Building the high speed rail link to Singapore.
- » Building an integrated urban rapid mass transit system.
- » Large scale revitalization, greening; and schemes to create iconic places.
- » Developing an extensive pedestrian network.
- » Developing an efficient solid waste management system.

128. The NKEA strategy for Greater Kuala Lumpur presents an almost perfect example of a well-developed, ambitious, yet actionable strategy document for a city's development. It covers most of the main aspects of good practices in local economic development strategies: identification of enabling conditions; clearly defined targets; a robust monitoring and assessment framework; clear delegation of authority; assessments of the costs of initiatives and how these costs will be covered.

129. The 2010 strategy for Greater Kuala Lumpur is a more developed document than the 2000 strategy (the Kuala Lumpur Structure Plan 2020). A comparison of the city's development trajectory in the two documents reveals significant shifts in thinking. The 2010 strategy is more ambitious; the vision has evolved to include the goal of becoming one of the fastest growing and most livable cities in the world. It is also more focused, with fewer priority sectors and more detail. As part of this shift, the focus on development of the manufacturing and logistics sector was dropped, as emphasis is placed on financial and business services and regional corporate HQ activities.

130. A key challenge related to the focus on financial and business services is that these sectors are largely demand driven. Their growth relies on a vibrant, rapidly growing real sector. Each of the world's financial centers is a hub that services a large manufacturing region: New York City for the US, London for Europe, Hong Kong for China, and Singapore for Southeast Asia. It would be very difficult for Kuala Lumpur to rival Singapore as the main services hub in the region, as such local financial and business services will be reliant on the Malaysian economy and on local demand.

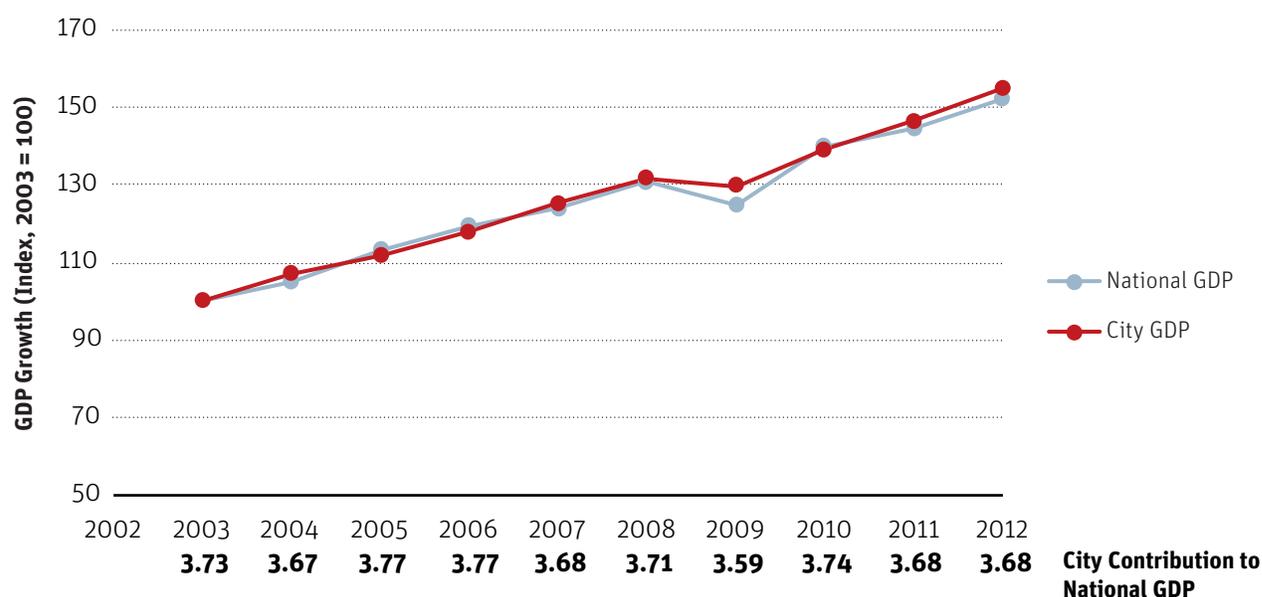
3.3 Johor Bahru Conurbation

3.3.1 Economic performance and specialization²⁹

131. Johor Bahru experienced moderate economic growth from 2003 to 2012. Based on Oxford Economics data, the city's GDP increased by 50 percent as the city's population grew by 15 percent. In fact, in 2012 the core city of Johor Bahru accounted for a slightly smaller share of the national GDP compared to 2003, at 3.68% (see Figure 3-19).

²⁹ The Oxford Economics database used for economic performance in this report appears to use a narrow spatial definition of Johor Bahru, smaller than the area of the Johor Bahru conurbation or the Iskandar Malaysia region. Therefore, all statements based on the Oxford Economics data should be read with this understanding.

Figure 3-19 GDP growth: Johor Bahru and Malaysia. 2003-2012



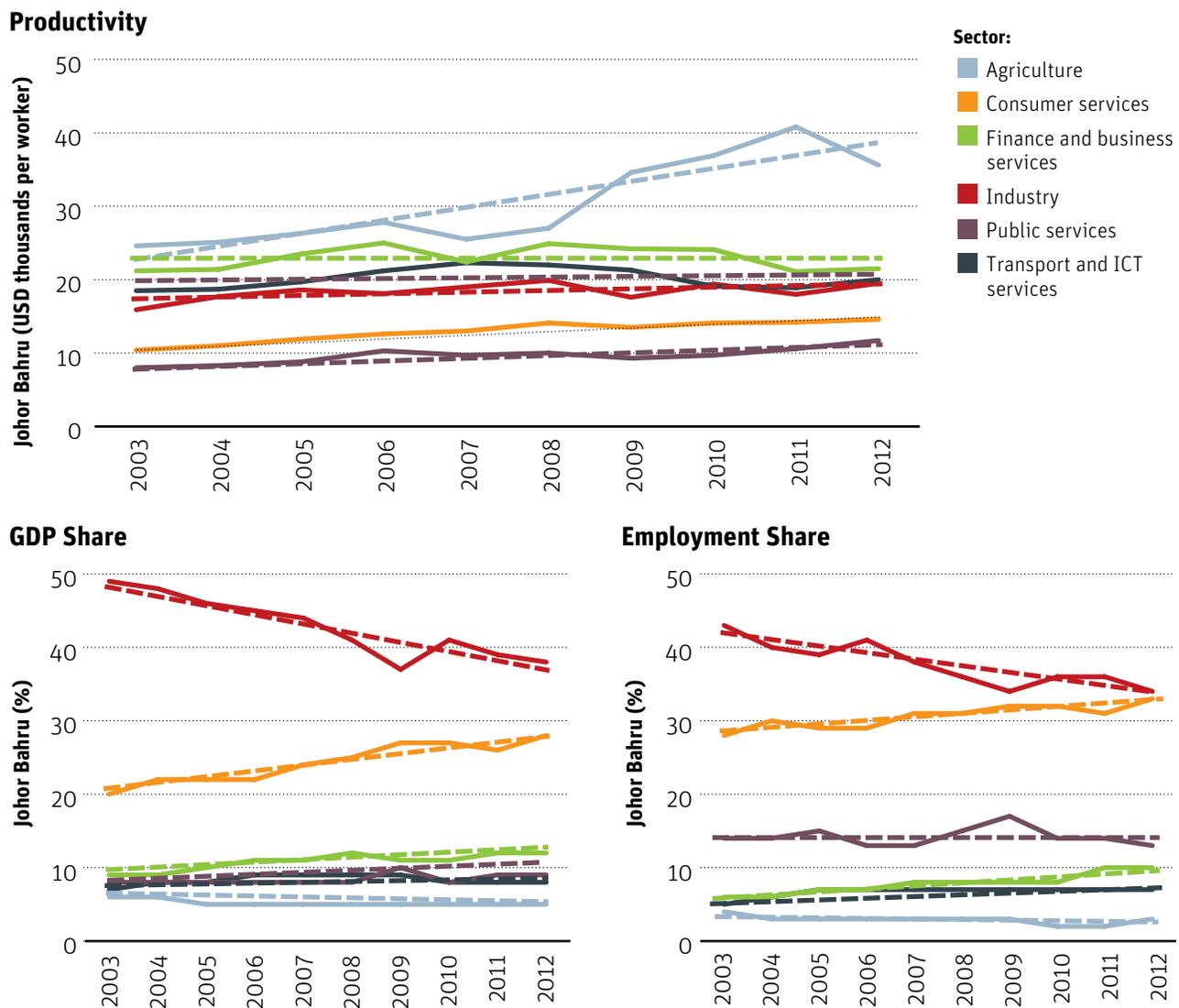
Source: Oxford Economics 2012

Per capita income in the city remains below the national average, and over the past decade the city has fallen further behind. In 2012, the average income in Johor Bahru was 20 percent lower than it was nationwide. This can be partially explained by lower overall labor productivity in Johor Bahru, which is discussed further below.³⁰

132. Figures on economic output for the Iskandar Malaysia region, for the period 2005-2013, were obtained from IRDA, based on the Johor State Economic Report 2013/2014 and data from the Malaysian Department of Statistics. The overall pattern of economic performance is consistent with that of the Oxford Economics data as illustrated in Figure 3-19: the growth of Iskandar Malaysia's economy closely tracked growth of the national economy during that period. During this period, the Iskandar Malaysia region's share of national GDP also remained quite stable, at around 6.3% in both 2005 and 2013; this contribution to GDP is significantly higher than shown in the Oxford Economics data.
133. Johor Bahru's sectoral GDP shares have relied heavily on industry and consumer services over the past decade (see Figure 3-20). In 2003, industry's share of city GDP was 49 percent, much higher than any other sector, followed by consumer services at 20 percent. By 2012, industry had dropped to about 38 percent, as the share of consumer services had grown to around 28 percent. The shares of financial and business services, as well as transport and ICT, remained static at around the 10 percent level or below.
134. In a similar fashion, employment has been dominated by industry and consumer services at 34 percent and 33 percent respectively (figures for 2012). The share of employment in industry declined by 20 percent and that of employment in consumer services grew by 22 percent from 2003 to 2013. Employment in financial and business services, and transport and ICT remained almost unchanged at 10 percent and 7 percent respectively for 2012 (see Figure 3-20).

³⁰ Based on Oxford Economics data. GDP and employment data, from which productivity is derived, are location-based, and would not include the output of Johor Bahru residents who commute daily to jobs in Singapore. Per capita income data are based on households, and household incomes of daily commuters to Singapore should include the income that they earn from jobs in Singapore.

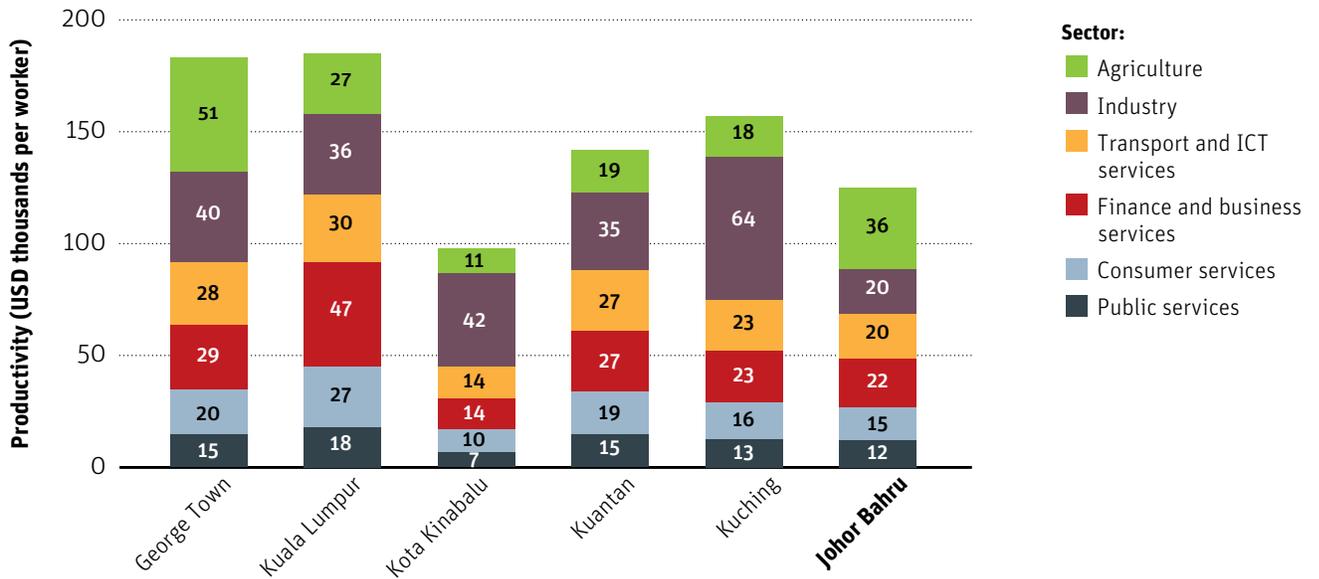
Figure 3-20 Labor productivity, GDP shares and employment shares by sector in Johor Bahru. 2003-2012



Source: Oxford Economics 2012

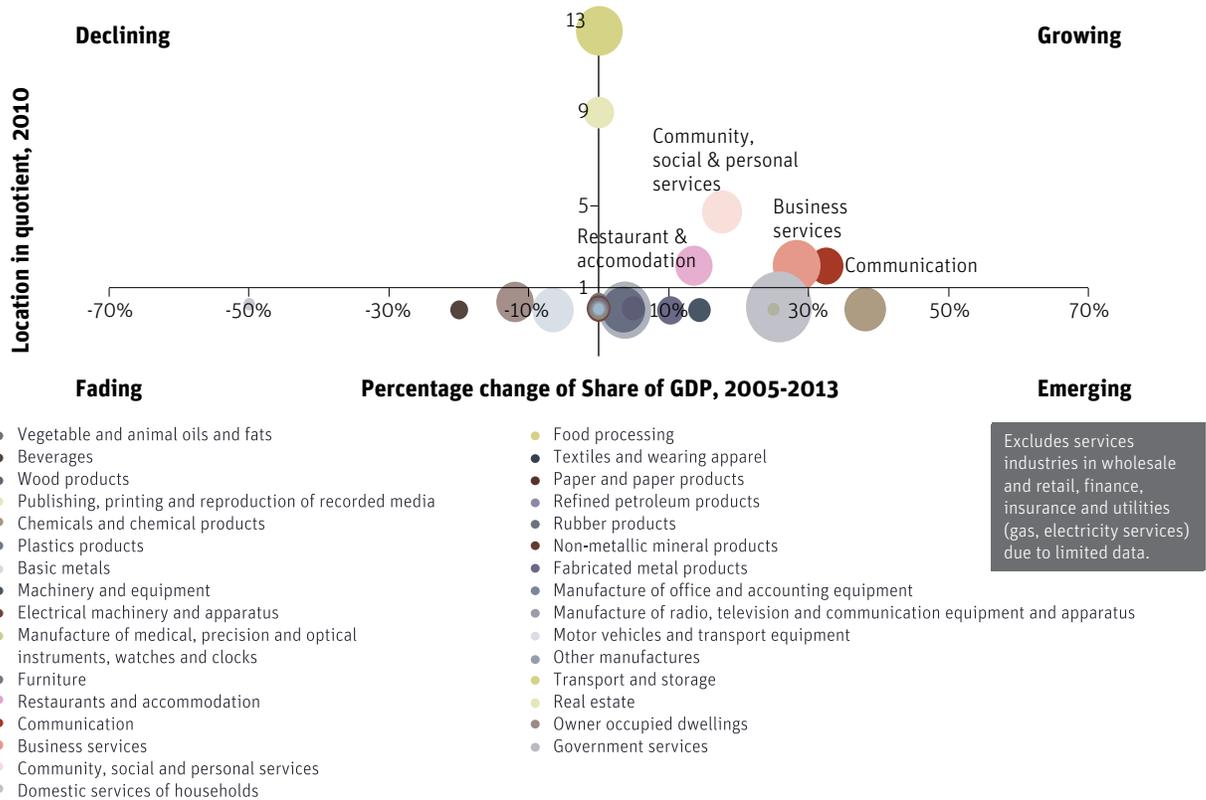
135. Johor Bahru's economic productivity is still relatively low. Gross value-added per worker is only around USD 20,000 in financial and business services. In consumer services this figure stands at less than USD 15,000 and it is around USD 10,000 in public services. In all three cases this is lower than the average of the six selected Malaysian cities (see Figure 3-21). Johor Bahru's industrial productivity ranks lowest among the six cities with a gross value-added of less than USD 20,000. Agricultural productivity is the highest among all sectors in the city (Figure 3-21), and has the city's highest growth rate (Figure 3-20).
136. Figure 3-22 shows the degree to which Johor Bahru specializes in various sectors of economic activity. This is compared to the rates of growth of these sectors nationally as measured by share of GDP. In 2012, Johor Bahru specialized in communication services, business and professional services, and hospitality. It also focused on social services like private community clinics and counseling. These sectors were among the fastest growing industries at the national level as measured by share of GDP from 2005 to 2013.

Figure 3-21 Productivity in Johor Bahru as a function of gross value added per worker



Source: Oxford Economics 2012

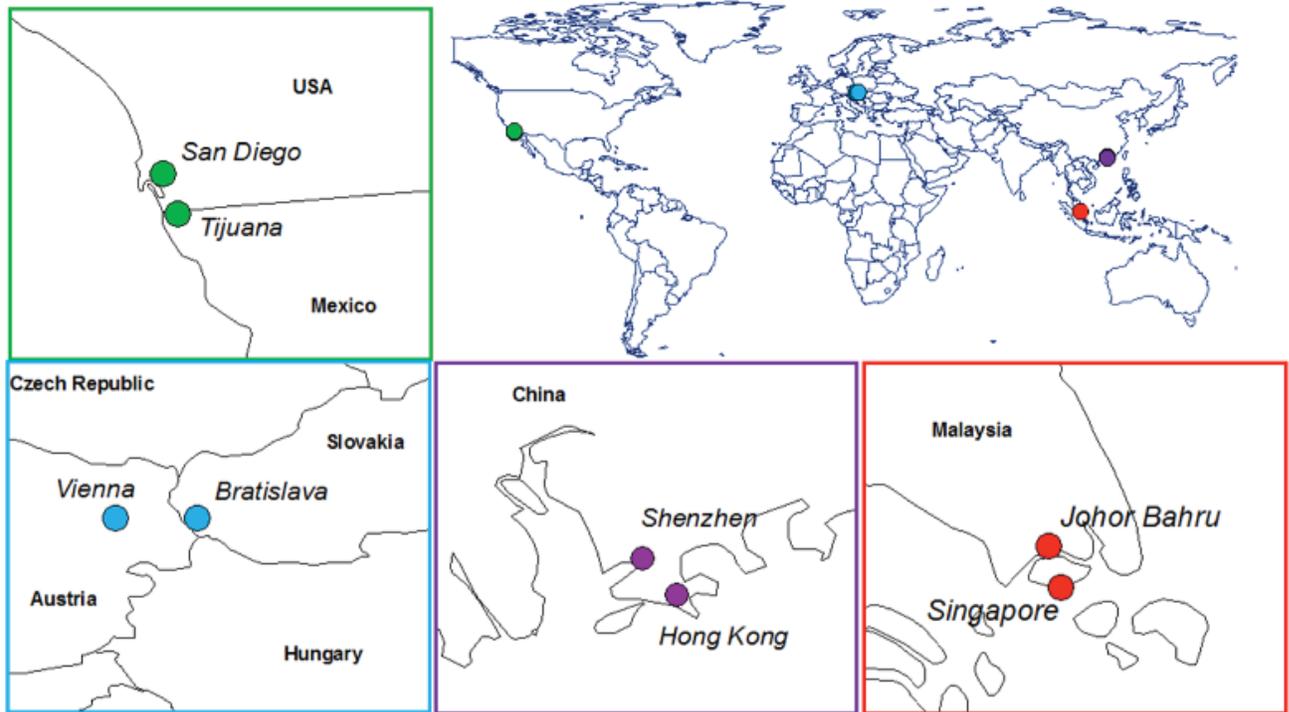
Figure 3-22 Johor Bahru: sectoral specialization and drivers of national growth³¹



³¹ X-axis: percent change of national sectoral share of GDP (2005-13); Y-axis: Location quotient calculated by local/national sectoral GDP share, showing the degree of concentration of a particular sector in a city; Size of bubble: share of national GDP by industry in 2013. Data from Department of Statistics Malaysia, DOSM. The local industrial GDP share is calculated based on the Economic Census dataset provided by DOSM. Due to variations in firm-level data across the six conurbations in the Economic Census dataset, not every conurbation has the same set of sectors.

137. Johor Bahru is in a unique position because of its proximity to Singapore. As part of the analysis, Johor Bahru was benchmarked against other cities located close to larger urban centers but separated from them by national borders. This was also done with city pairs, i.e. Johor Bahru and Singapore against other city pairs, to show the relationship between the city and its larger neighbor as well as the actual dynamics of the city. See Box 3-4 for a description of the comparators.
138. The key benchmarking findings include:
- » Johor Bahru lags Singapore on GDP per capita by a large margin. Among the comparator city pairs, only Tijuana and San Diego are further apart (Figure 3-23). In recent years GDP per capita in Johor Bahru has grown at a slower rate than in Singapore, suggesting that Johor Bahru is not taking full advantage of its proximity to Singapore. By comparison, growth in Shenzhen and Bratislava comfortably outpaced their larger neighbors over the same period.
 - » Johor Bahru suffers from low labor productivity, with the lowest level of all comparator cities. In terms of relative position, only Tijuana is further behind its rich neighbor San Diego.
 - » Johor Bahru has the lowest per capita disposable income of the comparator cities. However, its average annual GDP growth rate of 14 percent from 2008 to 2012 means it is catching up with Singapore, which averaged only 6 percent over this period.
 - » An analysis of Johor Bahru's comparators and their larger neighbors reveals how economies of co-located cities are connected (Figure 3-24):
 - Bratislava and Vienna have similar industrial structures, which suggests limited interdependence.
 - Shenzhen is predominantly industrial, while Hong Kong has a larger share of financial and business services and consumer services. Shenzhen leverages Hong Kong's services to attract industrial investors by offering lower costs.
 - Tijuana has both a larger industrial share and a larger share of consumer services compared to San Diego which specializes in finance and business. Tijuana's economy thrives on manufacturing for the North American market as well as being a recreational destination for San Diego residents.
 - Johor Bahru/Singapore is most similar to Tijuana/San Diego; Johor Bahru has a higher share of industry than Singapore as well as a higher share of consumer services.
 - Over the past decade, Johor Bahru has been deindustrializing and consumer services have been the main source of growth, signaling that the city is becoming even less like Shenzhen.
139. As the examples of comparator cities have shown, Johor Bahru could avail of several options to leverage its proximity to Singapore. Different approaches would exploit the city's comparative advantages: land availability, cheaper labor, lower-cost housing, all of which could help promote new industries. A strong understanding of the economic dynamics of both cities is essential to finding the most productive direction for Johor Bahru's economic development.
140. Deepening the economic integration and complementarity between Singapore and Johor Bahru/Iskandar Malaysia may generate economies of scale which could boost the business ecosystem and productivity for both regions. Evidence shows that increasing economies of scale and agglomeration produces dividends that neither city would be able to achieve alone. Singapore is constrained by lack of land and a higher cost of labor, while Johor Bahru/Iskandar Malaysia lacks advanced technology and managerial know-how (Bhaskaran 2009). Productivity is improved when skills, knowledge and ideas are mobile and thus transferable. This complementarity then helps to strengthen the economies of both cities (World Bank 2009).

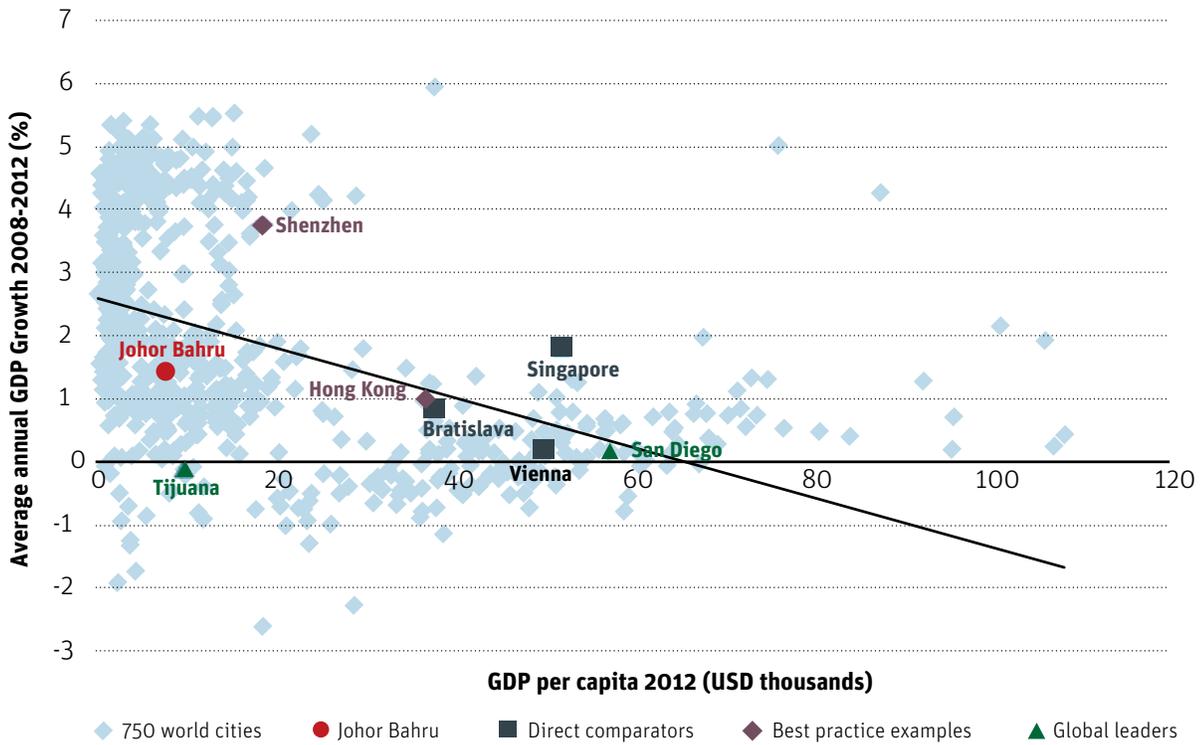
Box 3-4 Comparator selection for Johor Bahru



- Shenzhen - one of the leaders of economic transformation in China in the 1980s. Close to Hong Kong, the city was the first Special Economic Zone (SEZ) established in China. Shenzhen benefited from agglomeration economies; access to a large market; the port and advanced services that Hong Kong could provide. Today, the city is one of the main industrial centers of China.
- Bratislava - the capital city of Slovakia is a 30-minute drive from Vienna, Austria. It was one of the fastest growing urban economies in central Europe in the 2000s; the economy is driven by the automotive sector; public services; and a large tradable services sector including IT and telecoms sectors. The extent to which Bratislava benefited from proximity to Vienna is unclear; however access to the Austrian market and Vienna's airport likely had a positive impact.
- Tijuana – in northern Mexico, across the border from San Diego, California. Following the introduction of NAFTA³², Tijuana attracted a lot of manufacturing, mainly in the form of assembly plants. This was mainly because of its proximity to the Californian market and its relatively cheap labor force. Tijuana now also has clusters of high tech and telemarketing firms. Tourism, mainly from the United States, is another strong economic component of the city.

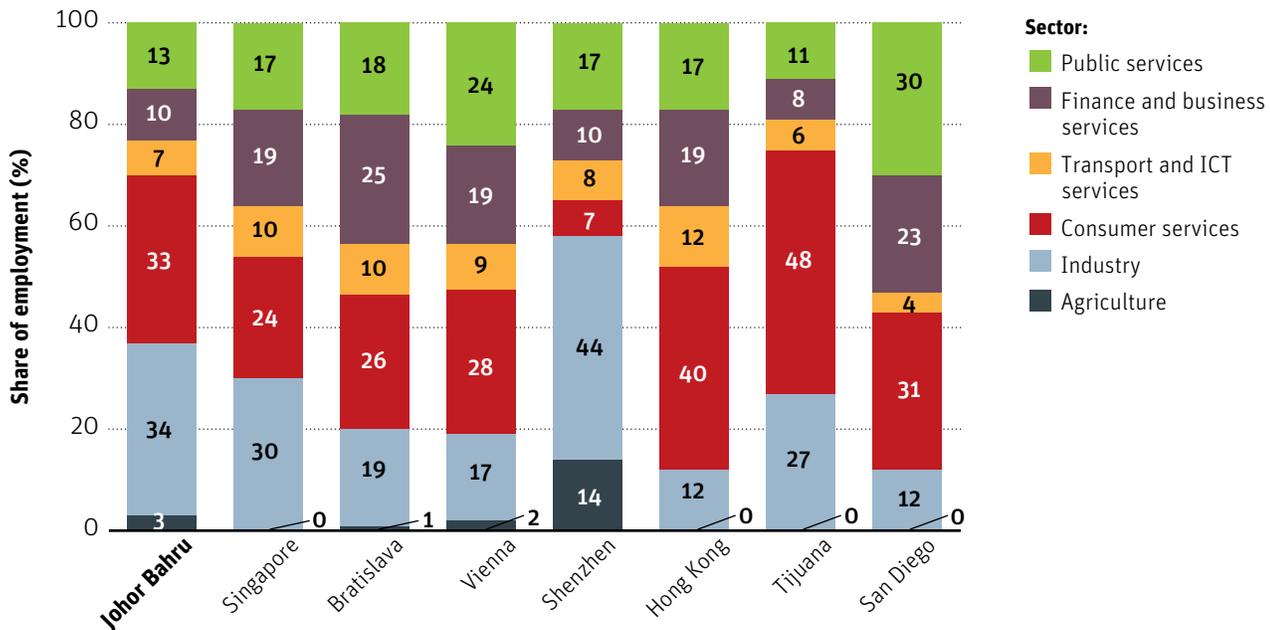
³² North American Free Trade Agreement. Established in 1994 between Mexico, USA and Canada

Figure 3-23 GDP per capita and average annual GDP growth, Johor Bahru and comparators.



Source: Oxford Economics 2012

Figure 3-24 City pairs: industrial structure

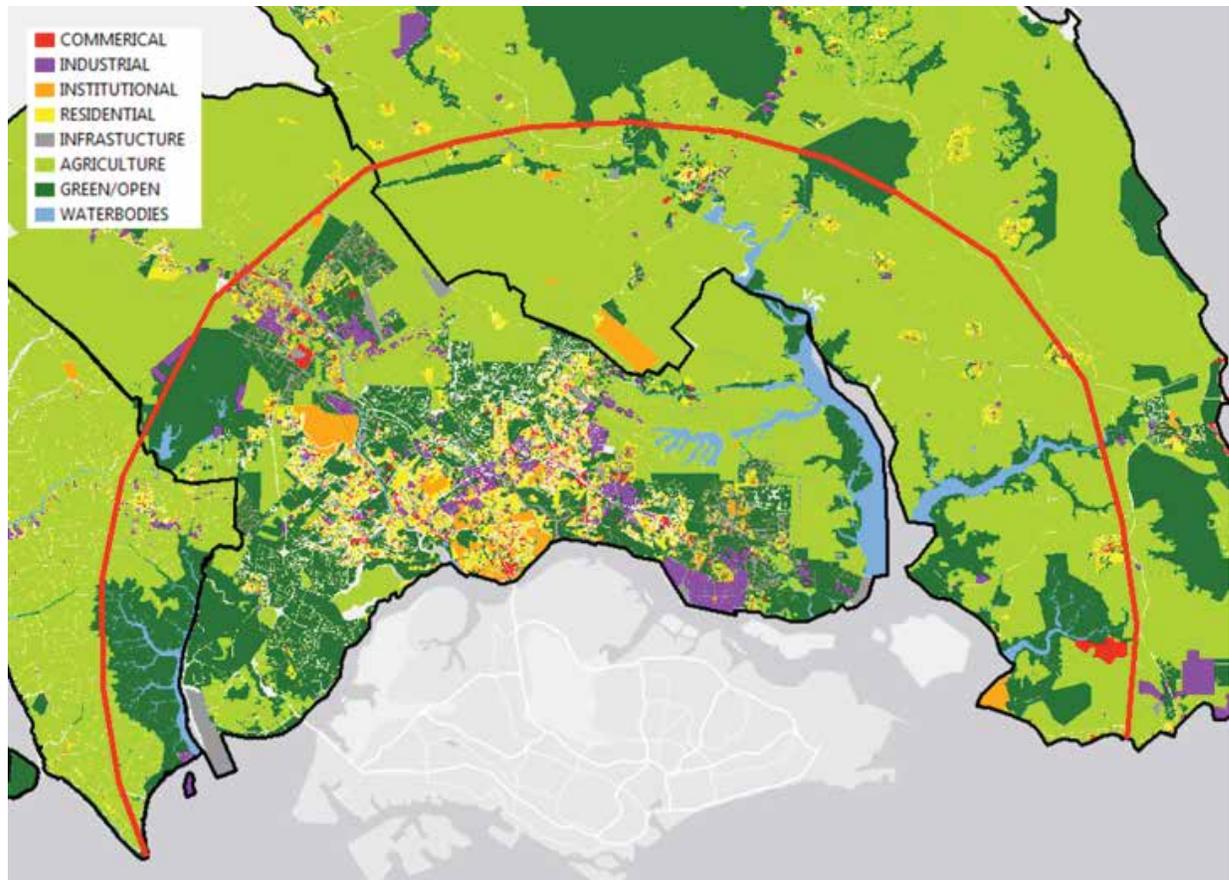


Source: Oxford Economics 2012

3.3.2 Land use and spatial structure

141. Current (“semasa”) land use data for the Johor Bahru conurbation was used to produce spatial analysis for 2010³³. Figure 3-25 shows the various land uses in this area. This figure also shows the wide area, encompassing four administrative districts, for which land use data was obtained; spatial analysis was restricted to the area within the Johor Bahru conurbation boundary (the red line).

Figure 3-25 Land use in the Johor Bahru conurbation. 2010



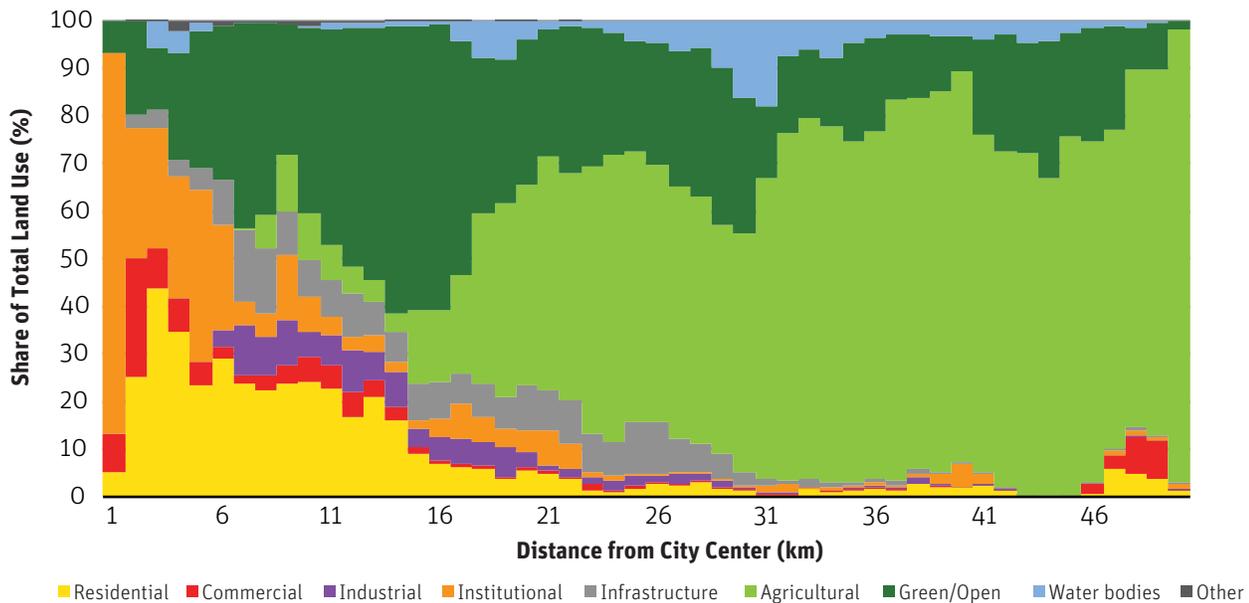
142. Figure 3-26 and Figure 3-27 present percentages and absolute areas of land use by category for each 1km buffer zone from Johor Bahru’s city center in 2010.³⁴ Key features of the land use pattern include the following:

- » Approximately 15 percent of the Johor Bahru conurbation is built-up; 52 percent is under agricultural use and 28 percent is classified as green/open space. The remainder comprises residential, commercial and industrial land.

³³ JPBD Johor provided land use data for Johor Bahru and Kulaijaya districts for 2004 and 2010; Kota Tinggi district for 2007; and Pontian district for 2008 and 2010. Therefore, the analysis was undertaken for the year 2010 only (using 2007 data for Kota Tinggi). Subsequently, IRDA also provided land use data for Iskandar Malaysia (i.e. the districts of Johor Bahru and Kulaijaya) for 2013, but the period 2010-2013 was considered too short over which to compare changes in land use.

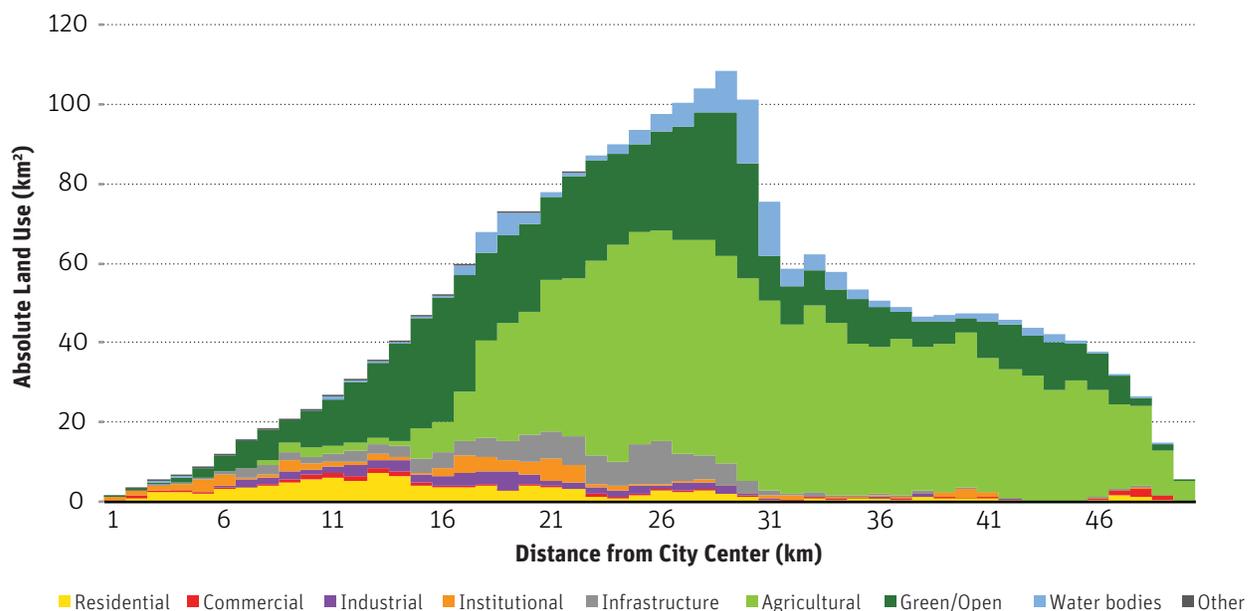
³⁴ The land use data were also analyzed for the area of Iskandar Malaysia, the key differences from the area of the Johor Bahru conurbation being the inclusion of the whole of Kulaijaya district, and the exclusion of areas in Pontian and Kota Tinggi districts. The results do not differ much from what is shown in Figure 3-26 and Figure 3-27, since almost all of the built-up areas of Johor Bahru are included regardless of which areal definition is used.

Figure 3-26 Proportional land use within each 1km buffer. Johor Bahru conurbation. 2010



- » Institutional land dominates the center of Johor Bahru, it occupies 80 percent of land within the first 1km buffer zone, which leaves eight percent for commercial use and 5 percent for residential use. It also absorbs at least 25 percent of total land between the 2km and 5km buffer zones. As in Kuala Lumpur, it is likely that land use patterns are inefficient, especially given the high cost of land near the city center.
- » Similar to Kuala Lumpur and other Malaysian cities, there is a concentration of commercial land close to the city center, accounting for around 25 percent within the 2km buffer zone, this drops to less than seven percent for every buffer beyond 5km from the center. In terms of absolute area however, Seban Cove Resort also shows up as a large area under commercial use in the far southwest of the conurbation.
- » Most residential land is within the 2km to 15km buffer zones, the highest share (about 44 percent) is at the 3km buffer. Residential areas appear to be located near industrial and commercial land, this allows more workers to live close to their jobs and helps to reduce commuting times.
- » Industrial use exists only beyond the 5km buffer zone, and is concentrated in the area of Pasir Gudang. The main industries are transportation and logistics; shipbuilding; petrochemicals and other heavy industries; and oil palm storage and distribution (Wikipedia 2015).

Figure 3-27 Absolute land use within each 1km buffer. Johor Bahru conurbation. 2010



3.3.3 Review of the development strategy

143. A review of recent strategies for the development of the Johor Bahru area reveal that while the city has aimed to leverage its proximity to Singapore, the understanding of how that can be done has evolved over time. In 2006, an economic development strategy for the South Johor Economic Region was developed as a part of the Framework for Comprehensive Development of the Iskandar region (Iskandar Regional Development Authority 2006). The specific geographic definition of South Johor is somewhat different from the definition of the Johor Bahru conurbation, but both share the same key economic centers and can be compared effectively in this section.

144. The 2006 strategy emphasized the proximity to Singapore as a key comparative advantage of the Johor Bahru/ Iskandar region. However, there are inconsistencies in how the strategy interprets this advantage and the ways it can be exploited. The strategy lists resource endowments (particularly land) and the lower cost of living as comparative advantages and this is seen as conducive to further development of chemical and food production industries, as well as the logistics industry. At the industry level, the strategy identifies the types of linkages between the economies of Johor Bahru and Singapore.

- i. *Vertical linkages* – city-specialization on different activities within the same supply chain. Linkages are identified in the electronics sector where greater skill- and knowledge-intensive activities take place in Singapore, while less-skilled work is outsourced to Johor Bahru.
- ii. *Vertical consumption linkages* – activities that rely on the consumer power of the wealthier neighbor. The retail and entertainment sectors of Johor Bahru’s economy rely strongly on consumers from Singapore. Similar linkages in food and agro-processing industries to supply Singapore’s supermarkets and restaurants could be developed further.
- iii. *Horizontal linkages* – parallel development within complementary industries without a clear hierarchy of locations in terms of value added or place in the supply chain. It is based on mutually enabling conditions, agglomeration and scale economies. The main industries in this category are petrochemicals, oleochemicals, and parts of the food and agro-processing industries. These mostly rely on better access to natural resources, rather than on agglomeration spillovers from Singapore.

145. Johor Bahru's main advantages are lower labor costs, a lower cost of living, and land availability; despite this and the fact that most dynamic industries rely on vertical linkages to Singapore, the 2006 strategy highlights horizontal linkages to support development of high tech industries. It suggests that development priorities for the local economy should go beyond the image of being a lower cost suburb of Singapore and identifies the following priority sectors for Johor Bahru: electronics, petrochemicals, food and agro-processing, logistics, tourism, health services, education services, financial services, and ICT.
146. The analysis of Johor Bahru's economic performance in section 3.3.1 suggests that the actual development of the economy since 2006 has not followed the trajectory identified in the strategy. While the strategy expected Johor Bahru's economy to grow by one-third between 2005 and 2010, it only expanded by 8 percent during that period (Oxford Economics 2012). High tech industries and high value added services have not yet become the expected driving forces of growth. Consumer services grew the most, suggesting that vertical and vertical consumption linkages to Singapore currently present greater potential for Johor Bahru than horizontal linkages. This time period also includes the global financial crisis of 2008-9, and it is difficult to identify those factors that contributed most to Johor Bahru's relatively weak economic performance.
147. In 2010, the Tenth Malaysia Plan identified the Iskandar Malaysia region as one of the key growth engines of the country. This plan did not change the strategic economic priorities for the area from the 2006 strategy. The industries identified as the core growth sectors were education, healthcare, finance, creative industries and tourism, which indicated a continued aspiration for exploiting parallel and horizontal, rather than vertical, linkages with Singapore. Manufacturing, property development and utilities were among the sectors that attracted the most investor interest, although these were not included as key priority sectors.
148. The Johor Bahru Vision 2020 plan, developed in 2014, maintains the sectoral preferences identified in the Tenth Malaysia Plan. The only noticeable change is a stronger focus on logistics, based on the ability to offer port and airport capacity to complement Singapore's hub status and create a broader business ecosystem building on this complementarity. The declared specialization of flagship areas identified in the spatial development plan include the following.
- i. The City Center for financial and business services.
 - ii. Nusajaya for consumer services, education and healthcare.
 - iii. West Gate and East Gate for logistics and related industries
 - iv. Airport City (Cyber City) focused on high tech industries and logistics.

A review of recent key development projects underway in the five flagship areas confirms their overall specializations according to the plan. There are also significant high end residential and mixed use developments in Johor Bahru that predominantly target wealthier Singaporeans.

149. Overall, Johor Bahru has pursued a relatively diversified economic development strategy in the past ten years. The city's economic results suggest that sectors with lower business costs have experienced relatively fast growth. Consumer services, entertainment and logistics are among the most dynamic sectors. Significant growth was also registered in business services and communications sectors that rely less on demand from Singapore or land endowments.
150. One possible explanation for Johor Bahru's relatively slow development over the last decade is the premature desire to shift to high-end and value-added services and innovative industries, without fully exploiting the opportunities

provided by lower cost land and labor compared to Singapore. In other words, this strategy focused on horizontal, rather than vertical linkages to Singapore. By comparison, the experiences of Shenzhen and Tijuana show how these cities progressed by leveraging the lower costs of doing business as their main comparative advantage. Cheaper labor and land were key drivers, and then these cities gradually upgraded to higher value-added activities, which are still far from dominant in either city.

151. Based on the experience of comparator cities, and the initiatives implemented so far in Johor Bahru, there appear to be at least three different avenues that Johor Bahru can pursue to better leverage its comparative advantages for economic outcomes, some of which are already being implemented.
- a. **Consumer services and entertainment.** Targeting the wealthier Singapore population. Shopping malls and entertainment parks like Legoland and the Angry Birds theme park are good examples; this category also includes hotels, restaurants and other tourist amenities.
 - b. **Finance and business services.** Back-office and/or second office activities for Singapore-based firms. This should focus on relatively high value-added activities, that need to be in close proximity to the main offices in Singapore, but do not need to be in daily communication. This may include software and other product development, as well as back office functions that are relatively difficult to outsource to offshore locations. Good examples from the UK include Reading and Milton Keynes – two smaller cities in proximity to London, that have benefited from the relocation of services companies and corporate offices attracted by lower rents and more space. They also provide good access to central London.
 - c. **Manufacturing.** Based on vertical linkages to Singapore and logistics. This is mostly based on the potential associated with the Tanjung Pelepas port and anticipates further expansion of the port. Singapore's economy has a strong industrial component: 28 percent of GDP; it also has a concentration of petrochemical and high-end manufacturing, including: semi-conductors and consumer electronics; machinery; transport equipment; and shipyards. Given this proximity, Johor Bahru can take advantage of vertical linkages with Singapore, to eventually develop its own high value-added industries, based on its comparative advantages in land and labor. See the example of Shenzhen, China (Box 3-5).
152. The modest economic performance of Johor Bahru in recent years suggests that there is a need to review the economic development strategy and priorities for the city. It may be that the city needs to focus on supporting growth in sectors that rely more on vertical linkages with Singapore. Further analysis to identify the preferred development path could revisit Johor Bahru's comparative advantages relative to Singapore. Any analysis should try to identify successful and failed initiatives as well as the most dynamically growing industries of the last five years; it should consider which sectors and activities could achieve the most sustainable returns in terms of competitiveness and economic growth.

Box 3-5 Shenzhen: Building Mutual Benefits on Both Sides of the River

Shenzhen, the small hamlet that was transformed into a world-class producing city by adopting market-oriented reforms, took advantage of its proximity to Hong Kong. Research shows that Shenzhen's economic takeoff was due in part to its low-cost, high-skilled labor, domestic market, and government policies, but that the key factor lies in its successful utilization of its geographic and cultural proximity to Hong Kong (Wu 1997). Shenzhen attracted capital investment by becoming the secondary factories hub for Hong Kong through channels including foreign direct investment (FDI). It also benefited from Hong Kong's technology and managerial know-how (Wu 1997).

Economic complementarity: Hong Kong has had a comparative advantage in capital; this is also the case for its production, management, and marketing skills. Prior to the development of Shenzhen, it specialized in several manufacturing industries, including textiles, electronics, and machinery, with large trading partners across the globe. Shenzhen could offer Hong Kong abundant land and low-cost labor for expansion and this complementary development and division of labor led to dynamic economies of scale that were mutually beneficial (Wu 1997).

Economic transformations in inter-territory development: As Shenzhen provided Hong Kong's firms with cheap labor, thereby lowering production costs, Hong Kong was able to maintain its competitiveness in exports by relocating manufacturing activity to Shenzhen. In this way, both Hong Kong and Shenzhen experienced structural transformations of their economies (Wu, 1997).

Liberal economic policy: Shenzhen's leaders started to give businesses strong incentives to innovate, fostering private property rights and "matching price with quality" (Nee, Kang, and Oppen 2007). Shenzhen quickly obtained world-class managerial and technical skills from its neighbor, adapted to international standards, and developed its own competitive advantages in the production of electronics and other appliances.

Today, businesses in computers, communications equipment, electronics, and machinery are five times more concentrated in Shenzhen than in China as a whole. Shenzhen is home to some of China's most successful firms, such as BYD and Huawei. Rapid economic change through urbanization has more than tripled incomes, from USD 4,000 in 2000 to USD 14,000 in 2010 (2005 prices), surpassing Thailand and Indonesia, and making Shenzhen comparable to the Republic of Korea of the mid-1990s.

3.4 George Town Conurbation

3.4.1 Economic performance and specialization³⁵

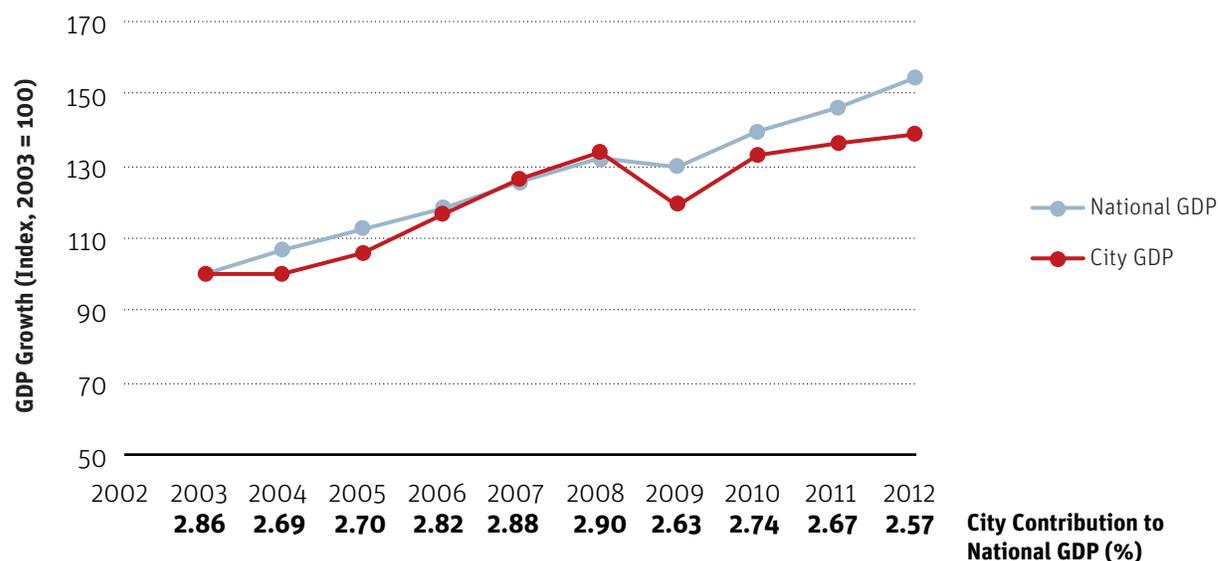
153. Despite being recognized as one of the leading hubs for electronics and high tech manufacturing, George Town's economy has struggled in recent years, and has been weaker than the national average³⁶. As shown in Figure 3-28, the city was kept pace with the national economy until the global financial crisis of 2008-9, when it suffered more than a 10 percent decline, with a weak recovery afterwards. The electronics industry has faced challenges in recent years, and other sectors of the local economy were unable to take its place as key drivers of growth.

154. Industrial activity has been the mainstay of the George Town local economy, although its share of output has declined from 55 percent in 2003 to 50 percent in 2012 (see Figure 3-29). The share of consumer services has remained quite stable, 20 percent in 2003 and almost 22 percent in 2012. Similar static patterns can be found in financial and business services, transport and ICT, and public services, each of which has maintained a share of around 10 percent. Industry also accounts for the largest share of employment in the economy at 35 percent in 2012, with consumer services slowly catching up, achieving 30 percent in 2012. The other sectors, including

³⁵ The Oxford Economics database used for economic performance in this report uses a narrow spatial definition of George Town. According to this definition, the population in 2012 was 533,000 which is roughly one-third of the population of the full George Town conurbation, which includes Penang Island, the mainland part of the state of Penang, and parts of the neighboring states of Kedah and Perak. Therefore, all statements based on the Oxford Economics data, and the conclusions based on these, can only be applied to the core city (roughly, the urbanized parts of Penang Island).

³⁶ This statement, and the ensuing discussion in this section, refers to Penang Island.

Figure 3-28 GDP growth: George Town and Malaysia. 2003-2012



Source: Oxford Economics 2012

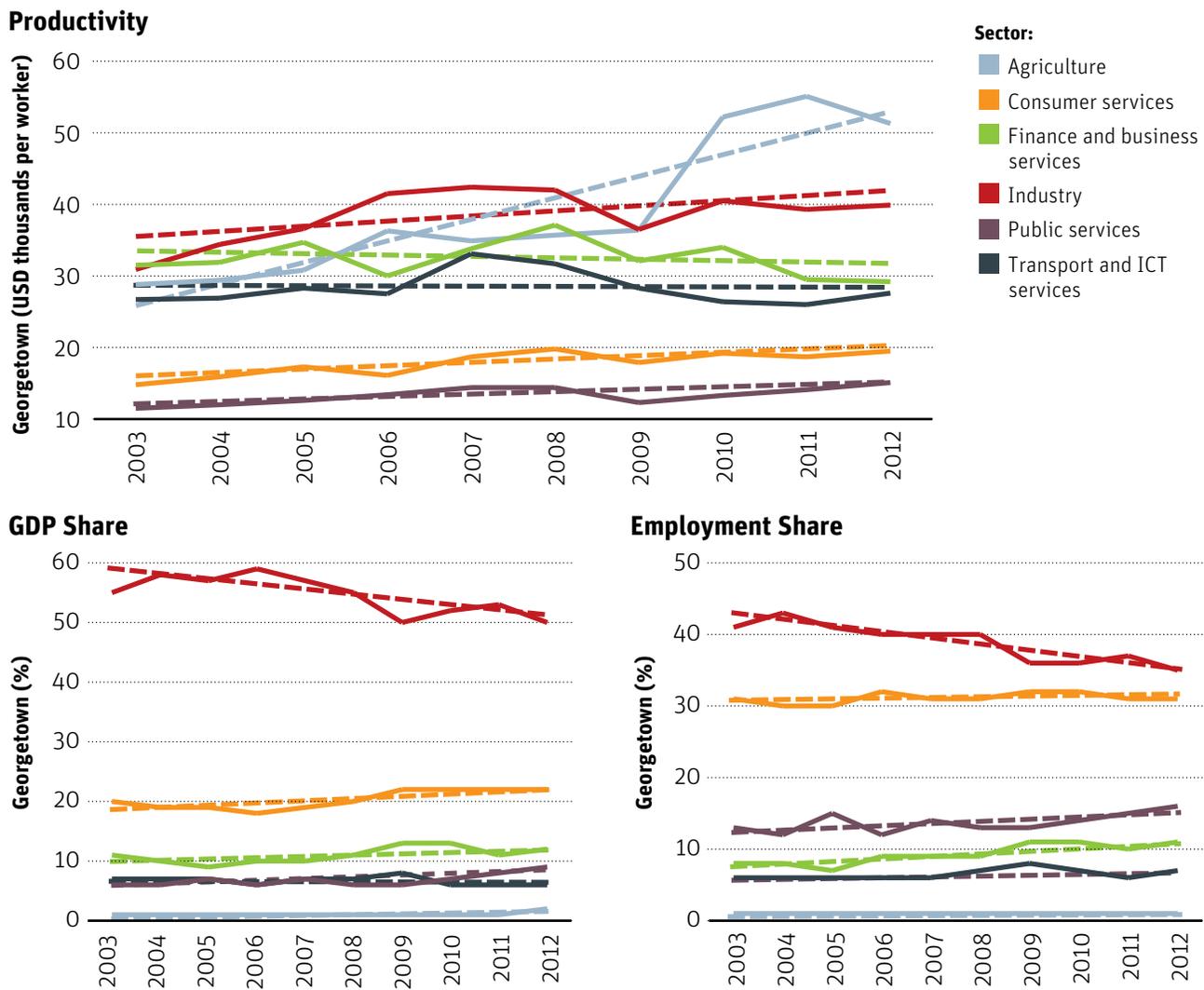
financial and business services, transport and ICT, and public services have retained similar proportions of the employment share over the past decade. Industry and agriculture were the only sectors that managed to improve their labor productivity during the period. Labor productivity in other sectors was stagnant, and in financial and business services it dropped substantially after the financial crisis.

155. George Town's industrial productivity is somewhat higher than Kuala Lumpur's (see Figure 3-21). This can be attributed to its specialization in higher value added manufacturing, predominantly in electronics. It can also be attributed to the spatial concentration of industry, which leads to localization economies: a larger number of firms in the same industry and in the same place. Spatial proximity allows firms to stay abreast of market information, which is useful for negotiating with customers and suppliers. Clustered firms can also share a larger and more dependable pool of specialized labor. High-tech electronics assembly plants (such as Dell, Intel, Motorola, Agilent, Renesas, Osram, Plexus, Bosch and Seagate) located in the Bayan Lepas Free Industrial Zone make up the core of the economy. Bayan Lepas has been recognized as one of the most successful export processing zones in the world, and its electrical and electronics (E&E) cluster was the most vibrant of the 10 clusters examined by UNIDO's 2009 Industrial Development Report (UNIDO 2012).

156. The benefits of localization economies are evident in three manufacturing sectors in George Town. As discussed in a 2010 World Bank report (Kharas *et al* 2010), E&E manufacturing; instruments manufacturing (including medical instruments) and pharmaceuticals (biotech) have estimated scale economies of 1.2, 1.12 and 1.31 respectively. The report notes that if these industries could be expanded, additional resources would be available for profits and wages, and to invest in innovation. These sectors could support sustained growth, even in middle-income areas where wages are relatively higher. At the same time, the product-space analysis for Penang, documented in the same World Bank report (Kharas *et al* 2010), shows ample opportunity to raise technological sophistication, especially in electronics, engineering, and other high-technology industries.³⁷

³⁷ The concept of product space mapping is rooted in the hypothesis that a country's capability to produce one good is somehow tied with the installed capability in the production of other similar goods. The concept of proximity is used to capture this intuitive idea that the ability of a country to produce one product depends on its ability to produce others (Hausmann and Klinger 2007).

Figure 3-29 Labor productivity, GDP shares and employment shares by sector in George Town. 2003-2012



Source: Oxford Economics 2012

157. Benchmarking George Town against global comparators can be a useful tool for identifying weaknesses in the economy. From an economic standpoint, George Town is defined by its dynamic and highly productive electronics manufacturing sector. It has therefore been benchmarked against selected comparators in middle-income countries (with the exception of India) that have been successful in developing the electronics industry as the key driver of their local economy. See Box 3-6 for a description of the comparator cities.

158. The main benchmark findings include:

- » In terms of GDP per capita, George Town is close to levels of most of its comparators, with the exception of Bangalore which is currently at a lesser stage of development. However it is clear that George Town's economy has been significantly weaker than its comparators over the last four years. Figure 3-30 shows that George Town was hit harder than its comparators by the 2008-9 global recession, and despite good performance in 2010, growth in 2011 and 2012 was lower than in all comparators except Tainan.

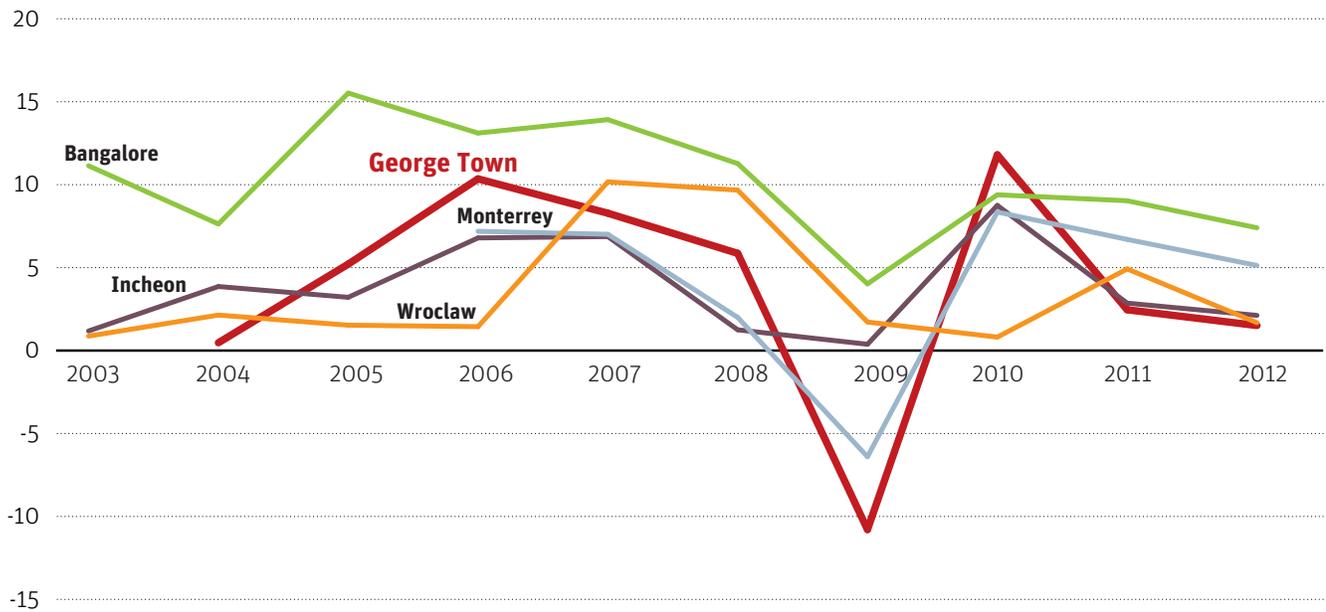
Box 3-6 Comparator selection for George Town

- a. Bangalore, India – a city widely recognized as the “Silicon Valley of India”. Bangalore has managed to create conditions (education system, infrastructure and regulatory environment) that fostered its transition towards the knowledge economy; development of the biggest ICT center in India; and helped it become one of the fastest growing cities in South Asia.
- b. Incheon, South Korea – historically a manufacturing city 40km from Seoul. Incheon turned itself around by developing a new area to step up in the manufacturing supply chain and support growth in the knowledge economy. It upgraded itself to the status of global city by investing and attracting knowledge institutions.
- c. Tainan, Taiwan, China – one of Taiwan’s secondary cities, Tainan became famous after an industrial zone, that was set up to promote high tech, high value added electronics manufacturing, became the first site in the world to produce liquid crystal displays that revolutionized the television and computer industries.
- d. Monterrey, Mexico – the third largest Mexican city, recognized as one of the best places to do business in Latin America. Traditionally Monterrey was an important manufacturing hub, producing steel, cement, glass and auto parts. Since the mid-1990s the city has been able to convert the post-NAFTA boom in traditional industries into high value added IT activities, largely through support activities that utilized local skill endowments and education institutions.
- e. Wroclaw, Poland – historically an industrial and cultural center not far from the German border. Wroclaw has been transitioning to a high-tech economy since the early 2000s. Today, the city is home to large offices of Google, IBM and Oracle. The shift was largely driven by availability of skilled labor and an attractive urban environment, and was supported by the establishment of a high tech business park.



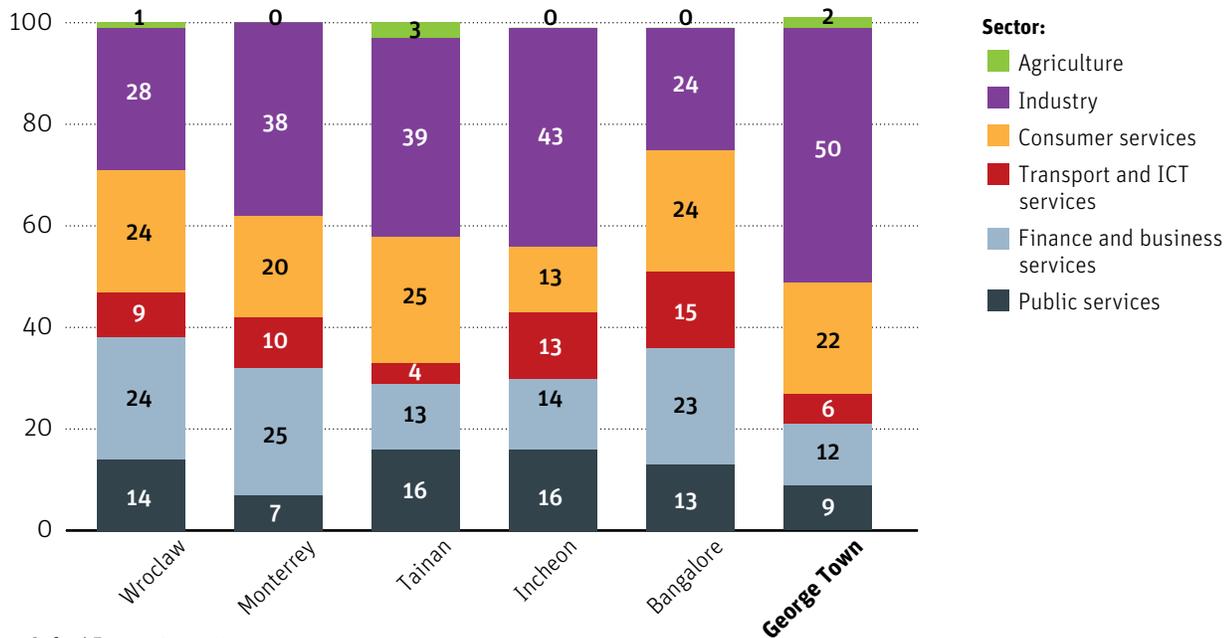
- » Industry provides a much larger contribution to the total output of the economy of George Town than in any of the comparator cities. In George Town, the broad industry sector accounts for 50 percent of gross value added, while in the closest comparators, Incheon and Tainan, it makes up 43 percent and 39 percent respectively. (See Figure 3-31.)
- » At the same time, industry’s contribution to employment is much lower than in some of the comparator cities. The difference in industry’s contributions to employment and to GVA is striking, particularly if Bangalore and Tainan are considered. (See Figure 3-32.)
 - Bangalore’s share of employment in industry is only 1.5 percentage points lower than in George Town, but its share of GVA in industry is 25 percentage points lower and this contributes only one-quarter of total output in Bangalore.
 - Tainan’s share of employment in industry is 7 percentage points higher than in George Town, but its contribution to GVA is 10 percentage points lower than in George Town.

Figure 3-30 Annual GDP growth rates in George Town and comparator cities



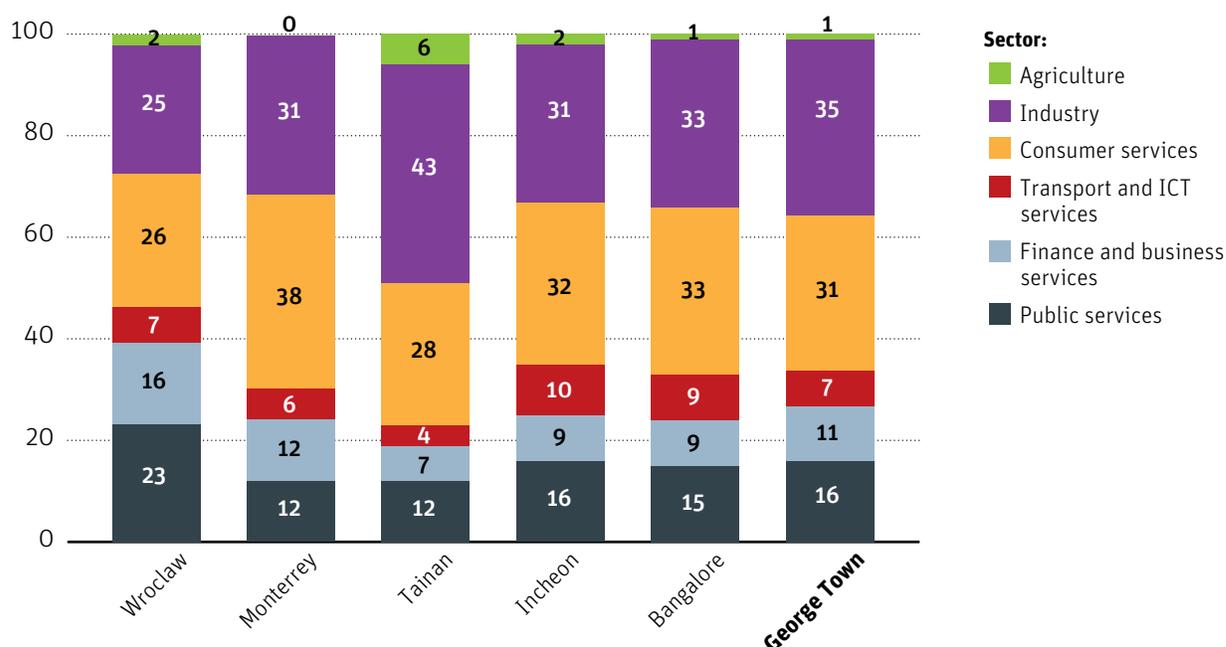
Source: Oxford Economics 2012

Figure 3-31 GVA by major industrial sector for George Town and comparator cities



Source: Oxford Economics 2012

Figure 3-32 Employment by major industrial sector for George Town and comparator cities



Source: Oxford Economics 2012

159. This points to two possible conclusions.

- » George Town’s manufacturing industry is highly productive. This may be explained by the presence of the large electronics cluster, which includes production facilities of world leading electronics corporations.
- » Overall labor productivity in George Town is slightly lower than in most of the comparator cities, suggesting that non-manufacturing sectors in George Town are weak. It is also telling that after manufacturing suffered a decline in the aftermath of the 2008-9 financial crisis, it was the public sector, and not other parts of the private sector that saw its share expand as George Town recovered.

160. The overall performance of George Town’s economy in recent years was largely defined by the consequences of the 2008-9 global financial crisis. The crisis hit the city’s manufacturing base at which point its growth trend fell behind that of the national economy. The structure and recent performance of the local economy suggests that manufacturing continues to be the most productive part of the economy, while other sectors are relatively weak in terms of their recent growth and less productive than in comparator cities.

3.4.2 Land use and spatial structure³⁸

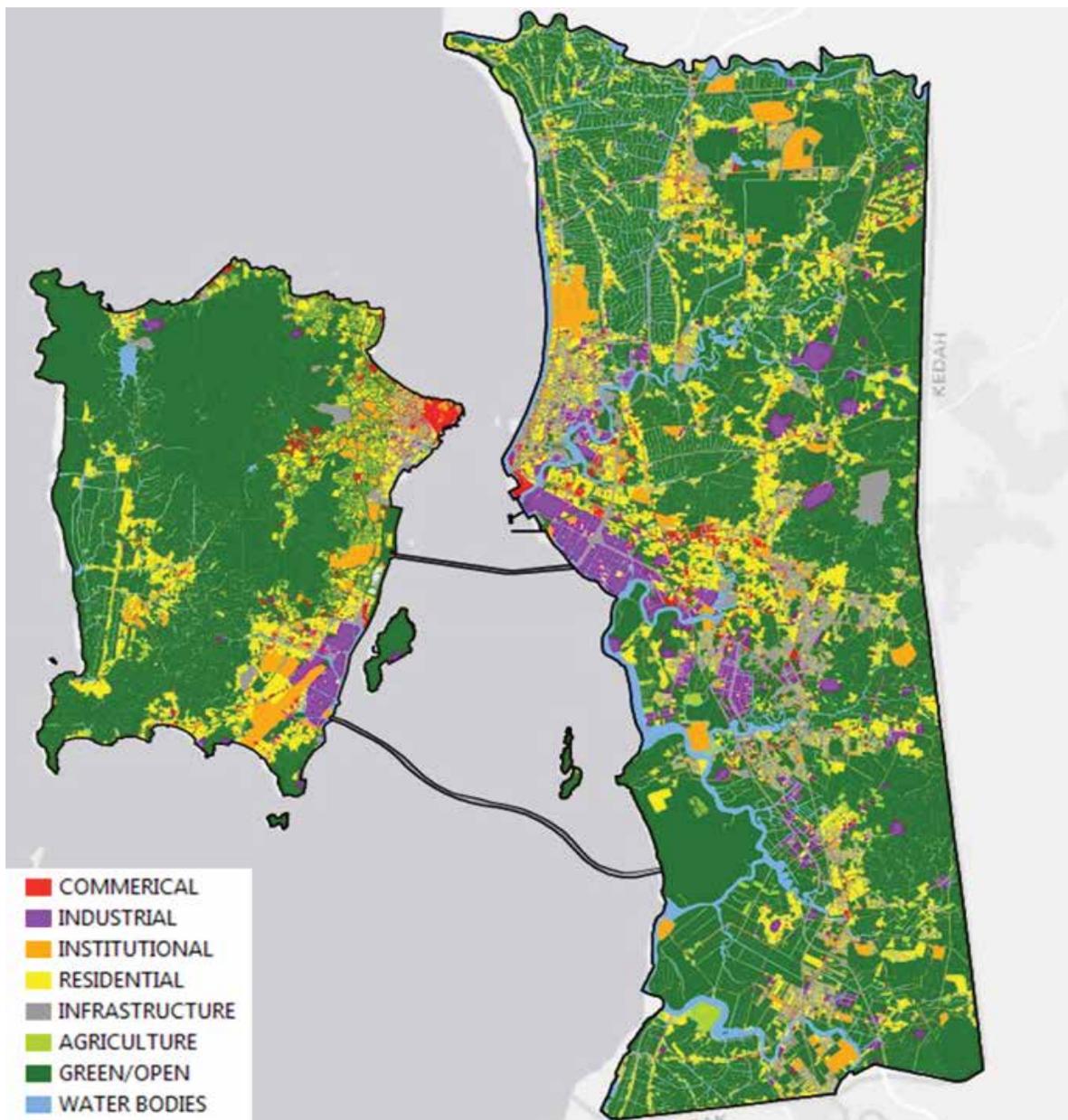
161. Current (“semasa”) land use data was used to carry out spatial analysis for the state of Penang for the years 2000 and 2010. The area analyzed constitutes the bulk of the George Town conurbation. The approach of using 1km radial buffer zones from the city center of George Town had to be slightly modified to account for the physical

³⁸ Land use data for was obtained from JPBD Penang, for the state of Penang only, for the years 2000 and 2010. All references to George Town in this section on land use, therefore, refer to the entire area of the state of Penang which lies within the wider George Town conurbation.

geography of the conurbation; the city center is on Penang Island, but the state of Penang consists of land on both the island and the mainland.³⁹

162. Figure 3-33 shows how the land in the state of Penang was allocated across various uses in 2010. It shows the proportion of George Town's built-up area that is allocated to residential use, this is larger than in Greater Kuala Lumpur or the Johor Bahru conurbation (43 percent compared to 31 percent and 30 percent respectively). Of the

Figure 3-33 Land use: Penang state. 2010



³⁹ Since areas on the mainland have long been connected to the island via the first Penang Bridge, the 1km buffer zones for all areas on the mainland were restarted at the point where the bridge meets the mainland, around 16km away from the center of George Town. Accordingly, the distances of all points on the mainland from the center of George Town were calculated from this point on the mainland, with the addition of 16km.

four Malaysian cities for which spatial analysis was carried out, George Town had the least amount of land allocated to institutional use (around 14 percent).

163. Figure 3-34 and Figure 3-35 present the percentages and absolute areas of land use by category for each 1km buffer zone from George Town’s city center in 2010. These charts identify key features of the land use pattern.

- » Only around 30 percent of the overall area of the state of Penang is built-up; 64 percent is under agricultural use or is used as green/open space.
- » Like Greater Kuala Lumpur and other cities, there is a concentration of commercial land use at the center, accounting for 37 percent within the first 1km buffer zone. This figure falls to less than 7 percent of every buffer beyond 4 km of the city center. In terms of absolute area however, there is a large amount of commercial land 20km from the center of George Town, at the center of Butterworth.
- » Beyond the commercial core is a zone dominated by residential and institutional land. The hilly terrain at the center of Penang Island is reflected clearly by a zone comprised almost entirely of green/open space, between 8km and 12 km of the city center.
- » There is a small amount of industrial land within central George Town, but the largest swaths of industrial land are to areas south of both George Town and Butterworth; both areas are around 16-20 km from central George Town (see explanation of distance calculations in the footnote #39).

Figure 3-34 Land use by proportion within each 1km buffer. Penang state. 2010

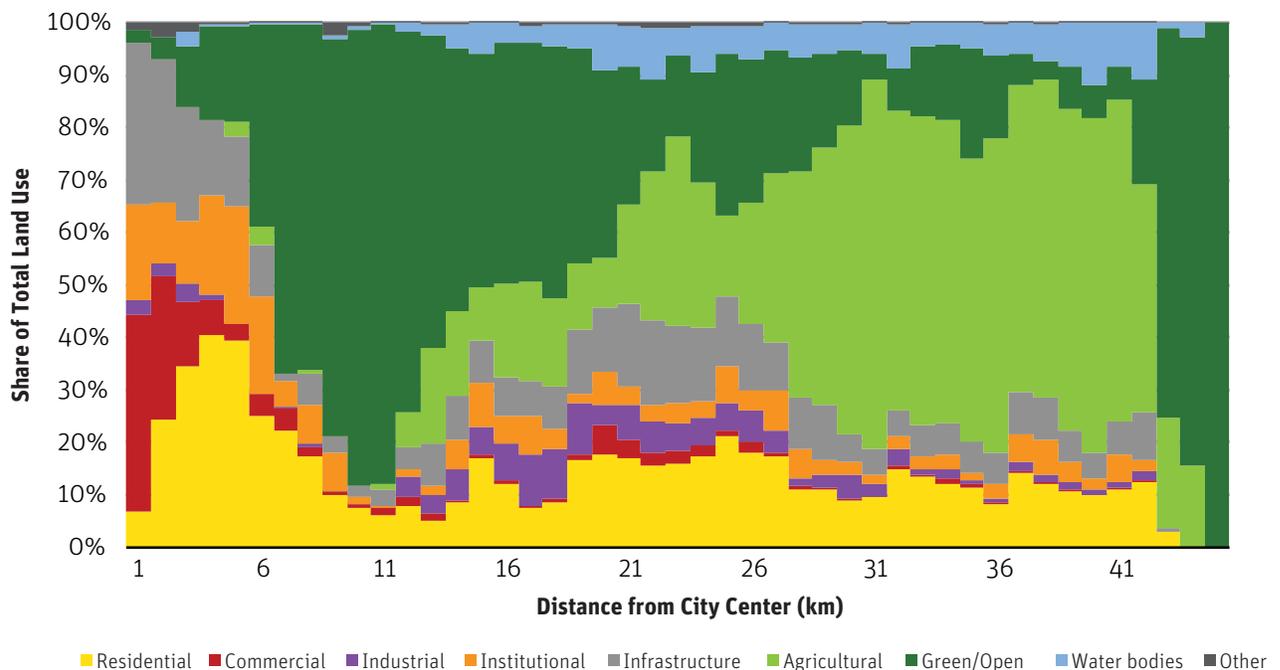
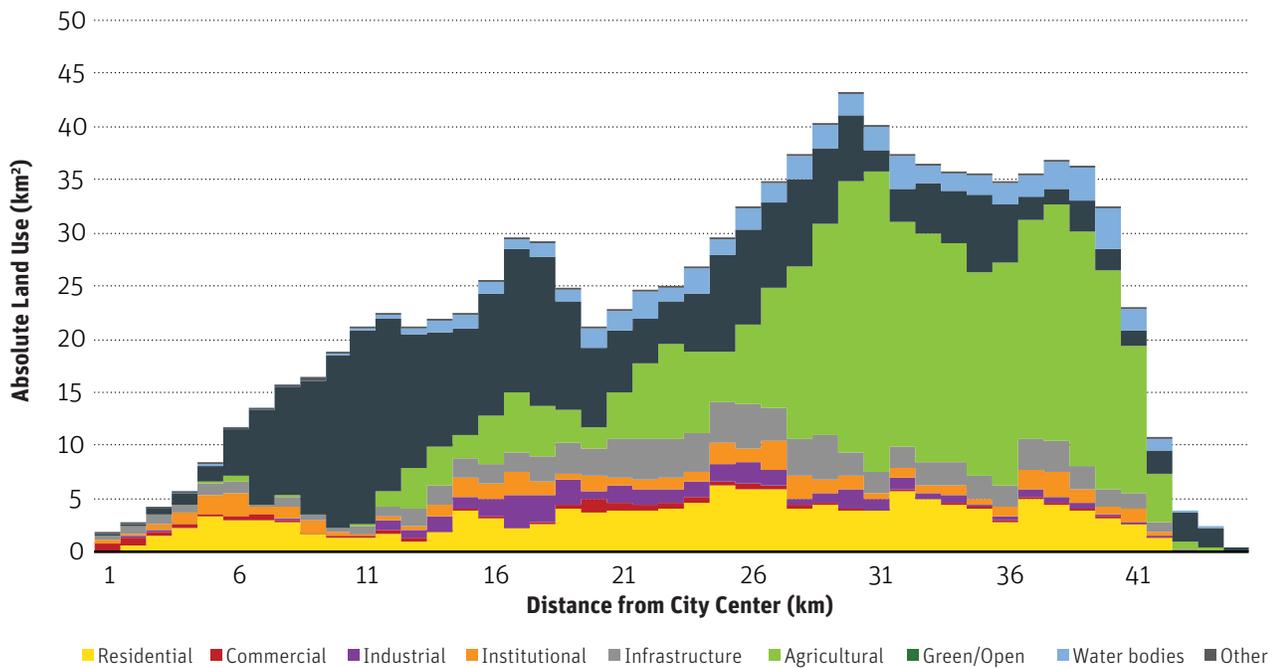


Figure 3-35 Land use by absolute area within each 1km buffer. Penang state. 2010



164. Figure 3-36 presents overall changes in land use between 2000 and 2010. Figure 3-37 charts these changes by distance from the city center. Some of these changes appear to be the result of reclassification of the same land use between 2000 and 2010 rather than an actual change on the ground.

- » The most significant change has been the large loss of agricultural land: around 60 km². However, reports of such a large loss may be due to inconsistent land use classification and reclassification between 2000 and 2010, as there appears to have been an increase in green/open space of more than 26 km² over the same period. Figure 3-37 shows that the areas that lost agricultural land also gained green/open land.
- » Nearly 18 km² of new residential areas were added across the state.
- » A small amount of new commercial and industrial land was added during this period (1.7 km² each) and comprised areas mostly scattered across the state. One large area north of Air Itam was newly classified as commercial, as was the Penang Sentral site in Butterworth. The new Batu Kawan industrial area is not reflected in these numbers which are from the year 2010.
- » Less land was classified as infrastructure between 6 and 12 km from the center, but a large amount of land was classified as new infrastructure beyond that. This resulted in an overall increase of nearly 14 km². The spike in institutional land at around 17 km from the center appears to be the result of a reclassification of the airport from infrastructure to institutional, rather than an actual change of land use.

165. Figure 3-38, Figure 3-39, and Figure 3-40 map out the changes in industrial, commercial and residential land use from 2000 to 2010, respectively. They display where the losses and additions to land use took place over the decade. Most new industrial land was achieved through expansion of existing industrial clusters as seen in the areas of Bayan Lepas, Seberang Perai and Bukit Mertajam. This indicates further spatial concentration of manufacturing, but does not reflect the new industrial land in Batu Kawan that was established after 2010. The figures show a lot of new commercial areas in both George Town and Butterworth, most notably with the Penang Sentral site in Butterworth.

Figure 3-36 Land use changes in Penang state. 2000 – 2010 (km²)

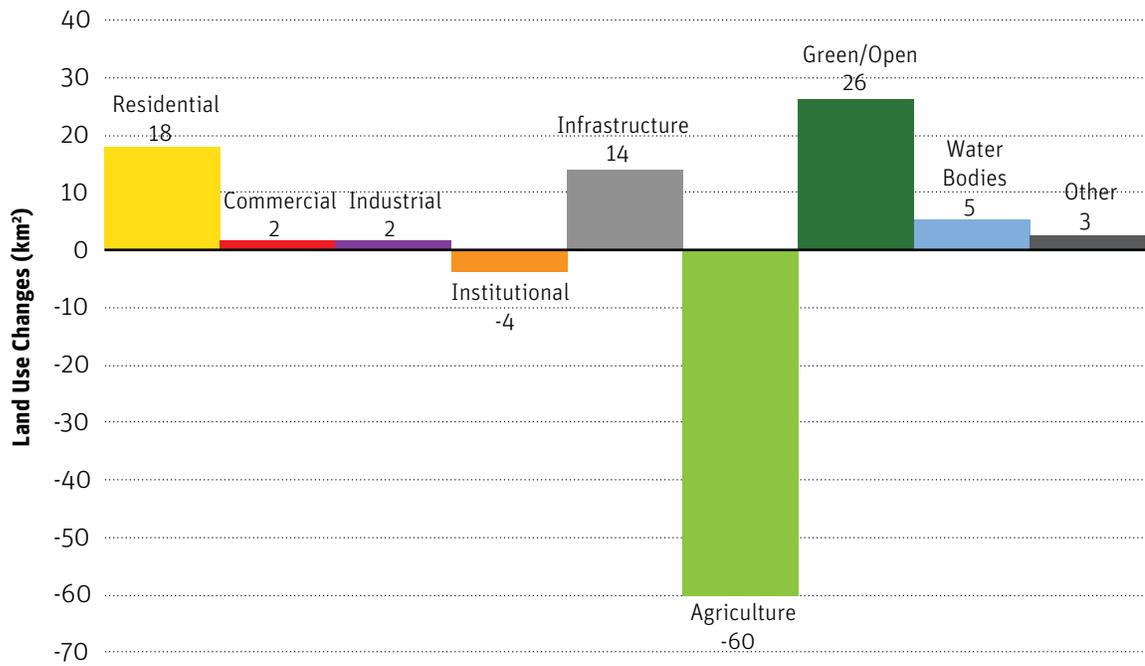


Figure 3-37 Breakdown of land use changes in the state of Penang by distance from the center of George Town. 2000 – 2010

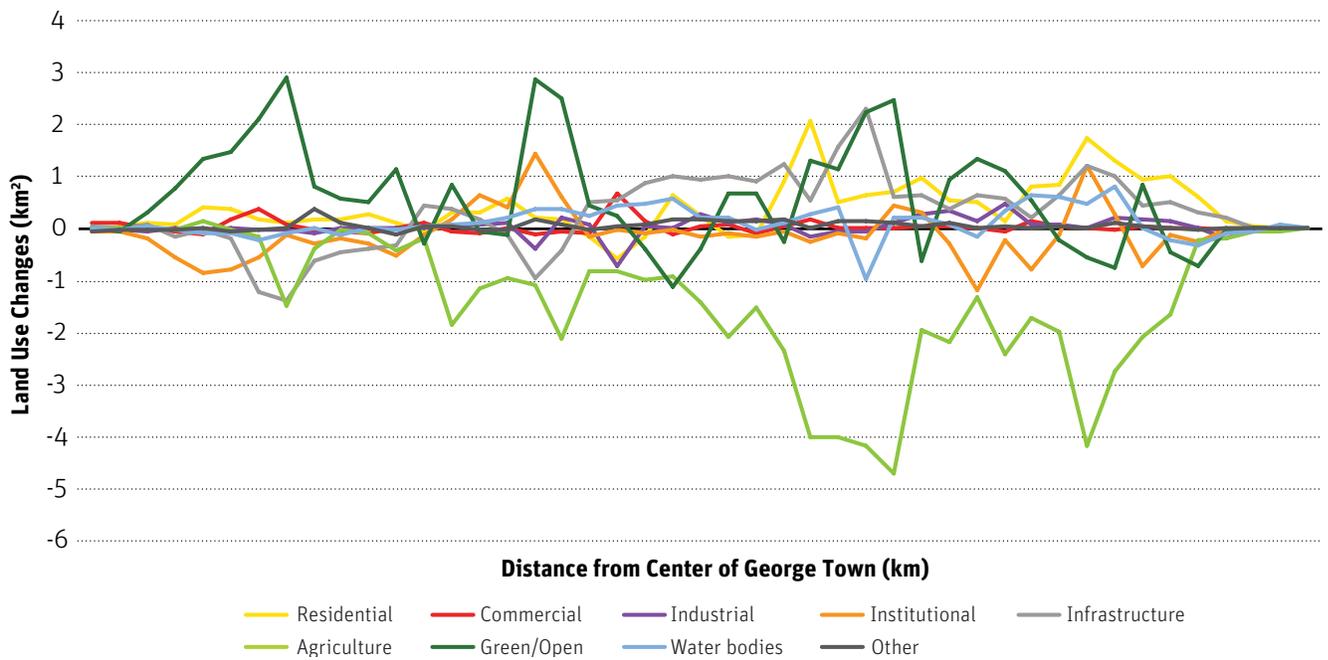


Figure 3-38 Changes in industrial land use. Penang state. 2000-2010

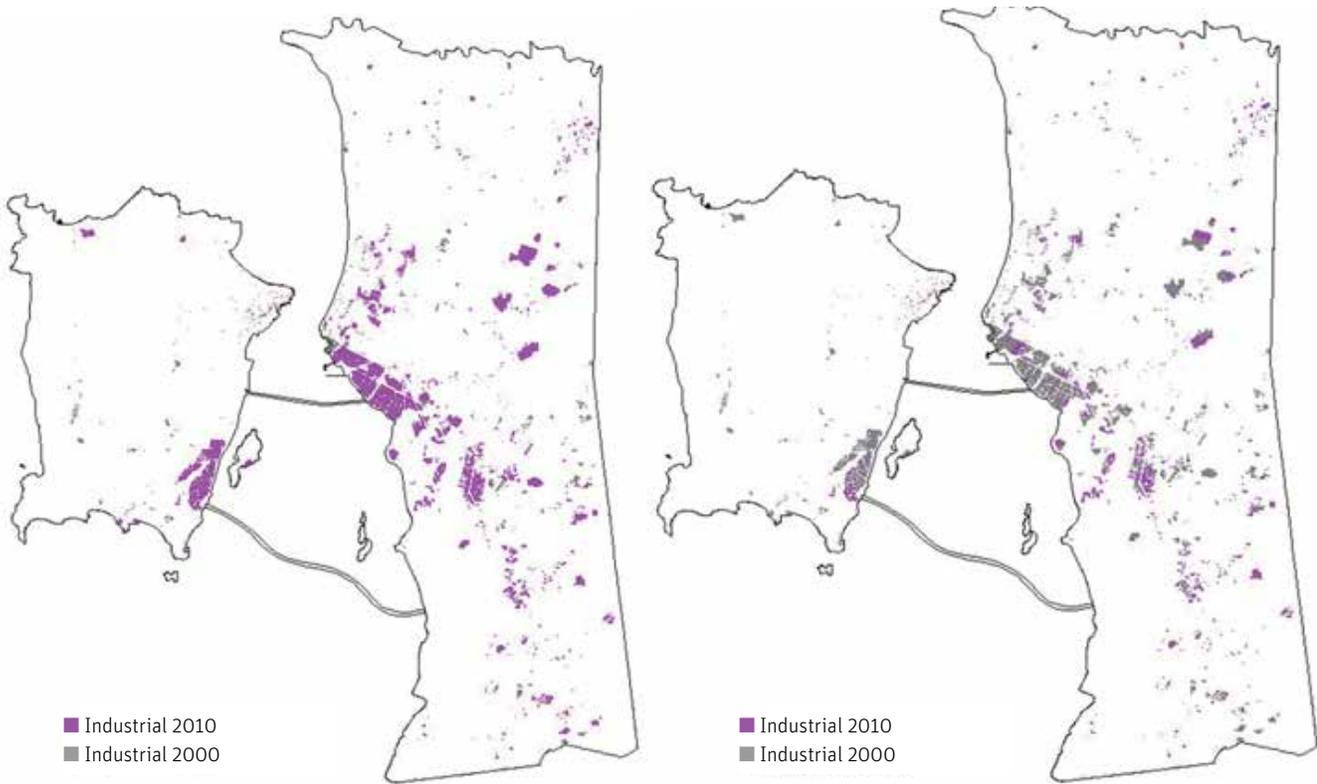


Figure 3-39 Changes in commercial land use in the centers of George Town and Butterworth, 2000-2010

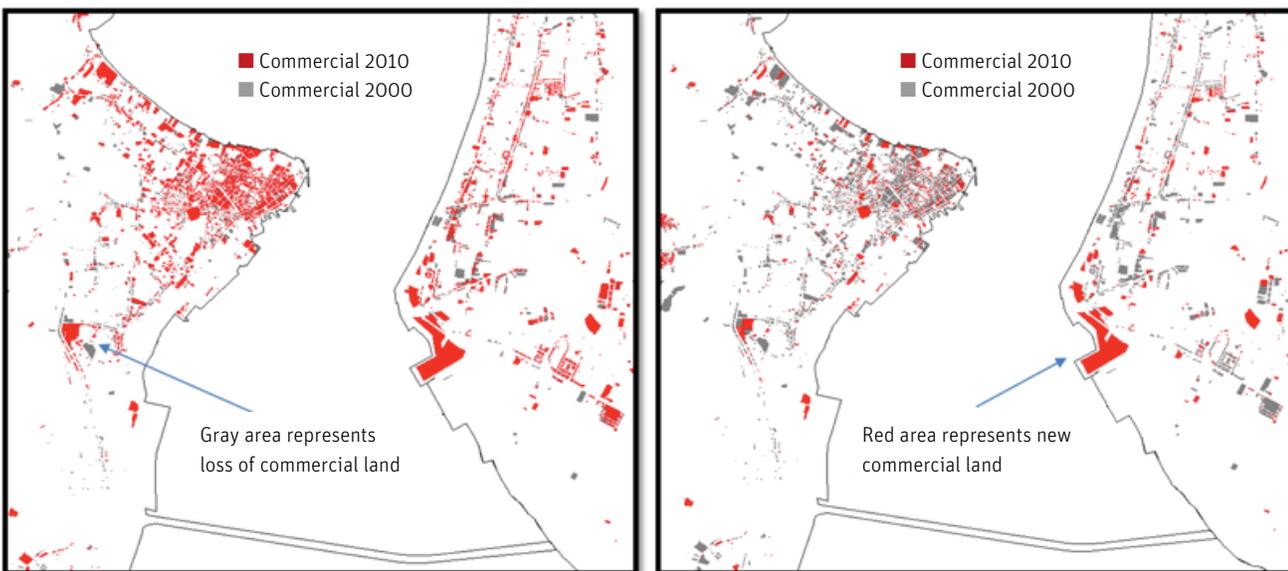
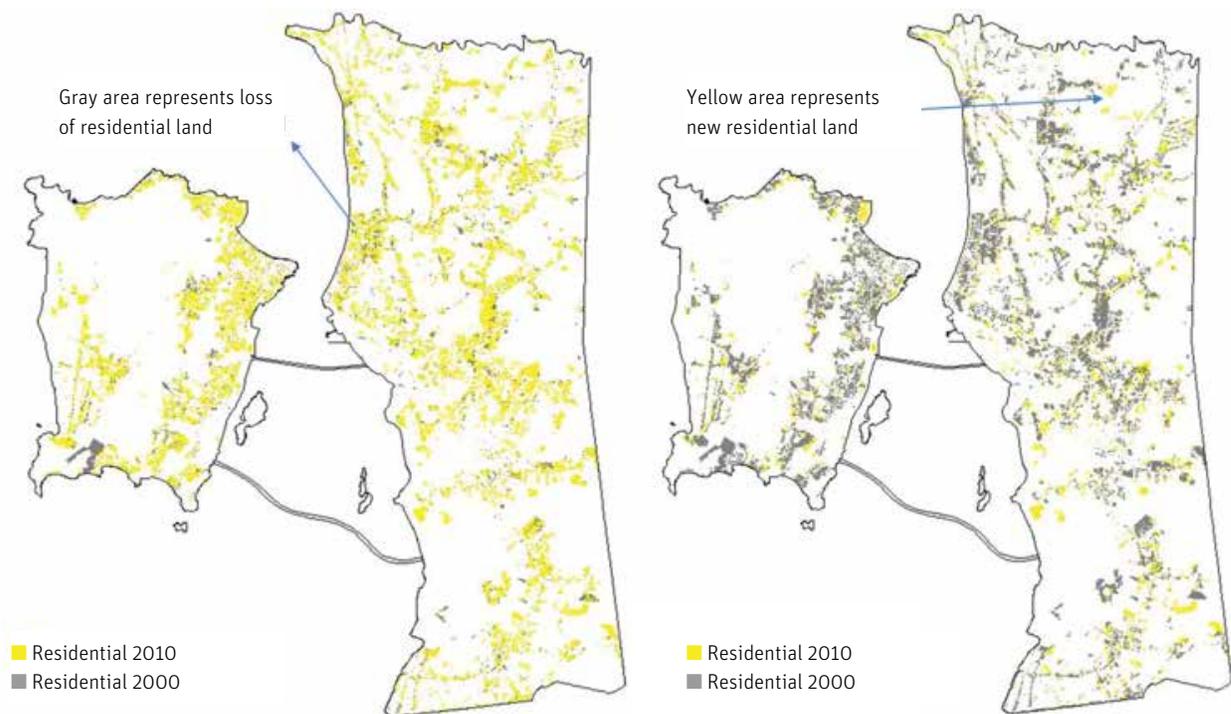


Figure 3-40 Changes in residential land use. Penang state. 2000-2010



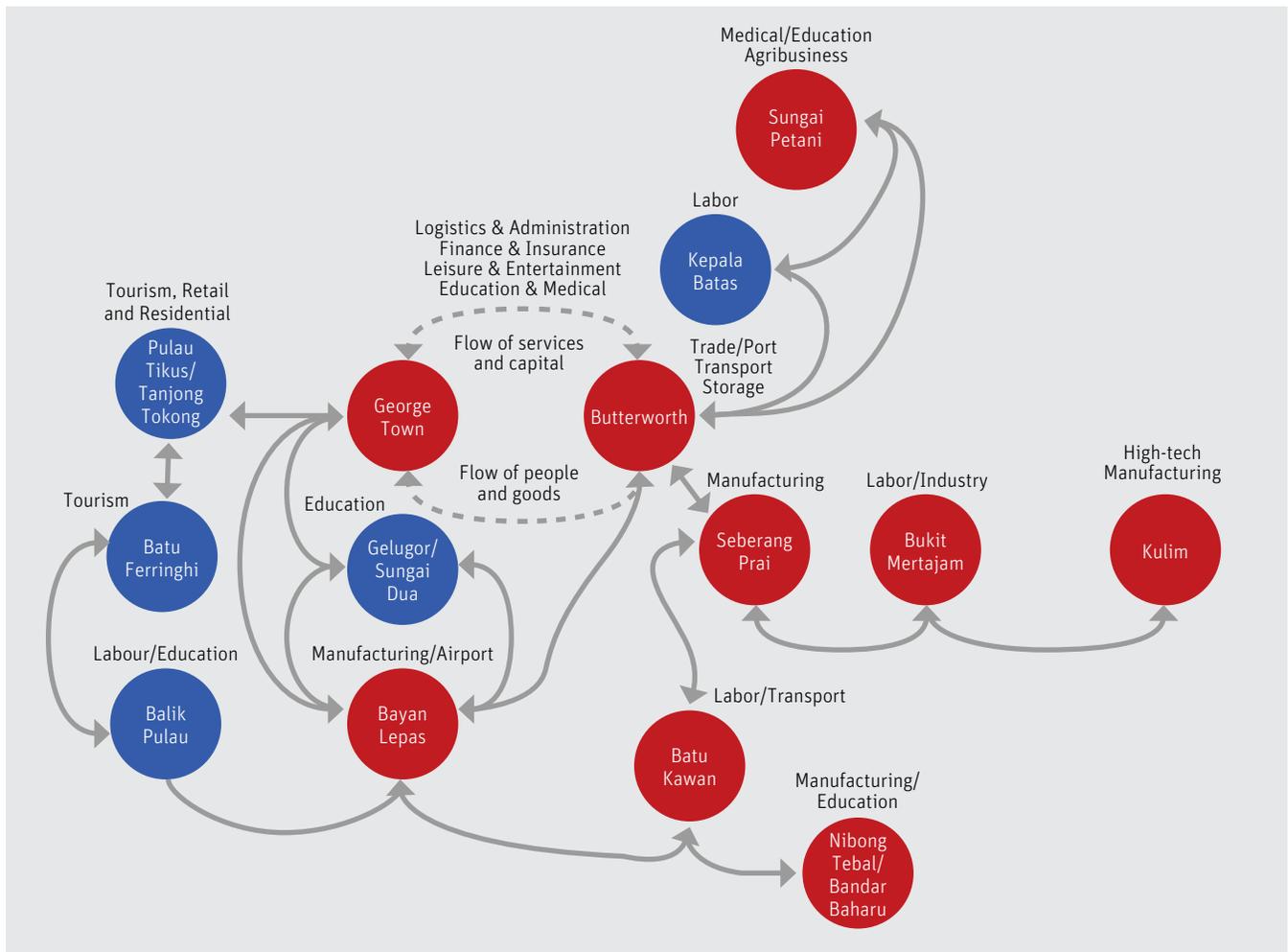
3.4.3 Review of the development strategy

166. The Penang region has had a long-standing tradition of strategic planning. The first strategic plan was developed in 1964, and with the 1970 Nathan report it laid the foundation for the manufacturing-centric growth model that defined the subsequent development of the city (Kharas *et al* 2010). The strategic plan that was developed in 1991 saw a shift in objectives toward development of the service economy, as the limitations of the industry-led growth model based on availability of cheap labor were becoming obvious. Accordingly, this plan focused on economic diversification by developing high value-added service industries. More recently, the 2001-2010 strategic plan emphasized the high potential of an ICT-based service economy.
167. In 2009, the development of a new strategy was underpinned by a joint study by Khazanah and the World Bank (Kharas *et al* 2010). The study recognized that the George Town conurbation was losing its competitive edge in high-tech manufacturing, and that there was a clear need to refocus the strategy (Majeed 2011). In terms of external pressures, the 2008-9 global financial crisis and the rise of new manufacturing centers in the East Asia region meant that it was getting harder for George Town to attract investors. A number of local constraints were identified at this time, including the rising cost of production in Malaysia; infrastructure bottlenecks; and the need to nurture and sustain talent. It was also recognized that although the local economy was well-integrated into global supply chains, domestic value-added was limited and the supply chain did not extend enough to local firms or into the hinterland.
168. Despite these challenges, the study also recognized that George Town enjoys significant advantages. Given its geographic location, accessibility, and skills base, it is well positioned to be a major hub for the Malaysia-Indonesia-Thailand Growth Triangle. Moreover, despite the apparent slowdown of the electronics cluster, parts of it were successfully moving up the value chain, largely in response to policies that offered technology grants and made it

easier to import and retain skilled staff. For instance, Intel upgraded its Penang facility from an assembly function to one with a primary focus on design and R&D.

169. The study proposed a more focused economic strategy, based on the city's evolving from being a producer of goods to being a producer of ideas. In contrast to previous strategies, this approach relies on nurturing and supporting local talent; helping SMEs grow; meeting local and regional demand rather than attracting FDI and developing the service sector in general, as opposed to specifically defined industries. The main proposals that focus on putting in place the right enabling conditions included:
- » Removing institutional and regulatory barriers and improving governance practices and coordination.
 - » Developing, attracting and retaining talent through improvements in the education system; incentives; and making the area a more attractive place to live.
 - » Improving infrastructure and connectivity.
170. A 2011 OECD study confirmed the new strategy's conclusions, and highlighted a pivotal role that universities can play in addressing the main challenges for Penang: talent creation and retention; industrial upgrading and moving to innovative types of activity; and improving quality of governance (OECD 2011).
171. Recent strategy documents for the George Town conurbation include the identification of six specialization clusters. The documents discuss George Town's comparative advantage and the potential for sectors to exploit scale economies (JPBD n.d). In addition to higher value-added technology-based manufacturing, these clusters include: agriculture and agribusiness, tourism, logistics, business process outsourcing, and biotechnology/life sciences. Some of these clusters clearly build on the George Town area's existing strengths. For example, medical tourism attracts client patients from Sumatra in Indonesia, as well as from further afield. George Town also has high potential as a logistics hub, thanks to its favorable location. The potential for growth is strong. In addition to the above, George Town's historical core also enjoys recognition as a UNESCO World Heritage Site (Kharas *et al* 2010).
172. Planning and spatial development of the conurbation are seen as key factors in shaping the new development model for George Town. The thinking is to pursue an urban form based around a network of specialized centers of activity (see Figure 3-41).
- » George Town-Butterworth are expected to blend into a new city core, with George Town specializing in business and finance services, and Butterworth establishing its position as the logistical center.
 - » As noted in the previous section, the specialized centers for manufacturing are largely based on existing industrial clusters, which will support advancement to agglomeration economies and productivity growth.
 - » The new framework implies greater engagement of the private sector in the regeneration process including: initiatives such as grant schemes and business improvement districts; a greater emphasis on bottom-up governance; and cooperation among local authorities.
173. More recent documents reflect a continued evolution in thinking on the strategy for the George Town conurbation (Majeed 2012). It appears that while the key challenges facing the economy remain the same, the strategic priorities now place a stronger emphasis on issues of livability. Livability is an important driver of the economic development of cities, but it is not the only one. Michael Storper, in his recent book (Storper 2012), asserts that in the discussion of people versus jobs as core drivers of urban development, international evidence points to jobs

Figure 3-41 Network of specialized centers: the urban form of George Town conurbation



Source: *Think City and Geografia* 2013

(or economic opportunities) as being the primary driver. Over time, these job opportunities attract skilled people which in turn promotes knowledge exchange and innovation in a dense urban environment, and creates a virtuous cycle of urban development.

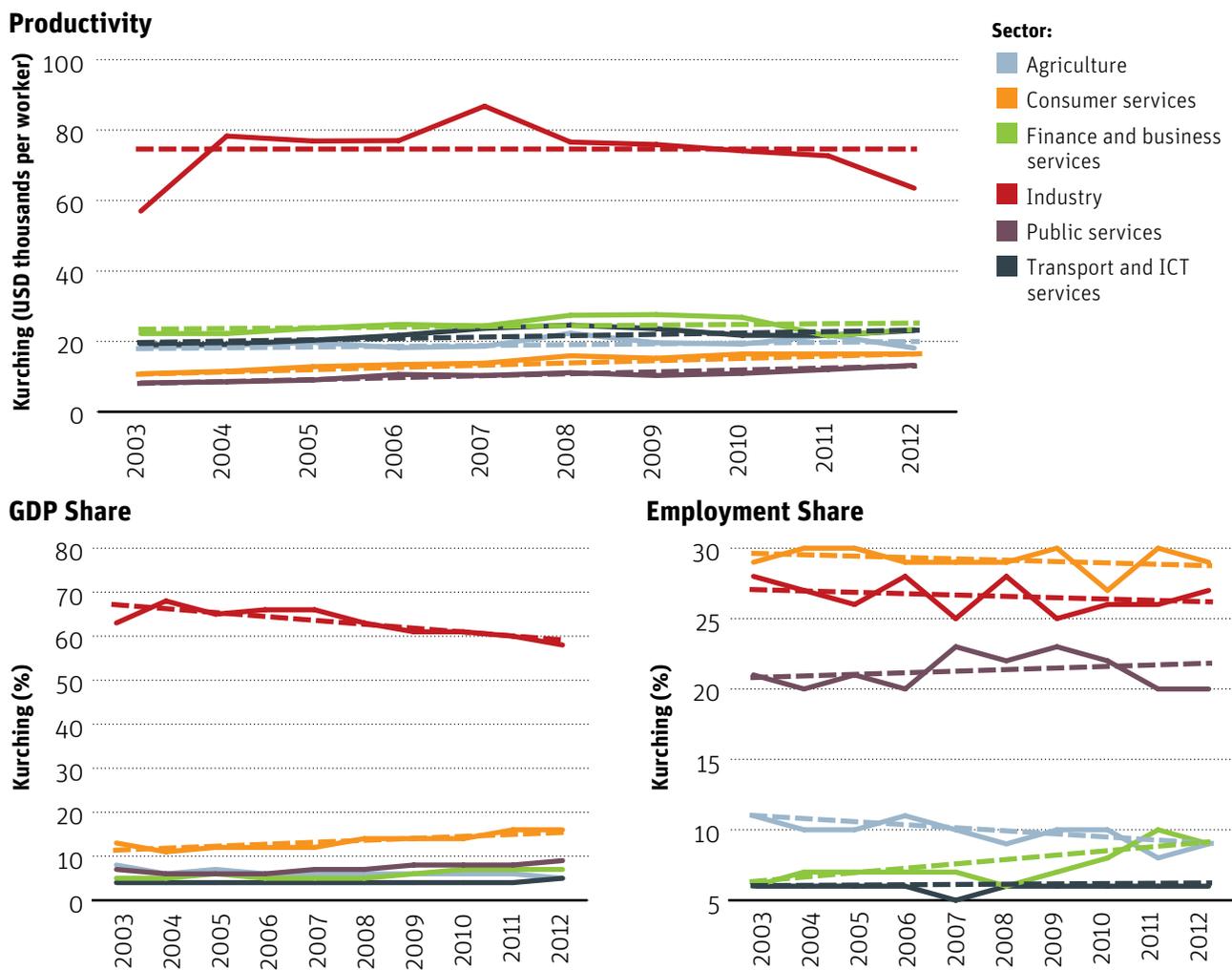
174. In this context, an example of a current priority for George Town's urban development is in the area of urban transport. Penang state's current transport master plan emphasizes the need for transit-oriented development (TOD) and a focus on urban transit corridors. Successful implementation of these approaches in the George Town conurbation would support the intended network of specialized centers of activity, while also contributing to increasing livability.
175. Given the challenges that George Town is facing, it is important for strategic interventions to be balanced against direct sector interventions; fundamental enabling conditions like skills and infrastructure; and issues of livability. Programs directly targeting skills and retention of skilled workers should be an important part of the mix, alongside interventions to address the competitiveness constraints of individual industries. Livability is unlikely to be the main focus of the city's competitive position.

3.5 Kuching

3.5.1 Economic performance and specialization

176. Kuching’s economy has been driven predominantly by its industrial sector in the past decade. The share of GDP contributed by industry has remained high, at 63 percent in 2003 and 58 percent in 2012 (Figure 3-42), while the share contributed by consumer services grew from 13 percent in 2003 to 16 percent in 2012. The share of employment attributed to industry in Kuching is 27 percent and implies high labor productivity that outperforms all other sectors. Kuching’s per capita income is above the national average, and saw strong growth between 2003 and 2012, when disposable income per capita rose from USD 4,200 to USD 6,800 per annum.

Figure 3-42 Labor productivity, GDP shares and employment shares by sector in Kuching. 2003 to 2012



Source: Oxford Economics 2012

177. Kuching’s high industrial productivity can be attributed to the spatial concentration of its industrial firms, and to the nature of their industrial activities. Kuching’s clusters of manufacturing industries are located in the Sama Jaya Free Industrial Zone (FIZ), with other industrial parks/zones including: Bintawa Industrial Estate, Pending Industrial Estate, Demak Laut Industrial Park, and Demak Industrial Park Phase 3. The state government has promoted

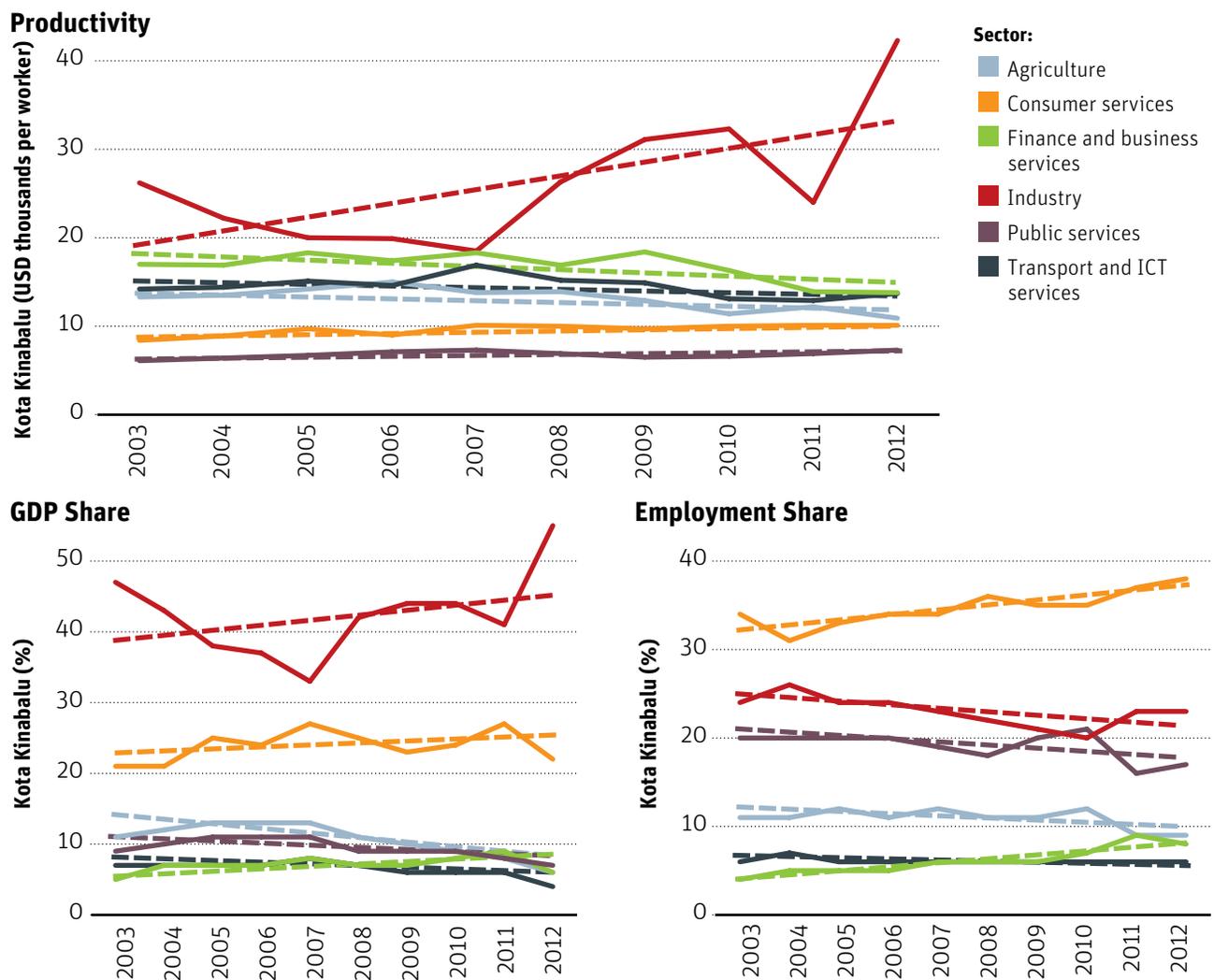
localization economies by complementing industries with upstream or downstream products and services (Achoi 2010). The Sama Jaya FIZ has built infrastructure that connects the area to the city center (8 km), airport (2 km), and seaport (4 km) (Landingin and Wadley 2005), all of which lowers transport costs. Reports also suggest that industries are attracted to Sarawak as it has competitive electricity rates compared to other cities in the region. Tax incentives and import duty exemptions offered to investors are provided by the federal government, with the support of the state government (Landingin and Wadely 2005).

3.6 Kota Kinabalu

3.6.1 Economic performance and specialization

178. Kota Kinabalu’s economic output appears to have experienced more volatility than the other Malaysian cities reviewed in this study. Industry’s contribution to GDP declined until 2007, after which it abruptly increased with fluctuations (Figure 3-43). It is unclear what the underlying reasons are for this pattern, which may be related to

Figure 3-43 Labor productivity, GDP shares and employment share by sector in Kota Kinabalu. 2003-2012.



Source: Oxford Economics 2012

the quality of the data in the Oxford Economics global dataset. It may also reflect patterns of investment driven by the 2008-9 financial crisis and subsequent recovery. The shares of other sectors in the economy remained largely unchanged during the same period.

179. Despite the increase in industry's contribution after 2007, its share of employment decreased marginally from 24 percent in 2003 to 23 percent in 2012. The employment share of consumer services grew from 34 percent in 2003 to 38 percent in 2012. It also appears that labor productivity in Kota Kinabalu stagnated or even decreased in most sectors, except for industry where it rose from USD 26,200 per worker to almost USD 43,000 per worker over the same period. Productivity of consumer services remained stagnant at around USD 10,000 per worker, while in financial and business services, productivity declined from USD 17,000 to USD 13,000 per worker.
180. Greater Kota Kinabalu is a key area of focus for the Sabah Development Corridor. The existing strategy places a strong focus on developing services in the city's economy, including further development of the important tourism sector. Specific initiatives underway for Greater Kota Kinabalu include developing the city as a lifestyle hub; improving early childhood education; upgrading healthcare services; improving mobility; and enhancing tourist attractions. A future phase of work could examine these, and other elements of Greater Kota Kinabalu's economic development strategy, in detail.

3.6.2 Land use and spatial structure

181. The Sabah State Structure Plan defines the Greater Kota Kinabalu area as comprising the City of Kota Kinabalu (the area administered by DBKK), and the adjacent districts of Putatan and Penampang. However, the wider functional area also includes parts of Tuaran and Papar districts.
182. The spatial analysis presented here utilizes land use data obtained from DBKK for the year 2010. Figure 3-44 shows current land use in the city of Kota Kinabalu in 2010, with rings indicating the 1km buffer zones from the city center. Figure 3-45 presents the percentages of land use by category for each 1km buffer zone from Kota Kinabalu's city center in 2010. The following observations can be made.
 - » Kota Kinabalu has a higher proportion of residential land than other Malaysian cities.
 - » Green/open space accounts for nearly half the city's total area, and was distributed throughout the city, including around half the area within a 1km radius of the city center. This amount of unbuilt land so close to the city center is unusual, but is a result of the large hills/steeply sloping terrain close to the center.
 - » Most commercial areas are concentrated near the city center (not including a large golf resort to the north which is classified in the data as commercial land). Commercial land makes up 11 percent of the area within the first 1km buffer zone.
 - » The two large swathes of industrial land are at 3-8 km and 14-18 km from the center.
 - » Institutional land accounts for a relatively large proportion (18 percent) of the built-up area of Kota Kinabalu. This is mainly due to the two large university campuses located 5-12 km north of the center.
183. A key challenge in Greater Kota Kinabalu, particularly in areas outside the City of Kota Kinabalu, is the need to continue to develop basic urban infrastructure such as utility lines, drains and sewers. Given the relatively small population spread over a large area, the cost of building this infrastructure is high. Promoting more compact development and avoiding further urban sprawl would help to manage the cost of this infrastructure provision.

Figure 3-44 Land use in Kota Kinabalu City. 2010

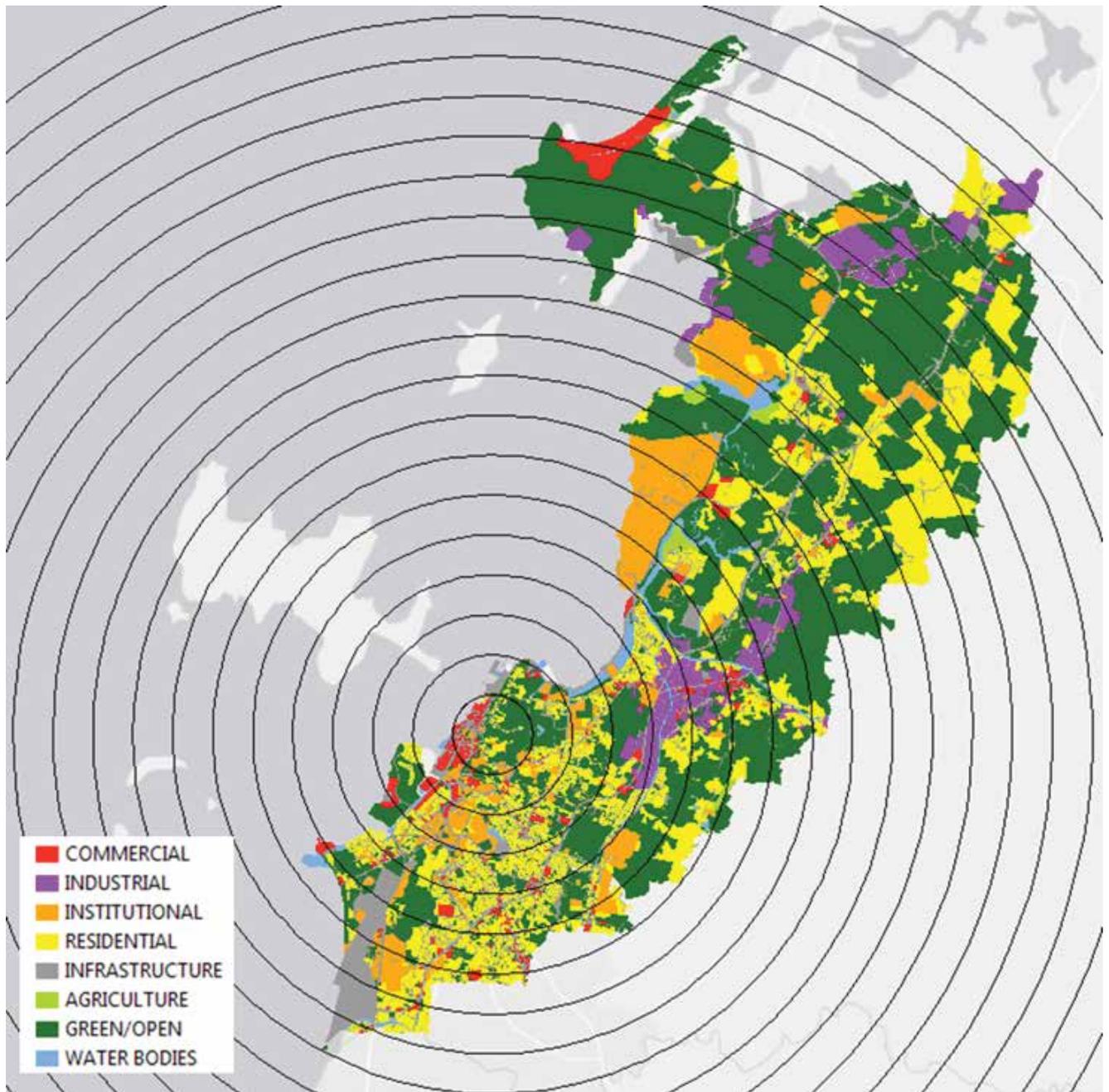
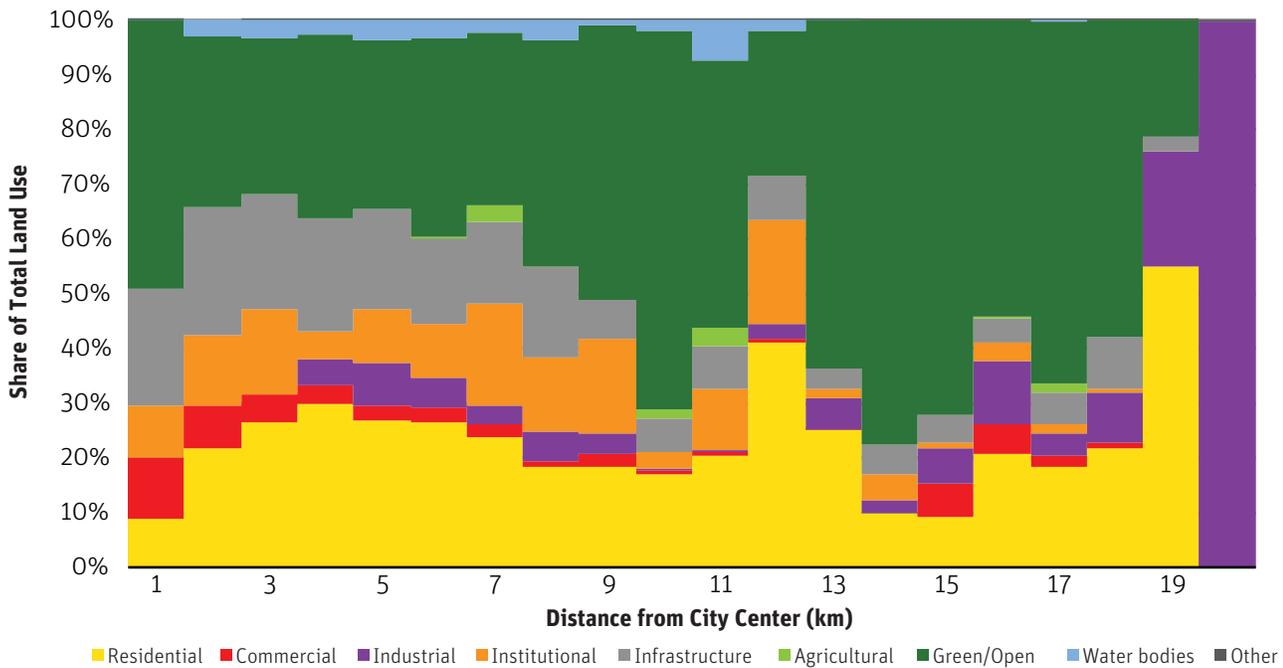


Figure 3-45 Land use by proportion within each 1km buffer ring. Kota Kinabalu City. 2010



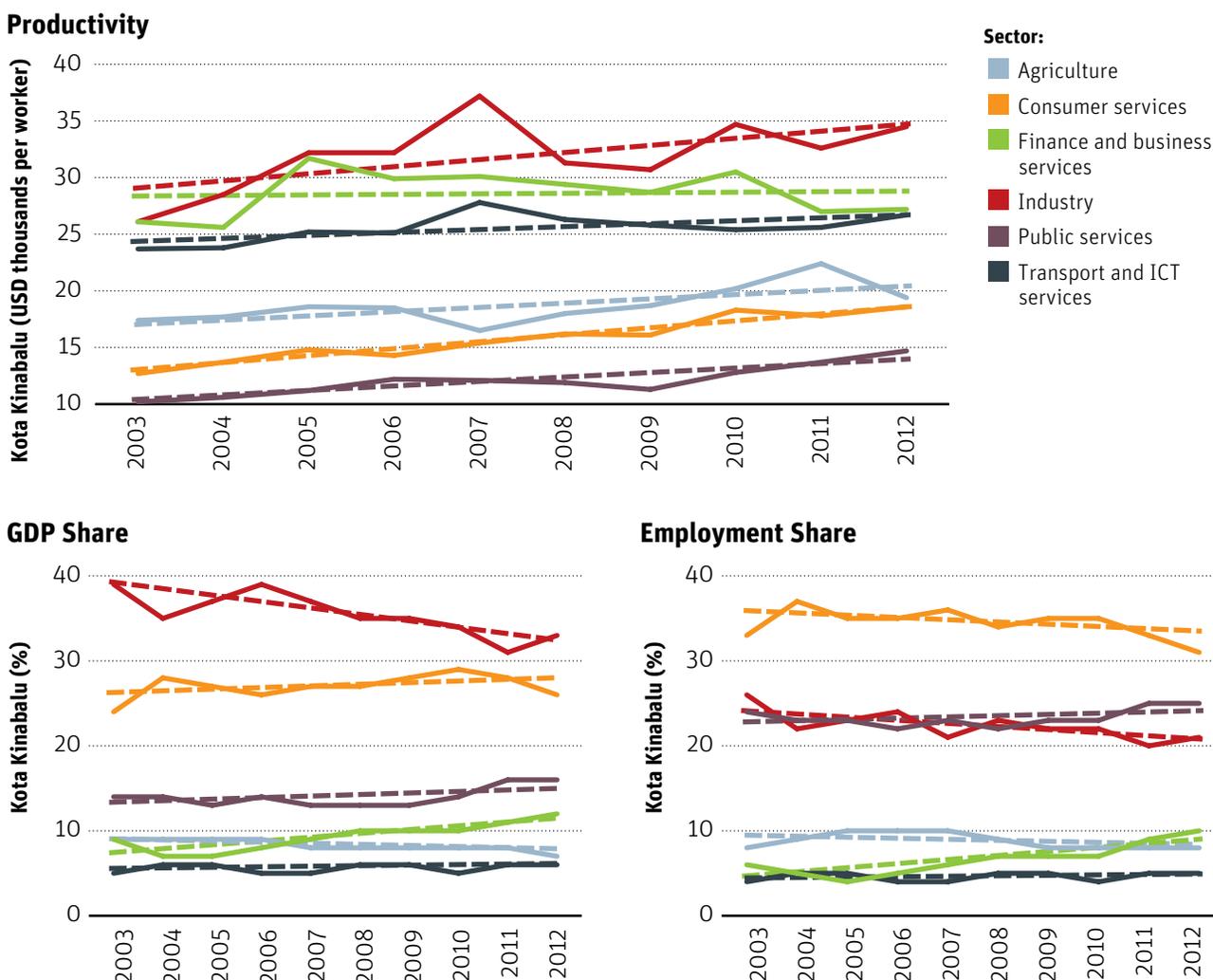
3.7 Kuantan

3.7.1 Economic performance and specialization

184. Kuantan city is less industrialized than Kuching and Kota Kinabalu; industry accounts for only 33 percent of the city's GDP (Figure 3-46). At seven percent, the share of agriculture in Kuantan's economy is low, but is the highest among the six Malaysian cities reviewed. Consumer services are a significant component of the local economy, accounting for over 25 percent of the city's GDP; this is the second highest share among the six cities (lower only than Johor Bahru). Finance and business services' share of GDP increased from nine percent to 12 percent between 2003 and 2012. Other sectors' economic contributions have been mostly stable. Employment is mostly provided by consumer services (31 percent in 2012) followed by public services (25 percent in 2012) and industry (21 percent in 2012). The employment shares of these sectors have remained largely stable, except for financial and business services which have increased from six percent to 10 percent.

185. Kuantan stands as the gateway to the broader East Coast Economic Region (ECER), which offers a significant source of raw materials for various industries. Kuantan also hosts the main port for the east coast of peninsular Malaysia. Given its existing economic structure and geographical location, Kuantan could focus on its comparative advantage of internal (plant-level) scale economies. Evidence shows that internal scale economies are higher in heavy industries than in light industries (World Bank 2009), and such activities would be suitable for the Kuantan conurbation. Oil and gas, petrochemicals, and other industrial activities are already part of Kuantan's economic strategy. In this regard, improved connectivity to the large hinterland, as well as to the large cities on the west coast of the peninsula, would facilitate access to raw materials as well as to markets. This needs to be accompanied by continued enhancements in infrastructure and the provision of services such as quality education and healthcare. Due consideration also needs to be given to the environmental impacts of heavy industrial activities, including all externality effects. Insufficient attention to environmental sustainability may have serious consequences in the medium to long-term.

Figure 3-46 Labor productivity in Kuantan: GDP shares and employment shares by sector. 2003 to 2012



Source: Oxford Economics 2012

3.8 City-specific Recommendations

186. Based on the city-level analyses presented in this chapter, a number of city-specific recommendations can be made. These should be seen in the context of the broader set of recommendations from this study. Chapter 2 outlines general recommendations on more efficient land use and flexible land use regulations to increase economic density, as well as on strengthening urban planning, transport infrastructure, and the use of public transport. Chapters 4 and 5 provide recommendations related to institutional arrangements and social inclusion, respectively.
187. The main recommendations for Greater Kuala Lumpur relate to ensuring optimal utilization of available land close to the city center (in the Federal Territory of Kuala Lumpur as well as adjacent areas in the state of Selangor), to facilitate agglomeration economies and increase economic density. Specifically, these include the following.
 - i. Identify areas of low-use land near the city center that could be feasibly developed (or redeveloped) for more productive use. Given the current state of demand and supply for various types of space in Greater Kuala Lumpur

Lumpur's real estate market, it is likely that the focus of many such new developments would be affordable housing (particularly for middle-income groups as recommended by the recent UNDP-EPU housing study) and the community amenities that go with housing, instead of commercial space.

- ii. Consider a suite of policy measures, including a programmatic (rather than ad-hoc) approach, to encourage and facilitate the relocation of industrial activity from Greater Kuala Lumpur to other cities in Malaysia. This could be based on the portfolio or system of cities framework discussed earlier in this chapter, where relocation to small and medium-sized cities is focused on specific industry clusters.
188. For the Johor Bahru/Iskandar Region, the main recommendation is to adjust the existing strategy to pursue more vertical linkages with Singapore, focusing on selected sub-sectors in manufacturing and in finance and business services. This adjustment could imply a somewhat less diversified strategy than is currently the case, as well as pursuing fewer horizontal linkages.
 189. In the case of the George Town conurbation/Penang area, the discussion earlier in this chapter recognizes the significant work in recent years on the strategy for its economy and urban fabric, and validates the priorities and directions laid out in existing strategy documents. Therefore, although this chapter does not yield any additional recommendations, it clearly affirms that the implementation of the existing strategy and priorities should be deepened.
 190. As for Kota Kinabalu, Kuching and Kuantan, further study would be required to match the extent of analysis that has been done for Kuala Lumpur, Johor Bahru and George Town; a specific recommendation would be to perform this detailed analysis in a future phase of work.



4. STRENGTHENING INSTITUTIONS FOR CITY COMPETITIVENESS

4.1 Introduction

191. Institutional issues often lie at the core of development challenges. The World Development Report 1999/2000 found that countries with stable governments, predictable methods of changing laws, secure property rights, and strong judiciaries have experienced higher investment and growth than countries lacking these institutions (World Bank 1999). Subsequent World Development Reports, in 2002 and 2009, drew the link between institutions and urban development, recognizing that cities need efficient institutions to benefit from agglomeration economies and mitigate negative externalities such as congestion (World Bank 2002).
192. The literature on institutional theory and urban governance broadly defines institutions as: “rules, enforcement mechanisms and organizations” (World Bank 2002), or as “overarching systems of values, traditions, norms and practices that shape or constrain...behavior” (Pierre 1999). Institutions include the rules by which individuals or entities interact, and how they implement these rules. Institutions can and do evolve over time, but this process alone does not necessarily produce optimal institutions (World Bank 2002). A recent comprehensive analytical framework on the role of institutions in urban development was advanced by Boex and Yilmaz (2010), that takes into account the political, administrative and fiscal dimensions of central government, local government, civil society, and the private sector. This framework can be summarized as follows.
- » **Political.** Local political structure, local electoral systems, political party system, and local participation and accountability.
 - » **Administrative.** Regulatory powers including planning and regulation of local physical space, local public financial management and procurement, local human resource administration; and local public services.
 - » **Fiscal.** Expenditure assignments, revenue assignments including local revenue; intergovernmental fiscal transfers; and local government borrowing.
193. The analysis in this chapter begins with the assumption that the role and importance of institutions for development in Malaysia is no different from other countries. The scope of the analysis is limited to institutions as they pertain to urban planning, development and service delivery in Malaysia. The analysis focuses mainly on the administrative and fiscal dimensions of institutions, and less on the political. For these purposes, the term “institutional” is used in the broad sense, to include such aspects as:
- » the roles and responsibilities of various government agencies;
 - » organizational structures;
 - » the system of strategies, plans, policies, laws and regulations;
 - » implementation arrangements and coordination mechanisms; and,
 - » monitoring and evaluation.

194. Complementing this broad approach to institutional issues, the analysis in this chapter has been informed by ongoing work at the World Bank on a global Competitive Cities Knowledge Base (CCKB). Specifically, CCKB uses a standardized approach for assessing the role of city governments worldwide by examining the “mayor’s wedge”, defined as the “range of interventions that city leaders can influence, compared to those that are predetermined by higher levels of government”. This framework includes “city scope” components of:
- » institutional and economic development;
 - » functional assignments;
 - » budget and staffing discretion and expenditures; revenue discretion; and
 - » politics.
195. A city’s capacity is also disaggregated in terms of:
- » human resource management;
 - » public financial management;
 - » controlling corruption; and
 - » building ‘growth coalitions’.
196. Applying the ‘mayor’s wedge’ can help to identify the role of public sector institutions in creating an enabling environment for economic development, and determine which of those institutions are at the city or local level relative to other levels of government. An example of the mayor’s wedge analysis as it applies to two local authorities in the Greater Kuala Lumpur Area: DBKL and MPAJ, is included in Annex 3-5.

4.1.1 Methodology

197. The work of the institutional analysis presented in this chapter involved a combination of desk research and interviews with a range of stakeholders. Specifically, the analytical steps are listed below.
- » **Identification of a list of “core” urban functions and services.** These are of particular interest for cities, including:
 - urban planning,
 - urban transport including roads,
 - water supply,
 - sanitation,
 - solid waste,
 - public health,
 - police and emergency services,
 - information and communication technologies (ICT), and
 - parks and recreation.

This list is by no means exhaustive; there are other important basic services, such as health, education, and energy supply that are critical for the well-being of urban residents. This core list of urban services was informed by an examination of the range of services that is most commonly delivered by city governments worldwide.

- » **Mapping of institutional roles and responsibilities.** Focusing on urban planning, development and service delivery, the results of this mapping exercise consist of a series of tables. Each table summarizes the list of core urban services for a given area within Malaysia, and the various agencies responsible at each stage of the value chain from upstream policy, planning and design, through to implementation, operations and maintenance. The institutional maps have been compiled separately and are available in Annex 3.
- » **Review of relevant plans, policies and laws/regulations.** Focusing on those related to urban planning, development and service delivery, the legal and administrative differences between Peninsular Malaysia, Sabah and Sarawak were noted (see also Table 4-1 below). A summary “catalog” of these plans, policies and laws was compiled, primarily for internal reference purposes.
- » **Interviews and meetings with a range of stakeholders.** These included various government agencies at federal, state and local levels, as well as private sector representatives. The primary intent of the interviews was to identify and describe institutional issues, constraints and challenges within the scope defined above. Visits were made to all six conurbations included in the study, between April and August 2014. Effort was made to meet a range of local authorities (PBTs) within each conurbation (e.g. in Kedah for the George Town conurbation, and in Terengganu for the Kuantan conurbation). The list of meetings held is included in Annex 3-2.
- » **Review of selected global case studies.** This was undertaken to identify examples of good practice and successful institutional change that could be relevant for Malaysia. These include examples of localizing service delivery through decentralization (Annex 3-3), and various models of metropolitan management (Annex 3-4).

4.1.2 The history and context of urban governance in Malaysia

198. Malaysia inherited a system of local government from the days of British colonial rule, primarily in the form of local councils. By the 1960s, the overall structure of local government in the country was complex, varied and at the same time incomplete (Norris 1980). For example, the Royal Commission of Inquiry on local government (the ‘Athi Nahappan Commission’), which began its work in 1965, found some 373 local authorities in the peninsula alone, comprising municipalities, town councils, town boards, local councils and district councils (Report of the Royal Commission 1970: 330). Reforms enacted through the Local Government Act of 1976 (Act 171) together with the Town and Country Planning Act of 1976 (Act 172) form the basis of the system of local government in Peninsular Malaysia today. Through Act 171, the number of local authorities was significantly reduced, and local elections were abolished.
199. Malaysia has a three-tiered system of administration. Articles 74-79 of the federal constitution outline the basic framework for the distribution of powers across federal, state and local levels (see also section 4.2.1 below). Local governments in Malaysia are basically under the power and control of the respective state governments (Ahmad Atory and Malike 2006). The federal constitution provides for a consultative body called the National Council for Local Government (NCLG), to ensure uniformity of local government laws and policies in Peninsular Malaysia.
200. Sabah and Sarawak retain significant powers related to land and local government matters within their respective states. Table 4-1 summarizes some of the key differences in local government administration between Peninsular Malaysia, and Sabah and Sarawak.

Table 4-1 Key Differences in Local Government Administration between Peninsular Malaysia, and Sabah and Sarawak

Institutional Component	Peninsular Malaysia	Sabah and Sarawak
Legal Framework	<ul style="list-style-type: none"> • Under the federal constitution, states have exclusive powers over land, agriculture and forestry, state works and water (when not federalized), and local governments • States also have concurrent powers over: town and country planning, drainage and irrigation, national parks • The roles and functions of local authorities are governed by the Local Government Act of 1976 	<ul style="list-style-type: none"> • Article 95D of the federal constitution prohibits Parliament from enacting laws pertaining to land and local government for Sabah and Sarawak. Accordingly, several laws do not apply, including: the National Land Code; Local Government Act 1976; Town and Country Planning Act 1976; Street, Drainage and Buildings Act 1974; Water Services Industry Act 2006; Solid Waste and Public Cleansing Management Corporation Act 2007; Land Public Transport Act 2010 • Corresponding state-level ordinances related to local government apply instead of the Local Government Act.
Policies and Planning	<ul style="list-style-type: none"> • The Ministry of Urban Well-being, Housing and Local Government (KPKT) is responsible for laws and policies on local government and urban services such as housing, landscaping, solid waste management and fire and rescue services. • Policies and plans for many core urban services are formulated by federal agencies / ministries, e.g.: <ul style="list-style-type: none"> – Public transportation (SPAD) – Sewerage and Water (SPAN) – Solid waste (JSPSN) – Drainage and irrigation (JPS) • The National Council for Local Government is the coordinating body for policies and laws applicable to local authorities. 	<ul style="list-style-type: none"> • State ministries are responsible for overseeing the running of local councils in the state. • Spatial planning is done by the state-level Land and Survey Department. • Many core urban services that are handled by federal agencies in Peninsular Malaysia are under the purview of state ministries/agencies and/or local authorities, e.g. land public transport (Commercial Vehicle Licensing Board and state ministry); sewerage (state ministry and municipal council); solid waste (state ministry and municipal council) • Article 95E of the federal constitution excludes Sabah and Sarawak from decisions/laws formulated through the National Council for Local Government
Urban Service Delivery	<ul style="list-style-type: none"> • Local authorities are responsible for functions such as local planning, building controls, public facilities such as markets and community centers, traffic management, public parks and landscaping • States are responsible for land policies and property registration, water resources, religious affairs, and in some cases public housing • Federal agencies deliver many services including education, health, policing, firefighting, land public transport; sanitation and solid waste have also been federalized, or privatized. 	<ul style="list-style-type: none"> • Core urban services that have been federalized or privatized in Peninsular Malaysia are still delivered by local authorities in East Malaysia. (e.g. solid waste, sewerage) • Lack of technical capacity results in local authorities relying on state-level Public Works Departments to implement sewerage, water and road projects. • Federal agencies deliver those services that have been centralized nationwide, e.g. education, health, policing, firefighting.
Public Finances	<ul style="list-style-type: none"> • Local authorities: Local taxes and fees (e.g. property assessment, compound notices and fines, licenses and permits) are governed by the Local Government Act of 1976. • States: Revenue sources include land, forests, mining, entertainment, water supply, and fees for licenses and permits. 	<ul style="list-style-type: none"> • Local authorities: Local taxes governed by relevant state ordinances. Sabah has an exclusive land-based source of revenue, where local authorities may levy and collect cess on land and agricultural products. • States: Part V of the Tenth Schedule provides additional sources of revenue for Sabah and Sarawak including import and excise duty on petroleum products, export duty on timber and other forest products, and state sales taxes. Part IV of the same Schedule provides for special grants for the states' services and administration.

Table 4-1 Continued

Institutional Component	Peninsular Malaysia	Sabah and Sarawak
Public Administration	<ul style="list-style-type: none"> Local elections were discontinued under Section 15 of the Local Government Act 1976. Local councilors are appointed by the state government. PBTs' staffing is controlled by the Public Service Department, which is also responsible for planning and conducting training programs for public sector personnel including those with local governments. 	<ul style="list-style-type: none"> In Sabah and Sarawak, state ordinances do not make provision for local elections. Local councilors are appointed by the state government. PBTs' staffing is regulated by a unit under the Chief Minister's Office, but is also referred to the Public Service Department.

Source: World Bank team analysis

4.2 Analysis of Institutional Issues

201. The institutional analysis suggests that many of the issues that concern urban planning, development and service delivery in Malaysia are related to institutions. Even when a problem initially appears to be of a technical or financial nature, further analysis often identifies an underlying or root cause as institutional. This section explores institutional issues in three main areas:

- » the tendency to centralize / federalize the delivery of urban services;
- » challenges related to urban and spatial planning; and
- » constraints faced by local authorities particularly in their technical and financial capacities.

Despite differences in legal frameworks and specific institutional arrangements between Peninsular Malaysia on the one hand and Sabah and Sarawak on the other, many of the institutional issues identified were confirmed during stakeholder interviews in Sabah and Sarawak as being similar to those on the peninsula.

202. A concurrent World Bank RAS on crafting a national transport strategy for the Government of Malaysia has also identified a number of key institutional challenges. These include:

- » weaknesses in the process for planning, appraising and prioritizing development expenditure;
- » the unavailability or inaccessibility of relevant data; and
- » lack of inter-agency coordination. (World Bank 2015)

In general, these findings are consistent with the institutional analysis discussed in this section. From the perspective of local authorities, decision-making and allocation of development expenditure rests with the federal government; in interviews, many local authorities pointed out that they rely on federal agencies for access to relevant data. Furthermore, coordination across levels of government appears to be a key challenge for urban planning and implementation. These issues are discussed in detail below.

4.2.1 The centralization/federalization of urban service delivery

203. Local development and urban service delivery in Malaysia are highly centralized through federal-level government agencies. Many core urban services such as public transport, roads, water supply, sewerage, solid waste management, drainage, public health, police and emergency services, and education are delivered through federal government agencies. Local governments in Malaysia are responsible for delivering relatively few services, such as the maintenance of local facilities like markets and parks. In addition to the overall framework of local government administration summarized in Table 4-1 above, Table 4-2 summarizes various urban services and the levels of government in Malaysia that are primarily responsible for their delivery.
204. Malaysia's relatively high centralization of service delivery is not unique globally, but it does stand in contrast to prevailing global trends. The World Development Report 1999/2000 (World Bank 1999) observed that "...countries everywhere, large and small, rich and poor – are devolving political, fiscal, and administrative powers to sub-national tiers of government." Table 4-3 compares Malaysia and several developing countries in terms of the levels of government responsible for the delivery of various services. These comparator countries were selected based on available data, and are all peer countries in the middle-income group. Malaysia stands out as the most centralized country in this table.
205. The tendency toward centralization and a strong federal government in Malaysia has also been noted in the literature. It has been observed that "in practice the states have little real autonomy. Although some federal functions have been decentralized, most decision-making remains at national level" (Morrison 1994, cited in Phang 2008). This is also reflected in aggregate figures for public expenditure in Malaysia relative to other developing countries: local government spending as a percentage of total government spending in Malaysia is rather low at less than five percent (UCLG 2011: 87). By comparison, aggregate local government spending in South Africa stands at over 17 percent and at 28 percent in Indonesia (UCLG 2011).
206. The institutional maps (see Annex 3-1), developed as part of the analysis for this chapter, further illustrate this high degree of centralization. These maps show the many functions in the 'value chain' of urban service delivery: from policy and planning to construction, operations, regulation and data collection. Funding also rests with federal agencies, particularly in Peninsular Malaysia. Federal government agencies, often at state-level, directly control management and decision-making for these services. Some services have been centralized through the privatization of former public assets; for instance, sewerage services in Peninsular Malaysia are under Indah Water Konsortium, a federally-controlled company.
207. The information gathered from various interviews and desk research is consistent with the view of Phang (2008) that there has been an emergent trend of neo-centralism in Malaysia; i.e. a growing tendency for matters to be handled by the federal government, based on the reasoning that this will render better services to the public. One recent example of this is the Land Public Transport Act of 2010. This Act mandates the Land Public Transport Commission (SPAD) to perform all design, planning, implementation, service delivery and regulatory roles in relation to land public transport; it consolidates the roles previously performed by 15 other state and federal agencies. In a similar vein, the Solid Waste and Public Cleansing Management Act of 2007 (Act 672) also federalized solid waste collection in most states through the formation of the National Solid Waste Management Department (JPSPN) and the Solid Waste and Public Cleansing Management Corporation (PPSPPA), taking on the functions that had hitherto been performed by local authorities.

Table 4-2 Urban Service Delivery and Levels of Government in Malaysia

Federal	State	Local
Federal land	Zoning and land use	Public/private parking
Highways	State land	Traffic management
Land public transport (i.e. bus, rail, taxis)	State roads	Cycling network
Airports	Water supply	Pedestrian network
Drainage and irrigation	Public housing (state)	Local drainage
Sewerage	Religious facilities	Public markets and hawkers
Solid waste	State tourism	Open spaces & public parks
Electricity		Community centers
Telecommunications network		Advertisements
Gas supply		Building maintenance
Police		Local plans and building controls
Fire services		Local licensing
Hospitals and medical care		
Education (i.e. schools and institutes of higher learning)		
Art & cultural centers		
Tourism (e.g. regulating hotels)		
Social welfare (i.e. regulating nurseries & kindergartens)		
Public housing (federal)		
Heritage buildings		
Special economic zones		
Heritage zones		
River reserve		
Forest reserve		
Restricted zones		

Source: World Bank team analysis, summarized from institutional mapping in Annex 3-1.

Table 4-3 Service Delivery by Level of Government, Selected Developing Countries

	Argentina	Colombia	Indonesia	India	Malaysia	South Africa	The Philippines	Turkey
Roads: arterials	N, C	S, C	C	S, C	N, S	C	N, C	C
Roads: local	C	C	C	C	C	C	C	C
Public transportation	C	C	N, C	N, S, C	N, other	C	private	C
Water and sewerage	C	C	C	S, C	S, N, private	C	private	C
Waste collection and disposal	C	C	C	S, C	N, C, private	C	C	C
Electricity distribution	private	n.a.	N	S, C	private, S	C	private	private
Primary and secondary education	C	C	C	C	N	S, N	N	N
Public housing	C	C	N, C	S	N, S	C	N, C	n.a.
Public health	C	C	N, C	S, C	N, S, C	C	N	N
Public hospitals	C	C	N, C	C	N	S, N	N, C	N
Social welfare	N, C	n.a.	N, C	S, C	N	C	N	N
Fire protection	C	C	C	C	N	C	C	C
Police	N, C	C	N, S, C	S	N	C, N	N	N

Notations: N=national, S=state/province, C=city/metropolitan area, n.a.= not available.

Source: adapted from Sud and Yilmaz (2013), with World Bank analysis on Malaysia

208. The range of challenges identified in the delivery of urban services by various levels of government suggests that the high degree of centralization has not always had the intended benefits of increasing efficiency and effectiveness. Some federal agencies face constraints in delivering fully on their mandates. For example, SPAD is still in the process of gearing up to assume all the functions related to land public transport that the law specifies. As for solid waste collection, overall costs are likely higher, given the additional costs of running newly established federal agencies while local authorities face the same level of expenditure on solid waste through the transfer of funds to these new agencies (World Bank 2011). Some local authorities in states where solid waste collection is still managed locally appear to be faring as well as before in terms of outcomes, and may even exhibit exemplary solid waste performance (see e.g. KPKT 2013: 24). Box 4-1 presents the results of a limited analysis of cost efficiency in this sector, comparing those states with federalized solid waste services to those without.

209. **Regional development corridors.** Recent institutional changes in Malaysia have not only been about centralization. In all six conurbations that are the focus of this study, regional corridor authorities now have a role in urban development. The Ninth Malaysia Plan (2006-2010) outlined the establishment of a corridor development program with the objective of “reducing regional imbalance” and “(bringing) about equitable growth, investment, and employment opportunities to all regions of Malaysia”. The five regional development corridors, including their respective corridor authorities and focus sectors, are summarized in Table 4-5.

Box 4-1 Comparing solid waste cost efficiency across selected states in Peninsular Malaysia

Solid waste management in Malaysia offers an interesting example and a “real world” experiment on the effects of centralizing the delivery of a basic urban service. In 2011, Act 672 took effect in a number of states in Peninsular Malaysia, through which the National Solid Waste Management Department (JPSPN) and the Solid Waste and Public Cleansing Management Corporation (PPSPPA) took over functions in solid waste collection and disposal that had previously been the responsibility of local authorities. This shift however, was not implemented uniformly, and some states such as Penang, Selangor and Terengganu declined to participate in the new federalized system, thus also providing a natural ‘control’ group.

In December 2014, the World Bank team requested and received data on the quantities of solid waste collected and disposed, as well on costs including labor, operations, and transport, for the two full calendar years of 2012 and 2013.

JPSPN provided the data for nine selected local authority areas within its purview: the federal territories of Kuala Lumpur and Putrajaya; Johor Bahru, Johor Bahru Tengah, Kulai and Pontian in Johor; Sungai Petani in Kedah; and Kuantan and Pekan in Pahang.

Nine individual local authorities that continue to manage their own solid waste also provided their own data: Ampang Jaya, Klang, Petaling Jaya, Selayang, Sepang, Shah Alam, Subang Jaya in Selangor; and Pulau Pinang and Seberang Perai in Penang.

Due to some issues with data consistency and completeness, the data for five local authorities were excluded from the final results.

The data obtained enabled calculation of the annual cost per ton of solid waste for 14 local authorities. There was a good balance between those with “centralized” solid waste management through JPSPN and those that continued to manage solid waste themselves. Table 4-4 below summarizes the results.

Overall, the results do not show any obvious systematic difference in cost per ton between the “centralized” and “non-centralized” local authority areas. In other words, centralization or localization of solid waste services does not appear to have had a noticeable impact on cost efficiency. However, this is a relatively small sample and two calendar years is a short period of time over which to make comparisons. Additionally, the cost data do not take full account of staff and other office/administrative costs of JPSPN and PPSPPA. Lastly, it does not provide a measure of the quality of service delivery, although KPKT has recognized that some of the local authorities that have retained solid waste management are performing well in delivering solid waste services.

Table 4-4 Cost per ton⁴⁰ of solid waste managed (RM), selected local authorities

	PBT	2012	2013
JPSPN-managed	DB Kuala Lumpur	240	307
	MB Johor Bahru	206	175
	MP Johor Bahru Tengah	137	133
	MP Kulai	203	183
	MD Pontian	97	72
	MP Sungai Petani	177	190
	MP Kuantan	177	176
	MD Pekan	137	121
	PBT-managed	MB Shah Alam	221
MP Subang Jaya		159	158
MP Sepang		186	163
MB Petaling Jaya		354	297
MP Klang		110	118
MP Seberang Perai		179	

Source: World Bank analysis based on primary data provided by JPSPN and individual local authorities.

⁴⁰ Costs refer to operating expenditure for solid waste collection, transport and disposal, as well as public cleansing, including local authority staff. Excludes capital expenditure.

210. In each corridor, the corridor authority oversees implementation of a growth strategy based on the identified focus sectors/industries, accompanied by a combination of public and private infrastructure investments. While all the corridors feature at least five ‘focus’ industries, there are some overlaps between corridors. For instance, both Iskandar Malaysia and the East Coast Economic Region (ECER) have included “logistics” as a focus sector, while all corridors in Peninsular Malaysia list “tourism” as a focus sector (see Table 4-5).

Table 4-5 Malaysia’s Regional Development Corridors

Corridor	Iskandar Malaysia	Northern Corridor Economic Region	East Coast Economic Region (ECER)	Sabah Development Corridor	Sarawak Development Corridor (SCORE)
Period	2006-25	2007-25	2007-20	2008-25	2008-30
Area (sq km)	2,216	17,816	66,736	73,997	70,708
Corridor authority	Iskandar Regional Development Authority (IRDA)	Northern Corridor Investment Authority (NCIA)	East Coast Economic Region Development Council (ECER)	Sabah Economic Development and Investment Authority (SEDIA)	Regional Corridor Development Authority (RECODA)
Focus sectors/ industry	Education Financial services Health ICT and creative industries Logistics Tourism	Agriculture Human capital Infrastructure Manufacturing Tourism	Agriculture Education Manufacturing Oil, gas and petrochemicals	Agriculture Environment Human capital Infrastructure Manufacturing Tourism	Aluminium Glass Marine engineering Metals-based industry Petroleum-based industries Wood-based industries Aquaculture Agriculture Palm oil Tourism

Source: *Mid-term Review of the Ninth Malaysia Plan, Malaysian Economic Planning Unit*

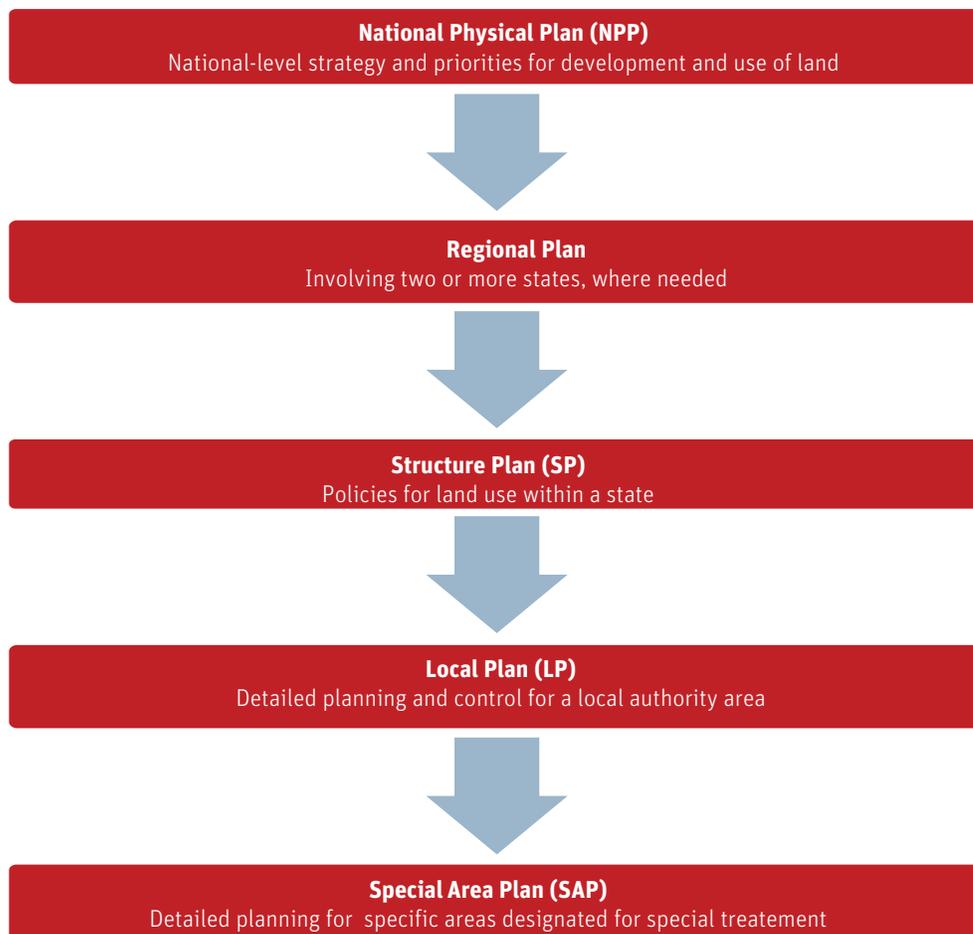
211. Four out of the five clusters leverage the regions’ industrial comparative advantages. For example, the strategy for the ECER focuses primarily on the oil, gas and petrochemicals sector, consistent with the fact that the region produces the largest share of mining output in the country due to the existence of offshore petroleum and gas reserves. By comparison, the focus of the economic strategy for the Iskandar Malaysia region is on “new growth” services sectors located in purpose-built clusters.

212. The corridor authorities are tasked with investment promotion, and with acting as “one-stop centers” for investment approvals within their respective corridors. They are also meant to act as a conduit between the federal and state governments, and in the case of the NCER and ECER, as a kind of metropolitan/regional government agency, given that these two corridors cross state boundaries. In some cases, the corridor authorities have been perceived to add another layer of administrative bureaucracy to the existing overlaps between the local, state and federal governance levels (Ibrahim 2010). For example, although the corridor authorities approve applications for investment incentives specific to their corridors, planning approval remains with the respective local and state governments (see Section 4.3).

4.2.2 Challenges in urban and spatial planning

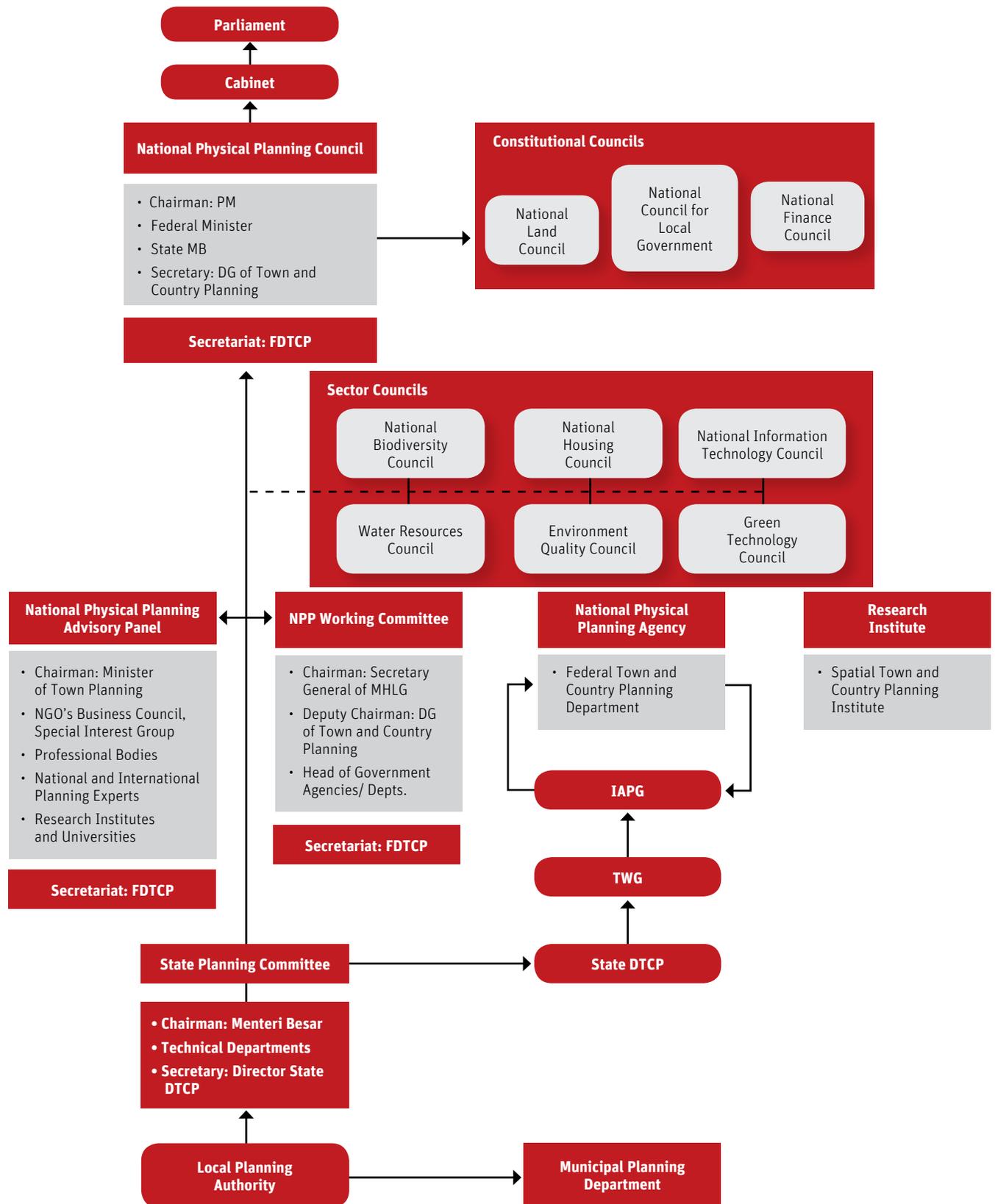
213. In principle, Malaysia has a comprehensive planning system that guides urbanization at various levels. In Peninsular Malaysia, the National Physical Plan (NPP) provides the overarching plan, within which state-level Structure Plans and local plans/special area plans are developed and coordinated by state and local authorities. Where relevant, regional plans may span two or more states. These various levels of planning are summarized in Figure 4-1. The 'national physical planning structure', as proposed and outlined in NPP-2, is well-defined and comprehensive, identifying the roles of various agencies and how they relate to one another (see Figure 4-2).
214. **Linkages across planning levels.** Some weaknesses across linkages in the planning system have been raised. For example, JPBD has identified a number of issues related to implementation of NPP-2. JPBD has no authority or financial resources to actually implement the NPP; implementation sits with various federal agencies, state governments, and local authorities. In addition, NPP-2 has not been well incorporated into sectoral planning and development, resulting in discrepancies with actual budgetary allocations. Other challenges include limitations in monitoring capacity, and lack of suitable policy indicators and databases on strategic zones and conurbations (JPBD 2013: 10-11).

Figure 4-1 The National Development Planning Framework



Source: adapted from Taib and Ho 2008, JPBD 2010.

Figure 4-2 The National Physical Planning Structure



Source: JPBD 2010

215. **Land titles and zoning.** Urban land development is sometimes constrained by inconsistencies in land titling and zoning at the state and local levels. In Selangor several representatives of state agencies and local authorities mentioned cases where land titles granted by the state (the Land Office) were inconsistent with the latest zoning and land uses as indicated in the local plans (e.g. between residential and commercial uses). These issues become most acute in areas of rapid urban development and transformation. Some cases may be relatively straightforward, such as when an existing land owner pays a premium to convert land use from residential to commercial in a part of a residential area currently zoned to allow for commercial use. Examples were also cited of more difficult cases where the government opted to acquire the land from the owner because the owner's intended use, as allowed for on the title document, would have been incompatible with current zoning and regulations.
216. **Large investments and local priorities.** One consequence of weaknesses in planning processes and links to implementation is manifested in cases where large investments do not fully reflect local knowledge and priorities. Interviews with stakeholders across local, state and federal levels showed how knowledge at the local government level⁴¹ has not been effectively translated to centralized design and planning of public transport and urban roads, including highways. One example is in the planning of the Bus Rapid Transit (BRT) by SPAD, where a station has been planned in the central business district of Klang, but does not take full account of current and future population growth areas like Bukit Raja. Similarly, MBPJ has begun to initiate intra-urban public transport services independently of SPAD to fill the gap in service requirements at the local level. In Johor, local authorities cited their perspectives on priority investment needs in terms of roads or bridges that have long been included in local plans, but which remain unfunded by the federal government.
217. **Gaps in planning and coordination.** As a result of some of the issues identified above, gaps in planning and coordination can give rise to suboptimal urban development outcomes. One example of a significant gap in the effectiveness of planning is the fact that in many places across Malaysia, local plans are not gazetted. The typical reason given for not gazetted the local plans is to retain flexibility in decision-making, in effect allowing for a greater degree of administrative discretion. The real impact, however, has been to severely weaken the urban planning system in Malaysia, where local plans are not the effective tools that they are meant to be.
218. Another example is the case of road networks, where there is limited integration between the Highway Network Development Plan (HNDP) at the federal level and local plans, state structure plans, and the NPP (World Bank 2015). In effect, private urban expressways are proposed and planned on an ad-hoc basis. Toll expressways that cut across various local authority areas are proposed, designed and planned by private concessionaires, approved by the Public Private Partnership Unit (UKAS) under the Prime Minister's Department, and regulated by the Malaysian Highway Authority (LLM). LLM is an agency under the Ministry of Works but is independent from federal road planning under the Public Works Department (JKR). Approval for these expressways at the local government level is only required if the local plan has been gazetted; in effect, they are often proposed and built independent of local government plans.

4.2.3 Constraints faced by local authorities

219. Many local authorities in Malaysia have mentioned that they face constraints in two specific areas: financial resources and technical capacity in terms of hiring well-trained staff.
220. **Local authority finances.** In terms of local government financing, most local authorities in Malaysia depend to a large extent on own-source revenues and receive minimal fiscal transfers from federal and state levels. Local

⁴¹ For example local knowledge on population catchment, land use, physical zoning and planning, local demographics

government revenue, as a percentage of total government revenue, is very low in Malaysia, at less than one percent (UCLG 2011: 87). Interviews with local authorities across the country consistently found that with few exceptions such as DBKL, at least 90 percent of local authority revenue is derived from own-source revenue. This consists mostly of property assessments, with a lesser proportion from other local sources such as development charges, licenses and summonses. Conversely, less than 10 percent of the typical local authority's revenue consists of transfers/grants from federal or state levels. Table 4-6 gives a breakdown of revenues for selected local authorities.

221. **Local property taxes.** Local authorities' high level of reliance on own-source revenues is constrained by a local property tax system in Malaysia that is not working the way it was designed. The Local Government Act of 1976 stipulates that the main source of local government revenue is the property assessment/tax (*cukai pintu/taksiran*). This tax is typically based on a property's annual rental value, determined by the Ministry of Finance's Valuation and Property Services Department, JPPH, and the applicable assessment rate; this can range from two percent for agricultural land to 12 percent for commercial properties. Any revision of assessment rates is subject to approval by the respective state government.
222. Stakeholder interviews revealed that annual rental values and assessment rates have not been revised for a long time in almost all of Malaysia; the explanation being that this is for "political reasons". Specific examples include Petaling Jaya, where the annual rental value has not been revised since 1992, while Sungai Petani's last revision was in 1988. Other local authority representatives mentioned even longer periods of 30 years.
223. A recent exception is in the Federal Territory of Kuala Lumpur, where annual rental values were revised upwards by as much as 200 to 300 percent with effect from January 2014, the first such change in 21 years. This increase in annual rental values was accompanied by a reduction in assessment rates for commercial and residential properties; rebates for the disabled, retirees and owner occupied properties; as well as exempting low and middle cost properties from the application of the revised annual rental values (Chan and Sim 2013).
224. **Intergovernmental fiscal transfers.** Local authorities receive their transfers as "grants", as provided for in the Tenth Schedule of the federal constitution, the Local Government Act of 1976, and the State Grants (Maintenance of Local Authorities) Act of 1981. Most funds originate from the federal government, but are usually transferred through state governments. Table 4-7 summarizes the transfers received by selected local authorities, the population within each local authority area, and the size of the transfers on a per capita basis.
225. In per capita terms, transfers to local authorities appear to be imbalanced, with 'important' local authorities such as DBKL and Putrajaya Corporation receiving much larger per capita amounts compared to other local authorities. The per capita transfer amounts do not appear to be related to the size of the local authority area, or its level of development.
226. Some grants received by local authorities are allocated by different line ministries at the federal level, with some funds allocated for very specific purposes (see Table 4-8 for examples on roads and industrial areas). The overall effect appears to be that the fiscal transfers received by local authorities are unpredictable from the local authority perspective; are allocated based on a range of unrelated criteria; and can vary from year to year depending on allocations in different parts of the federal government's annual budget.
227. **Development expenditure and operating expenditure.** Development expenditures are coordinated and approved by the Economic Planning Unit (EPU) under the Prime Minister's Department, while operating expenditures are managed and allocated by the Ministry of Finance (MoF). Development expenditures on projects are often approved independently of allocation of budgetary resources for ongoing and long-term maintenance. Federal agencies are

Table 4-6 Revenue breakdown for selected local authorities, 2011-13

Local Authority	Revenue Source	2011		2012		2013	
		Amount (RM millions)	As % of total revenue	Amount (RM millions)	As % of total revenue	Amount (RM millions)	As % of total revenue
MP Kemaman	Property assessment	45	76	45	76	50	75
	Non-tax revenue*	10	17	10	17	13	19
	Fiscal transfers / grants	3	5	4	7	4	6
	Total	59	100	59	100	67	100
MP Kuantan	Property assessment	48	52	50	52	66	55
	Non-tax revenue*	35	38	38	39	41	34
	Fiscal transfers / grants	8	9	9	9	12	10
	Total	92	100	97	100	119	100
MB Petaling Jaya	Property assessment	182	65	192	66	199	64
	Non-tax revenue*	89	32	89	31	97	31
	Fiscal transfers / grants	6	2	6	2	7	2
	Total	280	100	290	100	310	100
MB Shah Alam	Property assessment	166	70	189	69	217	70
	Non-tax revenue*	55	23	72	26	79	25
	Fiscal transfers / grants	16	7	12	4	15	5
	Total	236	100	274	100	311	100
MP Seberang Perai	Property assessment	127	73	132	74	.	.
	Non-tax revenue*	38	22	37	21	.	.
	Fiscal transfers / grants	8	5	10	6	.	.
	Total	174	100	179	100		
MP Sepang	Property assessment	.	.	63	71	69	71
	Non-tax revenue*	.	.	18	20	20	21
	Fiscal transfers / grants	.	.	8	9	8	8
	Total			89	100	97	100

Source: Local authorities' financial statements, as provided to the World Bank team.

Notes: Non-tax revenue includes license and permit fees, service fees, fines, investment income. All figures rounded to nearest RM million/whole percentage point.

Table 4-7 Fiscal transfers per capita by selected local authorities, 2011-13

Local Authority	Year				
	2010	2011	2012	2013	
MP Kemaman	Fiscal transfers received (RM)	.	3,462,657	3,766,933	3,594,944
	Population	166,750	169,251	171,790	174,367
	Fiscal transfers per capita (RM)	.	20.5	21.9	20.6
DB Kuala Lumpur	Fiscal transfers received (RM)	.	112,750,000	114,200,000	135,100,000
	Population	1,588,750	1,612,581	1,636,770	1,661,322
	Fiscal transfers per capita (RM)	.	69.9	69.8	81.3
MP Kuantan	Fiscal transfers received (RM)	.	8,368,335	9,340,829	11,831,900
	Population	427,515	433,928	440,437	447,043
	Fiscal transfers per capita (RM)	.	19.3	21.2	26.5
MB Petaling Jaya	Fiscal transfers received (RM)	.	5,657,868	5,772,103	6,626,540
	Population	613,977	623,187	632,534	642,022
	Fiscal transfers per capita (RM)	.	9.1	9.1	10.3
Perbadanan Putrajaya	Fiscal transfers received (RM)	.	8,875,274	11,861,661	.
	Population	68,361	69,386	70,427	.
	Fiscal transfers per capita (RM)	.	127.9	168.4	.
MP Seberang Perai	Fiscal transfers received (RM)	.	8,372,142	9,763,458	.
	Population	819,197	831,485	843,957	.
	Fiscal transfers per capita (RM)	.	10.1	11.6	.
MB Shah Alam	Fiscal transfers received (RM)	.	15,664,698	12,362,478	14,839,197
	Population	443,222	449,870	456,618	463,468
	Fiscal transfers per capita (RM)	.	34.8	27.1	32.0

Source: Local authorities' financial statements; 2010 census.

Note: Population figures are based on the 2010 census, and increased by 1.5 percent annually.

Table 4-8 Key grant transfers to local authorities

Grant	Purpose	Basis of Allocation
Federal – through Ministry of Urban Well-being, Housing and Local Government (KPKT)	Annual general grant	Determined by KPKT together with the Ministry of Finance. Local authorities receive amounts between RM800,000 and RM5,000,000 based on financial situation of each local authority.
Malaysian Road Records Information System (MARRIS)	Road maintenance	The Ministry of Finance maintains the MARRIS database that records road information for the entire country submitted by state Public Works Departments (JKR) and local authorities. This information is used to calculate each state's road maintenance grants provided by the federal government, as provided for in the Tenth Schedule of the federal constitution.
Malaysian Industrial Development Authority (MIDA)	Support the development and maintenance of industrial zones	In line with the Malaysian Industrial Development Authority Act 1965, Section 10a (ca), the MIDA Fund "gives financial assistance or credit facilities, with or without interest, or any contribution to any person for educational purposes, scholarships or any other purposes subject to the approval of the Minister with the concurrence of the Minister of Finance."

Source: KPKT, MOF, and MIDA.

required to revise budgetary requests to maintain assets every two years. Interviews with local authorities have indicated that many federally-funded facilities are built within municipal boundaries, and later do not receive a corresponding maintenance budget.

228. This places growing pressure on local authorities to provide their own funds for maintenance. In interviews with stakeholders, local authorities often mentioned examples of how they would perform stop-gap repairs of a road or remedial work on a river bank in response to public complaints, rather than wait for the Public Works Department or Drainage and Irrigation Department. They carried out these repairs even though this was not within their remit and it involved maintenance for which they had not received federal funding.
229. **Human capital at the local level.** Another challenge that was commonly cited in discussions with local authorities across all six conurbations was human capital limitations. This was mentioned as a key factor impinging on the quality of service delivery and is due to several factors, including:
- » Difficulties in recruiting and retaining talent, particularly the perception of limited career opportunities and potential disparities in compensation between the different levels of government.
 - » Bottlenecks in the hiring process due to the centralization of staffing allocations at the federal level.
 - » Mismatches between staffing requirements and allocations.
230. Local authority staff are not part of the federal or state civil service, but are instead directly hired by the local authorities themselves, and paid for by the core local authority budgets. Such staff typically remain with the same local authority throughout their entire careers, and do not have the ability to transfer to other local authorities, much less to other levels of government. This in turn limits their exposure to the latest ideas and innovations. In some cases local authority staffing appears to be constrained by staffing controls exercised by the federal-level Public Service Department (JPA). For instance, JPA may reject a local authority's request for additional staff positions if it does not conform to JPA's guidelines or its staffing criteria.
231. One way in which local authorities may respond to staffing constraints is by hiring more contract staff. For example, one local authority in Selangor (within the Greater Kuala Lumpur area) showed that as of August 2014, it had 369 permanent staff out of a total warranted 449 positions, and had hired an additional 157 contract staff. Within these total figures, the situation with respect to professional and technical staffing (job grades 27 and above, requiring a minimum of diploma-level education) was 96 permanent staff out of 118 warranted positions, with an additional 16 contract staff. Although much of the gap in staffing and use of contract staff does not appear to affect the professional and technical ranks, a high proportion of contract staff may not be conducive for building staff capacity and encouraging longer term career development.
232. Local authorities are also able to supplement their staffing levels by obtaining secondees through JPA. Federal agencies such as the Town and Country Planning Department (JPBD) embed staff at the local authorities, for functions such as urban planning. These seconded staff are able to move between different government agencies as part of their careers, thereby accessing more career opportunities compared to the local authorities' "own" staff.
233. The lack of career opportunities, as well as lower pay compared to equivalent positions in state and federal agencies, also contributes to difficulties in filling positions. For instance, local authorities have mentioned that the environmental health officer (U29) and public health assistant (U17) positions are very difficult to fill, as graduates and others with qualifications in these areas often prefer to work in the private sector.

234. During various interviews, local authority representatives also voiced the opinion that their staff are insufficiently challenged, despite the public's demands for a higher quality of local service delivery. It is believed that this is because staff spend an inordinate amount of time focusing on routine documentation and process-related reporting and audits. For example, the Selangor local authority mentioned above provided a list of 22 different "award" or "certification" activities that it had been involved in (and required to report/ provide documentation for) for the period 2009-14. These include the Star Rating System of KPKT, the Government Portals and Website Assessment, the state Public Sector Innovation Awards, the 5S Quality Environment of the Malaysian Productivity Corporation, and the MURNInets indicators.
235. In recognition of these staffing issues, the Ministry of Urban Well-being, Housing and Local Government (KPKT) recently announced the PBT Transformation Plan. One specific proposal under this initiative is to create a PBT Service Commission, under the authority of the state government. The roles and functions of this commission would be akin to the federal-level Public Service Commission (JPA), but for local authorities. Appointments and promotions of local authority staff come under this new commission. This arrangement would allow for rotation of local authority staff across different local authorities within a given state.

4.3 Institutional Recommendations for City Competitiveness

236. The diagnostic in Section 4.2 above has identified some institutional issues that constrain the effectiveness and efficiency of urban service delivery in Malaysia. If not adequately addressed, these issues are likely to continue to affect the delivery of urban services. With growing demand for services from the expanding urban populace, addressing institutional issues is an essential component for strengthening the competitiveness of Malaysia's cities. Based on the analysis of institutional issues, the recommendations in this chapter focus on two main areas: (i) localization of service delivery, and (ii) increasing the capacities of local authorities.

4.3.1 Localization of Service Delivery

237. This section on localization of service delivery recommends transforming institutional structures in Malaysia to increase city competitiveness. The intention is to shift more management and decision-making roles to local authorities. This shift should be in tandem with an enhanced system of local performance indicators.
238. **Appropriate levels of service delivery.** A fundamental question when considering shifting greater responsibility for service delivery to local authorities in Malaysia lies in determining what the appropriate or 'ideal' level of government should be for delivering a given service, and therefore what the corresponding institutional structure should be.
239. There are a number of criteria that can help decide whether a public service should be delivered and managed at the local, metropolitan, state/provincial, or national level. Slack (2007) suggests the framework outlined below, which Andersson (2012) uses to categorize various services.
- » **Economies of scale.** For many services, the per-unit cost of delivery decreases as the quantity of the service provided increases, e.g. water supply and power generation. For some services, such as primary education, economies of scale are hard to achieve, and so may be best handled by local governments (although equity considerations may suggest otherwise; see below). Scale economies can be dependent on the geographic and demographic profile of each city/metropolitan area. For example, because Kuala Lumpur differs significantly from Kuantan, the level of government recommended for the management of sewerage services could differ for both cities.
 - » **Externalities.** The provision of services can cause positive or negative effects beyond jurisdictional boundaries. In the example of a river basin, upstream infrastructure and maintenance affect water quality for the entire

basin. Maintenance and enforcement of river by-laws can be effectively performed at the local level, while planning and investment can be done at the state or metropolitan level to take account of any externality effects.

» **Equity.** An important consideration is equity, particularly for services that are funded by local government revenues. Wealthy jurisdictions are likely to have more local resources for service provision, while poorer ones may struggle to provide the same services resulting in unequal access to services. Providing such services at the metropolitan or state level can help equalize such imbalances.

» **Local responsiveness and accountability.** Local responsiveness is key for effective delivery of services that best suits local needs. The closer decision-making is to the people affected by decisions, the more able citizens are to hold decision-makers accountable. Moreover, some services are heavily dependent on maintenance and enforcement. Examples of maintenance dependent services include public road maintenance, landscaping, drainage maintenance, general cleanliness and street lighting. Other services that are enforcement-reliant such as traffic control, advertisements, river pollution and business operations also require strong local responsiveness.

240. Providing services centrally creates economies of scale and captures externalities, but this comes at the cost of imposing a common policy on populations with varied preferences and priorities. Governments should carefully consider trade-offs when allocating functions across local, state and national lines; services that central governments provide should benefit the entire economy or exhibit substantial economies of scale, for example defense or foreign relations. Correspondingly, subnational units should provide local public goods (World Bank 1999).

241. In light of these criteria and the underlying literature, a decision flowchart that could be applied to Malaysia's circumstances is illustrated in Figure 4-3. Based on this flowchart, the "ideal" distribution of service delivery responsibilities across levels of government for Malaysian cities is shown in Table 4-9 and takes into account feedback from the Technical Committee for this study. Both the flowchart and the table are not intended to be definitive; rather, they are meant to illustrate the logical process by which Malaysia could decide which services could be devolved to sub-national levels.

242. **Devolution.** Localizing service delivery in this way would in effect be a process of devolution of governmental functions for Malaysia. In addition to improving the efficiency and effectiveness of urban service delivery, this devolution could also address institutional issues that have been identified by:

- » increasing the clarity of accountability;
- » improving coordination and planning efforts across different disciplines and services; and
- » reducing duplication of roles and responsibilities.

243. Box 4-2 discusses devolution in the context of other forms of administrative decentralization, comparing Malaysia with South Africa and Indonesia, which have devolved to varying degrees. Box 4-3 describes the process and outcomes of decentralization in Mexico over the past three decades.

244. **Metropolitan Governance.** It is also important to emphasize that the recommended institutional structure is not intended to be a blanket move to localize all functions across all layers of urban services in Malaysian cities. In fact, some functions, such as road network planning, could be consolidated to better manage the externalities involved. Table 4-9 recommends the consolidation of various planning functions at the level of a metropolitan area or state, depending on the city.

Figure 4-3 Decision Flowchart to Determine Level of Government for Service Provision

A. National Interest

- Does the service involve collective national interest in the international context?
(eg. international airports, defense, foreign affairs, monetary control, etc.)

B. Economies of Scale/Network

1. Are there economies of scale in service delivery?
(eg. electricity generation, telecommunications cabling, water and waste treatment, etc.)
2. What are the factors determining economies of scale?

C. Local Responsiveness

- Is service delivery quality dependent on local responsiveness?
(Local responsiveness-dependent service delivery includes education, health, waste collection, road maintenance, etc.)

D. Externalities

- Are there significant externalities that extend beyond municipal boundaries?
(eg. traffic management, flood mitigation, deforestation)

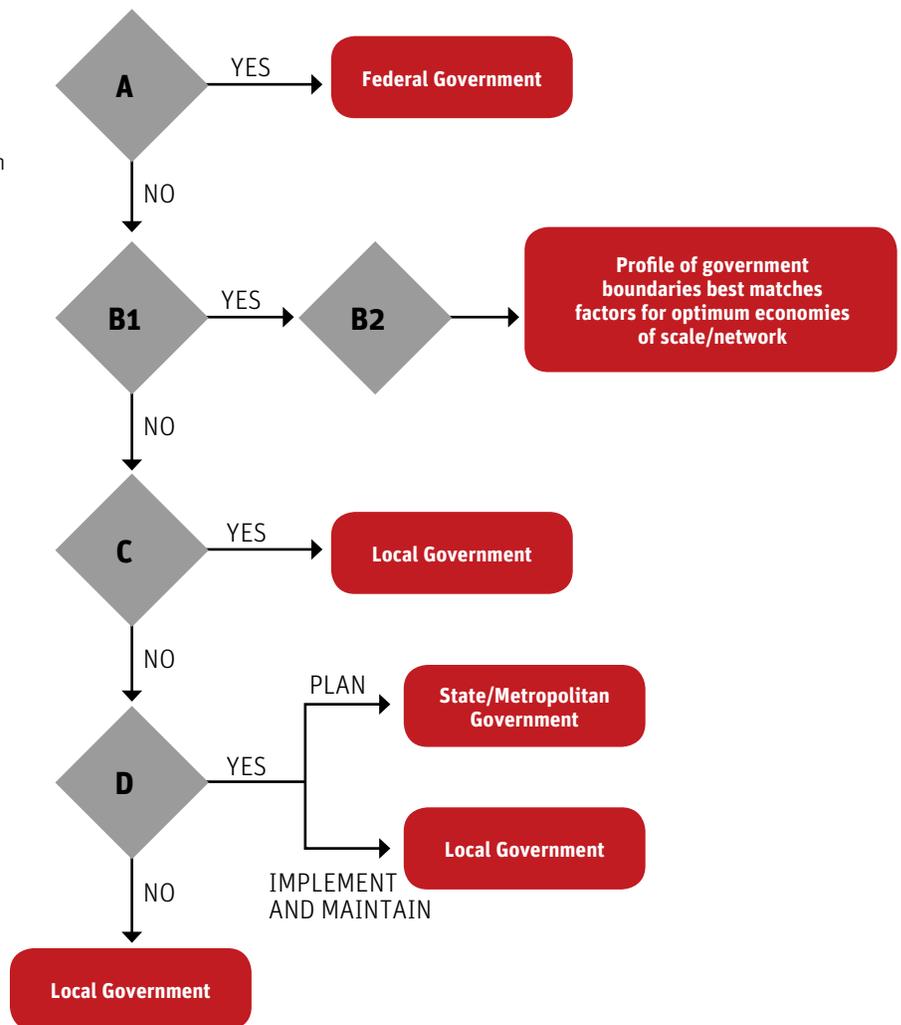


Table 4-9 Recommended distribution of responsibilities for service delivery across levels of government

	Current			Vision		
	Local	State	Central	Local	State/Metro*	Central
Zoning & Land use	X			X		
Transport Network						
Private Intra-urban Highways			X		X	
Federal Highways / Roads (Intra-urban)			X		X	X
Municipal Roads	X			X		
Traffic Management / Congestion Monitoring	X				X	
Public Parking	X			X		
Bus Network & Stations			X		X	
Rail Network & Stations			X		X	
Taxis			X		X	
Other Land Public Transport			X		X	
Cycling Network	X			X		
Pedestrian Network	X			X		
Airports			X			X
Drainage & Irrigation (Flood Mitigation)						
Planning			X		X	
Implementation			X	X		
Maintenance	X		X	X		
Drainage & Irrigation (Local Drainage Network)	X			X		
Urban Services						
Sewerage			X		X	
Solid Waste (Collection)	X		X	X		
Solid Waste (Disposal - Public)		X	X		X	
Water		X	X		X	
Electricity distribution (privatized)			X			X
Telecommunications Networks (privatized)			X			X
Police Stations			X	X		X
Fire & Rescue			X	X	X	
Public Facilities						
Public Markets & Hawkers	X			X		
Open Spaces & Public Parks	X			X		
Public Hospitals & Medical Care			X		X	X
Libraries			X	X		
Art & Cultural Centers			X	X		
Homes, Nurseries & Kindergardens			X	X		
Community Centers (Sports Facilities, Halls, etc)	X			X		
Education						
Schools			X		X	X
Institutes of Higher Learning			X			X
Housing Supply						
Public Housing-PPR (Federally Funded)			X		X	X
Building Controls						
Policy			X		X	
Implementation	X			X		

Box 4-2 Approaches to fiscal decentralization

Fiscal decentralization is the intergovernmental distribution of responsibilities for expenditure and financing among various types or levels of government, in a way that is harmonized with the political framework (Muwonge and Ebel 2014). This usually takes the form of three distinct arrangements:

- 1. Deconcentration.** A process whereby regional offices of central ministries are established to provide services locally. These regional offices do not always have independent decision-making authority. For many urban services, Malaysia's system today most often resembles deconcentration, with varying degrees of authority.
- 2. Delegation.** An intermediate arrangement between deconcentration and devolution. The central government assigns responsibilities for certain local functions to local governments or other entities, which are ultimately accountable to the central government. The trend toward privatization of some services in Malaysia is a form of delegation.
- 3. Devolution.** The transfer of authority for decision-making, finance, and management to quasi-autonomous units of local government. These include municipalities that elect their own mayors and councils, raise their own revenues, and have independent authority to make investment decisions.

The table below compares aspects of the 'mayor's wedge' (see Annex 3-5 for further details) for South Africa, Indonesia and Malaysia in terms of decentralization, policy levers and revenue-raising power. South Africa can be counted among Malaysia's peers in terms of size, income level and institutional history; this country has followed a model of devolution, with city governments wielding more influence over policy and being answerable to their constituents. Indonesia is a nearby example of political and institutional transformation, and has moved from deconcentration to provinces, to devolution to cities (Smoke 2013). Annex 3-3 contains case studies of decentralization in Indonesia, Mexico and Spain, including the benefits that have arisen in specific sectors such as health and education.

Some challenges that countries face in pursuing devolution may include:

- a. uneven quality of implementation and lack of conformity to national standards/guidelines across different cities and geographies;
- b. the need to redistribute financial resources across levels of government, given varying sources of revenue and fiscal capacities;
- c. weak technical capacities in some locations, depending on access to skills and talent.

Malaysia's geographic, demographic and political profile, taken together with its existing institutional structure, suggests that it would have the ability and resources to overcome these challenges.

	South Africa	Indonesia	Malaysia
Decentralization Context	Municipalities are more independent than provinces, metro powers have increased.	Devolution to cities/districts since 2001, yet recent reforms have increased role of higher-level government.	Deconcentration where city governments implement functions and directives from higher-level government.
Policy Levers	Cities responsible for economic promotion, tourism, transport and urban roads, and policing and civil protection	Cities provide local business development support, and some set up one-stop shops to foster a good investment climate.	Cities have no direct role in economic development-related functions (it is state or federal government-led), nor in policing and/or civil protection.
Revenue Raising	Cities much more fiscally independent than other local governments, and have several revenue sources (as opposed to just property tax revenue)	Cities collect several municipal taxes but cannot set tax rates or create new taxes. Devolution has increased city spending autonomy, financed via fiscal transfers.	Very little revenue is raised by cities (local authorities). Cities have access to local property tax, and other sources such as user fees and charges (as own-source revenues).

Box 4-3 Decentralization in a federal country: the case of Mexico

Background: Mexico is a federal country with a federal constitution but prior to the mid-1980s, states and municipalities had very little autonomy. The president had extensive control over all levels of government, including proposing candidates to head local governments. Decentralization reform in Mexico began in 1983, for two main reasons. First, the debt crisis made it difficult for the federal government to provide adequate public services; and second, population growth in the Federal District of Mexico City placed considerable strains on urban infrastructure and the environment. President de la Madrid's administration hoped that sharing administrative functions and responsibilities with states and municipalities would allow the federal government to increase administrative efficiency while decreasing its own accountability by shedding bureaucratic responsibilities (Elias 1997).

Goals of Decentralization: The decentralization reform in 1983 had three goals:

- i. decentralize all federal agencies, administratively and geographically;
- ii. strengthen federalism by increasing the powers of states and local government; and
- iii. promote regional economic development. (Elias 1997)

All ministries were subsequently decentralized; coordinated by the Ministry of Budget and Planning. The Mexican constitution was also reformed to strengthen federalism. Industrial investment was promoted in places outside of Mexico City; municipalities were granted the legal and financial capabilities to operate without interference from the federal government.

Implementation: Municipalities were given responsibility over potable water, drainage, sewerage, public lighting, refuse collection, cemeteries, streets, public parks, public safety, and slaughter houses. The central government also shared revenues through an 'unconditional fund' for each state. In 1997, the central government provided additional funds to the states and municipalities as a 'conditional fund' to be used for particular sectors, such as social infrastructure and public safety. These transfers significantly increased local government budgets. By around 1990, the breakdown of the typical municipality's revenue was, on average, 63 percent from unconditional funds from the central government, 11 percent from local taxes, 10 percent from local fees and charges, and 16 percent from conditional funds and sale or lease of state owned property (World Bank 1991: 38).

Outcomes: The overall impact of the 1983 reforms has been mixed. Local autonomy was greater in areas that did not require large amounts of federal funding (Elias 1997). For instance, the decentralization of the Ministry of Education greatly improved the ability of the states to establish schools and provide teacher training by transferring material and financial resources from the federal to the state governments (Rodriguez 1987: 78). Other research has found that fiscal decentralization has been associated with changes in patterns of accountability and entrepreneurship, which tend to promote good governance in rural local governments (Moreno 2013). Conditional funds were found to be important in promoting both accountability and entrepreneurship, while unconditional funds have a negative effect on accountability and no effect on entrepreneurship. Being closer to local populations has allowed for more efficient allocation of resources in rural municipalities (Moreno 2013).

Source: Elias 1997, Moreno 2013, World Bank 1991: 38

245. There have been previous efforts to create administrative mechanisms that reach beyond local authority or state boundaries in Malaysia. One of the earliest examples is the Klang Valley, where the recommendation for a planning and coordination body was made as early as 1972. Over time, this has taken the forms of the Klang Valley Regional Planning Council and then the Klang Valley Regional Development Committee supported by a Klang Valley Planning Secretariat (Mohamed Ishak 1989 cited in Zuliana Zakaria 2003). However, the Council reportedly went for a decade without actually meeting (King 2008: 118), and it has been noted that a key weakness of this arrangement is the fact that the Committee is advisory in nature, has not been established by statute, and has no legal powers (Sharifah Zubaidah 2007).
246. As for the five regional economic corridors discussed in Section 4.2.2, the corridor authorities' efforts so far have been primarily geared toward economic development, serving mainly a coordination function and promoting

investment. At the same time, service delivery remains with local authorities and/or federal government agencies. The most influential of all the regional authorities is IRDA in Iskandar Malaysia, due to the strong financial and investment commitments from Khazanah Nasional Berhad. Iskandar Malaysia's success, in terms of the number of key projects that have been implemented, suggests that initiatives toward metropolitan-level governance are only effective if coupled with public funding and clear delegation of responsibilities. That Iskandar Malaysia lies within the jurisdiction of only one state, Johor, may also simplify potential land and administrative matters.

247. Based on the current size and characteristics of Malaysian cities, the metropolitan-level function is envisioned to involve mainly planning, instead of implementation and maintenance. Based on recent experience with the regional corridor authorities, as well as with planning for the Klang Valley, a basic principle would be for the metropolitan agency to have a legal mandate and powers, to include making and approving plans. Nonetheless, each metropolitan area should, if required, collectively determine the metropolitan governance model that best suits its needs based on its current conditions and growth aspirations. Substantial theoretical and empirical work has been done in recent years on various aspects of metropolitan governance (for example, Bahl *et al* 2013). Box 4-4 gives the metropolitan management example of the Greater Manchester Combined Authority in the UK, which holds some relevance for Malaysia. Refer to Annex 3-4 for more details and examples of metropolitan governance arrangements.

Box 4-4 The Greater Manchester Combined Authority

The United Kingdom has recently instituted two programs of regional coordination to unite local governments around certain service delivery functions. One of the measures, Local Enterprise Partnerships (LEPs), cover all English local authorities of which there are currently 39. LEPs are meant to provide strategic leadership in local economic priorities. Combined Authorities are legal bodies that can be set up by two or more contiguous local authorities and are a more formal alternative.

The Greater Manchester Combined Authority (GMCA) was established in 2011 to cover ten local authorities. The GMCA works with its constituent local authorities in economic development and transport. This includes developing a Greater Manchester Strategy; an economic strategy; and establishing Transport for Greater Manchester (TfGM) as GMCA's executive body for transport functions (Smith 2012). The GMCA, TfGM and other Greater Manchester institutions have clearly defined roles based on agreements between local authorities. Notable achievements of GMCA include: major refurbishment of the Bolton and Rochdale railway stations as part of a metropolitan region transport investment program worth £30 million, and permission for the building of up to 7,000 new homes by 2017. It is also a testament to the GMCA's success that London-style powers are now being recommended for Manchester, as the first U.K. city to follow London's regional government model (Wilcox *et al* 2014: 11).

248. The creation of metropolitan agencies should not add to institutional complexity, but rather should afford the opportunity for rationalization and improved coordination. Metropolitan agencies could be formed to enable coordination across several local authorities in a conurbation, which could coordinate specific functions such as urban transport, solid waste collection and disposal, or emergency services/first responders. These agencies could facilitate improved planning and coordination for an entire metropolitan area, while also providing for more effective prioritization of local needs. Local authorities could assess availability of services before development approvals are given, and approvals for development projects could take into account zoning and land use plans at the local level. This would help local authorities manage urban growth more effectively, rather than in an ad-hoc or reactive manner.
249. Moving toward metropolitan governance is also consistent with the recommendations of the recently completed World Bank RAS on *Crafting Malaysia's National Transport Strategy*. It recommends that a lead urban transport agency act as a "sub-national integrator" at the conurbation level for planning and decision-making, to include:

land public transport, conurbation highways, major federal and state roads within the conurbation, and other transport planning (World Bank 2015: 237-238). Such an approach is also reflected in Table 4-9.

250. **A Phased Approach for Institutional Restructuring.** A pilot service has been identified to consider the practical steps for implementing these changes, Box 4-5 discusses the case of planning and maintenance of roads. As an example of a service with low barriers to restructuring, this case highlights issues faced in road infrastructure planning and maintenance, and the proposed restructuring and implementation strategies needed to improve this service.
251. In seeking to implement localization of service delivery, the recommended phased approach consists of a pilot phase, a middle phase, and a final phase. One selected service would be restructured initially to assess the potential and the effectiveness of localizing more services given Malaysia's particular circumstances.
252. **Pilot Phase.** In the pilot phase, the road maintenance function could be devolved to local authorities in **one** city to assess effectiveness before proceeding to other services. The pilot phase could consist of the following steps:
- » Establish a comprehensive baseline with appropriate data on road maintenance quality. (This would build on the existing MARRIS database, and be informed by the findings of the National Transport Strategy which is advised by the World Bank.)
 - » Transfer all road maintenance grants (including MARRIS funds) for all federal, state and municipal roads in the pilot area to the local authority. The local authority thus becomes solely accountable for all road maintenance within its boundaries.
 - » Realign the roles of federal agencies and units to focus on monitoring and evaluation. In this case JKR or the lead urban transport agency would monitor the performance of road maintenance.
 - » JKR/the lead urban transport agency would conduct regular surveys of road conditions. This would allow for comparison of the effectiveness of road maintenance and road conditions across different local authorities in the same metropolitan area (e.g. comparing MBPJ, DBKL, MPSJ).
 - » JKR/the lead urban transport agency would also undertake data collection and mapping of all roads to allow for future planning of road construction.
 - » If the results of this pilot phase prove successful, similar initiatives would be rolled out for other services to move toward the "ideal" institutional structure in Box 4-5 .
253. **Subsequent Phases.** The timeline and scope for subsequent phases is summarized in Table 4-10.
254. **City Performance Indicators.** To ensure that the institutional restructuring is effectively improving urban service delivery, each service needs to be matched with:
- » one or more quantitative indicators that measure the level of service delivery;
 - » a baseline survey on service delivery based on the current institutional structure; and
 - » regular surveys/data gathering to allow for adequate measurement and follow-up actions.

Box 4-5 Road infrastructure planning and maintenance

Historically, road planning and maintenance have been managed according to the three tiers of government: federal, state and local. This structure remains despite the increasing complexity of road networks, especially in the Greater Kuala Lumpur area. The private sector has also been actively involved, creating many private tolled highways that are often not part of a coherent metropolitan level plan. Interviews with federal and local government agencies have revealed that these private highways have burdened existing federal and local road networks. Yet, there is currently no intra-urban road network plan coordinated across all levels of government for Greater Kuala Lumpur.

Responsibilities for road maintenance are often unclear to the general public. Local governments are pressured by the public to maintain all federal, state and municipal roads in their respective areas, despite not receiving adequate funds to do so.

Planning: According to Figure 4-3, intra-urban road infrastructure planning does not involve national-level interest and does not offer large economies of scale, but does involve externalities beyond municipal boundaries. It is therefore advisable for planning to be conducted at the metropolitan or state level. For a metropolitan area like Greater Kuala Lumpur that cuts across ten local authority areas and two states, a metropolitan governance entity (or lead urban transport agency as “integrator”) could be formed and empowered with a budget for effective road network planning and implementation control.

Maintenance: To improve accountability and service delivery for road maintenance in cities, responsibility for maintenance of all public roads within a local authority’s boundaries could be given to the local authority. It would also need sufficient funding to maintain this infrastructure. The local authority would then function as a “supplier” agency for the service in question. The federal agencies previously responsible for maintaining federal roads could be tasked with monitoring road maintenance performance across local authorities.

Source: World Bank analysis

Table 4-10 Suggested phasing for localization of service delivery

Phase	Duration	No. of cities involved	Services to be restructured
Pilot	Two years	One city	Road maintenance
Middle	Two to five years	All six cities	Road maintenance
		One city	Drainage and flood mitigation, etc.
Final	Beyond five years	All six cities	Other services based on readiness

255. Malaysia already has systems in place for measuring urban service delivery by local authorities. The Ministry of Urban Well-being, Housing and Local Government’s Star Rating System for Local Authorities (SPB-PBT) consists of more than 350 indicators, across four areas: management, core services, customer management, and community involvement. Based on composite scores across all indicators, individual local authorities receive ratings of up to five stars once every two years. Based on KPKT’s experience, SPB-PBT has been effective in motivating improved performance among local authorities (“what gets rated gets done”), and is complemented by a training and capacity building program for those issues where local authorities need support. Another building block is the MURN-Inets indicator system (see separate report on city indicators delivered through this study). ISO 37120 is the new international standard for city indicators. It offers Malaysia the opportunity to benchmark performance in specific areas, and to identify good practices from leading cities worldwide.

4.3.2 Strengthening capacities of local authorities

256. The recommendations in this section relate directly to financial and technical constraints facing local authorities as identified in Section 4.2.2. Increasing the capacity of local authorities would involve improvements to urban service delivery by addressing their local plans, own-source revenues, fiscal transfers and staffing. Capacity building should also be undertaken to ensure that standards across local authorities are at similarly robust levels.
257. KPKT is currently developing the PBT Transformation Plan, within which key focus areas include: developing human capital at the PBT level; increasing efficiency of service delivery; strengthening PBT finances; enhancing well-being of the people; improving engagement at all levels; and more effective communications. The World Bank team discussed the recommendations in this section with KPKT. These recommendations are based on a broadly common understanding of the challenges facing local authorities in Malaysia.
258. **Local Plans.** The core of the urban planning system at the local level is the local plan. A key priority would be to remove any barriers that prevent the local planning system from working effectively, the way it was designed to. Therefore, a specific recommendation of this study is that all local plans should be gazetted. Existing legal provisions for enabling variations to gazette plans, and for periodic revisions to those plans, should be followed.
259. **Property Assessments.** The core of local authority finances in Malaysia, and the principal form of own-source revenue, is property assessment (tax). Malaysia should seek to remove political or other barriers that have prevented the property assessment system from working effectively. Safeguard mechanisms could be built into the system to avoid placing sudden or excessive property tax burdens on individual property owners, particularly lower and middle income groups. Where applicable, steps could include:
- » Revise the assessment rates – on a gradual, step-wise basis, to reach a specified target percentage of assessed value over an extended period, e.g. 10 years. Plan for periodic revisions of rates to allow the system to work as intended.
 - » Update assessed values where needed to reflect actual market values/annual rental values in a more timely and realistic manner.
 - » Build in a protection mechanism designed to shield existing property owners from sudden or excessive increases in the amount of property tax that is actually payable. This could be an automatic rebate system that caps the annual increase in actual assessment paid, notwithstanding increases in assessed values and assessment rates. New owners could be required to pay the full rates, information on which would be transparent as part of the property purchase transaction.
260. **Fiscal Transfers.** The system of fiscal transfers to local authorities could be revised to be more transparent, predictable and formula-based.
- » In line with current Malaysian fiscal practice, the Federal Grant to local authorities could be divided into two components: the Development Grant (DG - for investment/development expenditure) and the Operational Grant (OG - for operational expenditure).
 - » For those services devolved according to the process described in Section 4.3.1, ensure that comprehensive technical guidelines from relevant line ministries are in place, particularly for managing how the OG may be spent. Sufficient technical capacity building should be offered to local authority staff to familiarize them with all technical guidelines so they can perform their functions well.

- » Local authorities may prioritize and decide on spending for specific projects or activities at the local level, provided that this is in compliance with federal guidelines.
- » The specific formula for this Federal Grant, including constituent variables, would need to be carefully considered to take into account the diversity of needs across the country. At least part of the grant formula can be based on “needs”, including variables such as level of development, extent of land area, and number of residents served.
- » In principle, part of the Federal Grant could also be structured as a performance-based grant, see Box 4-6 for an overview of the literature on the use and effectiveness of performance-based grants. Based on selected relevant indicators for the devolved service in question, incentive payments in the form of increased grant funding could be given to local authorities for excellent performance (see section 4.3.1 on city performance indicators, including the role of existing Malaysian indicator systems such as SPB-PBT and MURNInets). KPKT could be the lead agency for monitoring the performance of local authorities through the indicator systems, with technical inputs on specific sectors from relevant line ministries.

261. **Local authority staffing.** To improve the technical capacity of local authorities, options could be pursued to improve their ability to recruit, motivate and retain the right staff. These could include: relaxing some centralized staffing controls, and providing more opportunities for career development by enabling local authority staff to rotate and serve at other government agencies. As mentioned above, the PBT Transformation Plan that is under development by KPKT includes a focus on developing human capital at the PBT level, and represents a key opportunity in this regard.

Box 4-6 Performance-based Grants (PGs)

Performance-based grants (PGs) are the most widely-discussed fiscal incentive instrument in the literature (Steffensen 2005, UNDP 2005, Steffensen 2006). PGs try to promote a positive change in some aspect of local government performance by making access to a grant conditional on the achievement of certain goals. Local governments must show that they have met the goals established in the grant legislation or rules.

The literature shows that PGs have been generally successful. Some factors have been important for promoting good results: capacity building policies; good performance indicators; flexibility in the usage of funds; commitment and credibility of all actors involved (citizens, NGOs, local governments, central governments and other contributing agencies/donors); involvement of all key stakeholders in grant implementation schemes; and strong communication of the objectives behind the system.

International experience has shown that PG initiatives are more likely to be successful when their design includes capacity-building components. This capacity building component should be relatively easy for local governments to access, unlike the grant component, which should be harder to obtain.

Good performance indicators are fundamental to the functioning of the PG system. Strong indicators simplify the assessment of progress and strengthen the overall credibility of the PG system.

Flexibility in the usage of funds has proven to be important because it fosters efficiency in resource allocation based on local priorities and preferences. There is a trade-off between central government targets and flexibility. Those systems which have more autonomy in resource utilization tend to achieve stronger performance measures.

Source: Excerpt from DSF (2008)

5. INCLUSIVE CITIES: AT-RISK YOUTH IN URBAN AREAS

5.1 Introduction

5.1.1 Background

262. Malaysia, like many countries in Asia and beyond, has a young and increasingly urban population. Movement from rural to urban areas is significant and has been taking place in Malaysia for decades. In the last five years alone, about 2.5 percent of households moved from rural to urban areas. It is estimated that by 2020 some 75 percent of Malaysia's population will live in urban centers (World Bank 2011). Young people between the ages of 20 and 30 account for the largest share of internal rural to urban migration.
263. Experience with urbanization across the globe shows that for people living in urban areas, urbanization can offer both opportunities and challenges (World Bank 2013a). People move from rural areas to cities seeking jobs, business opportunities, and education. Cities offer a different social milieu, where old norms and values may give way to new and more diverse ones. New social networks and social capital are built in the cities, and professional and neighborhood groups can become new sources of social support.
264. But urbanization can also come with significant challenges, and cities can grow in different ways. Inequality can be especially stark in urban areas and can contribute to social exclusion and poverty (World Bank 2013a). Mental health issues, substance abuse, and poor security all affect people in urban areas more than in rural areas.
265. Urbanization also brings challenges for city and municipal authorities. Urban growth is typically unplanned, creating serious problems for service delivery and housing. Access to basic services and assets becomes the focus around which social exclusion pivots, often intensifying preexisting disadvantages. Households that are not poor may also end up living in substandard, crowded housing, with poor access to basic services, surrounded by crime.
266. Polarization within cities is one of the root causes of the crime that has beset many cities in Latin America and the Caribbean and Africa. Over time, violence can become institutionalized, making it difficult to dismantle. Governance challenges in urban areas contribute to some groups feeling left out and having few opportunities for voice and redress. Land mafia, drug lords, and other extortionists often step into the role of what should have been core state functions. The slums in Brazil, known as favelas, are a case in point. Recognizing that favelas are a visual testimony to the country's inequality, Brazil adopted a mantra of moving from "divided cities" to integrated cities (World Bank 2013a).
267. Malaysia's vision is to enhance the competitiveness of its cities, both in terms of economic activity and livability. A key aspect of a city's competitiveness is its ability to be socially inclusive and allowing all its people, including the disadvantaged, to share in and to contribute to rising prosperity.
268. The Economic Planning Unit (EPU) in Malaysia has identified the following eight key challenges associated with urbanization in Malaysia (Rahamat 2013).
- » Social exclusion – urban poverty and vulnerable groups
 - » Inadequate social amenities – education and health

- » Inadequate housing – low and middle income groups
- » Unemployment – youth
- » High cost of living – food and fuel prices
- » Crime rate – street crime
- » Environment – congestion and pollution
- » Illegal foreign workers

269. Using a social exclusion lens, this section of the report, explores three of the challenges identified by the EPU: i) social exclusion, ii) youth; and iii) crime rates. It focuses on how these challenges relate to livability and competitiveness of cities.
270. It is understood that there are several vulnerable and socially-excluded groups living in Malaysian cities, for example the elderly, disabled, and single-headed households. Because of the relationship between competitive cities and at-risk youth however, this study focused specifically on at-risk youth in urban areas.
271. In this report, youth-at-risk are defined as individuals between the ages of 15 and 29 who face “environmental, social, and family conditions” that hinder their personal development and their successful integration into society as productive citizens (World Bank 2008). This group has a greater propensity than their peers to engage in or be subject to risky behavior, including school absenteeism, delinquency, violence, and substance use and abuse.

Box 5-1 Definition: social exclusion

The concept of social exclusion is defined in the literature as a multidimensional process, which weakens the links between individuals and the rest of society (Rodgers and others 1997). These links can take on an economic, political, socio-cultural, and a spatial perspective.

The economic dimension refers to processes that hinder individuals from gaining financial resources through labor markets, credit and insurance markets, basic services, and land, thus causing them to be poor.

The political dimension of exclusion refers to individuals’ lacking the ability to enable them to exercise their legal freedoms and participate in decision-making. Political exclusion particularly affects the poor as they do not have the same access to education and information which would empower them to take full advantage of their rights under the law.

The socio-cultural dimension of exclusion is linked to the isolation of specific groups through education, language, and ethnic practices.

Finally, the spatial or geographic perspective refers to the negative effect of location externalities on individual attributes. The more dimensions by which a person is excluded, the more vulnerable this person becomes.

Socially-excluded groups exist in all countries, rich and poor, democratic and not. They are often hidden from public censuses, made invisible by their fear of attacks.

Source: Rodgers and others 1997

272. Global evidence shows that the consequences of these risky kinds of behavior are extremely costly to young people in terms of their ability to make a successful transition to adulthood. The evidence includes such negative outcomes as school dropout, unemployment, addiction, incarceration, and social exclusion (World Bank 2006). But taking care of such young people is also costly to society, including in terms of increased crime rates and loss of productive members of society. Risky behaviors also have spill-over effects and can create a sense of insecurity among the population at large and negative perceptions about cities' livability.
273. While there are studies focusing on youth in urban areas in Malaysia, detailed information about the characteristics of the at-risk youth, factors contributing to their social exclusion, and details of the policy implications are more limited. The links between a growing group of at-risk youth in urban areas and cities' competitiveness, crime rates and overall livability are also not well researched and the policy implications as they pertain to Malaysia are not well understood. This study attempts to fill these knowledge gaps. Specifically, this component aims to:
- » identify at-risk youth living in urban areas, and analyze the key issues they face, in particular as they relate to cities' competitiveness and overall livability;
 - » review programs and policies aimed at addressing inclusive cities; and
 - » draw on international experience, propose policies and priority areas of intervention.

5.1.2 Methodology

274. The methodology used relied on qualitative methods, including focus group discussions, key-informant interviews and round table discussions with key stakeholders. Three hundred and sixty-eight youth participated in the focus group discussions.⁴² Four aspects of exclusion were explored: i) economic; ii) political; iii) socio-cultural; and, iv) spatial.
275. The work included a literature review, as well as a mapping of government policies and programs. A review of media coverage on the topic of crime and violence in urban areas was also undertaken as part of this component. In response to the EPU's request, six urban areas were covered by the study: Kuala Lumpur, Penang, Johor Bahru, Kuantan, Kota Kinabalu and Kuching.

Box 5-2 Qualitative research methods

Qualitative methods refer to a range of data collection and analysis techniques that use purposive sampling and semi-structured, open-ended interviews. These techniques, which produce and analyze textual data, allow for more in-depth analysis of social, political, and economic processes (Krishna and Shrader 2000; Hentschel 1999). Qualitative methods and open-ended responses tilt the balance of power and expertise away from the researcher toward respondents and community members.

Source: Krishna and Shrader 2000; Hentschel 1999

⁴² The team for this component included Datuk Dr. Denison Jayasooria, Principal Research Fellow, Institute of Ethnic Studies (KITA), National University of Malaysia, who was tasked with leading the qualitative work and facilitating the focus group discussions. This team also included a local firm (C-CODES) led by Ms. Jasmine Adaickalam, tasked with organizing the focus group discussions and prepare the research reports. Two local researchers Mr. Kai Shen Lim and Ms. Justina Chen, were engaged to review government programs and to review media coverage. Overall the component was led by Helene Carlsson Rex, Senior Social Development Specialist at the World Bank.

276. The target for the focus group discussions was youth-at-risk in urban areas between 15 and 29 years old. This age bracket corresponds to a subset of the standard Malaysian categorization of youth.⁴³ It was selected because of the large number of youth within this age bracket who are living in urban areas and because they are particularly vulnerable to unemployment and dropping out of school. Given that they are in their formative years, this age group is also considered to be more receptive to engaging in anti-social behavior and crime.
277. The research aimed to capture the views of youth-at-risk and therefore targeted young people living in low-income neighborhoods, and youth who had been in trouble with the police and dropped out of school.
278. Table 5-1 summarizes the key characteristics of the youth targeted for this study.

Table 5-1 Characteristics of at-risk youth targeted for the qualitative work

Key Characteristics
Youth who have been detained at juvenile or correction centers or prisons
Youth who are drug addicts and those in drug rehabilitation centers
Living in high-rise flat or low-cost public housing or squatters
Youth in informal groups or gangs in the low-income neighborhoods
Dropped out of school or educational underachievers within the school system
Youth out of prison, juvenile centers or detention or rehabilitation centers
Groups at high risk to drugs, alcohol, abuse and gangs
Youth in motorcycle racing gangs
Homeless youth and living on the streets

279. Initially the study focused on male youths only, however that was expanded to include female youths. This wider focus allowed the study to highlight the different issues facing young women and men living in the six urban areas covered by the report.
280. The focus group discussions covered the main ethnic groups including Malay, Indian, Chinese, as well as smaller indigenous groups from Sabah and the Orang Aslis. Most participants in the focus groups were Malay and Indian.
281. Within the six conurbations covered in the study, the specific locations for the qualitative work were selected to allow a diverse set of issues to be highlighted. For example, a focus was placed on the Perai area of Penang, where the major public and low-cost flats are located, as opposed to focusing on the whole state of Penang. By focusing on Kota Kinabalu in Sabah, which has a large immigrant population, the views of immigrants were also captured. Table 5-2 provides an overview of the six urban areas included in the qualitative work.

⁴³ Malaysian statistics for this age group are reported according to the following age brackets: 15-19; 20-24; 25-29,

Table 5-2 Characteristics of urban centers included in the study

City	Key Characteristics
Kuala Lumpur (Wilayah Persekutuan)	<ul style="list-style-type: none"> City Hall of Kuala Lumpur has a population of 1,588,750 (Malay: 45.9%, Chinese: 43.2% & Indian: 10.3%) Petaling Jaya: City Council has a population of 613,977 (Malay: 46.2%, Chinese: 39.2% and Indian: 13.3%)
Penang (Pulau Pinang)	<ul style="list-style-type: none"> Seberang Perai: Municipal Council has a population of 818,1977 (Malay: 52.3%, Chinese: 36.1% and Indian 11.2%)
Johor Bahru (Johor)	<ul style="list-style-type: none"> Johore has 1,334,188 residents. (Malay: 45.2%, Chinese: 34.1%. Indian: 9% and non-citizens: 8.6%)
Kuantan (Pahang)	<ul style="list-style-type: none"> Kuantan, Pahang has a population of 427,515 (Malay: 74.6%, Chinese: 17.2%, Indian: 3.1%, and non-citizens: 3.4%) In a majority of Malaysian cities, non-citizens now outnumber, or are close to outnumbering the Indian population.
Kota Kinabalu (Sabah)	<ul style="list-style-type: none"> Kota Kinabalu, Sabah: City Council has a population of 452,058 (Bumi: 70.4%, Chinese: 27.4%). Non-citizens comprise 24.4% of the population
Kuching (Sarawak)	<ul style="list-style-type: none"> Kuching, Sarawak has 3 city councils with a total population of 598,617 with a majority of Malay and other Bumi communities. Chinese composition is at 36.6% and foreigners make up only 1.6%.

Source: Data from 2010 Census Report on Local Authorities.

282. The local research team worked with youth-based organizations and local community organizations in identifying the target groups for the focus group discussions (FGDs) in the different locations. To ensure that the perspectives of different groups of youth were captured, several focus group discussions were undertaken in each city. The research team visited the youth groups in their own locations and always conducted FGDs in local settings, for example at the local community centers.

283. In total 21 focus group discussions were undertaken in six cities between September and November 2014, capturing the views of 368 young men and women. In addition to focus group discussions, six roundtable discussions were organized with key stakeholders in all six cities and two meetings with stakeholders were arranged in Kuala Lumpur.

5.2 Context: Vulnerable Youth in Malaysian Cities

5.2.1 Poverty rates are lower in urban areas but income inequality is higher

284. Malaysia has made great strides in reducing poverty in recent decades. The poverty headcount ratio decreased from 37.7 percent in the 1970s to 1.7 percent in 2012. Poverty is more pronounced in rural areas, and pockets of poverty are more common among the non-Malay Bumiputera ethnic groups. Urban poverty has remained largely unchanged, with the incidence of poverty in urban areas at around two percent over the last decade, and decreasing to one percent in 2012.

Table 5-3 Poverty headcount ratio over time

Poverty headcount ratio (% of population) (1976 - 2012)								
Year	1976	1989	1999	2002	2004	2007	2009	2012
National (% of population)	37.7	16.5	8.5	6	5.7	3.6	3.8	1.7
Rural (% of rural population)	45.7	21.1	14.8	13.5	11.9	7.1	8.4	3.4
Urban (% of urban population)	15.4	7.1	3.3	2.3	2.5	2	1.7	1

Source: *World Development Indicators 2013*

285. Despite progress, significant challenges remain and Malaysia's income distribution record is less impressive than its history of poverty reduction. The Gini coefficient in Malaysia is one of the highest in Asia, close to levels observed in Latin America (World Bank 2010). Inequality is comparatively high, especially in cities: the Gini-coefficient is 0.417 in urban areas compared to 0.382 in rural areas. UN HABITAT's City Prosperity Index finds Kuala Lumpur to be one of "the most unequal cities in the developing world" in terms of income (UNHSP 2013).

Table 5-4 Gini Coefficient, Malaysia (1970-2012)

Year	1970a	1979	1989b	1999	2002	2004	2007	2009	2012
Malaysia	0.513	0.505	0.442	0.443	0.461	0.462	0.441	0.441	0.431
Urban		0.491	0.444	0.432	0.439	0.444	0.427	0.423	0.417
Rural		0.471	0.416	0.421	0.405	0.397	0.388	0.407	0.382

Source: *Malaysia Economic Planning Unit*

286. Poverty estimates in Malaysia exclude foreign laborers. This group is estimated to make up around 15 percent of the Malaysian workforce. Recent figures show that there are about 1.8 million registered, or regular, foreign workers and the rest (about one million to two million) are unregistered (undocumented or irregular) workers. In 2011 about 82 percent of foreigners were in the Peninsula, and the rest were in Sabah/Labuan and Sarawak. If this segment of the population is not included in the statistics, calculations will likely underestimate the number of people who actually live in poverty in Malaysia. Many of them earn low wages and many of them live in urban areas (World Bank 2013b).

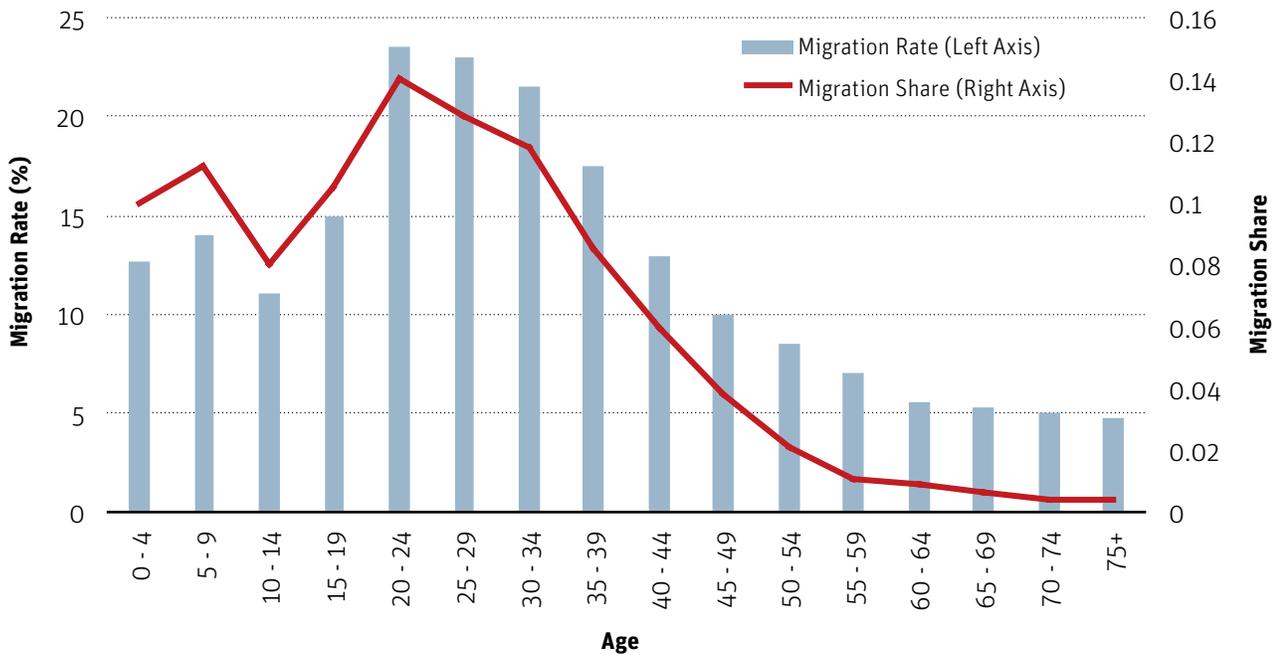
5.2.2 A young and growing urban population

287. Malaysia has experienced rapid rates of urbanization and population growth over the past 50 years. The total population of Malaysia increased four times from 7.4 million in 1957 to 29.9 million in 2013. The urban population now comprises more than 73 percent of the country's total population (compared to 43 percent of total population in 2000).

288. Like many other countries, Malaysia is experiencing a youth bulge, with a large concentration of young people between the ages of 20 and 29. In 2013, this group constituted about 20 percent of Malaysia's population (GoM 2013).

289. In Malaysia, young people aged 20-29 also account for the largest share of internal rural to urban migration. In 2000 over 20 percent of 25 to 29 year-olds emigrated away from their place of origin, and that age cohort makes up 19.5 percent of all internal migrants (GoM 2005)

Figure 5-1 Internal migration rates, by age



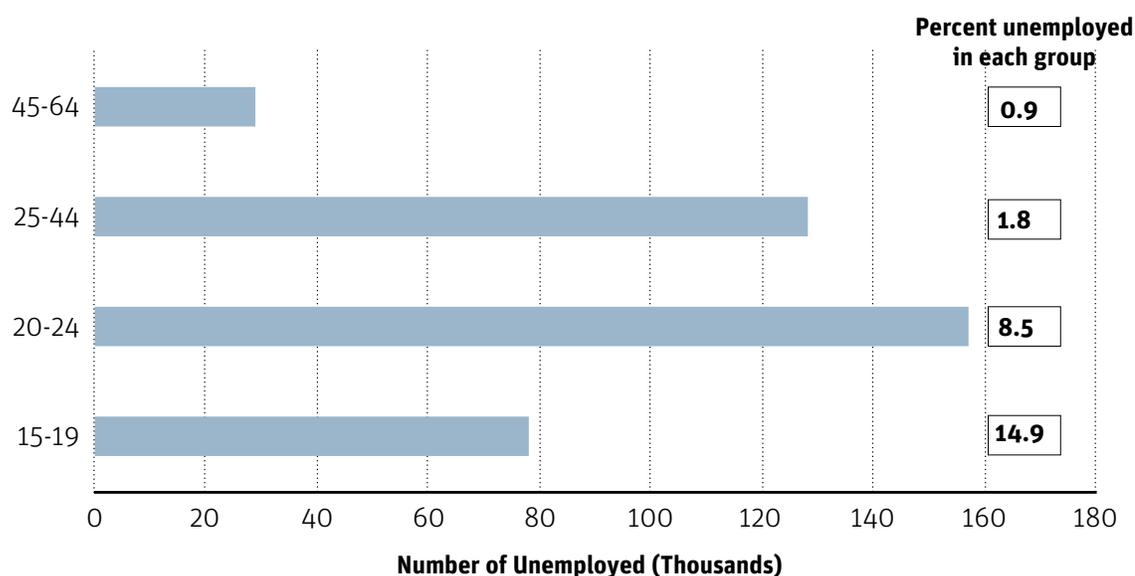
Source: Malaysia Census 2005

290. Despite the prospect of earning higher wages, young low-skilled people who have moved into urban areas often face many difficulties, including finding a suitable job and adequate housing. Low-skilled laborers have more of these problems than skilled laborers because there are more of these workers and they are also competing with foreign workers. There is more competition for a limited number of decently remunerated low-skill jobs (World Bank 2013b). Analysis of urban poverty in Malaysia has shown that the formerly rural households who have moved to urban areas tend to have low levels of education and tend to become employed in low-earning sectors where skill requirements are lower. Accordingly to World Bank calculations, about 60 percent of migrants work as manual laborers (in manufacturing, construction, and services), and only about 20 percent work in civil service jobs (GoM 2005).

5.2.3 Unemployment in Malaysia is highest among young job seekers

291. Unemployment in Malaysia is highest among young job seekers. In 2011, the unemployment rate for Malaysians aged 25 and above was remarkably low (around 1.8 – 0.9 percent). However, the same was not true for younger Malaysians. In 2011, of the total labor force aged 15 to 24, 23.4 percent were willing to work but did not have a job, and the largest number of unemployed were aged 20-24.

Figure 5-2 Unemployment is concentrated among the young. 2011



Source: DOS (Labor Force Statistics Time Series) 2011, and World Bank Staff Calculations.

292. The rate of under-employment (i.e. people working less than 30 hours a week but willing to work more) for those aged between 15 and 24 was 15.1 percent in 2012 compared to 4.6 percent overall, suggesting that the young are also disproportionately represented in this group (World Bank 2013c).

5.2.4 Challenges with young people dropping out of school

293. Malaysia's education system has achieved extensive coverage. Enrolment at the primary level has been nearly-universal for decades while secondary enrolment has also expanded rapidly. The share of the labor force with a secondary education increased from 37 percent in 1982 to 58 percent in 2012. Challenges remain with coverage at secondary level, and boys from poorer households in particular are increasingly at risk of dropping out of school (World Bank 2013c). Malaysia's 80 percent secondary enrolment is still below the average for middle-income countries (83 percent) and high-income OECD economies (100 percent).

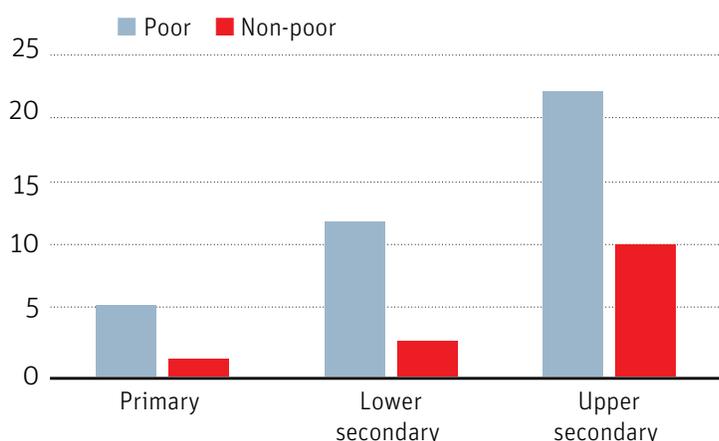
294. Non-attendance in school is closely related to socio-economic status. Children of families in the richest 20 percent of the wealth distribution are nearly twice as likely to be enrolled in post-secondary education compared to those in the bottom 20 percent.

295. Gender differences are pronounced, with higher completion rates among women. Data shows that boys are more likely than girls to drop out of school. For example, 94 percent of girls complete secondary school, compared to 86 percent of boys (MoE c.2010).⁴⁴

296. Data provided by the Ministry of Education (MoE) for this study indicate that there was an increase in the number of students not in school due to poverty (from 298,800 in 2011 to 303,550 in 2013), despite aid and relief programs provided by the Malaysian Government.

⁴⁴ Note: Data refers to MoE schools only. More than 86% of the secondary school age population attended MoE schools and about 6.7% attended non-MoE schools.

Figure 5-3 Non-attendance in school by poverty status. 2007 (%)



Note. Data refers to citizens only.

Source: EPU. Department of Statistics. Household Income Survey, 2007.

297. According to MoE, there was also a significant increase in national examination failures (Sijil Pelajaran Malaysia SPM) from 2012 to 2013, largely due to the new policy requiring a compulsory pass in History, in addition to Malay. In 2011, about 35,700 students failed the SPM, compared with 59,000 in 2013.⁴⁵ Representatives from State Education Departments informed the research team that this trend will likely continue as the Ministry has recently announced that English will also be made a compulsory pass subject for the national examination.

298. Inequalities in educational attainment based on place of dwelling, gender or ethnicity are dwarfed by socio-economic disparities. Rural areas lag behind urban areas in educational attainment, especially at post-secondary levels. By tertiary level, the urban-rural gap for this cohort has grown to around 20 percentage points. The educational attainment of Malays and Chinese is comparable, while attainment of non-Malay Bumiputeras lag somewhat starting with secondary education. However, socio-economic differences are by far the most pronounced.

5.2.5 Crime and Violence: disconnect between perceptions and data

299. Data from the Royal Malaysian Police shows that the overall number of violent crimes has decreased since 2008. A closer look at the data however, reveals that there was a slight increase in the violent crime rate between 2011 and 2012, and that the number of murders also increased between 2011 and 2012 (from 446 to 602). Statistics from the Royal Malaysian Police indicate a continued and decreasing trend in property crimes from 173,828 in 2008 to 123,719 in 2012.

300. Disaggregated crime data for the different urban areas is not available, which makes it difficult to assess trends over time. There are also concerns about the quality and reliability of this data, which may mask a more accurate picture of what is happening on the ground as it only refers to crimes that were reported to the police. This is common in other countries with the number of actual crimes typically under-reported.

301. Interestingly, there seems to be a disconnect between the perceptions of crime and security and the official crime statistics. The official crime statistics seem to point to a decreasing trend. However, a review of media coverage of crime and security shows that general perceptions indicate an increase in crime rates and that cities in Malaysia are perceived as becoming increasingly unsafe.

⁴⁵ School Management Division, Ministry of Education

Table 5-5 Types of crimes reported to police by type of crime. 2008-2012

Type of crime	2008	2009	2010	2011	2012
Overall violent crime	37,817	42,015	32,887	29,534	29,950
Murder	654	571	487	446	602
Robbery with firearms	258	1,035	2,345	408	127
Robbery without firearms	26,763	28,365	18,988	19,606	20,013
Overall property crime	178,828	167,802	144,633	128,357	123,719

Source: Department of Police

302. According to Numbeo's crime index,⁴⁶ the world's largest database of user-contributed data about cities and countries worldwide, Kuala Lumpur and Petaling Jaya are both ranked among the top 30 cities in the world in terms of crime frequency. Table 5-6 summarizes the crime and safety index calculated by Numbeo for mid-2014.

Table 5-6 Numbeo's self-reported crime and safety index rate. 2014⁴⁷

Rank	City	Crime Index	Safety Index
1	Port Moresby, Papua New Guinea	90.49	9.51
2	Abuja, Nigeria	90.39	9.61
7	Johannesburg, South Africa	82.58	17.42
14	Oakland, CA, United States	75.71	24.29
15	Kuala Lumpur, Malaysia	75.29	24.71
16	Subotica, Serbia	75.20	24.80
17	São Paulo, Brazil	75.00	25.00
20	Detroit, MI, United States	74.13	25.87
21	Rio de Janeiro, Brazil	74.01	25.99
27	Petaling Jaya, Malaysia	73.03	26.97
28	San Juan, Puerto Rico	72.42	27.58
29	San Salvador, El Salvador	72.00	28.00
30	Rochester, NY, United States	71.61	28.39

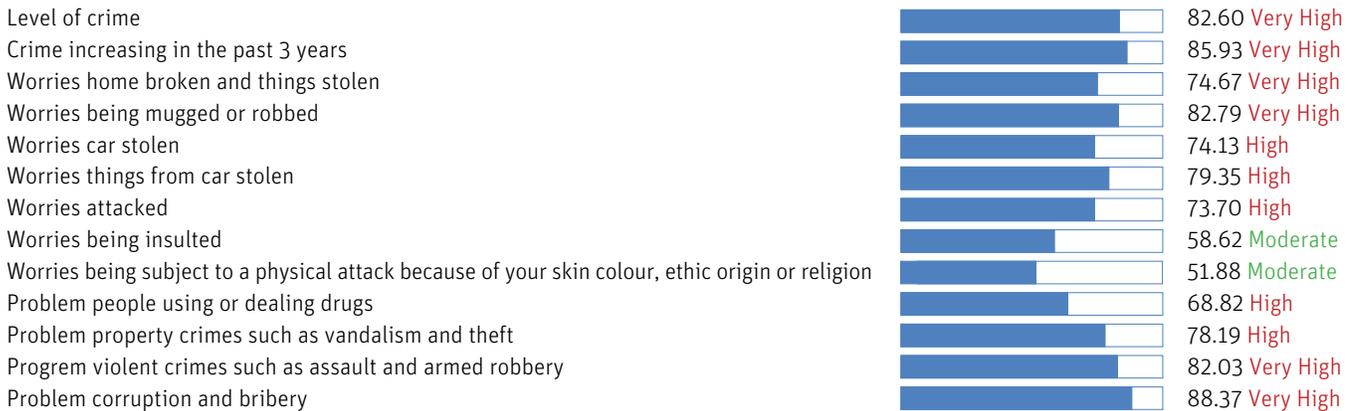
Source: Numbeo

303. Numbeo reports that the level of perceived crime in Kuala Lumpur is 82.6, and that crime has increased over the past three years (85.93). Using this data, the perceived crime rate in Kuala Lumpur is considerably higher than in for example Hanoi (42.86) and Bangkok (34.46).

⁴⁶ Numbeo is crowd sourced global database of reported consumer prices, perceived crime rates, quality of health care, pollution and traffic quality. The data points is based on self-reporting and perceptions of visitors of Numbeo's website in the past three years. It claims to be the biggest website of its kind with more than 1.3 million data points collected as of August 2014. Numbeo has been used as a source in hundreds of major newspapers around the world, including Forbes, Business Insider, Time, The Economist, BBC, The New York Times, China Daily, The Telegraph. http://www.numbeo.com/crime/rankings_current.jsp

⁴⁷ Crime Index is an estimation of overall level of crime in a given city or a country. Crime Levels up to 50 are reasonable, and crime index levels more than 100 are too high. Safety index is the opposite of crime index. If the city has a high safety index, it is considered very safe.

Figure 5-4 Crime rates in Kuala Lumpur, based on perceptions



Source: Numbeo, 2014

304. A recent study on housing for the bottom 50 percent income group in Malaysia, by EPU and UNDP, also confirms that security is a key concern among low income groups in cities (EPU and UNDP 2015). Focus group discussions undertaken as part of this study raised public safety as an issue in a number of communities. In fact, when asked to rank their suggestions for how to improve their living environment, improvements to public safety was the top priority among participants in the survey.

Box 5-3 Media reports on crime and violence

A review of media reports on crime and violence in urban centers in Malaysia revealed that crime hotspots in Malaysian cities are usually in wealthier suburbs and central business districts.

Greater Kuala Lumpur. In many suburban areas in the Greater KL conurbation, wealthy neighborhoods have begun to gate their communities. The demand for personal guards has soared, with the number of certified security companies nationwide more than tripling over the past decade from 200 to 712 according to the Security Services Association of Malaysia (Fuller 2013). In Kuala Lumpur, wealthier areas such as Bangsar, Bukit Damansara, Jalan Bukit Bintang and Jalan Sultan Ismail have witnessed frequent criminal activity in recent years⁴⁸.

Penang. Penang's crime index fell 23 percent for the first six weeks of 2014 compared to 2013, but recent media articles show that organized crime is common in Penang.

Kuantan. From January to March 2014, the media reported an increase of five percent in crime rates in Kuantan. Petty crimes such as vehicle and petty thefts make up the bulk of criminal activity in Pahang. Snatch theft cases are typically conducted in suburban areas such as Taman Impian, while vehicle theft cases are more frequent in central business districts.

Johor Bahru. Toward the end of 2013, Johor police admitted that the state's capital city remained a crime hotspot, despite improving crime statistics in the peninsula's southern-most state. Seventy percent of crime in the state happens in Johor Bahru. Crime in Johor is a topic of keen interest among Singaporeans, who regularly visit the state by car. Singaporeans tend to be the target of kidnappers and robbers, with numerous cases reported over the years.

⁴⁸ Refer to The Malaysia Insider. 2014. Available at: <http://www.themalaysianinsider.com/malaysia/article/rising-crime-chases-family-away-from-their-home>.

Box 5-3 Continued

Kuching. Crime hotspots include central urban areas in Kuching such as the Kuching Central Business District, Stampin (sub-urban area), and Batu Kawah. A Member of Parliament claimed that people in Kuching have been reduced to living in fear of being robbed and mugged even in broad daylight. Snatch thieves can get away scot-free, he added, and he attributes this to the ineffectiveness of the police force. “These culprits have become more daring and were roaming around looking for victims even in broad daylight” (Fernandez, 2014).

Kota Kinabalu. The crime index in Kota Kinabalu city increased by 9.59 percent, to 377 cases in the first three months of this year from 344 in the corresponding period last year. The Kota Kinabalu district police chief said the cases reported this year included motorcycle theft (43 cases), theft of heavy vehicles like vans and lorries (16 cases), house break-ins (seven), and robbery and snatch theft (five).

Sources: *The Malaysian Insider* 2014; *Free Malaysia Today* 2013; *The Star* 2014; *The Borneo Post* 2013; *The Sun Daily* 2014.

Box 5-4 Registered gangs in Malaysia

Gangs in Malaysia have been linked to a wide array of crimes such as armed robberies, drug and prostitution rings, loan-sharking, gambling and extortion rackets, even contract killings. There are a total of 285 registered gangs in Malaysia, 162 of which are subsidiaries from the Ang Beng Hoay and Wah Kee secret society, while 92 are thug gangs. Thug gangs have a total of 3,497 registered members, the majority of whom are Indian youths. In 2013, police identified 49 illegal gangs nationwide, with nearly 40,000 known members. It should be noted that the numbers cited only reflect gang members who are registered, and thus, the actual number of members could be significantly higher. Sin Chew Daily reported that there are more than a hundred secret societies and gangs in the country, many of which have departed from their erstwhile closely-knit organisational structures with many gang members splintering to form independent units, resulting in a single gang splitting into many smaller factions⁴⁹. Malaysia has a number-coded underworld with names such as “04”, “08”, and “Double 7”.

Statistically, Indians in Malaysia represent approximately 7 percent of the total population. However, Indian youths have earned a reputation of being involved in criminal activities and other forms of social predicaments such as alcoholism and drug abuse. This view is further amplified by the frequency with which Indian youths are arrested for crimes and are detained under preventive laws. For instance, according to crime statistics provided by the Royal Malaysia Police College Kuala Lumpur (RMPCKL), in 2005, 702 individuals were detained under preventive laws for violent crime at Simpang Renggam Rehabilitation Centre in Johor, 316 of which were Indian⁵⁰. Furthermore, of the 2471 total inmates that were detained under the Emergency Ordinance 1969, 35 percent were Indian⁵¹.

East, a weekly television program, broadcast by Al Jazeera, spoke exclusively with a senior gang member, who reveals how these criminal organizations provide protection and work opportunities for many Malaysians who live in poverty. The gangs prey on vulnerable youngsters with the lure of fast money and bonds of brotherhood. These secret societies have been using online media to recruit new members in recent years and Facebook has now become an important tool for roping in youngsters⁵². These secret societies source their recruits mainly from schools, especially secondary schools. Most of the gang members are in their 20s and 30s, and they run in a pyramidal mode by collecting protection money from students to sustain the gangs’ operations.

Sources: *The Sun Daily* 2014; *The Malaysia Chronicle* 2013; *Sidhu* 2005; *Tun* 2013; *Aljazeera* 2014

⁴⁹ Refer to http://www.malaysia-chronicle.com/index.php?option=com_k2&view=item&id=152311:the-taikos-behind-indian-gangs&Itemid=2#axzz3GQNCN8Rq

⁵⁰ Refer to <http://rmpckl.rmp.gov.my/Journal/BI/riseofcrime.pdf>

⁵¹ Refer to Tun Dr. Ismail Hall, 28th September 2013. Serious crime and gangsterism, Powerpoint Presentation, Putra World Trade Center (PWTC), Kuala Lumpur.

⁵² <http://www.aljazeera.com/programmes/101east/2014/07/malaysia-gang-menace-201478111952919909.html>

5.3 Listening to the Voices of Youth at Risk in Urban Areas. Findings from the Qualitative Work

305. This section reports on qualitative work carried out for the study. Twenty-one focus group discussions were undertaken between September and November 2014 in the six cities, capturing the views of 368 young men and women.

306. In addition to focus group discussions, six roundtable discussions were organized with key stakeholders in all six cities. Stakeholders were selected based on their engagement with at-risk youth in urban areas and included state level representatives from agencies such as the Police, Department of Social Welfare, Ministry of Education, Prisons Department, Department of Youth & Sports, Anti-Drug Agency and National Unity Department, as well as key civil society organizations. The agencies made verbal reports and shared basic information on youth-related issues. They also shared their own reflections on the causes and the type of interventions government agencies could use to mitigate the negative aspects.

Table 5-7 Overview of Qualitative work

City	Focus Group Discussions		Round Table Discussions (RTDs)	
	No. Of FGDs	Participants	No. Of RTDs	Participants
Kuala Lumpur	4	52	1	10
Penang	3	67	1	16
Kota Kinabalu	4	45	1	10
Johor	5	78	1	10
Kuantan	3	34	1	10
Kuching	2	92	1	10
Total	21	368	6	66

5.3.1 Voices of the youth: findings from focus group discussions with young people

307. The following four areas of inquiry related to social exclusion in urban areas were explored through the focus group discussions.

- » **Economic aspects.** Limited access to labor markets and financial resources; and costs of living.
- » **Political aspects.** Limited opportunities to participate in decision-making, and making their voices heard.
- » **Socio-cultural aspects.** The isolation of specific groups through education, language and ethnic practices.
- » **Spatial aspect.** How housing impacts social exclusion in terms of location, mobility, neighborhood set up/accessibility, and social dynamics (such as gangs, crime, peer pressure).

The following sections provide a summary of the main issues related to each of the aspects.

5.3.1.1 Economic aspects

308. The focus group discussions highlighted key economic aspects that contribute to vulnerability and to a sense of social exclusion. These aspects pertain both to the individual as well as to the broader family.

309. **Youth unemployment.** This was identified as a key constraining factor and many of the participants in the FGDs expressed a concern about their struggles to secure good jobs as they did not have the right education or skills training. 45 percent of participants in the focus group discussions had no work experience and 54 percent of them had educational attainment of either PMR (Form 3) or below. Youth unemployment was particularly pronounced in Kuantan and Kuching.
310. Participants commonly noted that it was difficult to find low-skilled jobs as they are competing with foreigners. In many cases, their parents are also competing with foreign workers, making it challenging to find secure income for the family.
311. **Poverty and rising costs of living.** Low wages among the youth and their families coupled with the rising cost of living made life difficult for many. In many cases, the parents have to work overtime and have multiple jobs in order to make ends meet, leaving some of the youth without much adult supervision and guidance and putting strain on the family.
312. **Work patterns and dysfunctional families.** The young people in the focus groups commonly cited dysfunctional families as a major root cause of their problems. In some cases, families had major conflicts which were unresolved. In many cases one parent (or both) was absent and the youth were left unsupervised. These dysfunctional families were not able to provide a safe and nurturing environment for the youth. Urbanization also directly impacts the family through work patterns. Both parents could be working double shifts leaving little time for the children. The researchers were told children and young people were out very late in the night as parents were not home or the home was not suitable for the number of people living there.

“When we go and ask for even security jobs, the companies ask us if we have any experience – but if no one is giving us a job how can we get the experience? How come companies are giving the jobs to Bangladeshis, Pakistanis and Indonesians when they do also not have any work experience? It seems companies prefer foreigners to us Malaysians.”

Homeless male youth, Kuala Lumpur

5.3.1.2 Political aspects

313. Political aspects, especially related to the young boys’ and girls’ ability to make their voices heard and to have some level of influence on decision making, were identified as key challenges and contributed to their sense of exclusion.
314. **Limited voice in decision-making.** In a number of discussions the young people highlighted that they had very few opportunities to play a role in neighborhood committees as older people were in control. They also noted that in places of worship and in religious organizations, especially at the local community level, their views were not listened to or taken into consideration.
315. **Lack of involvement in local issues.** Another related aspect is the lack of opportunities for youth to be involved in local issues. With Malaysia’s top-down decision-making process, opportunities for local community engagement are limited; and for youth the opportunities are even fewer. FGD participants noted that this top-down approach makes them feel that they do not have a direct say in local matters and that their opinions do not matter.

“We feel that our views are not being heard in the local community decision-making process.”

Young male, Sungai Pinang Focus Group Discussion

5.3.1.3 Socio-cultural aspects

316. Socio-cultural aspects, in particular difficulties in accessing the education system, were identified as key contributing factors to vulnerability and exclusion. Major recurring themes in all six cities were related to discipline in school resulting in absenteeism and expulsion.

Box 5-5 Examples of limited voice among youth

At the Alor Akar flats in Kuantan, the young people complained that the badminton hall in their neighborhood is not properly managed by the local authority. Bookings for the facility are made in the city, and the majority of people who use the facility are non-local residents. Local young people complained that the rental fee was too high and that the facility was not available for their use.

In another neighborhood also in Kuantan, at the low-cost housing area at Semambu, the research team was told land was earmarked for a football field in 2002, but to-date the local authority has not released it for the local community's use. In addition, local business places were being rented to outsiders although local micro and small business people would have liked to avail of the rental locations. They expressed frustration on local issues, and noted that the local leadership also feels helpless as city council officials are not sufficiently responsive.

317. **School absenteeism.** The research team was repeatedly told that a major area of concern is school absenteeism. The youths' perspective is that school is boring or class is not interesting as the teacher is just reading the lesson and not catering to their learning needs. In other cases, students expressed that they did not like the teachers as they were always scolding or nagging them. Peer pressure to go to a cyber café, hang out with friends doing nothing, were also cited as reasons for school absenteeism.
318. Family-related problems, for example parental conflicts, divorce or weak supervision were also highlighted as contributing factors to school absenteeism. School policy is to send a letter to the parents informing them about disciplinary issues. However, for students from dysfunctional families, chances are low that the parents will actually act on the letter and come to school to solve the issues. In many cases, parents may work double shifts and do not have the opportunity to take time off work to engage. In other cases, the parents may be absent or have personal issues such as alcoholism, which make it difficult for them to engage.
319. **School expulsion.** Youth being expelled from school is another area of concern as it risks leaving a growing number of students with limited skills and few opportunities. Students are expelled for serious offences such as fighting or being absent from school for more than 60 days without notifying the school officially. Three registered letters are sent to the home address. If parents respond there will be a review. However if no parent turns up, the policy is to expel the student. One estimate given was that only about 30 percent of parents turn up in response to such letters.

"We know of about 50 students that have been sacked from school for one reason or the other. It seems that Indians are being ejected out of the education system prematurely."

Focus group discussions, Penang Telok Indah flats

320. The research team did not receive actual numbers of expelled students but everywhere the team went they met young people from all ethnic groups (mostly Malays and Indians but also Chinese youths) who had dropped out of school early. The researchers got the impression from the focus groups that some schools did not mind expelling these youths as they were difficult to manage. Moreover, their grades were poor and therefore brought the overall grades of the school down.

321. While many of the youths interviewed seemed to dislike the Malaysian system of classroom education, they also seemed to have tremendous talent and interest in other non-academic areas such as sports, performing arts and (for girls) design. Furthermore, the group work and in particular the names they gave themselves in these groups (such as *Born to Win*, *King Leader*, *Always Success*, *We are Malaysians*) revealed that many of them aspired to be leaders and successful citizens and do not want to be seen as failures. Despite this, information from focus group

discussions suggested that the formal Malaysian education system provides few opportunities to cater to special talents, and may not be optimally set up to create a supportive learning environment for these students.

322. **Underperforming in school.** According to the questionnaire provided to the youth, more than half (54 percent) of them had an education level of only PMR (form 3) or below, which is significantly below the national average of 80 percent. This lack of secondary level education will almost certainly affect their opportunities in the job market and can lead to inter-generational poverty unless measures are taken.
323. The Ministry of Education provided the research team with figures for students who did not receive the SPM Certificate. According to this data, a total of 131,432 students did not secure a certificate in SPM at 17/18 years of age - after 11 or 12 years of schooling.⁵³ The education system's strong focus on academic excellence appears to exclude a large cohort of students, who are not academically inclined in the early stages or who have other interests. The stigma of being a failure can have a long-term, damaging impact on students. There is a risk that Malaysia's long-term goal of being a high-income and developed society will be hampered by not providing enough opportunities through training or schooling to enable these youths to realize their full potential.
324. Authorities seem to be quick to criminalize young people who are involved in anti-social behavior. Police reports, arrests and lock-up incidents have created bad experiences for many of the young people that the research team encountered. In some cases, however, the youths interviewed felt that being arrested elevated their position among other young people as being bad and therefore earned them respect among their peers.
325. The study team noted that there seems to be very little cooperation between authorities such as police, social workers and teachers, at the district level or even city level on the matter of school expulsion. Agencies, such as schools and social services, seem to be operating independently of each other. For example, the police seems to be called in when the school is unable to manage the situation. Likewise parents too seem quick in going to the police and lodging a police report instead of seeking to resolve it within the school or community system.
326. **Ethnic dimensions.** Experiences and stories of discrimination came primarily from Indian and Orang Asli youths. Some of them expressed strong distrust of institutions and did not see much hope for the future.
327. **Stateless children.** The team also encountered the particular issues facing stateless young people (for example in Kota Kinabalu FGD). These are young people born in Malaysia to parents who originally came from neighboring countries. While they have birth certificates, they are not regarded as citizens of Malaysia, and therefore cannot be enrolled in the local schools. ABIM, a youth organization, informed the team about refugees in Kuantan among the Rohingya, and noted that these children and young people do not have access to education in national schools and they cannot afford private or international schools.
328. **Gender issues.** Many of the issues facing boys and girls were similar however, safety concerns were brought up more often by the girls.
329. In Penang, teenage pregnancy was identified as a key issue. While no numbers were provided, the research team was also told that the age of pregnant girls seems to be falling. Some of the girls also noted that they had fewer

“Parents are either authoritarian or they are leaving their children to total freedom without any boundaries. This is why young people get into trouble so often. We want freedom but freedom should be guided and supervised.”

Young girl, Seri Pantai Flats, Kuala Lumpur

⁵³ Data refers to 2011 to 2013.

economic opportunities, and that their parents did not approve of the activities they were interested in, such as photography.

5.3.1.4 Spatial aspects

330. The majority of the urban poor and low income families are living in public housing. This public housing tends to be in high-rise flats: about 17 to 21 stories for newer construction, and 5-story walk-up flats for older construction. High-rise flats tend to be the norm in cities like Kuala Lumpur, Penang and Johor Bahru. In cities like Kuantan, Kota Kinabalu and Kuching the low-cost flats tend to be older low-rise constructions called Rumah Murah. While each location is different, many of the issues facing residents of public housing are similar. Issues related to affordable housing and its ability to meet the needs of its residents include: lack of appropriate community spaces, poor maintenance, and limited public transportation. Safety concerns, including the prominence of crime and violence were also identified in the focus group discussions.

“I like to do photography as my profession. But my parents do not encourage me to do that. They are saying that it is not a profession for girls.”

Focus Group Discussion, Penang

331. **Limited public facilities.** The focus group discussions noted that the architecture of a built-up area is not always neighborhood friendly, i.e. it does not foster closer ties with other families through adequate meeting spaces and facilities. In a majority of cases the built-up space is congested. Basic facilities such as community meeting spaces for gatherings, workshops, recreation and outdoor activities are in short supply, and as a result the residents’ needs for public spaces are not met. Some residents also complained about the lack of space for local shops and commercial activities.

332. **Lack of maintenance.** The focus group discussions also revealed issues related to the lack of proper maintenance of public spaces. Residents complained about the lack of garbage clearance, elevator maintenance and broken lights in the corridors. The research team noted that the Telok Indah Flats in Perai, Penang were visibly dirty and only one elevator was operating. One major concern was the responsibility for neighborhood maintenance and the physical structure of buildings and public spaces. In some cases, it seems that the local authority takes a direct role if the housing is provided by them. However, in cases when housing is privately constructed, it seemed less clear; the owners, the residents’ association and the Joint Management Board have to negotiate the maintenance arrangements.

333. **Safety concerns.** Safety and security concerns were also raised, in particular by the girls. Young girls in Rumah Pangsa Larkin Johor spoke of the walk-way from the bus stop to the flats, as well as taking the lifts as scary experiences, partly because these areas were not properly lit, but also because of the prevalence of crime and robberies.

How can we go back to the village when we don’t have money to take back home? Our families are thinking that we are doing well. If they come to know the truth they will be very sad and it will be a shame for us. So we do not want to go back.

Focus Group Discussions, KL Urban Fellowship

334. **Limited public transport.** In several cases, the discussions also highlighted the limitations of public transport and how it was difficult to meet the residents’ transportation needs. For example, lack of school buses made it difficult for students to get to school. It was also difficult for residents to travel to and from work, because the bus service stopped at 6pm in some areas. In Kota Kinabalu, the youth reasoned that the prevalence of motorcycle theft was a result of poor public transportation system. Specifically, people would steal motorcycles in order to get to places as no public transportation system was available.

335. **Lack of sense of belonging and preparedness for urban life.** In some of the flats visited, the residents spoke about the lack of a sense of belonging to the urban flats as another area of concern. While geographical closeness is a feature of the flats, the neighborhood experience is very different to that of the village. Many of the flats are known by block numbers rather than names. Furthermore, the flats are small and may lack privacy. Some people prefer to spend time hanging-out on the streets, because there is not enough space in the flats.
336. Several of the people interviewed noted that they were not well prepared for life in the city, and did not know where to seek help. The sense of loss about life in the city was particularly expressed in Kota Kinabalu among the young rural people from Sabah who had just come to the city. The longing to experience a new way of living in the city, but without adult supervision and support, had driven many of them to alcohol, drugs and engagement in criminal activities. This resulted in teen pregnancy, unemployment, and a sense of social exclusion. Several young people had friends who had committed suicide. When asked why they did not go back home to the village, they said that they did not want to be seen as a failure by their families back home.
337. **Crime and violence.** Issues related to crime and violence were frequently brought up during the focus group discussions. Gangs are common in low-cost housing. Many noted that they had seen gang fights and experienced trauma as a consequence.
- “When they are high on drugs, they break public facilities, they commit snatch theft and robbery.”*
- Participant in Kota Kinabalu Focus Group Discussion
338. The FGDs also revealed that fights between different groups within the flats were common. In the Telok Indah Flats in Penang, for example, all those interviewed said that participants were aware of gang activities, drug use and fights. Similarly in Kota Kinabalu, participants mentioned that in their neighborhood, high-risk youth are involved in illegal motorcycle racing, shop and house break-ins, motorcycle theft, fights, drugs, gambling and vandalism. They further elaborated that boys as young as 12 years old were smoking and on drugs.
339. While few of the focus group discussants would admit in the survey that they had been involved in any criminal activities themselves, during the discussion many of them confessed that they knew of a friend or of someone who was involved in anti-social or criminal activities. Many of them noted that gangs offered a sense of belonging. With few economic opportunities at hand, criminal activities become a last resort.
- “If I had not been able to enroll in My Skills Foundation, I would have joined my friends and would have been involved in fights and gangs. The police would have been after me, and one day they would have shot me down.”*
- 15 year-old boy at My Skills Center, Kuala Lumpur
340. The recent study on Housing for the Bottom 50 percent Income Group in Malaysia, by EPU and UNDP, reveals similar findings. For example, the lack of convenient and reliable public transport, and public safety, were highlighted as key concerns. Furthermore, the Housing study also recognizes the way in which the members of a community related to each other and to the larger community around them as a critically important ingredient toward creating a functioning and livable community (EPU and UNDP 2015).

Table 5-8 Summary of key issues facing at risk youth in urban areas in Malaysia

Economic aspects	Youth unemployment
	Poverty and rising costs of living
	Work patterns and dysfunctional families
Political Aspects	Limited voice in decision-making
	Lack of involvement in local issues – top down decision-making
Socio-Cultural Aspects	Education system: <ul style="list-style-type: none"> • School absenteeism • School expulsion • Underperforming in school
	Ethnic dimensions – marginalization of some groups
	Stateless children
	Gender issues (safety concerns, teenage pregnancy, fewer opportunities for girls)
Spatial aspects	Public Housing <ul style="list-style-type: none"> • Limited public facilities • Lack of maintenance • Safety concerns
	Limited public transport
	Lack of sense of belonging and preparedness for urban life:
	Crime and violence

Source: World Bank team

5.3.2 Agencies' voices: findings from roundtable discussions with agencies

341. The research team conducted round1

342. table discussions with agencies in the six different locations, and arranged two roundtable discussions in Kuala Lumpur. A review of Malaysian policies targeting at-risk youth in urban areas was also undertaken as part of the research. The main findings are summarized below.

5.3.2.1 Disconnect between needs and current programs

343. Findings from the qualitative research highlight that there is a strong need for programs that specifically target the needs of at-risk youth in urban areas. However, there seems to be a disconnect between the programs offered, the uptake and the targeting, leaving many young people without proper access to services. In general, the review shows that a small number of initiatives specifically target at-risk youth.

344. **The 10th Malaysia Plan.** A focus on youth is included in the 10th Malaysia Plan, however, the focus on *youth-at-risk* is less pronounced. Specifically, the plan called for the establishment of the Cabinet Committee on Youth Development chaired by the Deputy Prime Minister to coordinate and update the delivery system for youth development programs as well as to streamline the roles and responsibilities of the ministries involved. The plan asks for the expansion of the National Youth Skills Institute (IKBN) to provide greater study options and to offer soft skills training; the aim is to help expand entrepreneurship training and awareness programs and to expand the RELA Youth Squad to promote volunteerism. The plan stresses the need to improve and broaden preventive and rehabilitation programs to avoid social ills.

345. **Federal Programs.** A mapping of federal programs shows that few youth programs target youth-at-risk. Examples of such targeted programs include the SAY1M program for student dropouts, which offers courses to secure employment; the 1Asrama hostels where children enjoy a more conducive learning environment and receive learning support; and the Youth Skills Training Program provided by various institutions with fully subsidized fees and costs. In 2014, the Ministry of Youth and Sport initiated the *Padu* project, in an effort to support troubled youth.
346. **Civil Society Programs.** Federal programs are complemented by civil society organizations' programs. These provide more targeted support but still on a limited scale. The study team encountered only two organizations that directly target high-risk youths: the *My Skills Foundation* and the Johor-based *Alpha Skills Academy*. Both these have a two-fold approach of addressing character/values development as well as skills training. Both organizations provide strong handholding and mentoring for the young person.
347. **Gaps in targeting.** The qualitative research confirmed previous research in Malaysia (Jayasooria 2008), which has identified that high-risk youths tend to fall into five major categories.
- » *Level 1:* at-risk youths in high-risk neighborhoods,
 - » *Level 2:* at-risk to social ills, anti-social behavior, crime & gangs - early signs show inclination through manifestations of anti-social behavior,
 - » *Level 3:* youths in the community who are active in crime but have not been arrested or charged. Could have been picked up or are under investigation/documentated,
 - » *Level 4:* youth in custody (remand pending investigation, charged & waiting trial, in prison after sentence or juvenile correction centers),
 - » *Level 5:* youths in post-custody stage (out of detention/prison). After-care issues are important to ensure reoffending is minimized.
348. In general, agencies seem to be focusing on youths at level 1. However, even at this level, there seems to be a lack of a targeted approach as the participants mostly self-select into the activities offered. At level 4, participation is involuntary and young people are under the custody of the state. Major gaps appear at levels 2, 3 and 5 as there is no specific targeting of at-risk youth or any focused approaches in reaching out to them.
349. The scope of this study did not allow for a detailed assessment of the support provided by federal agencies and civil society organizations (CSOs) to at-risk youth. Based on the mapping exercise and combined with the focus group and roundtable discussions, one can conclude that there is a need to enhance the support to youth-at-risk in urban areas and to sharpen the targeting.

5.3.2.2 Opportunities for strengthening agency coordination

350. Recognizing the different agencies' mandates, the qualitative work revealed that there are opportunities to strengthen coordination between the different agencies that work with at-risk youth, and to make the approach toward at-risk youth more holistic and results-oriented.
351. In general, the Ministry of Education (MoE) addresses poor discipline and absenteeism in schools. The Department of Social Work (DoSW) intervenes when the courts take action and place the young person in DoSW's care. The police acts when there is a crime. The Department of Youth Services (DoYS) undertakes preventive programs for

all youths, but does not facilitate police action. The Anti-Drug agency intervenes on drug matters. However, overall coordination between the different agencies seems to be ineffective. Improved coordination between the different agencies and the CSOs would allow for more timely interventions, as well as for a more rapid response to early warning signals (such as school absenteeism). By avoiding duplication and focusing on more targeted and results-based interventions, it is also possible that the programs could become more cost-effective.

5.3.2.3 Limited community-based interventions

352. The study team also discovered that there are opportunities to further strengthen community- or neighborhood-based interventions. There seems to be an institutional approach through schools, youth centers and youth organizations but these are not necessarily directed at the local neighborhood in the community.
353. For example, many agencies seem to focus their youth-related activities at the district or national levels. This approach does not optimize resources in those neighborhoods where youths are living. There also seems to be a tendency to use national or district youth organizations rather than to work closely with neighborhood groups, resulting in local groups' remaining unorganized and isolated, with limited capacity.
354. From the discussions with agency representatives, there seems to be a lack of social workers or community workers trained to work with at-risk youth. While many social workers may have some social science or counselling exposure, they may not be fully equipped to handle youth-related issues and concerns.

Box 5-6 Youth programming case studies

MySkills Foundation

MySkills is a non-profit foundation sanctioned by the Ministry of Domestic Trade, Cooperatives and Consumerism that runs a transformation program for at-risk youth. The MySkills program adopts a two-pronged approach that incorporates vocational skills training and holistic transformation. The vocational skills training sessions are provided by PRIMUS (a skills training institution accredited by the Ministry of Human Resources) and culminate in the award of a Malaysia Skills Certificate (SKM). This certificate is accredited by the Department of Skills Development and is recognized by industries in Malaysia. Students are also awarded a Transformation Certificate that recognizes their growth in terms of emotional intelligence, life management and social skills. The first group of students graduated in 2011. Currently, there are 189 students enrolled with MySkills.

Upon enrolment, students are provided food and accommodation in addition to their formal education. Students are grouped into either pre-vocational (aged 13-14) or vocational (aged 15-25) classes. Vocational training lasts for two years, after which students are assisted in job placements with industry partners. MySkills continues to monitor the performance of students once they have entered the job market.

The program has been successful in reaching out and transforming marginalized Indian youth who might otherwise be involved in a variety of social ills and are lacking in formal education. An interview with one employer who currently has seven MySkills graduates in his company reveals that he is largely satisfied with their performance.

MySkills is unique in its approach to mentoring and engaging with individual students. Most students come from difficult backgrounds of poverty or family neglect. It is extremely difficult for these students to make a true change to their lives without additional support. Each staff member in MySkills is assigned a few students to mentor. They actively engage with the students, conducting home visits and celebrating festivals with them. They also provide follow-up support to students who have entered the job market through routine phone-calls and engagement with their employers.

Box 5-6 Continued

There are no formalized enrolment drives for prospective students but student numbers continue to grow through word-of-mouth referrals. Most schools around Klang have also taken to referring high-risk students to MySkills. MySkills students are not required to pay any fees when they join, although families may make a small contribution if they are able to. It is largely funded through public donations. Some funds are also received from the EPU. MySkills has also begun to undertake advocacy work with the Ministry of Youth, using their vast experience to advise on policy initiatives for high-risk youth.

The Initiative by society for the Kuching urban poor

The 1AZAM Training Centre, which is run by the Society for the Kuching Urban Poor (SKUP) and operating in Kuching, is another good practice example. SKUP is working in Kampung Kudei, which is one of the few remnant squatter areas situated in Jalan Nenas Barat, Kuching. Conditions in this kampung are poor: the kampung does not have water, electricity or even proper roads. The houses are mere shacks with zinc sheet roofing sitting on stilts. Most of these squatter dwellers are Iban/Dayak Muslims, with a few Chinese and Indians.

SKUP has started a community skills center to train poor people from the area in sewing and baking skills. The e-Kasih poor are trained in one of these two skills and then they are launched into their business with 1AZAM funding or are encouraged to work in a related field. Training funds come from the 1AZAM allocation provided under the National Key Result Area – Low Income Households (NKRA LIH) through its lead agency, the Ministry of Women, Family and Community Development.

While they undertake intense training for two months, certain enablers are put into place to help support the trainee and their family. Currently 55 families are supported and they are given food packets for five days per week while they are undergoing training. They are given a monthly allowance of RM500.00 to meet their family needs, as they do not have the ability to earn an income during the training period. SKUP also provides each trainee with RM4.00 per day to meet transportation costs. While training, their young children are accommodated in the nursery adjacent to the training center and they are also given food. These families are linked to private sector companies that want to fulfil their corporate social responsibilities (CSR). After training, the idea is that the participants will be able to earn a decent income, at which point the enabling assistance such as food and allowance is withdrawn and is provided for another set of trainees.

PADU

In an effort to help troubled youth, the Ministry of Youth and Sport's PADU project was introduced in 2014 as part of the Government's inclusivity agenda. The project objectives are to develop troubled youths' potential to achieve some quality in their life; to provide opportunities for beneficial activities and to guide the youths in avoiding criminal activities. The target group consists of youth between the ages of 15 and 17, who are at risk of committing crime, recently involved in crime or with a history of committing crime. The implementation period is three months, and includes emotional support, talent and career development. It operates in 8 states, with 45 participants per state, and involves 15 youth workers per state.

5.4 Recommendations: Making Cities More Inclusive by Supporting at-risk Youth

355. The qualitative field work focused on identifying the key challenges facing young women and men in urban areas along four aspects: economic, political, socio-cultural, and spatial. This section of the report identifies a set of recommendations that cut across the four aspects, drawing upon international experiences.

5.4.1 Recommendation 1: support policies aimed at keeping children in school

356. **Support policies to encourage secondary school enrollment.** This research has identified major challenges associated with young people not staying in school. Such challenges include: missed economic opportunities; a

tendency to anti-social behavior; and a sense of social exclusion and failure among drop-outs. The implementation of policies to encourage secondary school enrollment and completion are therefore critical as secondary school completion is one of the most important preventive investments a country can make for at-risk youth, both in terms of improving their educational outcomes and of reducing most kinds of risky behavior (Cunningham 2007).

357. International experience shows that completing secondary school can serve as one of the strongest protective factors for young people in two key ways: through the knowledge and skills that they acquire, which enable them to make informed decisions; and through the sense of connectedness that students often feel with adults in the school. In essence, schools are one of the primary protective factors for young people because of their dual function as provider of hard skills and knowledge via traditional educational curricula and of soft skills such as life skills, and the sense of the connectedness that they offer young people (World Bank 2008).
358. **Promote connection to school.** A key aspect of keeping young people in school is to promote their connection to school, and initiatives that promote connection to school should be supported. School connectedness is based on the idea that most young people want the support and approval of a caring adult and, if this is received as a result of positive behavior, then the young person will likely behave in a positive manner. Furthermore, young people behave more positively in an environment where they feel safe and accepted. Schools can promote connectedness and can model positive behavior; when this is combined with caring parents or other adults outside of the school, risky behavior is likely to be reduced.
359. Studies in the United States, Brazil, the Caribbean, Mexico, Honduras, and Chile have shown that increasing students' sense of connection to their schools decreases absenteeism, fighting, bullying, and vandalism. A sense of connection also promotes educational motivation and classroom engagement; it improves academic performance, and increases school attendance and completion rates. Students who feel more connected to their schools are less likely than others to exhibit disruptive and violent behavior; carry or use a weapon; experiment with illegal substances; smoke cigarettes; drink to the point of becoming intoxicated; appear emotionally distressed; consider or attempt suicide; or engage in sexual intercourse at an early age. Commitment to school is one of the few factors that has been found to reduce exposure to specific risks for violence (Farrington 1999). Conversely, school failure and dropout are risk factors for youth violence and delinquency (World Bank 2006).
360. The following are examples of policies that have been shown to be successful in improving secondary school enrollment and completion, particularly when implemented together.
- » Take steps to **improve school quality**: strengthen the connection between school and work; improve teacher training and reduce teacher absenteeism; involve the local community as monitors of both teacher and student performance; initiate peer tutoring programs; introduce innovative programming, such as non-formal education; eliminate grade repetition; improve the quality of infrastructure; and make schools safe and accessible to students.
 - » Provide **financial incentives**: conditional cash transfers (CCTs), school vouchers, loans, grants, individual learning accounts, school supplies, and free public transportation to school have been found to increase demand for secondary school and offset competing demands such as work and child care. Financial incentives provided through Mexico's conditional cash transfer program, *Oportunidades*, for example, increased secondary enrollment rates by 8 percent. The transition to secondary school was increased by nearly 20 percent, and grade attainment by 10 percent; there were significantly larger effects for girls than for boys (Guarcello 2006).
 - » **Incorporate life skills training into all interventions targeted to at-risk youth to prevent them from dropping out of school.** This should also prepare them for further education and/or job training, and increase their

overall employability. Evaluations of life skills programs from around the world have found that knowledge of life skills can be a protective factor during adolescence by delaying the onset of drug use, preventing risky sexual behavior, promoting anger management, improving academic performance, and enhancing social judgment (Mangrulkar 2001).

» **Use students as a captive audience** in schools to give them key risk-prevention messages; **use national and local media** to expose young people to social marketing messages and reduce their exposure to negative behavior.

361. A key concern for Malaysia is the tendency to expel youth from school. The current **disciplinary policies should be revised**, with the objective of keeping youth in school or placing them in alternative schools.

Box 5-7 Strategies to keep students in school: Experiences from the USA

The United States *First Things First* program is predicated on the importance of training teachers to create supportive and engaged schools and classrooms. The program's goal is to produce respectful and productive student-teacher relationships through intensive, high-quality teaching that combines high expectations of students with continued support from teachers. The program creates high, clear, and fair academic and behavioral standards by establishing small learning communities. The program also includes a family advocacy component and ongoing student performance assessments. Evaluations of the program have shown that it has led to reduced suspensions; and increased attendance, parent participation, and reading achievement.

The *Sponsor-A-Scholar Program* run by Philadelphia Futures in Pennsylvania provides students from public high schools with long-term mentoring (during high school and for one year after graduation); academic support; help with the college application process; and financial support for college. Evaluations of the program have found significant positive effects on high school test scores and college attendance.

Evaluations of the U.S. program *Project GRAD*, a comprehensive dropout prevention program that combines college preparation and scholarships, academic support, case management, family strengthening, and school/classroom environment, showed gains in college attendance, as well as in math and reading test scores, it also showed decreases in discipline referrals for participating students, compared to those in control schools.

The *Quantum Opportunities Program* in the United States provides financial incentives to young people to participate in school; it also provides mentoring, academic support, afterschool activities, and life skills development. Evaluations of the program have shown that participants were: more likely to graduate; had higher educational expectations; were more likely to attend post-secondary schools; and became teen parents less often than those in the control group.

The *Career Academy Program* combines academic and technical curricula based on specific career paths and establishes partnerships with local employers to provide work-based learning opportunities. An experimental study of outcomes of this program have shown that participants were less likely to drop out of school; had better attendance; and earned more credits than those in the control group.

Sources: Blum 2006; Hammond and Drew 2007

5.4.2 Recommendation 2: support programs that specifically target at-risk youth in urban areas

362. The qualitative work highlighted a need to provide targeted interventions aimed at vulnerable youth in urban areas. While Malaysia has been spending a significant amount of its fiscal resources on social protection, much of that has been spent on non-targeted programs, and therefore seems to have had insufficient focus on vulnerable youths (World Bank 2015b). Some programs that are designed to be targeted do not always succeed in reaching the vulnerable and the poor; and the current system seems to lack a clearly articulated design principle and a coherent

structure (World Bank 2015b). As a result, there is a proliferation of programs that address specific issues in a piecemeal way, leading to fragmented policy and administration, with limited impact on the ground.

363. **Future strategies will need to establish targeted programs.** These should be specifically aimed at vulnerable youth, including those in urban areas. Such programs should have clear objectives, based on a coherent structure and should focus on measuring impact on the ground. Currently successful cases include the Malaysia *My Skills Foundation*, *PADU*, and the *1AZAM Training Centre* in Kuching; these can be used as a case studies, and potentially replicated and scaled-up.

364. International experience illustrates the types of programs that could be supported:

» **Second chance programs.** These would include literacy and comprehensive educational/job training programs that provide young people, who are not in school, with the opportunity to complete high school and enter tertiary education or the labor market. Second chance programs (also referred to as education equivalency programs) can help address the demand and supply-side constraints that have led many young people worldwide to discontinue their education before acquiring the basic skills needed to succeed in work and life. The primary goal of these programs is to expand access to secondary education and training opportunities, but they also offer training in a mixture of basic and technical skills.

» **Job training programs that include a mixture of technical skills, life skills and internships.** Many young people have insufficient and inadequate skills to compete in the formal labor market. This is often because of difficulties in accessing secondary education and job training opportunities; secondary school curricula also need to make sure they are more relevant to the labor market.

» **Youth service programs or public sector internships; and self-employment programs.** The principle of youth service is to view young people as assets or resources. Youth service can be defined as “an organized period of substantial engagement, where young people are contributing to their local, national, or world community, in exchange for minimal or no monetary contribution to the participant.” (Sherraden 2001).

» **Mentoring programs in which caring adults mentor at-risk youth.** Mentoring programs consist of assigning a caring adult to provide support and guidance to a young person in his or her personal and academic life. Mentoring programs can either be free-standing interventions or can be included in youth development programs. International experience indicates that mentoring programs have become an increasingly popular intervention for preventing or reducing risky behavior among young people on account of their simplicity, relatively low costs, and promising results in many risk areas. Risks are defined as being involved in crime and violence, substance abuse, and dropping out of school.

» **Promotion of effective parenting as the cornerstone of policies for at-risk youth.** Parental behavior, the family environment, and the extent to which young people feel connected to their parents (or to caregivers who fill a parent’s role) can be either one of the strongest protective factors in the lives of young people or one of the strongest risk factors. Evidence shows that investing in family-based parenting training that promotes positive, healthy, protective parent-child interactions can reduce: domestic violence; the extent to which young people associate with delinquent peers; alcohol and substance abuse; school dropouts; and arrests. Parent training is one of the most cost-effective ways to prevent risky behavior among young people (World Bank 2008a).

» **Programs that focus on rehabilitation and on providing second chance opportunities.** Evidence from international experience shows that the most effective way to reduce youth crime and violence is to concentrate on

Box 5-8 Examples of targeted programs and initiatives

An evaluation of the European Union's *Second Chance Schools* pilot project showed that it had a 94 percent success rate in getting some 4,000 young people who lack basic skills and qualifications back into school. Denmark's *Youth Unemployment Program* aims to increase the employment possibilities available to unemployed, low-educated young people and to motivate them to return to school. An evaluation of the program showed that it has had small but positive short-term effects on employment.

Comprehensive training programs for young people have shown promising results in terms of increased youth employment, particularly in developing countries. Much of the evidence for this finding has come from evaluations of *Jóvenes* programs, which were first introduced in Chile and have been replicated in several Latin American and Caribbean countries. This type of program targets disadvantaged young people and offers a package of classroom training, work experience, life skills, job search assistance, and counseling. Evaluations of these *Jóvenes* programs have found evidence that participants have a greater chance of finding employment and receiving higher earnings than those in control groups. In Argentina, for instance, the probability of adult female participants finding employment increased by 10 percent, while in Chile the program increased this probability by 21 percent, with even more significant results for young people under the age of 21. Similarly, participants' earnings increased by about 10 percent more than non-participants in Argentina and the Dominican Republic.

An impact evaluation of the mentoring program *Big Brothers/Big Sisters* in the United States found that after spending 18 months with their mentors, the Little Brothers and Little Sisters were, in comparison to those in the control group, 46 percent less likely to begin using illegal drugs; 27 percent less likely to begin using alcohol; 52 percent less likely to skip school; 37 percent less likely to skip a class; they were more confident of their performance in schoolwork; one-third less likely to hit someone; and got along better with their families. The Little Brothers and Sisters met with their Big Brothers or Sisters about three times a month for an average of almost 12 months, with each meeting lasting about four hours.

Jamaica's National Youth Service program combines residence-based training in job and life skills with an internship for unemployed secondary school graduates. It was successful in helping 60 percent of its participants to find permanent employment or to continue their studies, compared with only 34 percent of similar young people in a control group.

The Nurse-Family Partnership is one of the most successful nurse home visitation programs in the United States. It trains parents in how to provide responsible and competent care and increases their self-sufficiency by advising them in areas such as family planning, education, and employment. Studies have shown that this program has resulted in a 79 percent reduction in child abuse and neglect; a 56 percent decline in children running away from home; and reductions of 56 percent in arrests of children and alcohol consumption by children.

Source: World Bank 2008a

rehabilitation and to provide second chance opportunities for young delinquents. Another key element of this approach is the introduction of graduated, or accountability-based, sanctions for first-time and minor repeat offenders (World Bank 2008a).

5.4.3 Recommendation 3: invest in safe neighborhood programs

365. The qualitative work also revealed that local neighborhoods are sometimes not perceived to be safe, and moreover, some youths did not feel that neighborhoods catered to their specific needs and aspirations. The sense of belonging and connectedness to the local neighborhoods was weak, and many felt that they did not have a strong say in matters related to their community. Residents, who are not at risk themselves, also expressed concerns about safety as cities were not perceived to be safe.

366. Specific recommendations include the following.

- » **Offer activities youth-friendly spaces within existing public buildings.** Many schools and community-based organizations around the world have created programs with youth-friendly spaces, also referred to as out-of-school time (OST) or after-school programs. These programs offer safe places for young people to enjoy supervised and productive activities; enhance their academic achievement; and develop positive relationships with adults and their peers (American Youth Policy Program 2006). There is a variety of OST programs but they all share the primary goal of preventing and/or greatly reducing the likelihood of young people engaging in risky or unproductive behavior.
- » **Invest in safe neighborhood programs by ensuring a strong police presence and fostering good police-community relations.** Safe neighborhood programs work in many ways to reduce youth crime and violence. International experience shows that successful safe neighborhood programs include three key factors: i) problem-solving policing: citizens are involved in identifying community problems to assist the police with prevention, not just reaction to crime and violence; ii) community-based policing initiatives with supervised youth activities, including recreational activities, and iii) improved public services and local infrastructure, including appropriate lighting, maintenance of common and public spaces, and provision of public transportation.
- » **Review the design of low-cost housing.** The focus group discussion highlighted many issues with the design of low-cost housing in Malaysia. Issues include: high density; lack of community spaces; and poor public transportation. International experience shows that mobility and connectivity should be key goals of an affordable and socially inclusive housing policy. Housing mobility allows households to move to the location that best maximizes their welfare, which includes having access to basic services like schools, health care, child care and employment. A residential location that only allows access to a small segment of the job market within one hour's commuting time is not helpful for households, even if it is theoretically affordable. See Annex 4-3 for a case study on affordable housing in England.
- » To provide better access to Government services, **consider establishing one-stop centers at the neighborhood level** in high-risk communities, and allowing local people improved opportunities to liaise with all the relevant agencies. Consider appointing skilled community workers from the neighborhood, who can build trust, bring people together and serve to motivate and mobilize people. They should be able to target vulnerable youth and other vulnerable groups in the community, such as older or disabled people, or single-headed households.

5.4.4 Recommendation 4: improve the coordination, design and implementation of interventions for youth-at-risk

367. This set of recommendations relates to concerns raised about shortcomings in terms of coordination of youth activities in Malaysia. There is also concern regarding insufficient targeting of some of the programs in place, and lack of engagement particularly at the local level.

- » **Promote agency coordination.** Given the multidimensional and cross-sectoral nature of youth interventions, it follows that the implementation of any such program will need to be well coordinated by government ministries across several different sectors. Each actor's contribution to the youth portfolio can be maximized by assigning institutional responsibilities according to the expertise of each player. This will ensure that programs are implemented efficiently and that they have the greatest possible impact. Designing and implementing youth-at-risk projects involves many actors, including the federal government, local governments, civil society organizations, private sector organizations, families and communities, and even young people themselves. Each has a specific role to play based on the skills and the resources that they possess in the context of youth policy.

Box 5-9 Youth-Friendly Spaces

Brazil's Open Schools/Abrindo Espaços program provides a combination of academic, athletic, cultural, and work-related activities for young people after school and on weekends. It was able to achieve a 60 percent reduction in community violence, as well as reduced rates of sexual aggression, suicide, substance abuse, theft, and armed robbery in the participating state of Pernambuco.

In *Macedonia*, spending time in community-based, youth-friendly spaces (*Babylon Youth Centers*) that provide non-formal education activities contributed to the reduction of violent behavior among young people, making them more employable than those who participated less or not at all in those programs. It also helped them become more active citizens.

The *Boys and Girls Clubs* program in the United States is one of the longest-running after-school programs in the country. It offers academic assistance, cultural enrichment, drug and alcohol prevention, life skills training, mentoring, parent and community involvement, and sports and recreation. Evaluations found that this program has reduced delinquent behavior; increased academic achievement and career aspirations; and improved attitudes toward school among participating young people.

BEST is an after-school program in Los Angeles, USA that provides young people with a safe environment; educational enrichment programs; and recreational activities. Participants are primarily minority students and young people from low-income families. An evaluation of this program showed how a cohort of LA's *BEST* students began third grade scoring below their peers in the comparison group but completed eighth grade scoring higher than their peers.

The *Birmingham Safer Neighbourhood Programme* in England operates in eight high-crime and deprived areas of the city. The program relies on a community problem-solving approach called "Audit to Action." After a steering committee conducts a comprehensive audit of crime and safety problems in the area, action groups are formed to develop and implement solutions. As a result, community members collaborate with police officers in training sessions and mapping crime patterns; engage in community policing efforts; and provide a range of family, recreational, and educational activities aimed at at-risk youth. After two years, the program reduced youth crime by an average of 29 percent and crime in general by 14 percent.

Sources: World Bank 2007a; World Bank 2007b; Arbreton et al 2005; American Youth Policy Forum 2003; International Center for the Prevention of Crime 2005.

- » **Establish an interagency task force on youth-at-risk.** To promote interagency collaboration, an interagency task force on youth-at-risk could be set up at federal level as well as at city level. This could involve the Police, Ministry of Education, Department of Social Welfare, Ministry of Youth and Sports, the Anti-Drug Agency, National Unity Department, representatives from civil society and the local authorities. Such a task force could focus on collecting data and monitoring outputs, as well as on coordination between agencies.
- » **Redistribute resources from ineffective programs to programs that work.** Issues related to ineffective targeting and lack of rigorous evaluation were highlighted during the focus group and roundtable discussions. Programs targeting at-risk youth should be undertaken, and resources should be reallocated to programs that work. Programs could also be redesigned to promote efficiency and encourage results on the ground. Programs should be selected based on cost-effectiveness and appropriate cost-benefit analyses.
- » **Promote opportunities to engage the community, local government and civil society organizations in the implementation of programs.** Concerns were raised about the lack of opportunities for the local community to engage, and in particular for the youth themselves to have a strong voice in the design and implementation of programs that pertain to them. A strong focus on community ownership, participatory design and overall implementation in response to the specific needs of the community will contribute to inclusive neighborhoods and cities. It will be essential to ensure that the participatory process is done in a way that allows all voices, including different ethnic groups, to be heard. It is also important to engage with local government and city councils, to ensure that they fulfill their mandates and respond to local needs.

Box 5-10 How to develop and implement a national youth policy: The case of Sweden

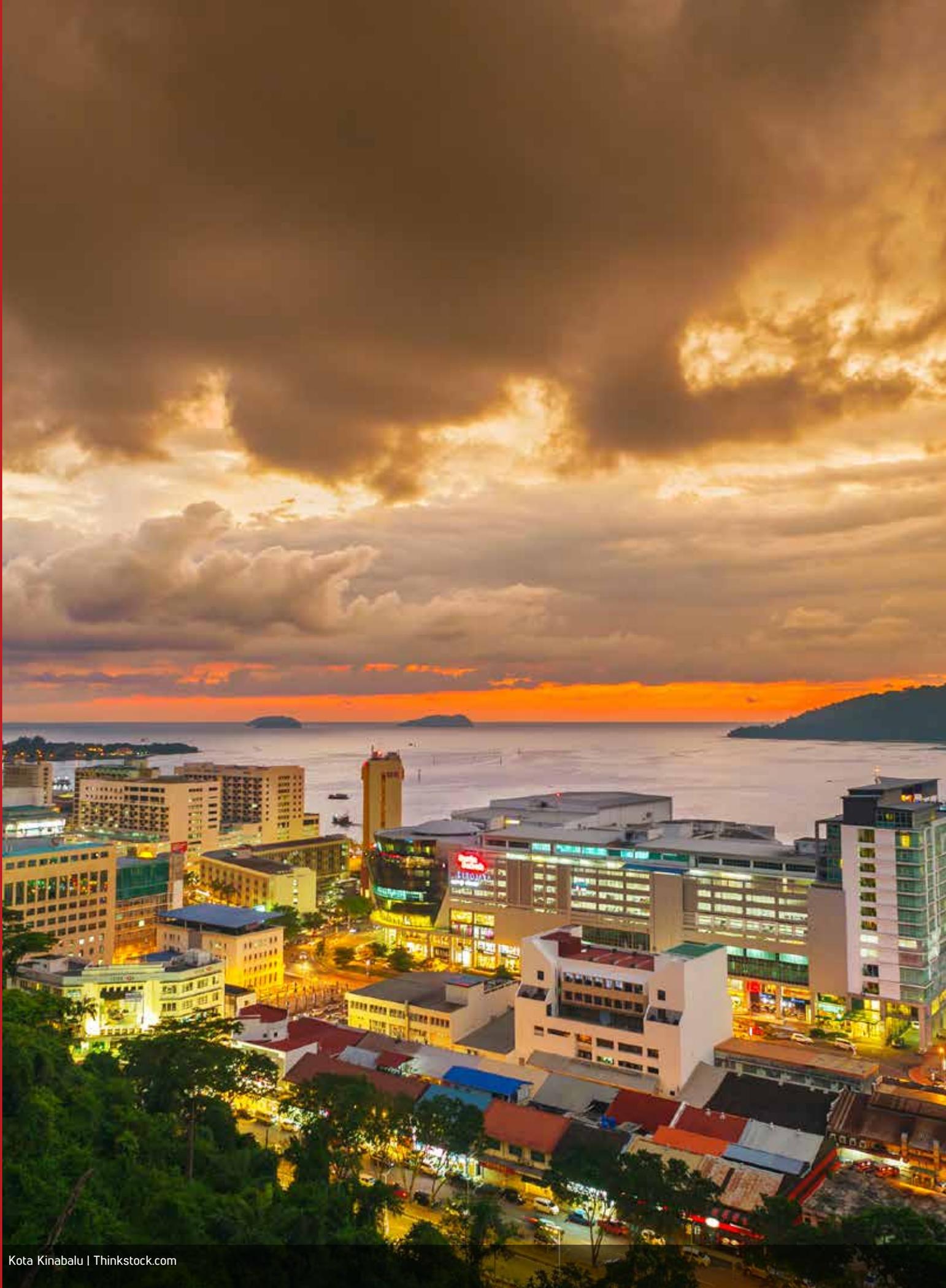
Sweden's successful youth policy is characterized by the following:

- **a high level of integration into national planning and implementation at all levels.** Swedish youth policy is well integrated into national policy planning and budgeting processes. All sectors that affect young people are expected to help achieve Sweden's youth policy objectives.
- **well-developed capacity.** A special agency, the Swedish National Board for Youth Affairs, supports municipalities in developing their youth policies and monitors progress toward the achievement of the objectives of national youth policy. The Board encourages young people to influence and participate in its discussions.

Source: Forum 21. *European Journal on Youth Policy*. Available at: <http://www.coe.int/youth/forum21>.

5.4.5 Recommendation 5: commission a follow-up and expanded study focusing on at-risk youth

368. The final recommendation addresses the knowledge gaps identified in this study. These knowledge gaps concern the targeting, cost-effectiveness and impact of the current strategy and current programs supporting at-risk youth. Questions were raised about how international experience can be applied to the Malaysia-specific context. This study was limited in scope and time. It covered six urban areas and the focus group discussions reached about 350 young people. While the research team believes that the views expressed by the young people provide an accurate picture of the issues at stake, the sample was small and is not statistically significant.
369. To further inform Government policy and programs, and to provide more specific policy recommendations, the Government should consider expanding the scope of this study. A follow-up study is recommended. Any such study could include the following:
- » a representative survey of youth: the survey would complement the qualitative work and provide statistically significant data.
 - » expansion of focus group discussions to other urban and peri-urban areas.
 - » a detailed review of government and civil society policy and programs relevant to youth-at-risk. This review could aim to identify good practice examples and opportunities to reallocate resources.
 - » extensive consideration of international experience; sharing of specific lessons and good practices as they relate to Malaysia, including monitoring and evaluation.
 - » a second phase could potentially include the design and implementation of pilot programs, as well as study visits and exchanges with other countries.



6. ACHIEVING A SYSTEM OF COMPETITIVE CITIES FOR MALAYSIA

370. Cities will play an ever increasing role in Malaysia's national growth. Ensuring that these cities achieve their full potential as centers of economic prosperity that can compete internationally in attracting talent and investments, and provide social cohesion and elements of livability for residents, will require a sustained effort from the Government of Malaysia to put in place the necessary enabling conditions. This report has highlighted many strong initiatives that the government can develop but there are also a number of challenges that will require attention going forward. Some of these challenges may be reliant on new initiatives or on new ways of implementing existing policies in order to have transformational impact.

371. Key areas identified in this report as priorities for addressing existing challenges are grouped into the following four broad categories.

» **Fostering Agglomeration Economies and Urban Sustainability:**

Key challenges to address: Low economic density; sprawling urban form; high transport costs; and weakly integrated planning processes that limit the benefits of agglomeration and may impede a city's structural transition to a knowledge-based service economy.

- **Increase the flexibility of land use in cities to facilitate increased economic density.** More flexible and fine-grained planning guidelines and regulations can be applied for managing plot ratios and conversion of land uses. Policies can also be oriented toward encouraging redevelopment of land in existing built-up areas close to city centers, and discouraging urban sprawl. In some cities, such as Greater Kuala Lumpur, ensuring optimal land use near the city center can focus on existing areas of low-use land. Industrial activities can be relocated to medium and smaller-sized cities.
- **Improve urban connectivity through public transport.** Although several large-scale initiatives are already underway to improve urban public transport, particularly in the Greater Kuala Lumpur area, this report confirms that this should continue to be a high priority for all of Malaysia's cities. Improving public transport and reducing private vehicle use would reduce congestion; improve air quality; and reduce transport energy consumption and greenhouse gas emissions. More can be done to encourage modal shift through policy and fiscal incentives, and to ensure that lower income, urban communities are adequately served. Outside of the largest cities, there is also a need to improve coverage and service levels in small and medium-sized cities/towns across the country.

» **Strengthening Institutions for City Competitiveness**

Key challenges to address: Centralization of urban service delivery; lack of coordination in urban and spatial planning; and financial and technical constraints at the level of local authorities which impact the effectiveness and efficiency of service delivery at the local level.

- **Enhance the capacities of local authorities.** Strengthening the financial and technical capacities of local authorities (PBTs) could ensure optimized service delivery at the local level. Such capacities could include: own-source revenues from the property assessments, intergovernmental fiscal transfers such as the Federal Grants, and staffing.

- **Strengthen institutional arrangements for more effective urban planning.** Urban planning can be more effectively integrated across all levels from national to state and local. It can also be integrated across sectors and the respective government agencies responsible for each area. Better integration of urban land use and urban transport planning, and gazetting the local plans, are prime examples.
- **Localize service delivery of selected urban services.** The effectiveness and efficiency of service delivery could be achieved by shifting more management and decision-making roles to the local level, in tandem with an enhanced system of local performance indicators.

» **Fostering Social Inclusion**

Key challenges to address: Inequality, particularly for youth at risk that can lead to social exclusion.

- **Strengthening programs targeting at-risk urban youth.** There are a number of policies and targeted programs aimed at enhancing support for at-risk urban youth that have had much success internationally. Some have helped to prevent school dropouts; encourage entry to the labor market; and facilitate inclusion through spatial integration (e.g. housing, transport). Improved coordination across government agencies involved in interventions for at-risk urban youth would also help to increase the effectiveness of these interventions.

» **Promoting Innovation through Information**

Key challenges to address: Decision-making is not always based on relevant and up-to-date data which may affect the quality and transparency of decision-making.

- **Deepening open data policies.** There are many opportunities for enhancing the use of open data from Government and other sources to create new business opportunities, and to help solve civic problems in cities.

As technology advances, cities around the world are experimenting with ways to use data from a number of sources to better understand their urban environment and their citizens, and to make the response to citizen needs more effective. As a technologically advanced society, Malaysia is in a good position to take advantage of new and innovative means of data-enabled urban management practices. Malaysian government agencies have already taken steps toward making their operations “smarter” using data. For example, the use of crime data in strategically locating police resources has led to a reduction in urban crime in Kuala Lumpur. Many Malaysia government agencies collect a large amount of data, some of which is available publicly online, and some agencies have even developed mobile phone applications to help citizens access these data.

More could be done to use the data to facilitate collaborative decision-making between government agencies and between the government and citizens. The case studies included at the end of this Chapter provide examples of the ways in which governments around the world are attempting to use urban data in decision-making, and the ways in which a shift toward a more open and collaborative approach to data has helped these cities achieve their goals. They show that new technology and larger quantities of data by themselves cannot solve cities’ problems. Instead, they reflect a shift toward collaborative decision-making and openness of information, in which the new technologies and data are used to facilitate a dialogue between various agencies and citizens. See Boxes 6.1-6.5

6.1 Implementation of Key Reforms

372. In order to prioritize key reforms, the government must consider **feasibility** to affect change; the **impacts** and benefits of expected results (or the cost of inaction); and **urgency** in terms of how critical it is to address the issues

today. These criteria were used to qualitatively assess the policy recommendations included in this report, resulting in a categorization of actions by high, medium, and low priority as described in Table 6-1.

373. Evidence from other countries suggests that implementation of these recommended actions will require strong political will and buy-in from line ministries and local governments. Policy changes in land markets are not easy anywhere as there is much at stake for citizens. For such major policy changes, a phased approach will be required. Other recommendations such as introducing, or scaling up, successful programs targeting youth-at-risk could be implemented with relative ease and could potentially have enormous benefits for addressing social problems and improving the overall competitiveness and livability of Malaysian cities.

374. The possible assignment of lead and partnering agencies for each recommended policy action is suggested below in Table 6-2. A possible time horizon required for implementing recommendations is presented; with short term envisioned as within 2 years, medium term, 2-5 years, and longer term being more than 5 years.

Table 6-1 Prioritization of Policy Reforms by Theme

Priority	Urban planning and management	Institutional	Social
High	<ul style="list-style-type: none"> • Increase the flexibility of land use in cities to facilitate increased economic density • Improve urban connectivity through public transport 	<ul style="list-style-type: none"> • Strengthen the financial and technical capacities of PBTs: property assessment tax, federal grants, and staffing 	<ul style="list-style-type: none"> • Support and establish programs that target at-risk youth in urban areas • Invest in safe neighborhood programs
Medium	<ul style="list-style-type: none"> • Ensure optimal utilization of land close to the city center of Kuala Lumpur: focus on low-use land, and relocation of industry • Consider adjusting the Iskandar region's strategy to pursue more vertical linkages with Singapore • Commission a follow-up study focusing on the city economic development strategies of Kota Kinabalu, Kuching, and Kuantan 	<ul style="list-style-type: none"> • Strengthen institutions for more effective urban planning: integration of urban land use and urban transport, gazetted local plans, and linkages across planning levels and sectors • Advance the open data agenda across all areas and levels of government 	<ul style="list-style-type: none"> • Support policies that keep children in school • Improve coordination of interventions aimed at at-risk youth • Commission a follow-up study on at-risk youth
Low		<ul style="list-style-type: none"> • Localize the delivery of some urban services by shifting certain roles to PBTs 	

Source: World Bank Team

Table 6-2 Recommendations with possible lead and partner agencies, and implementation time frame

Recommendations	Lead agency / institution Partnering agency / Institutions (if any)	Time frame for implementation (short, medium, long-term)
Recommendation 2.1: Increase the flexibility of land use in Malaysian cities to facilitate increased economic density		
Pursue more flexible, fine-grained guidelines and regulations in cities for parameters such as plot ratios, conversion of land uses, and premiums payable	JPBD (coordinating), PBTs for local plans and state Land Offices for allowable uses and premiums	Short to medium
Recommendation 2.2: Strengthen institutions for more effective urban planning		
Improve the coordination and integration of planning for urban land use and urban transport (refer to separate World Bank-EPU study on Crafting A National Transport Strategy)	JPBD (coordinating), PBTs for local plans, all urban transport-related agencies including SPAD and JKR, and possible metropolitan-level agency	Short to medium
Improve linkages across all planning levels and sectors related to urban development	JPBD (coordinating), with state governments and PBTs	Short to medium
Recommendation 2.3: Improve urban connectivity through public transport		
Redouble efforts to improve urban public transport, particularly for serving lower income communities, and improving coverage and service levels in small and medium-sized cities/towns. More generally, promote transport modal shift away from private modes.	SPAD, but also other government agencies for other indirect policies and incentives	Short to medium
Recommendation 3.1: Ensure optimal utilization of land close to the city center of Kuala Lumpur		
Identify areas of low-use land that could be feasibly developed for more productive use	JPBD (coordinating), with DBKL and relevant PBTs in Selangor (e.g. MBPJ)	Short
Plan and implement new developments on specific land parcels, including affordable housing for middle income groups	To be determined – depends on location, type of development, land ownership, etc. EPU and Khazanah can play facilitator role. Likely to also involve private sector.	Medium to long
Encourage the relocation of industrial activity to other cities in Malaysia, possibly through a programmatic approach	MIDA (coordinating), with state governments, corridor authorities, PBTs, and private sector e.g. FMM	Medium to long
Recommendation 3.2: Consider adjusting the Iskandar region’s strategy to pursue more vertical linkages with Singapore		
Undertake a detailed review of the existing strategy (including the new CDP2) and identify opportunities for adjustment	IRDA (coordinating), with UPEN Johor, EPU, Khazanah, and other relevant agencies	Short
Implement specific actions/investments related to vertical linkages identified	IRDA (coordinating), other agencies, depends on specifics of actual action/investment	Medium
Recommendation 3.3: Commission a follow-up study focusing on the economic development strategies of Kota Kinabalu, Kuching, and Kuantan		
Undertake the follow-up study	EPU (coordinating), with state UPENs, relevant corridor authorities and PBTs	Short
Recommendation 4.1: Localize the delivery of some urban services by shifting certain roles to PBTs		
Determine the specific urban services to be localized, and the overall plan and timeline for shifting roles to PBTs	Ministry of Urban Well-being, Housing and Local Government (lead), with all relevant federal agencies and PBTs	Short
Pilot the local delivery of one selected urban service, and evaluate effectiveness	Pilot PBT, with Ministry of Urban Well-being, Housing and Local Government (coordinating), and relevant federal agency	Short to medium

Recommendations	Lead agency / institution Partnering agency / Institutions (if any)	Time frame for implementation (short, medium, long-term)
Roll out localization of other urban services, based on pilot experience	Ministry of Urban Well-being, Housing and Local Government (coordinating), with all relevant federal agencies and PBTs	Medium to long
Move toward metropolitan governance, focusing on planning and the “integrator” function, starting with urban transport	Ministry of Transport (lead), with SPAD, state government(s), PBTs and other relevant agencies such as JKR	Short to medium
Enhance the system of city performance indicators (including SPB-PBT and MURNInets) to support the localization of service delivery and benefit from international benchmarking and ISO	Ministry of Urban Well-being, Housing and Local Government (coordinating), with all relevant federal agencies and PBTs	Short
Recommendation 4.2: Strengthen the capacities of PBTs		
Allow the system of local property assessment to work the way it was intended, including revising assessment rates; updating assessed values; and incorporating protection mechanisms against sudden or excessive increases of assessment bills.	State governments (lead), with Ministry of Finance (Valuation Department for assessed values), PBTs (implementation)	Short to medium
Revise the Federal Grant system of Operational Grants to PBTs to be more transparent, predictable, and formula-based, as well as performance-based	Ministry of Urban Well-being, Housing and Local Government (lead)	Medium
Strengthen the staffing of PBTs, including through the planned initiatives of the PBT Transformation Plan	Ministry of Urban Well-being, Housing and Local Government (lead), with the Public Service Commission, and all PBTs	Short to medium
Recommendation 5.1: Support policies aimed at keeping children in school		
Encourage secondary school enrollment and completion Promote family connection to school	Ministry of Education	Medium
Recommendation 5.2: Support programs that specifically target at-risk youth in urban areas & establish targeted programs		
Support programs that focus on rehabilitation and on providing second-chance opportunities for young offenders	Ministry of Youth and Sports (lead), with Ministry of Women, Family and Community Development, relevant NGOs, PBTs	Short to medium
Establish programs in which caring adults mentor at-risk youth		
Invest in job training programs that include a mixture of technical skills, life skills and internships	Ministry of Human Resources (lead), with training institutes and private sector	Short to medium
Recommendation 5.3: Invest in safe neighborhood programs		
Offer activities for young people in youth-friendly spaces within existing public buildings	Ministry of Youth and Sports (lead), with PBTs	Short
Invest in safe neighborhood programs by ensuring a strong police presence and fostering good police-community relations	Police (Ministry of Home Affairs)	Short to medium
Explore establishing one-stop centers in neighborhoods with high-risk communities	PBTs, with funding and support from federal agencies	Short to medium
Review the design of low cost housing	Ministry of Urban Well-being, Housing and Local Government, with state and local housing agencies	Short to medium
Recommendation 5.4: Improve coordination, design and implementation of interventions aimed at youth at risk		

Table 6-2 Continued

Recommendations	Lead agency / institution Partnering agency / Institutions (if any)	Time frame for implementation (short, medium, long-term)
Promote interagency coordination, including establishment of an interagency task force on at-risk youth	Ministry of Youth and Sports (lead), with all relevant agencies	Short
Evaluate current programs, with the view to improvements; and reallocate resources away from ineffective programs to programs that work	Interagency task force	Short
Explore and promote opportunities to engage the community, local government and civil society in the implementation of programs	Interagency task force as champion, with implementation by all	Short to medium
Recommendation 5.5: Commission a follow-up and expanded study focusing on at-risk youth	Ministry of Youth and Sports (lead), with EPU	Short
Recommendation 6: Advance the open data agenda more aggressively across all areas and levels of government	MAMPU (coordinating), with Statistics Department and other agencies	Short to medium

*Notes: Recommendations have been numbered to correspond with the chapters in this report.
Short-term = up to 2 years; Medium-term = 2-5 years; Long-term = More than 5 years*

Box 6-1 Improving Efficiency of City Management in Rio de Janeiro, Brazil

In 2010, the mayor of Rio de Janeiro, together with IBM and Oracle, built a Centre of Operations, intended to be a “state of the art situation room”. The center is used by decision-makers in the city to operate general city services, but mostly to coordinate emergency response. Over time, the administration has begun to develop routine operational uses for the Centre of Operations. For example the garbage trucks are coordinated through GPS, so in an emergency the trucks can be re-purposed for other tasks. This helps the city manage resources and improve efficiency of response.

The Centre of Operations houses representatives from over 30 different departments at any one time. This has involved huge organizational adjustments from the previously segregated and siloed city departments to a more strategic, coordinated approach. More than just an advance in technology, the Centre of Operations is a manifestation of a cultural change for the city as an organization.

One of the core principles of the center of operations was transparency. Rio has made a significant amount of its data freely available to the public, including crime rates, mortality rates, traffic congestion, etc.

Source: Government of the United Kingdom 2013.

Box 6-2 Facilitating parking in San Francisco, United States

The “SFpark” program uses new technologies to make parking easier and faster. Sensors have been installed beneath parking spots throughout the city. Department of Transportation computers track open spots and set prices according to availability and turnover. A mobile phone app is also used to direct drivers to open spots and allows them to refill meters remotely. Demand-responsive pricing information online, via text, and through smartphone apps helps drivers find a space. Longer time limits and new meters that accept credit/debit cards, SFMTA parking cards and coins make parking more convenient and result in fewer parking tickets. By expanding payment options, the number of parking citations has decreased markedly. Environmental benefits are also evident. The program reduces circling and double parking, cutting down on the noise, pollution and frustration that accompany traffic congestion, and keeps roads clear so that emergency vehicles can get through streets faster and more reliably.

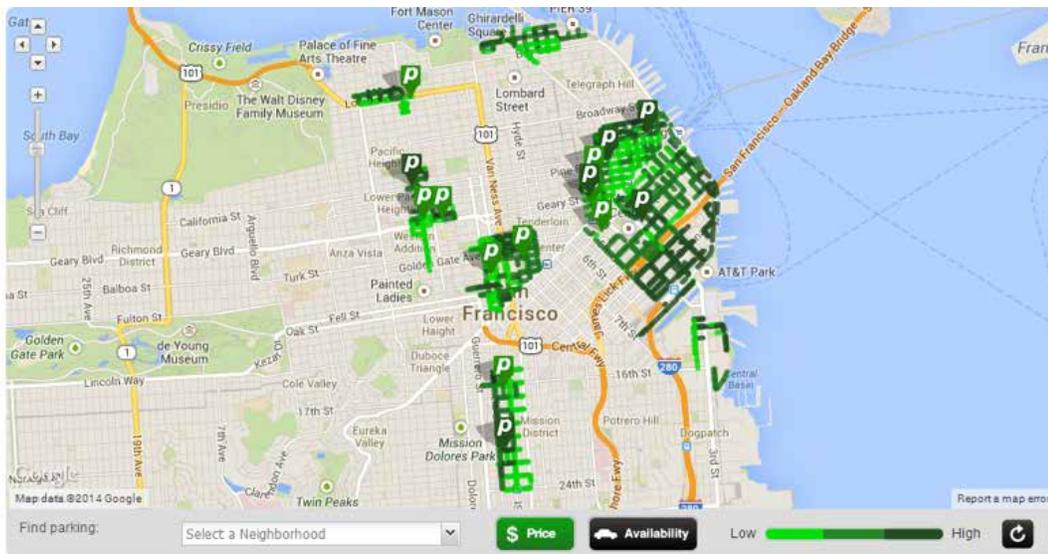


Image source: SFpark.com

Source: The Guardian 2013.

Box 6-3 Using new tools to manage infrastructure in Washington DC, United States

The District of Columbia Water and Sewer Authority (DC WASA) is a leading regional utility that provides drinking water, wastewater collection and treatment to more than 500,000 residential, commercial and governmental customers in the US capital and surrounding counties. It operates the world's largest advanced wastewater treatment plant with a capacity of 370 million gallons per day, with a peak capacity of over 1 billion gallons per day.

The DC WASA system, which dates back to the nineteenth century, was challenged by an inability to monitor infrastructure efficiently or reliably due to an outdated paper records system. The Agency needed robust technologies to help manage its assets, which include hundreds of thousands of water distribution pipes, valves, public fire hydrants, collection pipes, manholes, working crews, vehicles and water meters. In 2000, DC WASA began collecting digital data which needed to be consolidated and analyzed. With almost no budget to replace infrastructure, DC WASA needed to be able to predict infrastructure failures and prioritize replacements in those areas.

DC WASA and IBM began work on a project called PSTAR, Platform for Spatio Temporal Analytics, which helps DC WASA understand critical patterns for managing its aging infrastructure. The project integrates advanced analytics with asset management software, Geographic Information Systems, and Automated Meter Reading technology.

The availability of real time, map-based information and geanalytics is helping DC WASA employees identify potential problems before they occur. This is done by analyzing an enormous amount of disparate data that has been put into one single repository and uncovering patterns related to weather conditions, water use, demographics, working crews and hundreds of other variables. DC WASA is also using instrumentation, like the approximately 200,000 Automated Meter Readers (AMR) located throughout the city in commercial businesses and residences; sensors that collect data to improve customer service quality, better understand water usage patterns and predict future DC water consumption levels. The Fire Department now has handheld devices that can communicate with the water utility when repairs need to happen, allowing collaboration between two agencies which have not typically shared data. Through advanced analytics, DC WASA will be able to automatically analyze usage patterns to provide solutions for demand management and differential pricing. When the project is completely finished, it will provide automatic work scheduling by matching workers' skill sets, tools and equipment to assigned tasks. DC WASA has already tagged over 40 of its trucks with GPS devices to provide DC WASA the flexibility to assign emergency work based on crews', vehicles' and equipment proximity to the affected area, streamlining the Agency's workload and improving the customer experience.

Source: IBM n.d.

Box 6-4 Creating an open city data portal: Hong Kong, China

The Government of Hong Kong holds a significant amount of data that could be of significant value to the public. These datasets include demographic, economic, geographical and meteorological data, historical documents and archives. However this information has not historically been in a format to facilitate value-added re-use by third parties. In order to combat this, the government launched a data portal entitled Data One (Data.One.gov.hk). This 18 month pilot scheme made geo-referenced public facilities data and real time traffic data available for free. They held a competition for the best applications of this data, for which they received 41 entries. The winner was an app that located the nearest doctor and tracked appointments. Following the success of this trial, and support from citizens and industry, the government plans to continue with the portal, and gradually add more datasets.

Source: Government of the United Kingdom 2013.

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Chapter 6

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Malaysia's cities are dynamic centers of innovation and have much potential to play an increasingly important role as drivers of economic growth for the country. Yet, cities can grow in different ways that will affect their competitiveness and livability, requiring policies that create opportunities, foster productivity, minimize environmental degradation and ensure social equity. This study focuses on understanding three key aspects of city competitiveness: economic growth, urban governance, and social inclusion, through extensive analysis and field work in six urban centers of Malaysia. Based on the analysis, the study lays out a set of policy recommendations that aim to address existing challenges and create opportunities for achieving a system of competitive cities.

