



KLLP2040

KUALA LUMPUR LOCAL PLAN 2040

PROMOTING CITY DEVELOPMENT



VOLUME 2 | PLANNING STRATEGY AND
IMPLEMENTATION PROPOSAL



KUALA LUMPUR LOCAL PLAN 2040

VOLUME 2

PLANNING STRATEGY AND IMPLEMENTATION PROPOSAL



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The Kuala Lumpur Local Plan 2040 (KLLP2040) is prepared by the Kuala Lumpur City Hall (KLCH) considering the needs, and perspectives from various groups consisting of professional groups, government agencies, industries, interest groups, and local communities.

KLLP2040 translates a long-term vision towards a City for All by strengthening Kuala Lumpur's planning in line with the sustainability agenda. The KLLP2040 document comprises two (2) volumes – Volume 1, and Volume 2. The document that forms the basis, and justification for the proposed land use zone, and intensity is contained in Volume 1 of KLLP2040. This plan sets out planning strategies, and identifies development implementation proposals for Kuala Lumpur towards the year 2040. KLCH will utilise KLLP2040 to evaluate development applications, and execute tasks associated with Kuala Lumpur's development phases.

This document provides an administrative framework, and guidance to KLCH in carrying out its duties as the local authority while also taking into account the achievements of the KLCP 2020.

Therefore, KLCH also extends its highest appreciation to all parties involved — at the Federal, State, Local, and Community levels for their contributions, and cooperation in the successful preparation of KLLP2040.

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Preface

**Assalamualaikum Warahmatullahi Wabarakatuh,
Greetings, and Salam Malaysia MADANI.**

All praise, and gratitude to Allah SWT because with permission, and grace, the Kuala Lumpur Local Plan 2040 document Kuala Lumpur 2040 (KLLP2040) has been successfully completed, and gazetted as a key document in planning a more sustainable future for Kuala Lumpur liveable, and inclusive.

The timing of this plan is crucial since Kuala Lumpur is dealing with the effects of climate change, the pressures of rising urbanisation, and the majority's expectations for a more equitable, well-rounded, and fulfilling urban life. KLLP2040 will serve as a compass in this regard, striking a balance between the necessity of long-term sustainability, humanitarian ideals, and physical progress.

I believe that the strength of this plan lies in its planning structure, and the spirit of inclusiveness that serves as its foundation, and guide. This approach aligns with the vision for the development of CHASE City, which is Clean, Healthy, Advanced, Safe, and Eco-friendly, serving as the framework for the Federal Territory's direction based on well-being, and a shared future.

I also appreciate the commitment of the Kuala Lumpur City Hall (KLCH), and the dedication shown by all stakeholders, including technical agencies, planning experts, the private sector, civil society, and city residents, who have made valuable contributions throughout the process of preparing this plan.

Hopefully, KLLP2040 should be able to provide a strong basis that is solid in shaping Kuala Lumpur as a progressive global city, and sustainable by 2040, in line with our aspirations in building a Federal Territory that upholds the spirit of Malaysia MADANI.

Thank you.



KL 20

YB DATUK SERI DR. ZALIHA BINTI MUSTAFA
Minister in the Prime Minister's Department (Federal Territories)

Preface

**Assalamualaikum Warahmatullahi Wabarakatuh,
Greetings, and Salam Malaysia MADANI.**

All praise, and gratitude to Allah SWT because with His abundant grace, the Kuala Lumpur City Hall (KLCH) has successfully prepared the Kuala Lumpur Local Plan 2040 (KLLP2040), a planning document that becomes the main basis for the direction of development, and control of the physical planning of the city of Kuala Lumpur for the future.

KLLP2040 is framed based on the aspirations of the 17 Sustainable Development Goals (SDGs), the New Urban Agenda, as well as national policies including Malaysia MADANI Policy, to ensure Kuala Lumpur remains relevant, and progressive in facing challenges globally, and locally. Each core of Malaysia MADANI has integrated comprehensively into the strategy, and initiatives of this plan. In addition, KLLP2040 also details the implementation of the KLCH 2040 Strategic Plan with translating the vision, objectives, and strategic framework of KLCH into comprehensive, and detailed physical proposals based on local needs.

KLLP2040, serving as the primary reference document for guidance, and planning control, emphasizes balanced physical, economic, social, and environmental development. It addresses various current, and future issues, including the effects of climate change, rapid urban population growth, technological advancement, demand for smarter mobility, as well as the need for environmentally friendly, and resilient infrastructures.

KLLP2040 is widely used in the decision-making process by KLCH, and other stakeholders, especially in the assessment of planning permission applications, implementation of development, preparation of plans sectoral actions, as well as references for investors, and professional planners. This plan also serves as a basic guideline for landowners, and developers when planning development proposals to align with the city's strategic direction.

As a comprehensive plan, KLLP2040 has three main strengths, namely, it is (evidence-based) through data analysis, and spatial studies that are comprehensive; uses a smart approach (smart) through the integration of technology, and geospatial information systems, and it is (people-centred) by prioritising public involvement, and community participation at every stage of its provision. The approach is designed to ensure that Kuala Lumpur is able to offer a higher quality of life to all layers of society without neglecting the preservation of cultural heritage, and urban identity.

KLLP2040 also reflects KLCH's commitment to implementing data-driven, inclusive planning, and responsiveness. The process of preparing this plan has emphasised extensive engagement with the local community, government agencies, the private sector, non-governmental organisations, and academic institutions. The views, and feedback received have translated into a more solid framework of strategy, and implementation, making KLLP2040 truly a plan owned collectively by the city's residents to achieve sustainable development.

Moving forward, Kuala Lumpur will continue to be a smart city that not only utilises technology to enhance service efficiency but also prioritises the well-being, and happiness of its citizens. We must build a city that upholds humanitarian values, preserves environmental sustainability, reinforces social inclusion, and expands access to fair, and equitable economic opportunities.

I urge all stakeholders, including the public sector, the private sector, and society, to make KLLP2040 the main reference for every action, and decision involving urban development. Only with a joint commitment can we ensure Kuala Lumpur continues to progress as a resilient city, liveable, and loved by all. From Liveable to Loveable City For All.

In conclusion, I extend my highest appreciation to all KLCH's staff, strategic partners, and the residents of Kuala Lumpur who have contributed to the success of the KLLP2040 preparation. Let's come together to realise this plan for the benefit of future generations.

Thank you.



YBHG. DATO' SERI TPR (DR.) MAIMUNAH BINTI MOHD SHARIF
Mayor of Kuala Lumpur

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1.0

INTRODUCTION



INTRODUCTION

KUALA LUMPUR LOCAL PLAN 2040 (KLLP2040)

Rapid development processes require the main cities of the world to be prepared in dealing with critical issues such as road congestion, impact of the climate change, social inequality, inadequate urban infrastructures and technology. Kuala Lumpur being the main city of Malaysia, also face the same issues that needs comprehensive and practical means of solutions.

The KLLP2040 is a planning document that is intended to address the development issues and to set a new development direction towards a sustainable future. KLLP2040 prepares Kuala Lumpur as a Global City that is able to meet the development agenda at the global, national level and the aspirations of its residents. The KLLP2040 is an official document that translates policies and general proposals contained in the KLSP2040 into detailed physical planning. However, in the event of any discrepancies with KLSP2040, the KLLP2040 document shall take precedence, considering its more recent preparation.

The preparation of this document conforms with the provisions of Act (Planning) Federal Territory, 1982 (Act 267). This document is the basis and justification for the land use zoning and intensity proposal, as prescribed in Volume 1 of the KLLP2040.

Figure 1.1: Content of KLLP2040

VOLUME 1: MANAGING CITY PLANNING

This document focuses on urban planning management, which includes planning control guidelines, land use zoning maps, development intensity, as well as land use and building classifications.

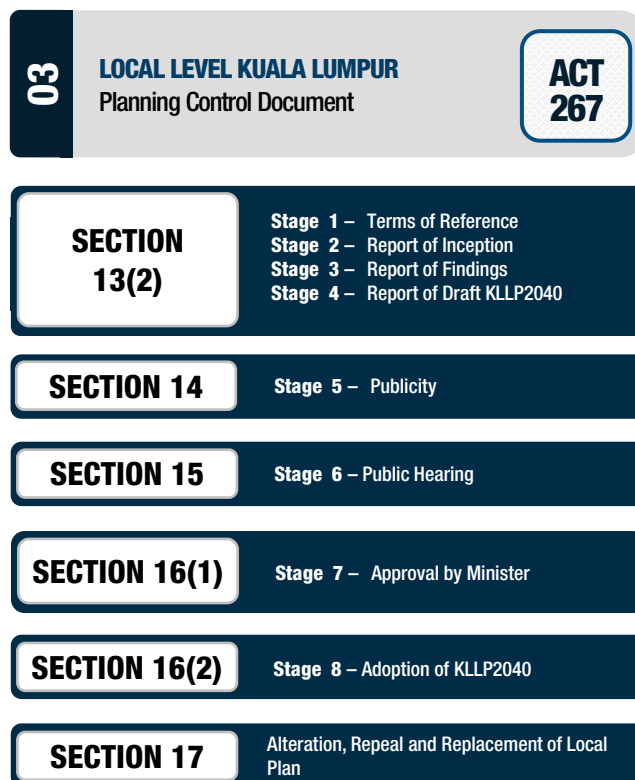
VOLUME 2: PROMOTING CITY DEVELOPMENT

This document focuses on development proposals for implementation through policies, programmes, project, planning control and guidelines as the basis for details in Volume 1.

Figure 1.2: Hierarchy of Kuala Lumpur Development Plans



Figure 1.3: Framework for the Preparation of KLLP2040



PUBLIC AND STAKEHOLDERS CONSULTATION PROCESS IN THE PREPARATION OF THE KLLP2040

The KLLP2040 had been prepared through a series of consultative process with stakeholders and the general public. The importance of having public consultations is to ensure that the planning of Kuala Lumpur is comprehensive, inclusive and in line with vision of Kuala Lumpur, “City for All”.

The process was conducted from the beginning in various forms covering meetings, focus group discussions, technical working group, workshops and briefing sessions. This approach was implemented to get a holistic response towards achieving a complete KLLP2040.

Figure 1.4 shows the consultation sessions with the public during the preparation of the Draft KLLP2040.

Figure 1.4:
Session of Focus Group Discussion (FGD)



Online Focus Group Discussion (FGD) Session of KLLP2040.

Figure 1.5:

Series of Public Consultation Sessions during the Preparation of KLLP2040

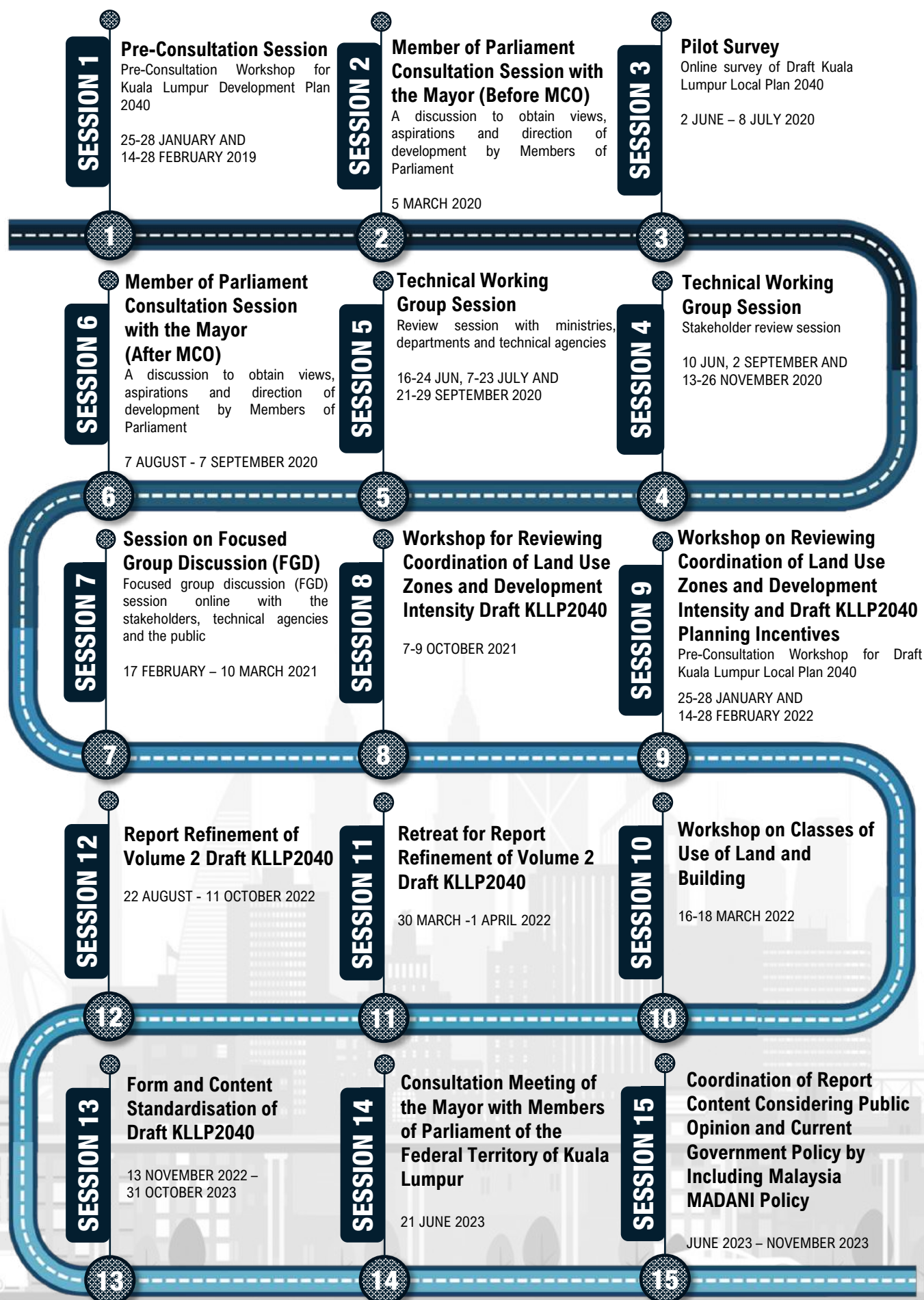


Figure 1.6:

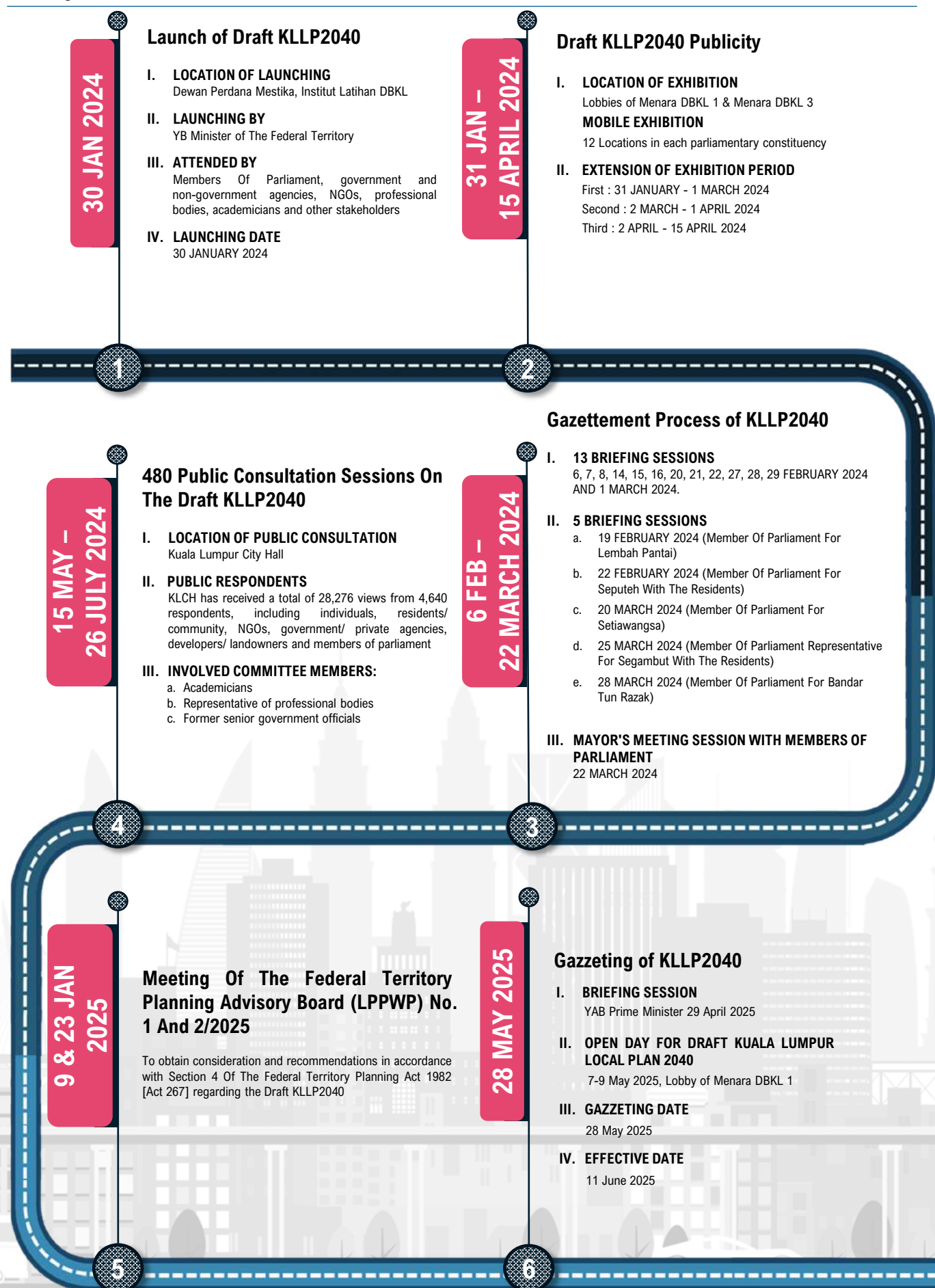
Parties Involved in the Public Consultation Session Series for the Preparation of the KLLP2040



Figure 1.7:
List of Agencies Involved in Technical Working Group Sessions



Figure 1.8:
Gazetting Process of KLLP2040



1.1 KUALA LUMPUR DEVELOPMENT FRAMEWORK

KUALA LUMPUR AS A GLOBAL CITY

Kuala Lumpur is the capital and largest city of Malaysia with an area of 24,289.45 hectares. It is the economic and financial growth centre stimulating the nation's development.

Kuala Lumpur's development growth was initially oriented towards resolving settlement, urban management and environmental issues. As a result of the present rapid development, Kuala Lumpur is facing the issues of traffic congestion, the availability of affordable housing, quality facilities and is prone to disaster risks such as flash floods. Therefore, Kuala Lumpur needs to identify the best method to manage this urban issue, in line with its role as a global city.

The Global Cities Index 2018, ranked Kuala Lumpur as 49th global cities, taking into account several aspects such as business activities, human resources, information exchange, cultural experience and political involvement.

KLSP2040 has determined the direction of Kuala Lumpur's development as a global financial centre. Kuala Lumpur shall use its strength as an international Islamic Financial Centre to spur its position in the world ranking and a robust ecosystem of relevant business support.

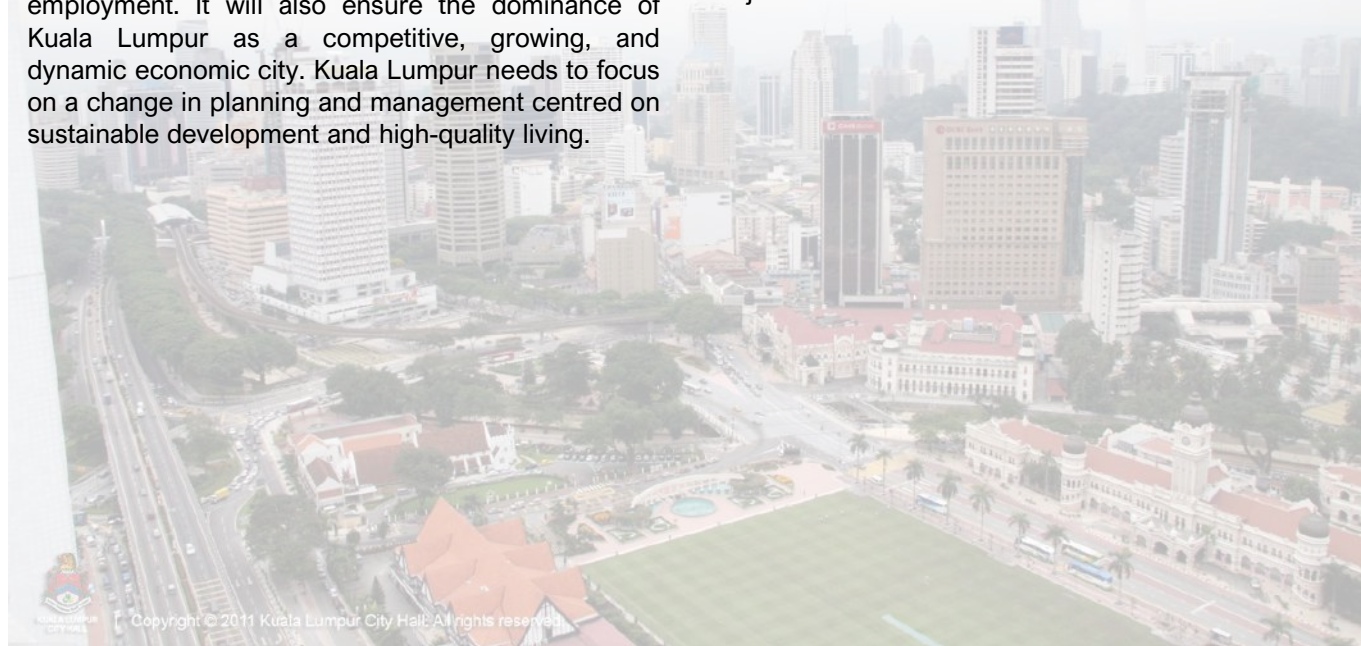
The increase in financial activities will elevate Kuala Lumpur as a productive global city, able to attract more investments, support innovation and generate employment. It will also ensure the dominance of Kuala Lumpur as a competitive, growing, and dynamic economic city. Kuala Lumpur needs to focus on a change in planning and management centred on sustainable development and high-quality living.

1.1.1 ECONOMIC LINKAGES OF CITIES WITHIN NATIONAL CONURBATION REGION

Kuala Lumpur is the prime city of Malaysia and is one of the engines of national economic growth. 75 percent of the Gross Domestic Product (GDP) of Malaysia is concentrated in urban areas located in the National, Northern, Southern and Eastern Conurbations. The development potential of these urban areas must be planned as effectively as possible to obtain the optimum economic benefit. Malaysia's GDP recorded a percentage of 8.9 in 2022 and 3.6 percent in 2023. Kuala Lumpur recorded an economic growth of 3.7 percent with a GDP value of RM249.3 billion in 2023.

Kuala Lumpur needs to establish working relationships in terms of policies sharing, spatial planning programmes and initiatives, environmental management and infrastructure readiness, especially with other cities like Cyberjaya, Putrajaya, Shah Alam, Petaling Jaya and Klang. This relationship will also ensure the national conurbation remains robust to cope with the rapid physical and economic growth.

The efforts to strengthen the economic integration between these cities can be implemented through the involvement of local authorities in regional planning. This is important to ensure the optimum utilisation of resources and balanced development in line with the objective of KLSP2040.



1.1.2 TRANSPORTATION LINKAGES TO A REGIONAL NETWORK

The National Transport Policy 2030 (DPN2030) has stipulated that the transportation sector is the main generator of national socioeconomic development. An efficient national transportation system has a direct relation to economic growth and trade activities.

The Logistics and Trade Facilitation Masterplan 2015 has targeted Malaysia as the preferred gateway for logistics. This aspect will be the main spine of all supply chains and is assumed to be the main factor in stimulating trade, facilitating business and spurring regional economic growth.

However, the congestion issues in ports posed challenges when container arrivals from hauliers coincide. Logistics achievements and supply chain management must be enhanced to benefit the economic growth of Kuala Lumpur.

The existence of entry ports at Pelabuhan Klang and KLIA had encouraged agglomeration for industrial activities and services close to the two (2) entry ports. This agglomeration leads to the generation of investment and employment opportunities. Kuala Lumpur needs to ensure that the regional transport network, which includes logistics hubs, goods transport, and ports of entry, is improved.

1.1.3 IMPLEMENTATION OF RAIL BASED TRANSPORT SYSTEM FOR COMMUNITY AND SERVICES MOVEMENT

The proposal for a high-speed rail terminal in Bandar Malaysia will enhance Kuala Lumpur's role as the main gateway to the country. This proposal will reduce travel time by up to 90 minutes between the Klang Valley and the Southern Region and will open up opportunities for regional economic activities.

The development of the East Coast Rail Link (ECRL) will become one of the new service networks for community and goods movements that will link the east coast and the west coast of Peninsular Malaysia. ECRL line will run through Kelantan, Terengganu, Pahang, and Selangor. It will start from Kota Bharu in Kelantan and ends at Pelabuhan Klang in Selangor. In addition to the states of Kelantan and Selangor, this route will also cross the states of Terengganu and Pahang. Kuala Lumpur should take the opportunity of this project because there is a proposal to link ECRL with the Terminal Bersepadu Gombak that connects to the Light-rail Transit (LRT) network.

The rail transport system in Kuala Lumpur will be more integrated with the completion of the proposed Circle Line (MRT3) that will link with LRT, , MRT Sungai Buloh – Kajang (SBK) (MRT), MRT Sungai Buloh – Serdang – Putrajaya (SSP) (MRT2) and the existing KTM Komuter for Kuala Lumpur. MRT3 will also become a platform to spur competitiveness and stimulate Kuala Lumpur's economy.



Location: Kuala Lumpur
A view of Kuala Lumpur City Centre at night.

1.2 THE PERFORMANCE OF KLCP 2020 WITHIN IMPLEMENTATION PERIOD

The first Kuala Lumpur Local Plan is known as Kuala Lumpur City Plan 2020 (KLCP 2020) and was gazetted on 30th October 2018. It was prepared under the provisions of Section 13 of the Federal Territory (Planning) Act 1982 (Act 267). This plan translates the long-term vision of KLSP 2020, Kuala Lumpur as a World Class City.

KLCP2020 outlines eight (8) development thrusts, 24 strategic directions and is supported by 73 main initiatives encompassing all development aspects aimed at encouraging the growth of Kuala Lumpur until 2020.

The performance of KLCP 2020 during its implementation period was evaluated to ascertain the level of implementation based on 15 main planning sectors, which are land use and intensity, trade, housing, industrial, public facilities, design, heritage, green and open spaces, environment, disaster risks, infrastructure, transportation, green technology, renewable energy, traditional villages and tourism.

The implementation performance of KLCP 2020 is evaluated through two (2) categories, namely the level of implementation and the level of appropriateness of the proposal in the context of the KLLP2040 preparation.

Throughout the gazettelement of KLCP 2020, 62.20 percent were implemented, 26.83 percent were currently implemented and 10.97 percent were not implemented, as shown in Figure 1.2.1.

Evaluation of the suitability level of the KLCP 2020 proposals for implementation in the KLLP2040 has found that 22.0 percent still relevant, 74.0 percent are still relevant but needs improvement and 4.0 percent should be not relevant, as shown in the Figure 1.2.2.

The KLLP2040 will consider the proposals from KLCP 2020, which are still suitable for future planning and can be implemented in tune with the current growth of Kuala Lumpur. The selected proposals of KLCP 2020 that are being considered in the KLLP2040, need to be in line with the vision of KLSP2040, Kuala Lumpur a City for All.

Figure 1.2.1:
Implementation Achievements of KLCP 2020 Proposals

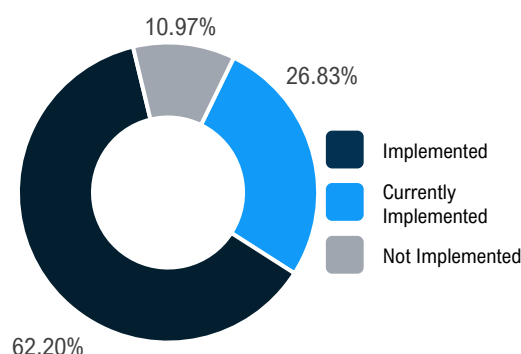
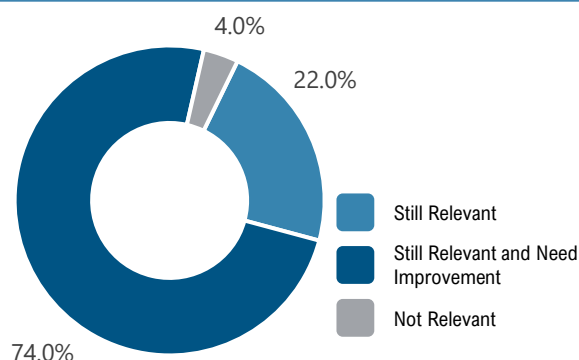


Figure 1.2.2:
Evaluation of the Suitability Level of the KLCP 2020 Proposal for the Implementation in the KLLP2040



Note:

Implemented: Planning and proposals in KLCP 2020 has been accounted and have been implemented in the proposal of KLLP2040.

Currently Implemented: Planning and proposals in KLCP 2020 has been accounted and have been improved in the proposal of KLLP2040.

Not Implemented: Planning and proposals in KLCP 2020 is not accounted and is included in the proposal and planning initiatives of KLLP2040.

Still Relevant: Relevant proposals from KLCP 2020 are maintained in the KLLP2040.

Still Relevant and Need Improvement: Appropriate proposals from KLCP2040 that are still in use but improved in the KLLP2040.

Not Relevant: Inappropriate proposals from KLCP 2020 (achieved but no longer suitable with the development of Kuala Lumpur) no longer accounted in the KLLP2040.

1.3 DEVELOPMENT TRENDS

KUALA LUMPUR TOWARDS 2040

Kuala Lumpur has a strong economic foundation and is rapidly developing. The process of its development has undergone a dynamic transformation due to the Kuala Lumpur Strategic Planning Development Plans, which are KLSP 2020 and KLCP 2020. Through a holistic development strategy framework of KLSP 2020, Kuala Lumpur aimed to develop integrated, comprehensive and sustainable socioeconomic and environmental.

The main success of Kuala Lumpur is the rapid economic development in line with the interests and needs of the people comprising of various ethnic groups, including non-citizens. The city has been successful in continuing the goal of becoming a landmark and symbol of the economic development of the country.

1.31 KUALA LUMPUR POPULATION 2024

Total population of Kuala Lumpur in 2024 is 2.07 million of which 86.9 percent are citizens and 13.1 percent are non-citizens.

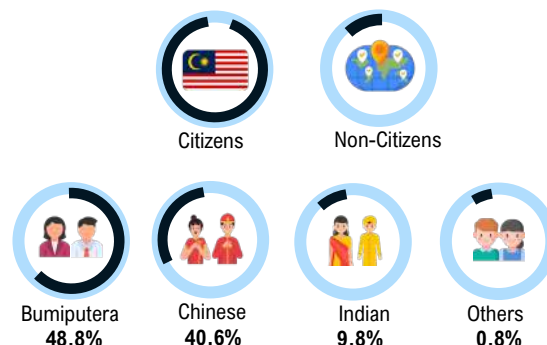
Among the local citizens, Bumiputera remain the largest ethnic group with 48.8 percent, followed by the Chinese second largest with 40.6 percent, Indian 9.8 percent, and others 0.8 percent.

Kuala Lumpur recorded a male population outpacing the female population indicated by the gender ratio of 117:100. The size of the male population accounts for 54.1 percent compared to the female population, 45.9 percent.

Size of the working population (15-64 years) has increased and accounts for the largest age group with 75.9 percent. The size of the young population (0-14 years old) has declined to 17.4 percent while the percentage of the senior citizens (65 years and above) has slightly increased to 6.7 percent from total population of Kuala Lumpur.

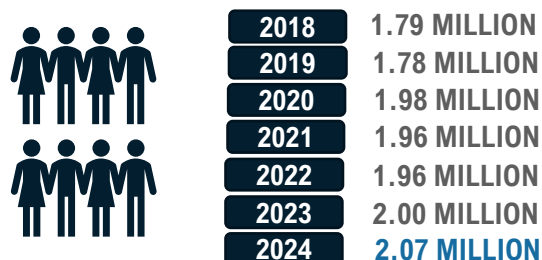
BRIEF INFO

POPULATION OF 2024



BRIEF INFO

POPULATION OF KUALA LUMPUR 2024



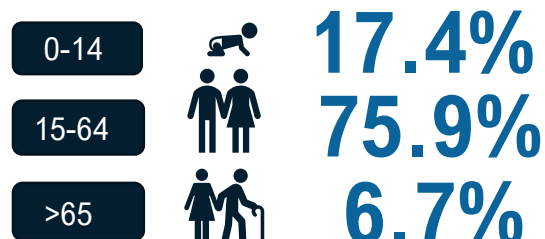
BRIEF INFO

RATIO OF GENDER 2024



BRIEF INFO

SIZE OF POPULATION 2024



1.3.2 LABOUR FORCE, WORKING POPULATION AND EMPLOYMENT

LABOUR FORCE PARTICIPATION RATE

The Labour Force Participation Rate (LFPR) as shown in Figure 1.3.1, recorded significant volatility trends from 2010 to 2020. Between 2010 to 2013, the LFPR recorded a significant increase from 66.2 per cent to 72.1 percent. A similar trend was observed between 2018 and 2020 with LFPR in 2020 was at 72.1 percent. This change is due to the demand for the needs of the workforce, especially the construction sector and the service industry.

Figure 1.3.1 also indicates that Kuala Lumpur's unemployment rate performance between 2010 and 2023 was impacted by changes in employment services, with the unemployment rate also recording a significant fluctuating trend.

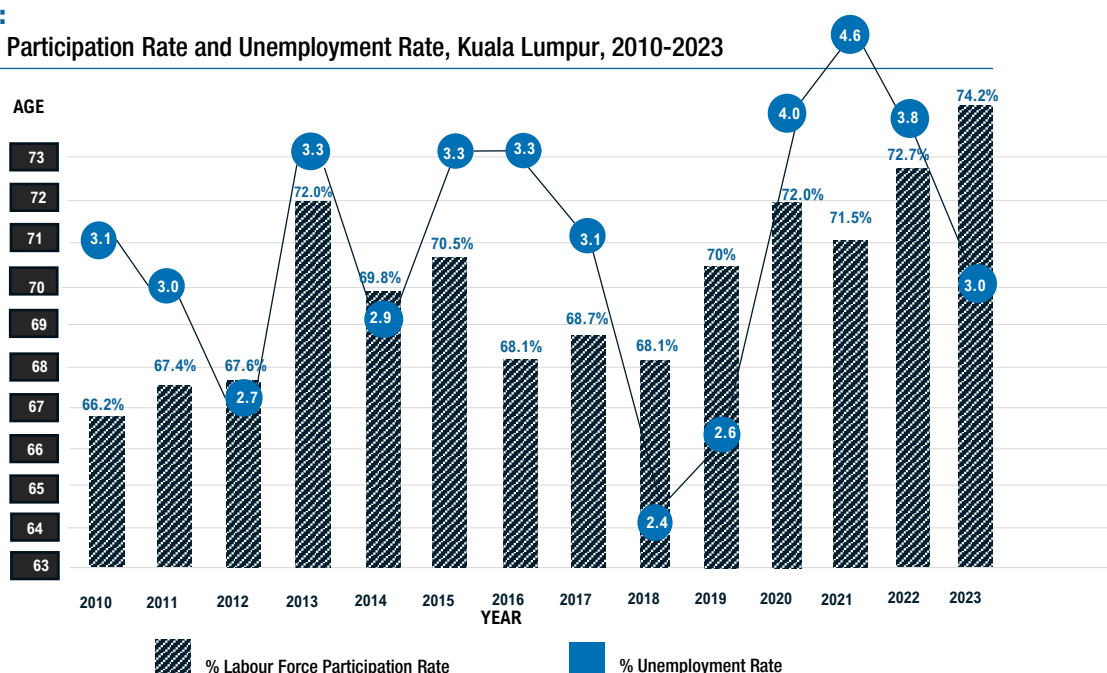
Table 1.3.1:
Employment sectors of the working population, Kuala Lumpur 2016-2023

Category	Number ('000)							
	2016	2017	2018	2019	2020	2021	2022	2023
Agriculture	0.4	0.4	1.4	1.1	1.3	3.5	3.4	3.7
Mining and Quarry	0.1	0.4	0.1	0.0	2.6	1.8	1.0	1.1
Manufacturing	52.1	48.2	44.9	68.9	84.7	84.2	82.8	87.9
Construction	75.2	83.6	82.0	80.1	94.4	75.1	102.0	85.6
Services	699.4	711.8	696.0	690.0	823.4	828.0	830.5	899.6
TOTAL	827.2	844.3	824.4	841.0	1,006.4	992.5	1,019.7	1,077.9

Source:

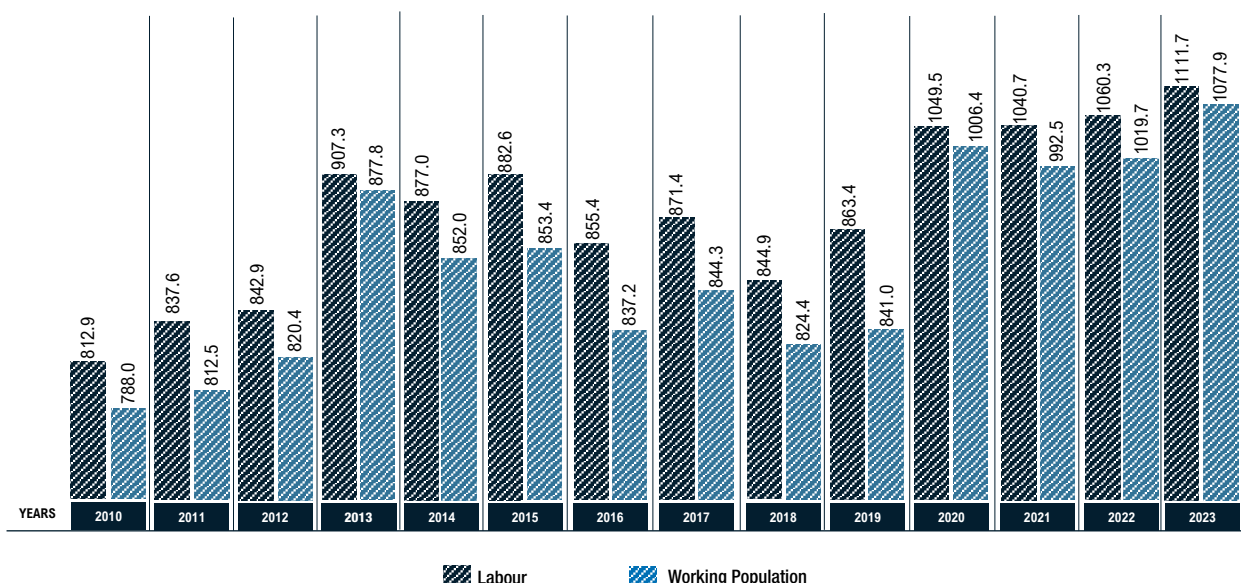
1. Socioeconomic Report WP Kuala Lumpur 2020, Department of Statistics Malaysia
2. Socioeconomic Report WP Kuala Lumpur 2023, Department of Statistics Malaysia

Figure 1.3.1:
Labour Force Participation Rate and Unemployment Rate, Kuala Lumpur, 2010-2023



Source :

1. Socioeconomic Report WP Kuala Lumpur 2020, Department of Statistics Malaysia
2. Socioeconomic Report WP Kuala Lumpur 2023, Department of Statistics Malaysia

Figure 1.3.2:**Labor Force and Working Population ('000) Kuala Lumpur, 2010-2023**

Source:

1. Socioeconomic Report WP Kuala Lumpur 2020, Department of Statistics Malaysia
2. Socioeconomic Report WP Kuala Lumpur 2023, Department of Statistics Malaysia

Table 1.3.2 shows that the category of service and sales workers is the dominant occupation among the working population in Kuala Lumpur in 2023. Some of the residents working in the sales and service sector are non-citizens. This category contributes 23.7 percent, followed by the professional worker category at 26.5 percent while the technician and associate professional category at 11.7 percent. The skilled worker category, which includes managers, professionals, and associate professionals, contributes 46.5 percent.

Table 1.3.2:**Residents Work According to Job Categories Kuala Lumpur, 2016-2023**

Job Category	Number ('000)							
	2016	2017	2018	2019	2020	2021	2022	2023
Manager	73.6	72.0	72.1	74.7	107.3	74.1	83.0	89.4
Professional	168.0	164.3	168.4	165.8	201.3	275.6	270.4	285.5
Technicians / Allied Professionals	120.0	114.2	117.5	112.8	131.6	165.2	124.6	126.4
Clerical Support Staff	97.7	99.1	94.1	88.9	115.1	120.8	108.5	110.7
Sales and Service Staff	194.0	197.9	183.1	200.8	229.0	185.5	247.1	255.8
Skilled Workers Agriculture, Forestry, Livestock, Fisheries	0.6	0.5	1.1	1.8	1.1	1.1	1.2	5.7
Skilled and Carpenter	57.4	57.6	55.4	69.3	64.5	52.1	65.1	51.9
Machine Operators and Assemblies	59.5	59.3	57.2	58.4	72.1	52.5	65.3	65.6
General Workers	56.4	79.5	75.5	68.5	84.3	65.6	54.5	86.9
Total	827.2	844.3	824.4	841.0	1,006.4	992.5	1,019.7	1,077.9

Source:

1. Socioeconomic Report WP Kuala Lumpur 2020, Department of Statistics Malaysia
2. Socioeconomic Report WP Kuala Lumpur 2023, Department of Statistics Malaysia

Table 1.3.3 provides an overview of the main sub-sectors of employment for the residents of Kuala Lumpur. As the main trading centre of the country, the wholesale and retail sub-sector is the main contributor to employment in Kuala Lumpur.

The size of the working population in this sub-sector is 21.5 percent of the total working population. The main attractions for tourists and local visitors, the accommodation, food, and beverage sub-sector, focus with a contribution of 12.3 percent of the working population.

Kuala Lumpur will become the focal point for the working-age population from across the country. The same table also shows the contribution of the professional and financial sub-sectors becoming more prominent with the increasing demand. The administrative demand for planning, architecture, built environment, environmental, traffic, social impact, and legal services is making these sub-sectors increasingly prominent. Other sub-sectors with potential to boost future services include education, health, transportation, and storage.

Table 1.3.3:
Distribution of the Population Working in the Sub Sectors, 2023

Sub Sector	Year 2023	
	Number('000)	Percentage (%)
Electricity and Gas Supply	2.6	0.2
Water Supply	2.5	0.2
Wholesale and Retail	231.3	21.5
Transport and Storage	49.1	4.6
Hotel, Food and Beverage	132.4	12.3
Information and Communication	61.7	5.7
Finance and Insurance	84.5	7.8
Property	18.1	1.7
Professional	76.6	7.1
General Administration and Support Services	72.6	6.7
Public Administration	28.1	2.6
Education	55.7	5.2
Health	45.6	4.2
Arts, Entertainment, and Recreation	5.6	0.5
Other Activities	24.3	2.2
Household Employer	6.1	0.6
Others	181.1	16.8
Total	1,077.9	100.0

Source: Adapted from Socioeconomic Report WP Kuala Lumpur 2023, Department of Statistics Malaysia

1.3.3 KUALA LUMPUR PER CAPITA INCOME AND HOUSEHOLD INCOME

PER CAPITA INCOME, 2010-2020

Kuala Lumpur's per capita income (PCI) in 2019 at RM129,472 records the highest in Malaysia which is 2.7 times the national per capita. The city per capita increased by an average of 7.7 percent annually between 2010 and 2019. However, Kuala Lumpur per capita recorded a negative growth of 6.4 percent due to the COVID-19 pandemic and Movement Control Order (MCO) as shown in Table 1.3.4.

A total of 18.5 percent of household gross income is between RM4,000 and RM6,000 and only 10.9 percent of the households take less than RM4,000 as shown in Table 1.3.6.

Table 1.3.4:
Kuala Lumpur Per Capita Income, 2010-2020

Year	Kuala Lumpur (RM)	GDP(%)
2010	64,693	
2011	70,675	9.2
2012	77,073	9.1
2013	82,208	6.7
2014	90,546	10.1
2015	94,964	4.9
2016	101,576	6.7
2017	111,321	9.6
2018	121,444	9.1
2019	129,472	6.6
2020	121,200	-6.4

Source: State Socioeconomic Report 2012-2020 and GDP by State 2020, Department of Statistics Malaysia, June 2021

HOUSEHOLD INCOME, 2022

The Kuala Lumpur Household Income and Expenditure Survey Report (LPPPIR) for the years 2019 and 2022 shows that the median and average income of the B40 group households are relatively high compared to other states. As much as 36.2 percent of households in Kuala Lumpur have a gross income exceeding RM10,000 per month, and 34.4 percent of households earn an income between RM6,000 and RM10,000.

Table 1.3.5: Kuala Lumpur Household Income, 2019-2022

Household Categories by Income		Intermediate (RM)		Average (RM)	
		2019	2022	2019	2022
Lowest	40%	6,623	6,270	6,480	6,068
Middle	40%	12,068	11,890	12,356	12,180
Highest	20%	22,610	22,343	28,622	30,146
Keseluruhan		10,549	10,234	13,257	13,325

Source: Household Expenditure Survey Report 2019 and 2022, Department of Statistics Malaysia

Table 1.3.6: Kuala Lumpur Gross Household Income, 2022

Gross Income Categories	Year 2022		
	Household		Income Distribution
	Number	Percentage	
Less RM 2,000	387.1	0.7	0.1
RM 2,000 - RM 4000	5,640.6	10.2	3.0
RM 4,001 - RM 6,000	10,230.5	18.5	8.9
RM 6,001 - RM 8,000	10,119.9	18.3	12.0
RM 8,001 - RM 10,000	8,903.3	16.1	13.5
RM 10,001 - RM 15,000	11,613.0	21.0	23.9
RM 15,000 and more	8,405.6	15.2	38.6
Total	55,300	100.0	100.0

Source: Household Expenditure Survey Report 2022, Department of Statistics Malaysia

POVERTY

The 2019 Poverty Line Income Value (PLI) has been reviewed considering two (2) key aspects, which are the need for optimal and healthy food consumption and the basic non-food quality needs. The Poverty Line Income Value (PLI) for Kuala Lumpur was set at RM2,216 per month in 2019. Meanwhile, the PLI for food is RM1,110 a month with the average household size of 3.3 persons.

The incidence of absolute poverty in Kuala Lumpur increased from 0.85 percent in 2016 to 2.0 percent in 2019. The incidence of relative poverty in the city was 10.9 percent in 2019, compared to 13.8 percent in 2016. This rate is also lower than the national rate of 16.9 percent.

KUALA LUMPUR POPULATION 2040

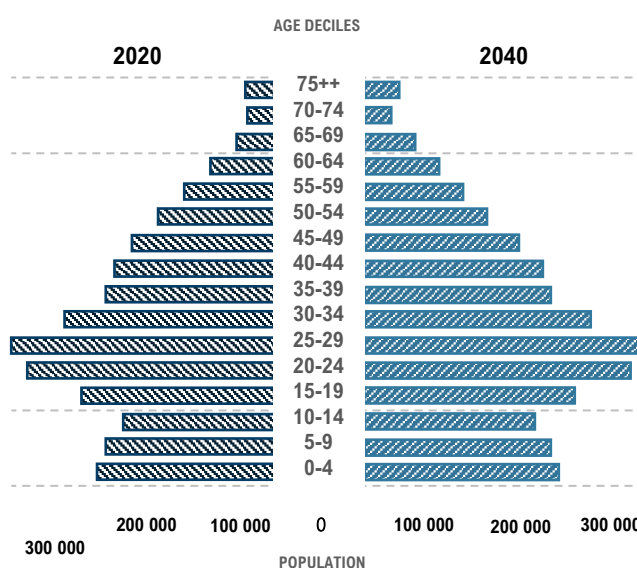
Three (3) areas that are expected to continue attracting populations are Bukit Jalil-Seputeh, Sentul-Menjalara and Wangsa Maju-Maluri. Male will continue to be more dominant with the gender ratio estimated at 112:100. The ethnic composition is not expected to experience significant changes. The percentage of all three major ethnicities is expected to increase while the population composition of foreigner and non-citizen is expected to decrease. However, Kuala Lumpur will continue to attract foreign workers as an additional labour force to support the city particularly in the construction sector.

Kuala Lumpur is also expected to see an increase in the percentage of an elderly group which will increase to 17.3 percent by 2040.

The population change will be particularly significant among the 20-24 age group, due to the influx students from other areas pursuing higher education at various Institutes of Higher Learning (IHLin Kuala Lumpur. The IHLs are also expected to receive foreign students pursuing graduate education.

Figure 1.3.3 shows the projected population of Kuala Lumpur by age group from 2020 and 2040. The 20-24 and 25-29 age groups are the largest. As an international education centre, Kuala Lumpur will attract more young people, especially from other states and foreign countries, to pursue higher education at its institutions.

Figure 1.3.3:
Kuala Lumpur Population by Age Group Between 2020 and 2040

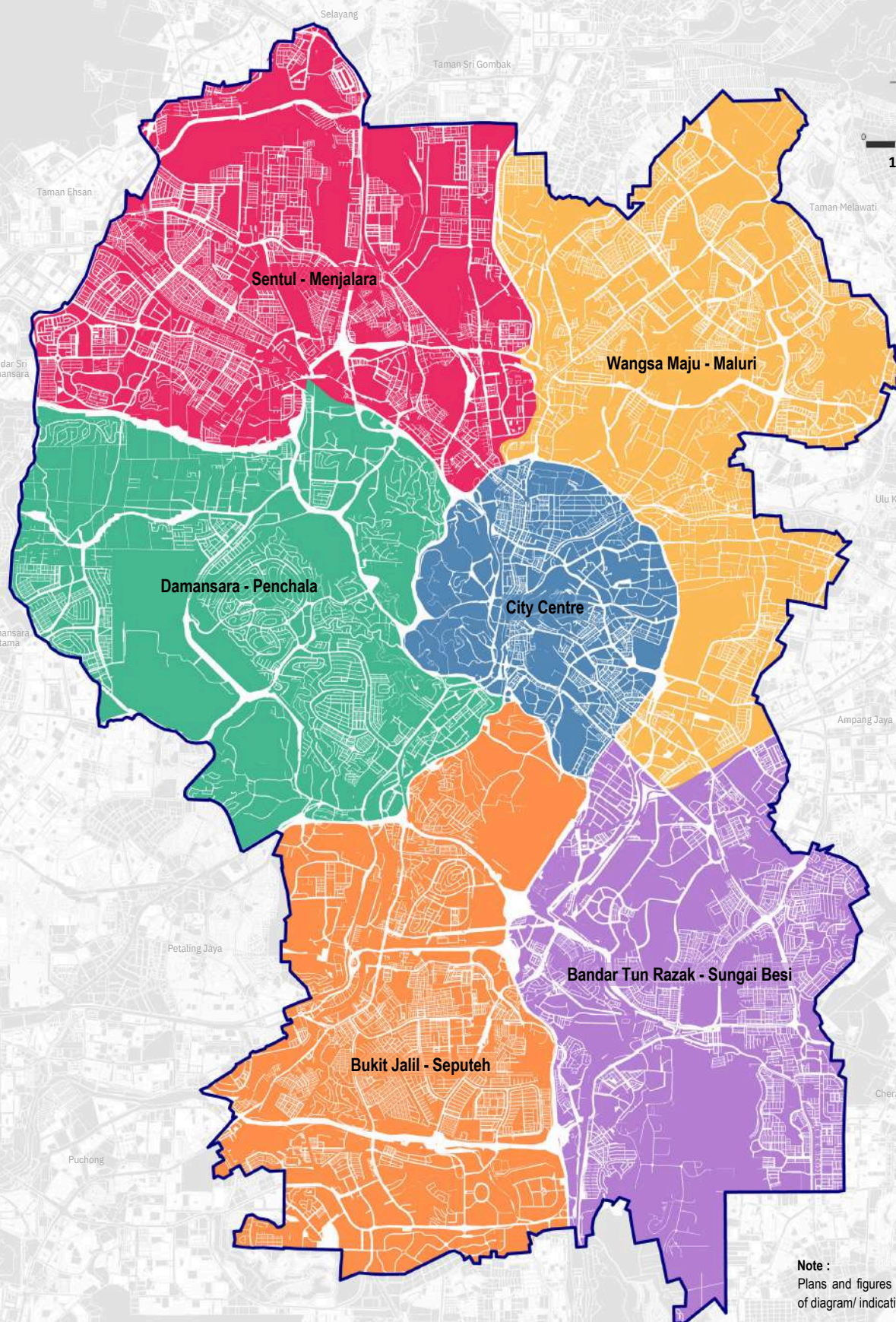


Source: My Local Stats Wilayah Persekutuan Kuala Lumpur 2023 and KLLP2040

Table 1.3.7:
Kuala Lumpur Population 2040 by Main Area

Area	Years ('000)						AAGR (%) 2020-2040
	2020	2025	2030	2035	2040	% From Σ (2040)	
City Centre	221.3	227.8	241.5	251.1	260.9	11.1	1.40
Damansara – Penchala	232.9	239.7	253.2	265.3	277.3	11.8	1.43
Sentul – Menjalara	401.0	412.7	436.2	464.9	493.5	21.0	1.61
Wangsa Maju – Maluri	399.8	411.5	431.6	450.8	470.0	20.0	1.38
Bandar Tun Razak – Sungai Besi	306.8	315.8	327.2	337.3	347.8	14.8	1.20
Bukit Jalil – Seputeh	420.3	432.5	440.3	470.6	500.5	21.3	1.47
Total	1,982.1	2,040.0	2,130.0	2,240.0	2,350.0	100.0	1.42
AAGR (%)	1.98	2.04	1.46	1.00	0.96		

Source: KLLP2040



Note :
Plans and figures are in the form
of diagram/ indicative only.

FIGURE 1.3.4 | Plan of Main Planning Area

Legend :

Main Area :

- City Centre
- Wangsa Maju - Maluri
- Sentul - Menjalara
- Damansara - Penchala
- Bukit Jalil - Seputeh
- Bandar Tun Razak - Sungai Besi

Other

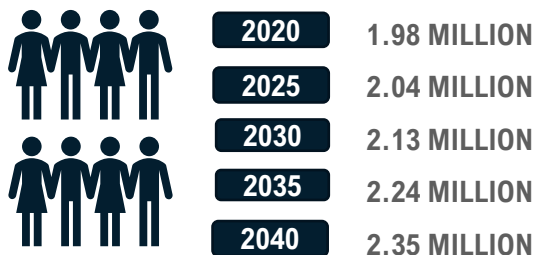
- Kuala Lumpur Boundary

KUALA LUMPUR SOCIOECONOMIC 2040

Table 1.3.7 to Table 1.3.10 are the projected economic base for Kuala Lumpur over the planning period to 2040. These include working population, employment, GDP and per capita. The projection was conducted based on the projected population of 2.35 million determined by KLSP2040.

BRIEF INFO

POPULATION OF KUALA LUMPUR IN 2040



Source: KLPP2040

BRIEF INFO

RATIO OF GENDER IN 2040



Source: KLPP2040

Table 1.3.8:

Working Population Projections, 2020-2040

Years	Population ('000)	Percent	Working Population ('000)
2020	1,982.1	44.1	874.7
2025	2,040.0	45.1	920.0
2030	2,130.0	45.3	964.9
2035	2,240.0	45.6	1,021.4
2040	2,350.0	45.9	1,080.0

Source: KLPP2040

Table 1.3.9:

GDP Projection 2020-2040 (Value in RM Billion)

Years	GDP	AAGR (Percent)
2020	216	
2025	294	6.1
2030	407	6.5
2035	530	5.3
2040	680	5.0
AAGR (2020 – 2040)		5.7

Source: KLPP2040

Table 1.3.10:

Per Capita Projections, 2020-2040

Years	GDP (Billion)	Population ('000)	Per Capita (RM '000)
2020	216	1,982.1	122.5
2025	294	2,040.0	148.5
2030	407	2,130.0	191.1
2035	530	2,240.0	236.6
2040	680	2,350.0	289.4

Source: KLPP2040



Location: China Town, Kuala Lumpur
Source: <https://www.shutterstock.com/g/outcast85>
Socioeconomic activities in China Town, Kuala Lumpur

1.4 ASPIRATION FOR KUALA LUMPUR 2040

DEVELOPMENT POLICY FOR GLOBAL, NATIONAL AND FEDERAL TERRITORY OF KUALA LUMPUR

The strategies and proposals of KLLP2040 are based on global development frameworks, national and relevant Kuala Lumpur guidelines.

1.4.1 GLOBAL SUSTAINABLE AGENDA

The Global Sustainability Agenda is a global development policy designed to ensure that sustainable and resilient urban planning can be achieved. Commitment to economic, social and physical planning is a key agenda within the framework of Kuala Lumpur's development planning. The development policies considered include:

- 1 Sustainable Development Goals (SDGs)
- 2 New Urban Agenda (NUA)
- 3 Paris Agreement 2015
- 4 Sendai Framework for Disaster Risk Reduction 2015-2030



Location : Kuala Lumpur Gallery in Jalan Raja, Kuala Lumpur.

1. Sustainable Development Goals (SDGs)



SUSTAINABLE DEVELOPMENT GOALS



The SDGs lists 17 goals and 169 targets that should be accomplished by 2030. The SDGs are an extension of the Millennium Development Goals, which address all aspects of sustainable development.

The KLLP2040 shall take into account the SDGs, particularly Goal No. 11 "Sustainable Cities and Communities", in order to promote sustainable development.

Two-thirds of the global population will live in cities by 2050. Along with the provision of affordable, safe and comfortable housing, the establishment of a sustainable city will open up business and employment prospects. The Sustainable City will also be realized through inclusive planning and management, a comprehensive public transportation network and adequate open green spaces.

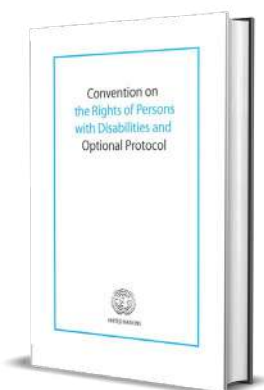
2. New Urban Agenda (NUA)



The New Urban Agenda (NUA) is an urbanisation action plan for all cities and stakeholders to implement and support Agenda 2030, towards creating a city that is inclusive, safe, durable and sustainable. NUA was adopted by 170 countries during the UN Habitat III Conference held in Quito, Ecuador on 20th October 2016.

The five (5) main elements of the NUA are administrative structure, social participation, spatial development, a city's well-being (prosperity) and sustainability.

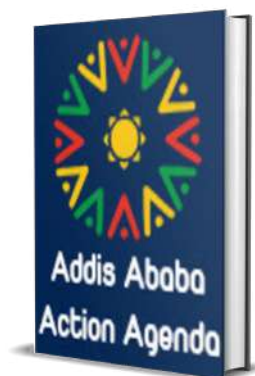
3. Agenda United Nations Convention on the Right of Persons with Disabilities (UNCRPD)



This convention is an international human rights agreement under the UN with an agenda to promote, protect and ensure the equality of human rights, especially for people with disabilities.

The KLLP2040 will take into account the eight (8) points underlying the UNCRPD in planning strategies, proposals and relevant implementation initiatives.

4. Addis Ababa Action Agenda



The Addis Ababa Action Agenda is a global framework for financing sustainable development in line with economic, social and environmental policies.

The KLLP2040 will take into account the seven (7) actions found in the document in the planning strategy, proposals and related implementation initiatives.

5. Paris Agreement 2015



The Paris Agreement 2015 is an international agreement established on December 12, 2015, regarding climate change. This agreement intends to limit global warming at 1.5 degrees Celsius to achieve a climate that is neutral by the middle of the century. By signing this agreement, Malaysia aspires to reduce its carbon emissions to 45 percent by 2030 compared to 2005. Malaysia has successfully reduced carbon emissions in three (3) different sectors which are energy, waste disposal, and forestry.

KLLP2040 translates these three (3) main sectors into planning strategies, proposals and relevant implementation initiatives.

6. Sendai Framework for Disaster Risk Reduction 2015-2030



This document addresses the reduction of disaster risks. This framework focuses on measures to reduce disaster risks and climate change adaptations. The following four (4) areas of emphasis make up this framework is:

1. Understanding disaster risk;
2. Strengthening disaster risk governance to manage disaster risk;
3. Invest in disaster risk reduction for resilience; and
4. Enhancing disaster preparedness for effective response and to “Build Back Better” in recovery, rehabilitation and reconstruction.

This framework has stipulated seven (7) global targets by 2030, as follows:

1. To substantially reduce global disaster mortality;
2. To substantially reduce the number of affected people around the world;
3. To reduce the direct economic losses in relation to Gross Domestic Product globally;
4. To substantially reduce damage caused by disasters to critical infrastructure and interruptions in basic social services like health and education;
5. To substantially increase the number of countries with risk reduction strategies at local and national levels;
6. To improve international cooperation involving developing countries through adequate and sustainable support to enhance the national action of implementing the framework; and
7. To improve preparation and access to multi hazard early warning system together with information on disaster risk evaluation to the people

KLLP2040 outlines planning strategy, proposal and implementation initiatives which focused on two (2) main aspect which is reinforcement of disaster risk management and disaster control preparation.



1.4.2 NATIONAL SUSTAINABLE AGENDA

A national-level development strategy is the National Sustainability Agenda. Achieving urban planning within the context of economic, social, and physical planning is ensured by the formulation of national sustainability. The development policy that was considered includes:

- 1 4th National Physical Plan (RFN4)
- 2 2nd National Urban Policy (NUP2)
- 3 Shared Prosperity Vision 2023 (WKB2030)
- 4 National Transport Policy (DPN) 2019-2030
- 5 Malaysia Smart City Framework
- 6 National Fourth Industrial Revolution (4IR) Policy
- 7 MySmart Wilayah 2030 Blueprint
- 8 Developing a MADANI Nation

1. 4th National Physical Plan (RFN4)



The primary planning document for Malaysia is the 4th National Physical Plan (RFN4). It was created as a planning mandate to lay out a path for physical development. The strategic policies and development actions formulated are translated at the regional, state and local levels to realize holistic, dynamic, resilient and competitive planning.

RFN4 also designated Kuala Lumpur as one of the cities with Global City status in Malaysia in addition to the Federal Territories of Putrajaya, Georgetown and Johor Bahru. Kuala Lumpur is a prime location for multinational companies, a tourist destination and a global employment hub in Malaysia that plays an important role as a world investment and market hub.

The spatial and strategic framework for RFN4 in the KLLP2040 considers the following six (6) strategic directions:

DG2

Sustainable and Competitive Economic Growth

DG3

Integrated and Strategic Transportation Network

C1

Planning on Housing for All

C3

Conducive and Livable Environment

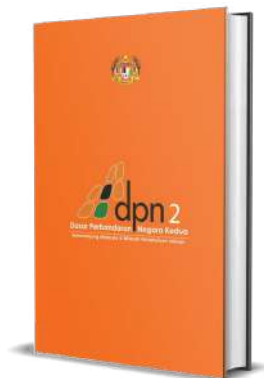
SR2

Sustainable Management of Natural, Food and Heritage Resources

SR3

Towards A Carbon Neutral Nation

2. 2nd National Urbanization Policy (NUP2)



NUP2 is set up to guide and coordinate sustainable urban development by emphasizing the balance of physical, environmental, social and economic development of the country.

There are five (5) principles that have been set and detailed through the planning strategy, recommendations and implementation initiatives of the KLLP2040.

PRINCIPLE 1 Good Urban Governance

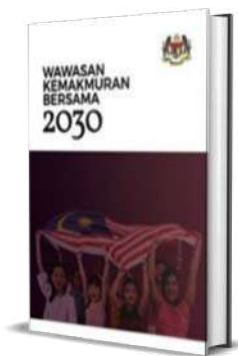
PRINCIPLE 2 Livable Cities

PRINCIPLE 3 Urban Competitive Economy

PRINCIPLE 4 Inclusive and Equitable Urban Development

PRINCIPLE 5 Green Development and Clean Environment

3. Shared Prosperity Vision 2030 (WKB2030)



WKB2030 is a document that focuses on transforming Malaysia into a nation that develops sustainably by providing equitable and inclusive economic opportunities to all income levels, ethnic groups and the supply chain.

This policy identifies seven (7) strategic thrust for re-structuring the economy to knowledge-based economy.

THRUST 1 Restructuring Business and Industry Ecosystem

THRUST 2 Key Economic Growth Activities (KEGA)

THRUST 3 Transforming Human Capital

THRUST 4 Strengthening the Labour Market and Increasing Compensation of Employees

THRUST 5 Social Wellbeing

THRUST 6 Regional Inclusion

THRUST 7 Social Capital

4. National Transport Policy (DPN) 2019-2030



This policy is formulated based on the rapid growth of the national transportation sector and Malaysia's position as one of the major hubs in Southeast Asia. These principles are outlined as follows:

PRINCIPLE 1 Strengthen governance to create a conducive environment for the transport sector

PRINCIPLE 2 Optimize, build and maintain transport infrastructure, service and networks for efficiency

PRINCIPLE 3 Enhance safety, integration, connectivity and accessibility

PRINCIPLE 4 Advance forwards towards green transport ecosystem

PRINCIPLE 5 Expand global footprint and promote internationalization of transport services

INTRODUCTION



KLLP2040

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7. MySmart Wilayah 2030 Blueprint

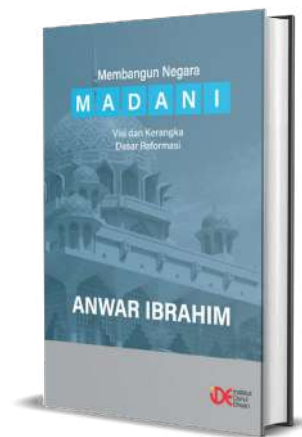


MySmart Wilayah 2030 aims to outline and guide the planning and development of smart cities in the Federal Territory until the year 2030. The vision of MySmart Wilayah 2030 is a Livable, Sustainable, and Smart City.

This document outlines 25 policies, 76 actions, 118 indicators, and 25 key performance indicators (KPIs) to be implemented by agencies under the Federal Territories Department.

MySmart Wilayah 2030 also focuses on administrative efficiency and urban management operations through the integration of internal and external systems. This document will benefit the residents of the Federal Territory by enhancing ease of doing business, improving data accessibility and faster decision-making, and enabling more user-friendly and interactive management. Additionally, it will also contribute to a stable economy and encourages innovation in products and services. The KLLP2040 takes into account the correlation with MySmart Wilayah 2030 in formulating planning strategies, proposals, and implementation initiatives.

8. SCRIPT (MADANI) for a better Malaysia



This document is prepared to develop Malaysia into a people's agenda to build a SCRIPT (MADANI) future, in terms of **S**ustainability, **C**are & compassion, **R**espect, **I**nnovation, **P**rosperity and **T**rust. There are eight (8) policies that have been set and detailed through the planning strategy, proposal and implementation initiatives of the KLLP2040.

POLICY 1 Economic and Financial

POLICY 2 Legal

POLICY 3 Institutional

POLICY 4 Educational

POLICY 5 Social

POLICY 6 Cultural

POLICY 7 Urban

POLICY 8 Rural



BRIEF INFO

The KLLP2040 has taken into account and translated the SCRIPT Malaysia Policy in its preparation. All 6 Malaysian SCRIPT Cores are detailed in the planning strategy, recommendations, and implementation initiatives of the KLLP2040.



S

Sustainability

1. Provision of affordable housing – Residensi MADANI
2. Planning and activation of open space
3. Implementation of a low-carbon approach
4. Preservation and restoration of heritage sites and buildings
5. Provision of infrastructure and facilities for pedestrians and micromobility vehicles
6. Encourage the use of public transport and electric vehicles
7. Redevelopment and old buildings

C

Care & Compassion

1. Provision of adequate, quality, and easily accessible education, health, and safety facilities

R

Respect

1. Provision of integrated community facilities, multifunctional spaces and spaces sharing

I

Innovation

1. Implementation of the Smart City concept
2. Implementation of the Industrial Revolution 4.0 Programme
3. Encouraging the use of Nature-based Solutions (NbS), Water Sensitive Urban Design (WSUD), Sponge City and Low Impact Development (LID) concepts

P

Prosperity

1. Encourage development that supports the establishment of start-up companies for young generation in the city centre
2. Improve digital infrastructure to create a balanced work environment and encourage working from home.

T

Trust

1. Implementation of the River of Life programme
2. The use of urban space for active and creative activities
3. Sharing streets and public spaces for street activities

1.4.3 KUALA LUMPUR DEVELOPMENT AGENDA

Kuala Lumpur development agenda which comprises the aspects of social, economy and physical is prepared in multiple planning documents as follows:

- 1 Kuala Lumpur Structure Plan 2040 (KLSP2040)
- 2 Kuala Lumpur 2030 Low Carbon Society Blueprint (KL LCSBP2030)
- 3 Kuala Lumpur Competitive City Master Plan (KLCCMP)
- 4 Kuala Lumpur Tourism Master Plan 2015-2025
- 5 Other Development Agenda

KLLP2040 translates Kuala Lumpur planning agenda in the form of goals, planning strategy, implementation proposals and initiatives to ensure alignment with and fulfillment of the development agenda that has been outlined for Kuala Lumpur.

1. Kuala Lumpur Structure Plan 2040 (KLSP2040)



KLSP2040 has defined the vision for Kuala Lumpur as a City for All in the ensuing 20 years. This vision focuses on the future development of Kuala Lumpur in all aspects of balanced planning which include economic, social, quality of life, environment and physical planning.

Kuala Lumpur will give development principles and sustainable planning top priority while putting an emphasis on wellbeing, quality of life, fairness, and sustainability within a competitive economy.

This "City for All" vision is to achieve six (6) goals which are subsequently implemented through 21 strategic directions and 73 actions.

GOAL 1

Kuala Lumpur Innovative and Productive City

GOAL 2

Kuala Lumpur Inclusive, Equitable and Liveable City

GOAL 3

Kuala Lumpur Green, Healthy and Vibrant City

GOAL 4

Kuala Lumpur Climate-Smart and Low Carbon City

GOAL 5

Kuala Lumpur Efficient and Environment-Friendly Mobility City

GOAL 6

Kuala Lumpur Integrated and Sustainable Development City

2. Kuala Lumpur 2030 Low Carbon Society Blueprint 2030 (KL LCSBP2030)



The Kuala Lumpur Low Carbon Society Blueprint 2030 is a holistic plan that proposes 10 actions, 37 sub-actions, 82 measures and 245 programmes to be implemented.

- ACTION 1** Green Growth
- ACTION 2** Energy Efficient Spatial Structure
- ACTION 3** Green Mobility
- ACTION 4** Sustainable Energy System
- ACTION 5** Community Engagement and Green Lifestyle
- ACTION 6** Low Carbon and Green Buildings
- ACTION 7** Green and Blue Network
- ACTION 8** Sustainable Waste Management
- ACTION 9** Sustainable Water and Wastewater Management
- ACTION 10** Green Urban Governance

3. Kuala Lumpur Competitive City Master Plan (KLCCMP)

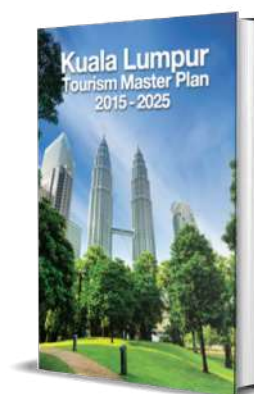


The Kuala Lumpur Competitive City Master Plan aims for Kuala Lumpur to become the top 20 world-class competitive cities by 2030.

Kuala Lumpur needs to fulfill the seven (7) principles that have been outlined in an effort to become a competitive Global City, as follows:

- PRINCIPLE 1** To increase economic density
- PRINCIPLE 2** To widen the development of transit-oriented development
- PRINCIPLE 3** To strengthen the knowledge information system
- PRINCIPLE 4** To increase the rate of quality life
- PRINCIPLE 5** To practice green development
- PRINCIPLE 6** To ensure inclusivity among all parties
- PRINCIPLE 7** To strengthen the digital infrastructure for smart cities

4. Kuala Lumpur Tourism Master Plan 2015-2025



The Kuala Lumpur Tourism Master Plan 2015-2025 has been produced as an action plan that includes 47 initiatives covering nine (9) tourism segments as follows:

- SEGMENT 1** Culture, Heritage, and Diversity of Places
- SEGMENT 2** Shopping Centres and Malls
- SEGMENT 3** Entertainment
- SEGMENT 4** Natural Environment and Explorative Travel
- SEGMENT 5** Luxury Travel
- SEGMENT 6** Sports
- SEGMENT 7** Business and MICE (Meetings, Incentives, Conventions and Exhibitions)
- SEGMENT 8** Medical and Health
- SEGMENT 9** Education

1.4.4 OTHER RELATED DEVELOPMENT AGENDA

Ensuring the overall development is in accordance with current trends and competitive with other major cities around the world, the Kuala Lumpur development agenda shall address other development aspects, such as social, economic, and physical, which are translated into the form of master plans, development action plans and guidelines. Among the related agendas are as follows:

1. Kuala Lumpur Traffic Master Plan 2040;
2. Kuala Lumpur Lighting Master Plan;
3. Kuala Lumpur Pedestrian and Cycling Master Plan 2019-2028;
4. River of Life Master Plan;
5. Kampung Bharu Development Master Plan 2040;
6. Guidelines for Kuala Lumpur City Design; and
7. KLCH Planning Guidelines.
8. KLLCP Strategic Action Plan (2025); and
9. Urban Design Guidelines used by KLCH

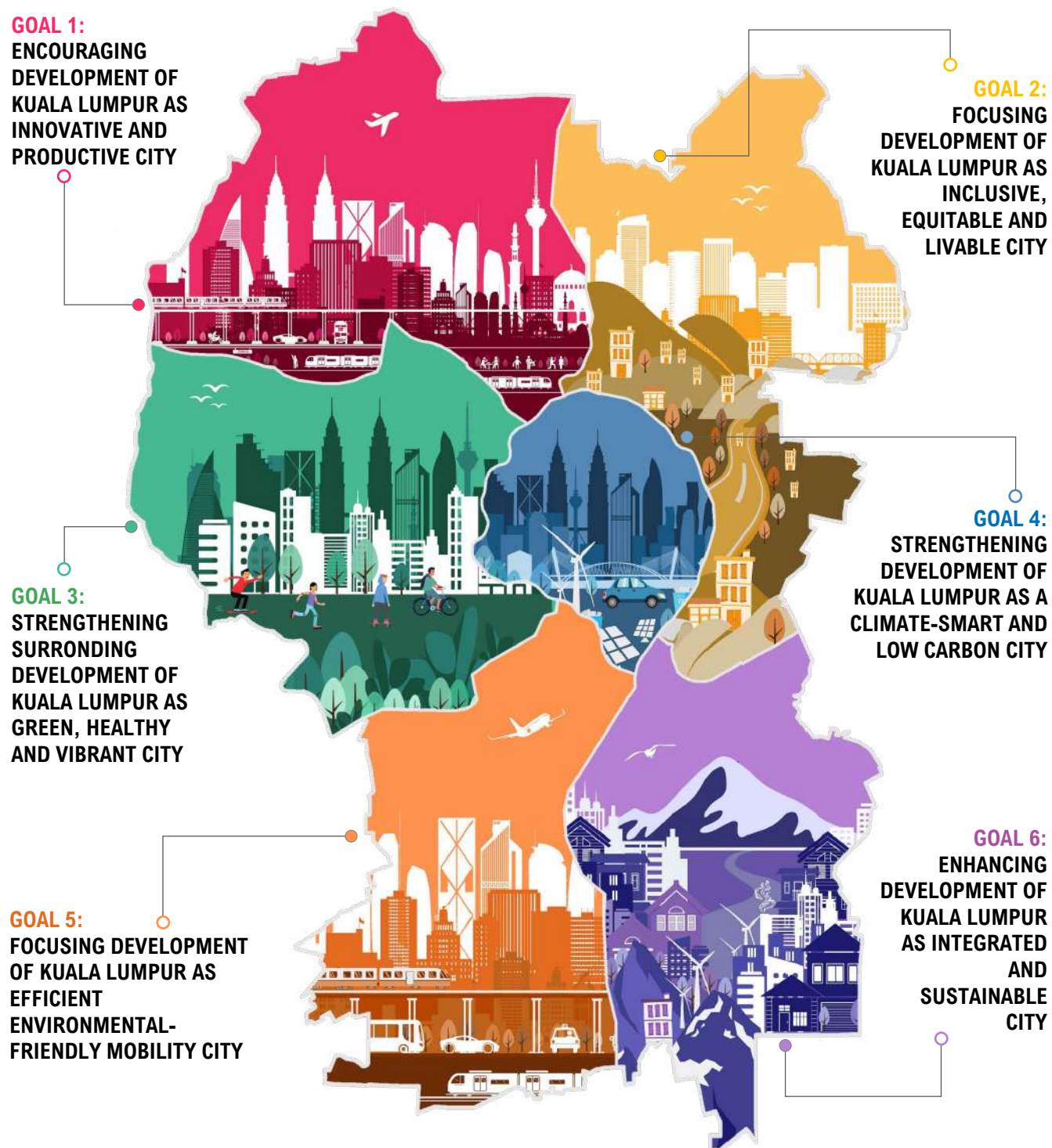
Location: City Centre of Kuala Lumpur
River of Life at Kuala Lumpur.

1.5 KUALA LUMPUR 2040

GOALS OF KLLP2040

The six (6) development objectives in the KLLP2040 are derived from the KLSP2040 objectives, as indicated in diagram 1.5.1. **39 planning strategies**, **88 implementation proposals**, and **191 implementation initiatives** that result from KLSP2040 will support KLLP2040's goals in order to realize the City for All vision.

Figure 1.5.1: Development Goals of KLLP2040



GOALS

GOAL 1:
ENCOURAGING DEVELOPMENT OF KUALA LUMPUR AS AN INNOVATIVE AND PRODUCTIVE CITY

GOAL 2:
FOCUSING DEVELOPMENT OF KUALA LUMPUR AS AN INCLUSIVE, EQUITABLE AND LIVABLE CITY HUNI

GOAL 3:
STRENGTHENING SURROUNDING DEVELOPMENT OF KUALA LUMPUR AS GREEN, HEALTHY AND VIBRANT CITY

PLANNING STRATEGIES

PLANNING STRATEGY 1-1

DIVERSIFYING FINANCIAL ACTIVITIES AND COMMERCIAL SERVICES IN KUALA LUMPUR

PLANNING STRATEGY 2-1

PROVIDING VARIOUS HOUSING OPTIONS TO MEET THE NEEDS OF POPULATION

PLANNING STRATEGY 3-1

MANAGING KUALA LUMPUR BIODIVERSITY ASSETS

PLANNING STRATEGY 1-2

BRANDING KUALA LUMPUR AS A URBAN TOURISM DESTINATION WITH SUSTAINABLE TOURISM ACTIVITIES

PLANNING STRATEGY 2-2

PROVIDING QUALITY AND CONDUCIVE AFFORDABLE HOUSING

PLANNING STRATEGY 3-2

DIVERSIFYING FUNCTIONS OF GREEN AND BLUE CORRIDORS

PLANNING STRATEGY 1-3

STRENGTHENING WARISAN KUALA LUMPUR

PLANNING STRATEGY 2-3

ADDRESSING THE NEEDS OF THE HOMELESS

PLANNING STRATEGY 3-3

IMPLEMENTING GREEN DENSITY IN KUALA LUMPUR

PLANNING STRATEGY 1-4

DEVELOPING INDUSTRIAL CLUSTERS BASED ON CLEAN TECHNOLOGY AND NATIONAL FOURTH INDUSTRIAL REVOLUTION (4IR)

PLANNING STRATEGY 2-4

IMPROVING THE STABLE RESIDENTIAL AREA

PLANNING STRATEGY 3-4

DIVERSIFYING THE FUNCTION OF PARKS AND OPEN SPACES (LAND)

PLANNING STRATEGY 1-5

DRIVING ENTREPRENEURIAL DEVELOPMENT FOR URBAN ECONOMIC GROWTH

PLANNING STRATEGY 2-5

PROVIDING ADEQUATE, QUALITY AND INTEGRATED PUBLIC FACILITIES

PLANNING STRATEGY 3-5

STRENGTHENING URBAN SPACE FOR ACTIVE AND CREATIVE ACTIVITIES

PLANNING STRATEGY 1-6

REGENERATING EXISTING COMMERCIAL AREAS AS VIBRANT, ATTRACTIVE AND CONDUCIVE BUSINESS SPACES

PLANNING STRATEGY 2-6

PROVIDING INTEGRATED PUBLIC FACILITIES AND COMMUNITY HUB FACILITIES

PLANNING STRATEGY 3-6

DEVELOPING PARK CONNECTOR NETWORKS

PLANNING STRATEGY 3-7

CONNECTING THE CITY KEY ACTIVITY CENTRES

PLANNING STRATEGY 3-8

IMPLEMENTING KUALA LUMPUR HERITAGE TRAIL

PLANNING STRATEGY 3-9

STRENGTHENING GREEN GOVERNANCE

IMPLEMENTATION PROPOSALS

13

8

20

IMPLEMENTATION INITIATIVES

26

25

44

GOALS

GOAL 4:
STRENGTHENING DEVELOPMENT
OF KUALA LUMPUR AS A
CLIMATE-SMART AND LOW
CARBON CITY

GOAL 5:
FOCUSING DEVELOPMENT OF
KUALA LUMPUR AS AN EFFICIENT
AND ENVIRONMENTAL-FRIENDLY
MOBILITY CITY

GOAL 6:
EMPOWERING DEVELOPMENT OF
KUALA LUMPUR AS AN
INTEGRATED AND SUSTAINABLE
CITY

PLANNING STRATEGIES

PLANNING STRATEGY 4-1

IMPLEMENTING ADAPTATION AND
RESILIENCE ACTION PLAN AGAINST CLIMATE
CHANGE AND DISASTER RISK MANAGEMENT
PLAN

PLANNING STRATEGY 5-1

PROVIDING PUBLIC TRANSPORTATION
NETWORK WITH PROVISION OF MULTIPLE
TRANSIT OPTIONS

PLANNING STRATEGY 6-1

PLANNING AND COORDINATING LAND
DEVELOPMENT EFFECTIVELY

PLANNING STRATEGY 4-2

EXPANDING APPLICATION OF RENEWABLE
ENERGY TECHNOLOGIES

PLANNING STRATEGY 5-2

ENCOURAGING ACTIVE MOBILITY MODE WITH
IMPROVED ACCESSIBILITY AND SAFETY

PLANNING STRATEGY 6-2

STRENGTHENING URBAN GROWTH CENTRE
HIERARCHY

PLANNING STRATEGY 4-3

STRENGTHENING ENERGY EFFICIENCY
SYSTEMS

PLANNING STRATEGY 5-3

MANAGING TRAFFIC EFFECTIVELY

PLANNING STRATEGY 6-3

ENCOURAGING INFILL DEVELOPMENT

PLANNING STRATEGY 4-4

IMPLEMENTING INTERGRATE AND
SUSTAINABLE SOLID WASTE MANAGEMENT

PLANNING STRATEGY 6-4

STRENGTHENING REDEVELOPMENT
PLANNING THROUGH SUSTAINABLE CITY
CONCEPT

PLANNING STRATEGY 4-5

IMPROVING EFFICIENCY OF WATER AND
SEWERAGE MANAGEMENT

PLANNING STRATEGY 6-5

REVITALIZING URBAN FUNCTIONS THROUGH
THE CONSERVATION OF OLD BUILDINGS

PLANNING STRATEGY 4-6

ENHANCING SUSTAINABLE DRAINAGE
SYSTEMS

PLANNING STRATEGY 6-6

INTEGRATING RAIL TRANSPORTATION AND
SPATIAL DEVELOPMENT

PLANNING STRATEGY 4-7

PROMOTING LOW CARBON DEVELOPMENT

PLANNING STRATEGY 6-7

REGULATING DEVELOPMENT IN SPECIAL
AREA MANAGEMENT (SAM) ZONE

PLANNING STRATEGY 6-8

EMPOWERING AND DEVELOPING VILLAGES IN
KUALA LUMPUR

IMPLEMENTATION PROPOSALS

23

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IMPLEMENTATION INITIATIVES

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1.6 KUALA LUMPUR 2040

KUALA LUMPUR SPATIAL DEVELOPMENT CONCEPT

1.6.1 GROWTH OF SPATIAL DEVELOPMENT OF KUALA LUMPUR

Spatial development of Kuala Lumpur starts in the confluence of Sungai Klang and Sungai Gombak and then expanded to the area of Jinjang, Setapak, Ampang, Cheras and Bangsar. The development is aligned with several main roads since the 60s until 70s.

The road and the highway network that were newly built in Kuala Lumpur in the 90s has encouraged a concentration in development that is aligned with the expansion of the road and promotes development outside the city centre.

The spatial development that was influenced by the development of the road and aligned with the main road has shaped the Kuala Lumpur spatial development to be in radial pattern. The implementation of the circle road outside the city centre has changed the structure of the Kuala Lumpur spatial development from radial pattern to ring and radial pattern.

Ring and radial spatial structure that was formed made the city centre to focus on economic activities while the areas outside of the city centre becomes the settlement centre for the people of Kuala Lumpur. This structure also shaped the back and forth travel pattern which raises the congestion issue in Kuala Lumpur.

Rail transportation service started to be planned and enhanced through the Light Rail Transit (LRT) service in the end of 1991, KTM Komuter service in 1995 and Monorail in 2003. It is an effort to reduce the congestion in Kuala Lumpur. Rail service facilities is further expanded through MRT and MRT2 routes starting from the year 2016.

All the rail services are in the radial pattern and serve as the spine of public transport in Lembah Klang. The development of the rail route development also affected the spatial development of Kuala Lumpur.

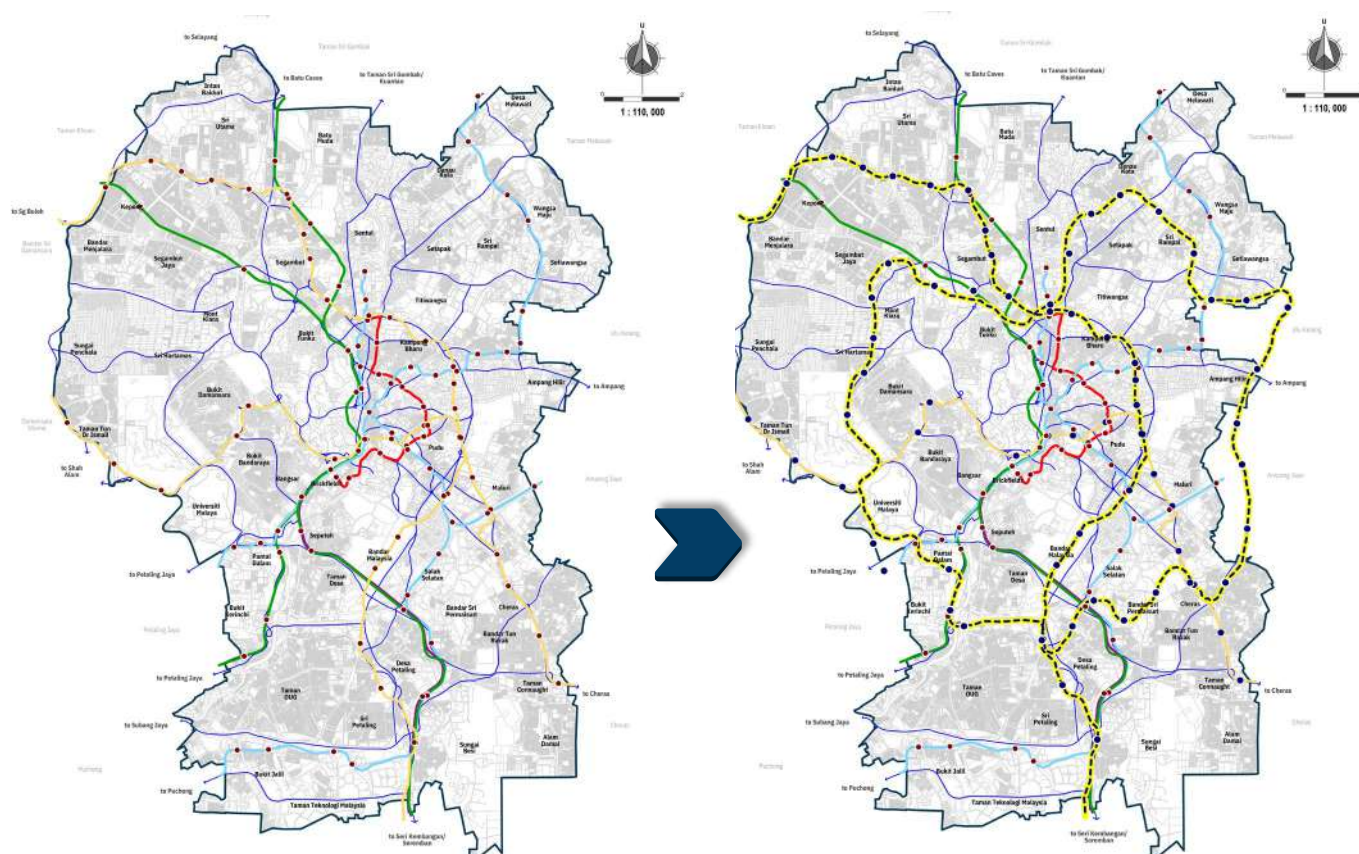
High intensity mixed development started to be focused in areas near the rail stations and to be developed according to the Transit Oriented Development (TOD) concept.

The planning of the Circle route (MRT3) complements the urban rail network in Kuala Lumpur by 2040. MRT3 route will be connected to the existing rail routes which will then form public transport network in the ring and radial pattern. This development will influence the spatial structure of Kuala Lumpur in the future.

Figure 1.6.1 shows the change in ring and radial structure which is based on road network to rail transportation network in Kuala Lumpur.



Figure 1.6.1: The concept of "Ring and Radial" through the change of dependence on roads to rails for the planning of the KLLP2040



Jalan Tun Razak - Lebuhraya Sultan Iskandar (Jalan Pekeliling)		Jalan Tun Razak - Lebuhraya Sultan Iskandar (Jalan Pekeliling)
MRR (Jalan Tun Razak, Lebuhraya Sultan Iskandar (Lebuhraya Mahameru), Jalan Damansara, Jalan Istana and Jalan Lapangan Terbang)		MRT3
MRR2 (Jalan Sungai Buloh, Lebuhraya Kepong- Selayang, Jalan Batu Caves, Lebuhraya Kuala Lumpur – Karak, Jalan Taman Melati, Jalan Ulu Klang, Jalan Pandan Utama, Jalan Cheras Baru, Jalan Midah Utama and Jalan Bandar Tasik Selatan)		MRR2 (Jalan Sungai Buloh, Lebuhraya Kepong- Selayang, Jalan Batu Caves, Lebuhraya Kuala Lumpur – Karak, Jalan Taman Melati, Jalan Ulu Klang, Jalan Pandan Utama, Jalan Cheras Baru, Jalan Midah Utama and Jalan Bandar Tasik Selatan)
Jalan Kuching – Jalan Ipoh		MRT1 (Laluan Sungai Buloh - Kajang) MRT2 (Laluan Sungai Buloh - Serdang - Putrajaya)
Jalan Klang Lama		Laluan LRT Ampang
Jalan Ampang		Laluan LRT Sri Petaling
Jalan Ampang		Laluan LRT Kelana Jaya
Jalan Sungai Besi Seremban		KL Monorail
Jalan Genting Klang		ERL
Jalan Gombak – Kuantan		Feeder System
Jalan Syed Putra (Lebuhraya Persekutuan)		<ol style="list-style-type: none">Provision of feeder buses from transit stations located within 2 kilometres of the stationImplementation of the concept of active mobility<ol style="list-style-type: none">Pedestrian (400 metres)Bicycle (800 metres)
Jalan Tun Razak – Lebuhraya Mahameru (Jalan Pekeliling)		

Source: Adapted from PITKL2040

1.6.2 THE CONCEPT OF SPATIAL DEVELOPMENT IN KUALA LUMPUR

Kuala Lumpur spatial development concept is the basis of the drafted spatial development of Kuala Lumpur. Kuala Lumpur spatial development concept accounted five (5) main planning aspects as follows:

1. Development Control Zone;
2. Distribution of Urban Growth Centres;
3. Public Transport Network (Based on Rail and Transit Station);
4. Green and Blue Corridor; and
5. Special Area Management Zone (SAM).

Concept Plan for Development Strategy of Kuala Lumpur 2040 as shown in Figure 1.6.2

1. Development Control Zone

Control zones are established as principles to control development in every proposed zone.

The development control zone is divided into three (3) zones as follows:

- a. **CONTROL ZONE 1 : MAIN CENTRE** (City Centre);
- b. **CONTROL ZONE 2 : SECONDARY CENTRE** (Linking City Boundaries – MRT3); and
- c. **CONTROL ZONE 3 : SUPPORT CENTRE** (Outside MRT3 Link Network).



Location: City Centre of Kuala Lumpur
Source: <https://www.shutterstock.com/image-photo/kuala-lumpur-skyline-152517785>
Current Spatial Development of Kuala Lumpur.

2. Urban Growth Centre

The urban growth centre in Kuala Lumpur are made up of four (4) main hierarchies as follows:

- a. **Main Growth Center** is a growth center located within the City Center boundary, holding the highest hierarchical position among all growth centers.
- b. **Support Growth Center** is a large-scale development area that connects the primary growth centers surrounding the upgraded City Center and newly developed areas, which are linked by a transit rail line to the city center.
- c. **District Growth Center** is a medium-scale commercial and employment area located near residential areas that serve as a focal point for the surrounding community. This area also includes main and local government service centers.
- d. **Local Growth Center** is a community-focused area where people access goods and services at the community level.

3. Public Transportation Network (Based On Rail and Transit Station)

The transportation network in Kuala Lumpur is the main planning component which emphasizes the use of public transport as the heart of public transportation by the year 2040. The provision of transportation network is upgraded through the addition of rail routes which is the proposal routes of MRT3 as well as from LRT, Monorail, Commuter, MRT1 and MRT2.

This transportation network connects local developments with improved accessibility compared to before, supported by the provision of feeder buses. Meanwhile, transit stations using the Transit-Oriented Development (TOD) concept in the city center are key components in efforts to promote the use of public transportation by 2040.

Development patterns around transit areas are encouraged to be high-intensity, mixed-use, with the provision of affordable housing, residential amenities, and the availability of various services and facilities. This can enhance the accessibility of residents through the use of public transportation, with a walking distance priority within a 400-meter radius.

4. Green and Blue Corridor

Kuala Lumpur has a green and blue network with the potential to be connected, forming an Urban Ecological Node that serves as a habitat area for urban biodiversity.

This green and blue network will form green and blue corridors that need to be connected to ensure the continuity of the urban ecological network and promote active mobility (pedestrian and micromobility vehicles routes) to reduce dependence on vehicle use.

The green corridors consist of public parks and open spaces, while the blue corridors are made up of river reserves, drains, and bodies of water.

Kuala Lumpur will create blue and green corridors that include public parks, open spaces, bodies of water which are connected by river reserves, transmission line and highway reserves.

5. Special Area Management Zone (SAM)

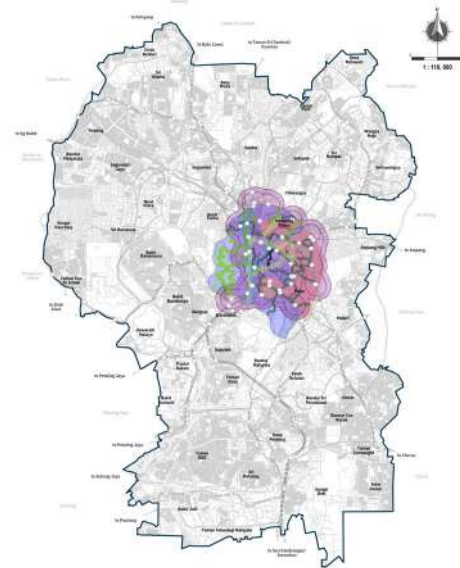
Kuala Lumpur have special area management that needs preservation and conservation for the balance of the ecosystem and to reduce the effect of climate change. The preservation and conservation is also a part of the climate and disaster risk management for Kuala Lumpur to be a resilient city.

Figure 1.6.3 shows the spatial development concept of Kuala Lumpur by 2040 which accounted five (5) main planning aspects.

Figure 1.6.2: Details of Development Control Zone in Kuala Lumpur's Spatial Development Concept

CONTROL ZONE 1: MAIN CENTRE (City Centre)

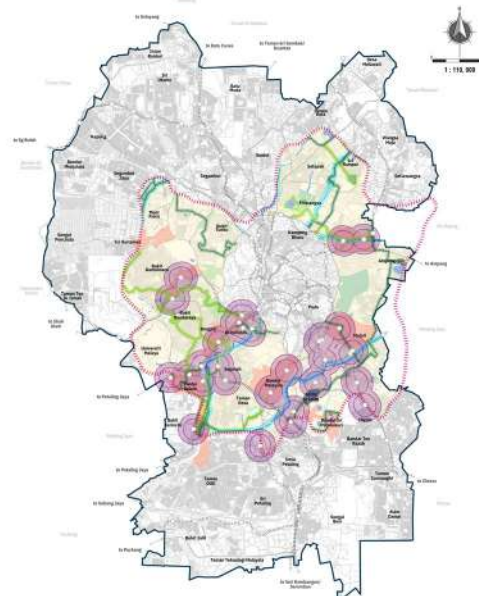
1. Offering international standard development, high-income employment opportunities and Class A buildings to attract high-value investment;
2. The development strategy in this zone is through infill and urban renewal, as well as the implementation of area redevelopment;
3. Focus on improving and enhancing infrastructure, public spaces and active transport system; and
4. Encompasses of 44 transit stations and 31 redevelopment areas.



ZON KAWALAN 1: PUSAT UTAMA

CONTROL ZONE 2: SECONDARY CENTRE (Linking City Boundaries – MRT3)

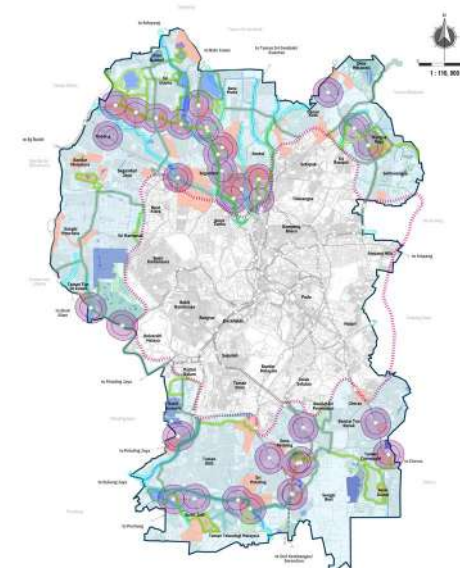
1. This zone is the main residential and services areas in Kuala Lumpur;
2. The development strategy for these areas is to encourage mixed and high intensity development, especially in transit areas;
3. Encourage realignment of hierarchies and improving public housing areas, public and social facilities;
4. The capacity of this area is expected to increase with the MRT3 services; and
5. Encompasses of 33 transit stations and 35 redevelopment areas.



ZON KAWAALAN 2: PUSAT SEKUNDER

CONTROL ZONE 3: SUPPORT CENTRE (Outside MRT3 Link Network)

1. These are Kuala Lumpur's sub-urban centres;
2. The development strategy for these areas is to encourage affordable housing in transit areas which will be supported by adequate and quality public facilities to improve accessibility;
3. This area will be a focus for local service and clean industrial activities; and
4. Encompasses of 26 transit stations and 73 redevelopment areas.



ZON KAWALAN 3: PUSAT SOKONGAN

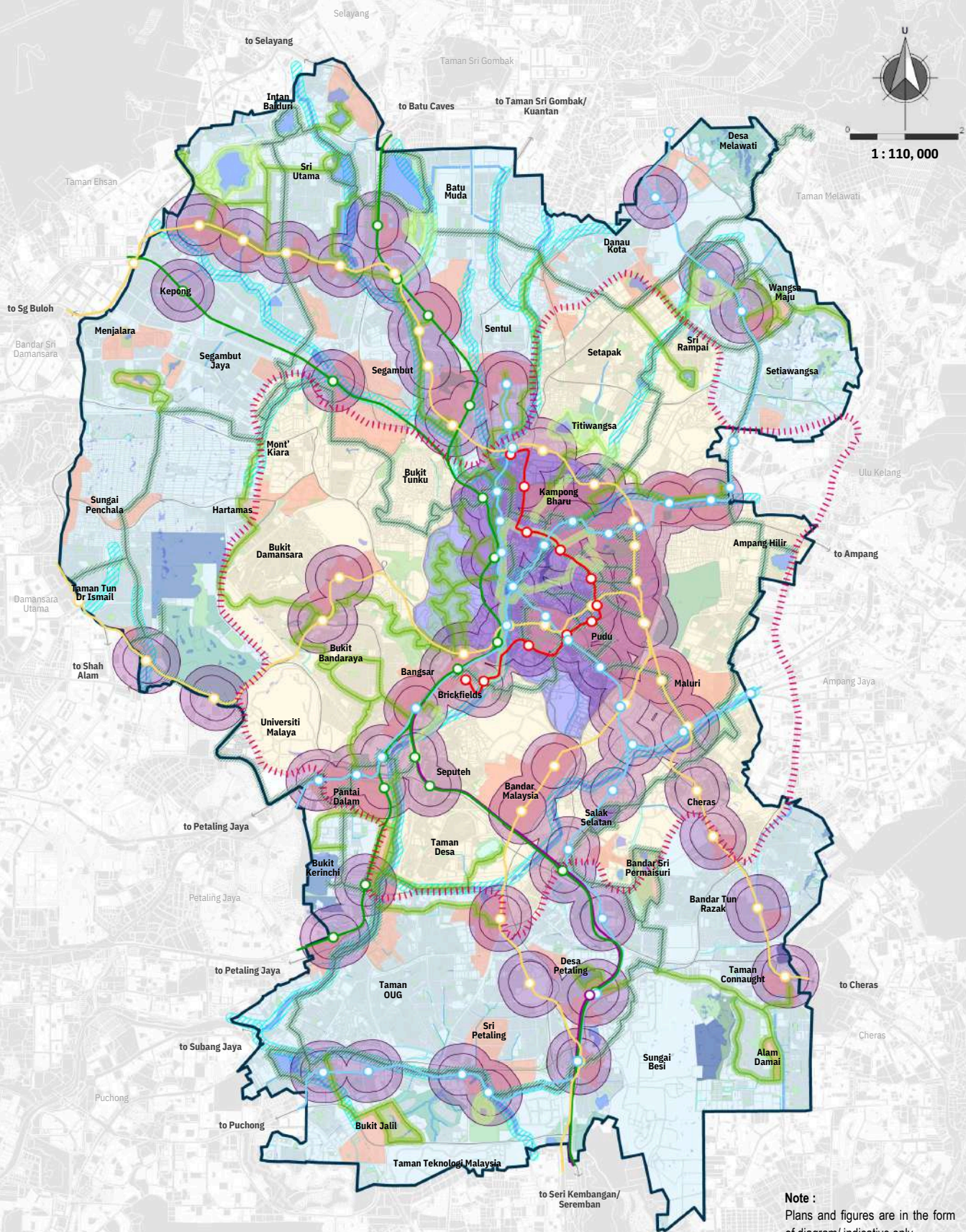
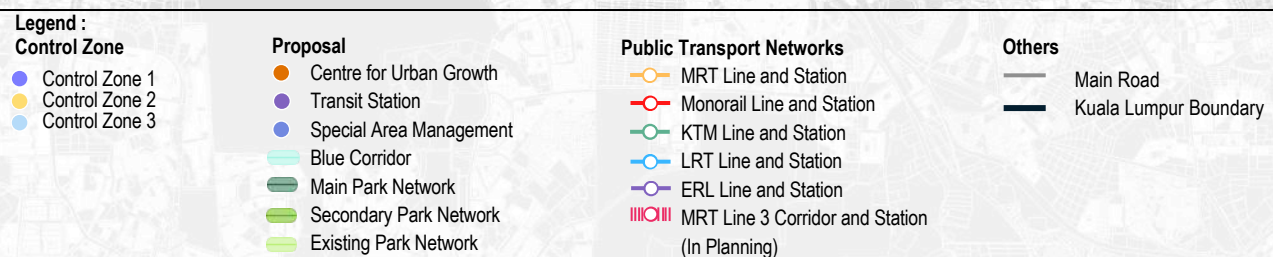


FIGURE 1.6.3 | Plan of Development Strategy Concept Kuala Lumpur 2040



Note :
Plans and figures are in the form of diagram/ indicative only.

1.7 KLSP2040 AND KLLP2040

INTERPRETATION OF THE KLLP2040 BASED ON KLSP2040

The KLLP2040 must be read in conjunction with the KLSP2040, from which the interpretation is made via Volume 1 and 2 of the KLLP2040. The focus of KLLP2040 is towards achieving the vision and policy of KLSP2040 through a sustainable growth and land use management approach.

In accordance with the provision of Act 267, the KLLP2040 will be translated into the form of maps and statements to steer the planning and development of Kuala Lumpur for the next 20 years. This translation is accompanied by figure, images, and descriptive materials that are also contained in the KLLP2040.

KLSP2040 has outlined six (6) goals, 21 strategic directions, and 73 planning actions which must be interpreted by KLLP2040 in the form of six (6) goals, 39 planning strategies, 88 implementation proposals and 191 implementation initiatives. The KLLP2040 has coordinated and not repeated the strategic direction of KLSP2040 in order to focus on development control aspect. The translation of KLSP2040 is placed in each proposed implementation of KLLP2040 to ensure clear coordination.

The relation between KLSP2040 and the KLLP2040 is translated through three (3) main items, namely Planning Strategy, Implementation Proposal, and Implementation Initiatives. The KLLP2040 planning strategy is a continuation of the KLSP2040 action statement according to strategic goals and directions.

In general, Planning Strategy in the KLLP2040 is the main focus of Strategic Direction and Planning Actions in the KLSP2040. The KLLP2040 Implementation Proposal is a translation of the KLSP2040 actions and supporting actions. While the Implementation Initiatives will outline actions to ensure that the Implementation Proposals in KLLP2040 will be executed effectively.

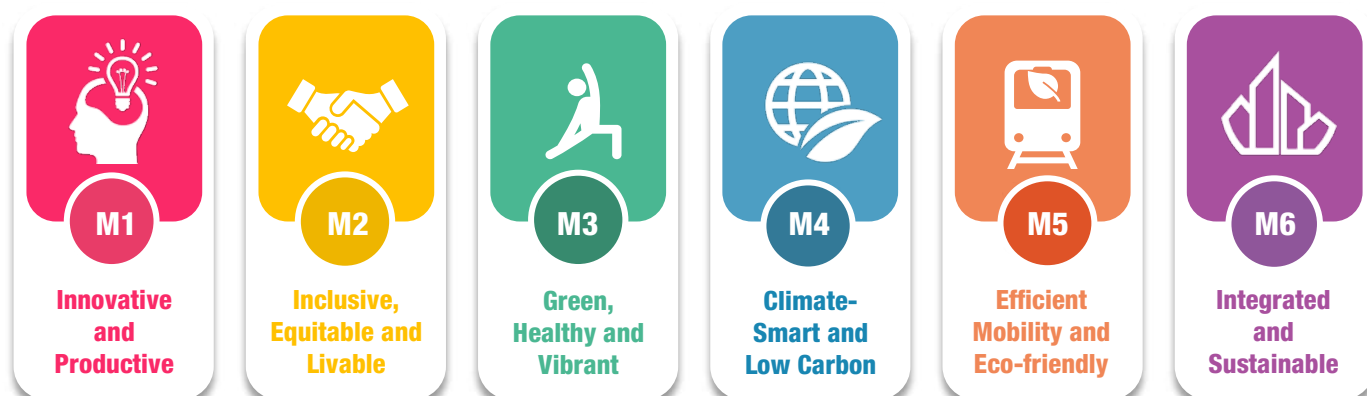
This implementation proposal of the KLLP2040 is translated into the form of policy, programme, project, planning control and guidelines for the future.

In general, the KLLP2040 has translated all the actions outlined in KLSP2040 in ensuring that the vision of City for All can be successfully achieved.



Location: Kuala Lumpur City Centre
View of the City Centre from Kuala Lumpur Tower.

THE RELATION BETWEEN KLSP2040 AND KLLP2040



KLSP2040

6 GOALS

GOAL 1:
KUALA LUMPUR
INNOVATIVE AND
PRODUCTIVE CITY

GOAL 2:
KUALA LUMPUR
INCLUSIVE,
EQUITABLE AND
LIVABLE CITY

GOAL 3:
KUALA LUMPUR
GREEN, HEALTHY
AND VIBRANT CITY

GOAL 4:
KUALA LUMPUR
CLIMATE-SMART
AND LOW CARBON
CITY

GOAL 5:
KUALA LUMPUR
EFFICIENT
ENVIRONMENTAL-
FRIENDLY
MOBILITY CITY

GOAL 6:
KUALA LUMPUR
INTEGRATED AND
SUSTAINABLE
CITY

STRATEGIC DIRECTIONS

3

2

4

4

3

5

ACTIONS

13

9

12

14

10

15

KLLP2040

6 GOALS

GOAL 1:
ENCOURAGING
DEVELOPMENT OF
KUALA LUMPUR AS
INNOVATIVE AND
PRODUCTIVE CITY

GOAL 2:
FOCUSING
DEVELOPMENT OF
KUALA LUMPUR AS
INCLUSIVE,
EQUITABLE AND
LIVABLE CITY

GOAL 3:
STRENGTHENING
SURROUNDING
DEVELOPMENT OF
KUALA LUMPUR AS
GREEN, HEALTHY
AND VIBRANT CITY

GOAL 4:
STRENGTHENING
DEVELOPMENT OF
KUALA LUMPUR AS
CLIMATE-SMART
AND LOW CARBON
CITY

GOAL 5:
FOCUSING
DEVELOPMENT OF
KUALA LUMPUR AS
EFFICIENT
ENVIRONMENTAL-
FRIENDLY MOBILITY
CITY

GOAL 6:
ENHANCING
DEVELOPMENT OF
KUALA LUMPUR AS
INTEGRATED AND
SUSTAINABLE
DEVELOPMENT CITY

PLANNING STRATEGIES

6

6

9

7

3

8

IMPLEMENTATION PROPOSALS

13

8

20

23

10

14

IMPLEMENTATION INITIATIVES

26

25

44

36

22

38

01



GOAL 1

ENCOURAGING DEVELOPMENT OF
KUALA LUMPUR AS AN INNOVATIVE
AND PRODUCTIVE CITY



GOAL 1

ENCOURAGING THE DEVELOPMENT OF KUALA LUMPUR AS AN INNOVATIVE AND PRODUCTIVE CITY

The role of Kuala Lumpur as a primary national commercial and financial centre would be further strengthened to achieve the standard as a Global City.

In relation to the National Fourth Industrial Revolution (4IR) Policy and the development of digital economy, the objective of creating an innovative and productive city would become the core of Kuala Lumpur's development.

The criteria for an innovative city emphasise on the application of smart city elements, enhancement the conducive environment quality, provision of public and private research and development (R&D) centres, enhancement the provision of new technology infrastructure and providing the latest manufacturing infrastructure.

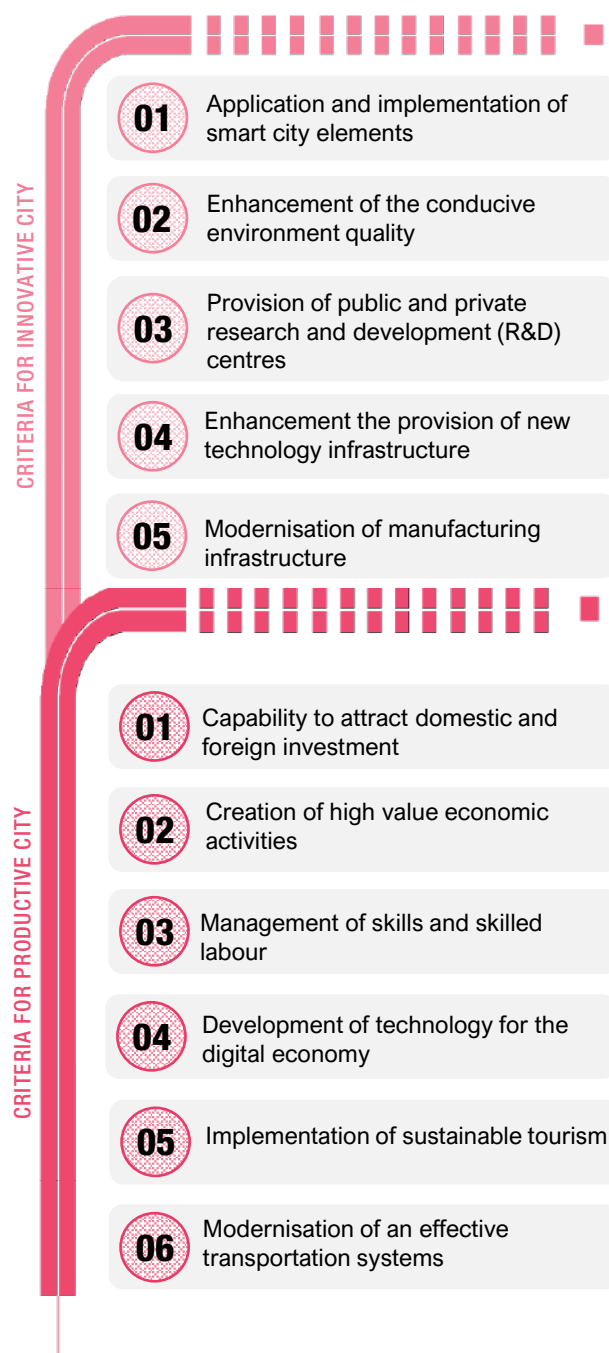
The criteria for a capability productive city criteria emphasise a city's to attract domestic and foreign investment, create high-value economic activities, manage skills and skilled labour, develop technology for the digital economy, implement sustainable tourism, and modernisation of an effective transportation systems.

As an innovative and productive city, Kuala Lumpur is prepared to attract foreign and domestic investment into its economy, increase the involvement of new entrepreneurs in the economic sectors as well as to function as a regional tourism destination hub. The objective is to establish Kuala Lumpur as a top 20 World-Class Competitive City by the year 2030.

The criteria for innovative and productive cities will be translated through the provision of enough land area, the selection of appropriate locations for different economic activities, and the choice of the level of development intensity that is practical and supported by development guidelines and initiatives.

Figure 1.1 lists the main criterias that need to be applied in developing Kuala Lumpur towards an Innovative and Productive City.

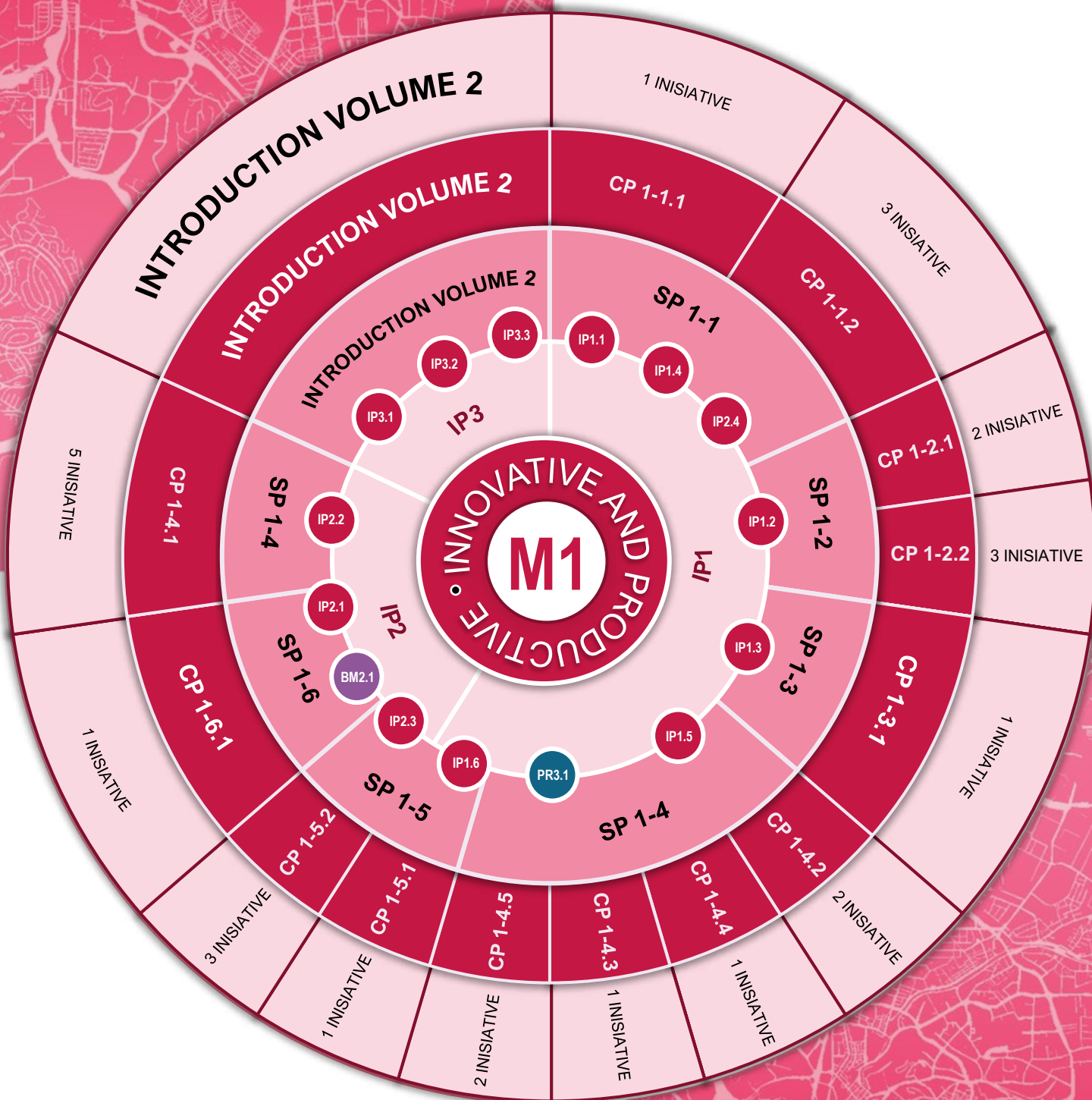
Figure 1.1:
Criteria for Innovative and Productive City



KLSP2040
3 STRATEGIC DIRECTIONS
15 ACTIONS

FIGURE 1.2
SUMMARY OF PLANNING STRATEGY AND
IMPLEMENTATION PROPOSAL

GOAL 1:
ENCOURAGING THE DEVELOPMENT OF KUALA LUMPUR
AS AN INNOVATIVE AND PRODUCTIVE CITY



There are six (6) Planning Strategies (SP), 13 Implementation Proposals (CP) and 26 Implementation Initiatives (IP) drafted in line with KLSP2040 as shown in the Figure 1.2.

KLSP2040
6 PLANNING STRATEGIES
13 IMPLEMENTATION PROPOSALS

DIVERSIFYING FINANCIAL ACTIVITIES AND COMMERCIAL SERVICES IN KUALA LUMPUR

SCENARIO OF FINANCIAL ACTIVITIES AND COMMERCIAL SERVICES IN KUALA LUMPUR

Kuala Lumpur is the country's main centre for commercial, finance and services. Kuala Lumpur's competitiveness and economic prosperity will drive efforts to attract domestic and international investment in this sector.

In line with the role as the main focus of global business, its development planning will prioritise efforts to transform Kuala Lumpur into a place that offers a variety of financial activities and commercial services.

Kuala Lumpur has the potential to become a principal hub among multinational companies. This potential also help strengthen its position as a global financial centre through the use of financial technology applications, namely fintech, and business digitisation.

In line with the current development, Kuala Lumpur is capable of providing affordable office and commercial spaces for small and new businesses, such as the establishment of start-up companies, especially in the Transit Planning Zone (TPZ). In addition, the provision of co-working space through building regeneration methods will also boost the sharing economy.

Commercial land use in 2024 is 1,875.77 hectares including offices, shopping centres, hotels, shops, serviced apartments, and Small Office Home Office (SOHO). There were 969 committed commercial development projects recorded in Kuala Lumpur from the year 2000 to 2023.

The main commercial land use zone for the KLLP2040 consists of five (5) land use zone categories, as follows:

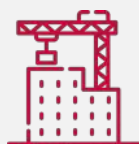
1. City Centre Commercial (CCC);
2. Major Commercial (MC);
3. Commercial (C);
4. Local Commercial (LC); and
5. Mixed Development (MX).

BRIEF INFO

EXISTING AND COMMITTED COMMERCIAL DEVELOPMENT (KLLP2040)



Area of Kuala Lumpur
Existing Commercial, 2024
1,875.77 hectares



Number of committed Kuala Lumpur
commercial development 2000-2023
969 projects



Kuala Lumpur 2040 Commercial Floor
Space Capacity
149,985,682.76 mps



Location: Kuala Lumpur City Centre
Source: <https://www.shutterstock.com/g/ESB+Professional>
Kuala Lumpur as a Centre for Finance and Commercial Services.

Commercial development as envisaged in the KLLP2040 focuses on strengthening and increasing the value added to the main economic activities of Kuala Lumpur, namely financial services, commercial services and tourism as Kuala Lumpur's economic thrust.

Future commercial development should be geared towards commercial activities by implementing new technologies and creating a dynamic economic environment by adopting the National 4IR Policy. This can attract potential for various economy sector such as sharing economy, digital economy, and creative economy.

Towards realising Kuala Lumpur as an important financial and commercial services centre, two (2) Implementation Proposals are formulated under Planning Strategy 1–1, as shown in Figure 1.1.1.



BRIEF INFO

SHARING ECONOMY

1. Sharing of assets and services, such as e-hailing, shared office, shared accommodation (for example Airbnb) and others.
2. Sharing of intangible assets (time, skills and talent), such as delivery and administrative services.
3. Redistribution of goods, such as buying, selling and delivering goods through the secondary market.
4. Financial sharing, such as investment and Peer to Peer (P2P).

DIGITAL ECONOMY

- | | |
|--|--|
| 1. Sharing economy platform | 9. 3D Printing |
| 2. Financial technology (Fintech) | 10. Architectural design system or network |
| 3. E-commerce | 11. Global commercial services |
| 4. Data centre | 12. Robotic |
| 5. Big Data and Artificial intelligence (AI) | 13. Technology of autonomous design |
| 6. Digital creative content | |
| 7. Islamic digital economy | |
| 8. Blockchain | |

CREATIVE ECONOMY

- | | |
|--------------------|---------------|
| 1. Heritage | 5. Local food |
| 2. Performing Arts | 6. Film |
| 3. Craft arts | 7. Writing |
| 4. Fashion | |

Figure 1.1.1:
Implementation Proposals for Planning Strategy 1-1

SP 1-1

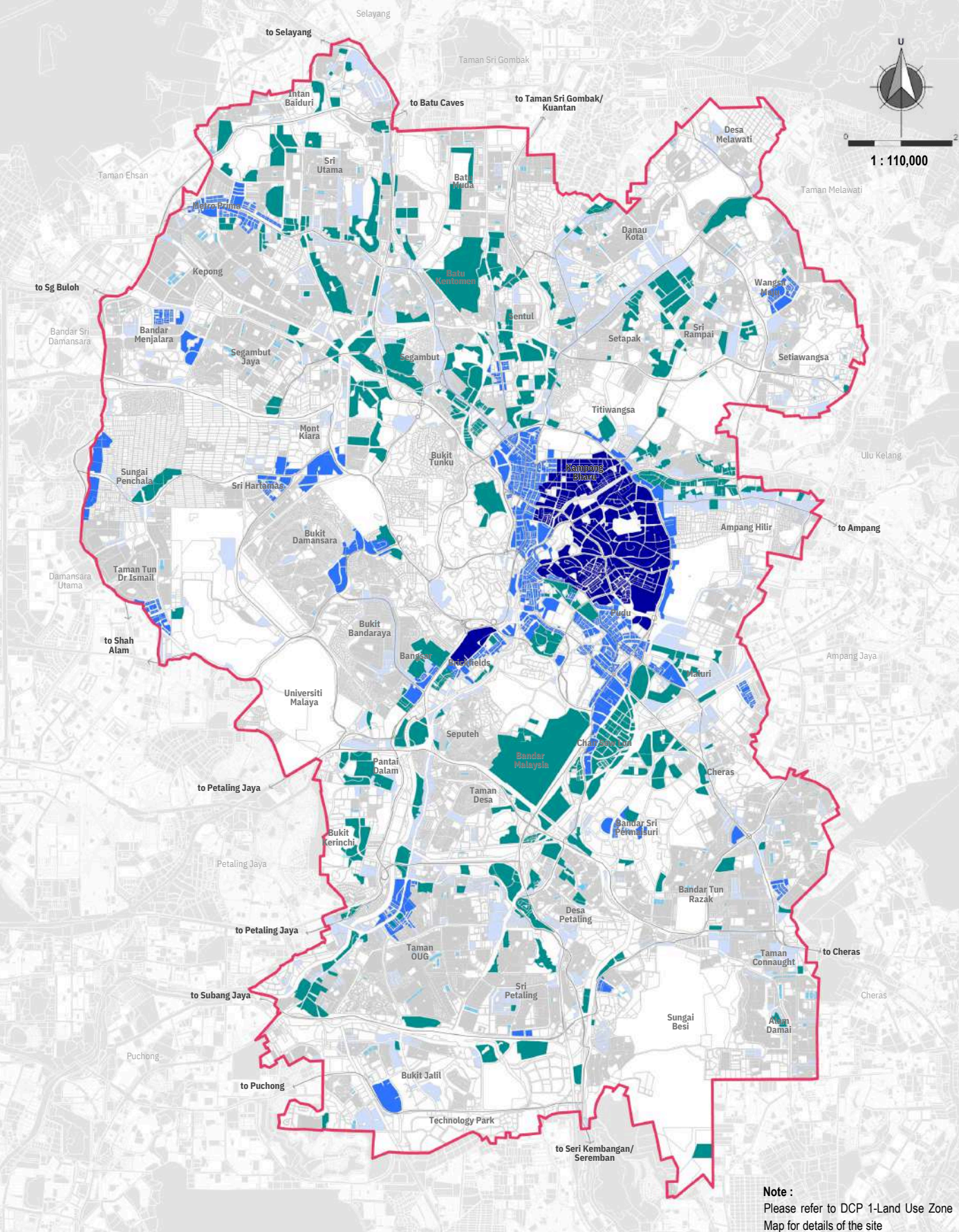
DIVERSIFYING FINANCIAL ACTIVITIES AND COMMERCIAL SERVICES IN KUALA LUMPUR

CP 1-1.1

Planning and Development of Commercial Area In Kuala Lumpur

CP 1-1.2

Development of Competitive Kuala Lumpur Commercial Centre



CP 1-1.1:

PLANNING AND DEVELOPMENT OF COMMERCIAL AREA IN KUALA LUMPUR

Economic growth in Kuala Lumpur is important to create an environment with a comprehensive economic scale and able to cater the needs of all group society.

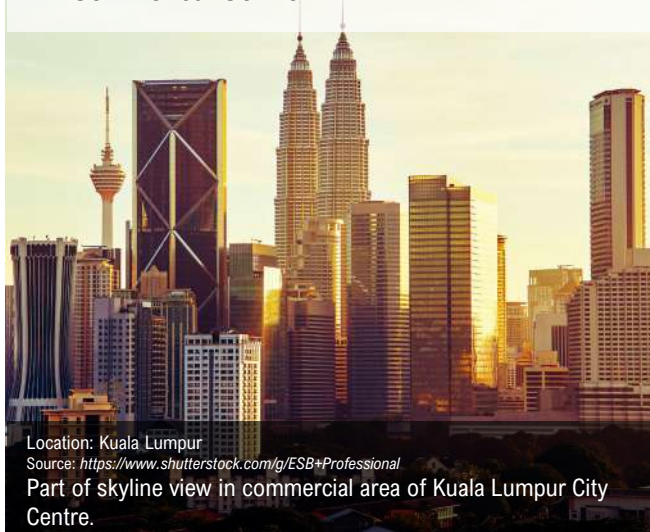
The planning of the commercial hierarchy in Kuala Lumpur focuses on strengthening the function of the commercial centre optimally to drive dynamic economic growth, attract new investment and accommodate the demands of society. The establishment of the commercial hierarchy in Kuala Lumpur refers to the Land Use Zone of Commercial as shown in Table 1.1.1 and Figure 1.1.2.

The trend of development and increase in commercial floor space in Kuala Lumpur is expected to continue to rise in line with the rapid economic growth of Kuala Lumpur due to the increased demand for commercial areas, the reclassification of land use zones, and high-intensity development.

KLSP2040 has projected the need for commercial floor space is 74.06 million square meters. Taking into account the aspect of development intensity, the capacity of the commercial land use zone for KLLP2040 offers a floor space of 149,985,682.76 square meters. However, this offering depends on the market conditions and future demand in Kuala Lumpur. This includes phases of mega development projects expected to extend beyond 2040, such as Bandar Malaysia.

The proposal for the implementation of CP 1-1.1 is carried out through one (1) initiative as follows:

1. Plan the Development of an Integrated Commercial Centre.



CP 1-1.1

COORDINATION CONTEXT OF SDGs AND KLSP2040



SUSTAINABLE DEVELOPMENT GOALS CONTEXT



KLSP2040 CONTEXT

1

GOALS

Kuala Lumpur Innovative And Productive City

IP1

STRATEGIC DIRECTIONS

Competitive Urban Economic Growth

IP2

STRATEGIC DIRECTIONS

Conducive Working And Business Environment

IP 1.1

ACTIONS

Strengthen Financial and Business Services Activities

IP 2.4

ACTIONS

Enhance the Readiness of Digital Infrastructure to Support Economic Development

IMPLEMENTATION APPROACH CP 1-1.1



PROJECT



POLICY



PROGRAMME



PLANNING CONTROL



GUIDELINE

IMPLEMENTATION INITIATIVE 1-1.1A

► PLAN THE DEVELOPMENT OF AN INTEGRATED COMMERCIAL CENTRE

Planning development of an integrated commercial centre according to the function and role of land use planning zones is to ensure a dynamic and progressive economic growth in Kuala Lumpur. The necessary actions to support this initiative are shown in Table 1.1.1.

Table 1.1.1:
Implementation Initiative by Integrated Commercial Centre

GENERAL INITIATIVES	
1	Encouraging commercial development with the concept of Transit-Oriented Development (TOD) and active mobility modes including pedestrian walkways and micromobility vehicle routes;
2	Ensure readiness and planning as well as maintenance of comprehensive provision of infrastructure including digital, communication and ICT infrastructure as well as other high quality supporting facilities to cater the needs of the users and visitors;
3	Encourage the development of affordable offices and commercial spaces;
4	Implement sustainable planning concepts such as Crime Prevention Through Environmental Designs (CPTED), Universal Design, green building, smart technology and Low Carbon City concept;
5	Ensure continuous maintenance of the surrounding environment and provision of attractive landscapes to create the environment of a conducive as well as competitive city;
6	Encourage optimal land use through integrated development planning;
7	Encourage the provision of small office spaces or incubators as support facilities for commercial development to accommodate and promote start-up; and
8	Plan the provision of shared infrastructure and support facilities such as parking in residential buildings to be used for commercial activities for a specific period.

Land Use Zone	Specific Initiatives
1. City Centre Commercial (CCC) <ul style="list-style-type: none"> It is the highest hierarchy that serves as a financial centre, premier commercial centre, service centre, and major employment centre. Including the Kuala Lumpur City Centre, KL Sentral, Kampong Bharu, TRX, Bukit Bintang, and other areas zoned as City Centre Commercial (CCC). Area: 447.48 hectares 	<ol style="list-style-type: none"> Encourage integrated, high-density and high-value developments; Emphasise on commercial developments that could generate employment opportunities and high-skilled labours; Emphasise on high-potential commercial developments that could attract domestic and foreign investments; Encourage the development of new tourist attractions and high-value as well as attractive tourist accommodations; Encourage the development or provision of spaces for Meetings, Incentives, Conferences and Exhibitions (MICE); Emphasise on commercial developments for co-working spaces and sharing economy; and Encourage developments that could support and attract development of multinational corporations within the city centre.

Table 1.1.1:**Implementation Initiative by Integrated Commercial Centre (continued)**

Land Use Zone	Specific Initiatives
2. Major Commercial (MC) <ul style="list-style-type: none"> It is a major commercial centre that supports Land Use Zone of City Centre Commercial (CCC). Including Wangsa Maju, Bandar Menjalara, Bandar Sri Permaisuri, Penchala, Desa Sri Hartamas, Taman Tun Dr Ismail (TTDI), Bandar Tasik Selatan, Bukit Indah, Bukit Jalil, Kepong, and other areas zoned as Major Commercial (MC). Area: 673.61 hectares 	<ol style="list-style-type: none"> Promote integrated, high-intensity and high-value commercial development as an option for the Land Use Zone of City Centre Commercial (CCC); Emphasise on commercial developments that could generate employment opportunities and high-skilled labours in line with its role in supporting Land Use Zone of City Centre Commercial (CCC); Permitting entertainment-based activities within commercial growth centre subjected to conditions and appropriate scale of operation; and Encourage the developments of centralised commercial to cater for the needs of the community and visitors.
3. Commercial (C) <ul style="list-style-type: none"> It is a commercial area that is usually located on main road and in neighbourhood centres. Including Danau Kota, Desa Petaling, Kepong, Titiwangsa, Cheras, Pantai Dalam, Taman Salak Selatan, Maluri, Shamelin, and other areas zoned as Commercial (C). Area: 1,066.49 hectares 	<ol style="list-style-type: none"> Encourage commercial developments that cater the concept of co-working spaces and sharing economy; Encourage the developments of training centres and incubators to support the concept of a knowledge-based economy and leads to generate high-skilled labour; Encourage the developments of commercial service activities to cater the needs of the community and visitors; and Ensure adequate provision of community facilities for the residing commercial developments.
4. Local Commercial (LC) <ul style="list-style-type: none"> It serves as a local service centre in residential areas. Including Bandar Tun Razak, Taman Sri Petaling, Kuchai Lama, Taman Desa, Taman Pusat Kepong, and other areas zoned as Local Commercial (LC). Area: 51.98 hectares 	<ol style="list-style-type: none"> Provide services and goods sales that cater the needs of the local community; Encourage provision and development of incubators and spaces for start-up; and Encourage provision and development for hawker centres and informal commercial activities spaces.
5. Mixed Development (MX) <ul style="list-style-type: none"> It is a commercial area that allows the mixing of commercial components to support the basic use of residing in a development. The residential component must not be less than 60 percent of the total gross floor area. Including Bandar Malaysia, Bangsar South, Chan Sow Lin, Bukit Kerinchi, Sungai Pechala, and other areas zoned as Mixed Development (MX). Area: 1,869.97 hectares 	<ol style="list-style-type: none"> Ensure commercial development include residing elements and provide adequate community facilities; Encourage integrated, high-density, high-value commercial and residential developments; Emphasise on commercial developments that could generate diverse employment opportunities and high-skilled labours; Encourage commercial developments that cater for the concept of co-working spaces and sharing economy; and Encourage the developments of training centres and incubators to support the concept of a knowledge-based economy and leads to generate high-skilled labour.

The establishment of main commercial land use zone KLLP2040 is based on:

1. Redesigning the area takes into account infrastructure improvements or the construction of new transit stations;
2. Redevelopment of the dilapidated area; and
3. The determination of direction and new strategies for an area takes into account the surrounding development.

The projected commercial capacity is 149,985,682.76 square meters, taking into account the ratio of the basic plot ratio and the area of the land plot involved, according to each breakdown of the commercial based land use zone of the KLLP2040.

The projected floor space capacity of the KLLP2040 ensures the availability of commercial areas that can meet market demand, flexibility regarding the location of commercial development and committed development.

The total commercial floor space capacity of the KLLP2040 is expected to be influenced by residential-type commercial developments such as service apartments or Small Office Home Offices (SOHO) in line with the demand trend of Kuala Lumpur residents in the future.

KLLP2040 also acknowledged the intensity incentive introduced in line with the current government policies. Focus should be placed on the planning, upgrading, and providing community facilities, infrastructure, and utilities to support the implementation of this incentive.

BEST PRACTICE

INTEGRATED COMMERCIAL DEVELOPMENT



Location: LaLaport, Kuala Lumpur
Source: <https://www.shutterstock.com/g/TK+Kunikawa>

The new LaLaport shopping mall has the potential to become an integrated commercial hub.

There are three (3) types of existing developments in Kuala Lumpur that successfully implement the concept of integrated commercial development, namely:

1. KL Sentral: An integrated commercial area with a variety of public transportation services and the NU Sentral shopping mall.
2. Pavilion Kuala Lumpur: An international standard commercial development (World Class Award Winning) with the availability of MRT and monorail public transport services.
3. LaLaport: A new integrated commercial development with access to rail transport such as LRT, MRT, and monorail.

BRIEF INFO

CAPACITY OF COMMERCIAL FLOOR SPACE UNTIL THE YEAR 2040



City Centre Commercial (CCC)

This commercial capacity is calculated based on the assumption that 90 percent of the total commercial plot land area is used for commercial purposes.

37,267,695.26 square meters



Major Commercial (MC)

This commercial capacity is calculated based on the assumption that 90 percent of total commercial plot land area is used for commercial purposes.

37,739,632.91 square meters



Commercial (C)

This commercial capacity is calculated based on the assumption that 90 percent of total commercial plot land area is used for commercial purposes.

36,965,985.12 square meters



Local Commercial (LC)

This commercial capacity is calculated based on the assumption that 100 percent of total commercial plot land area is used for commercial purposes.

1,273,423.97 square meters



Mixed Development (MX)

This commercial capacity is calculated based on the assumption that 40 percent of total commercial plot land area is used for commercial purposes.

35,221,970.43 square meters



Mixed Industry (MXI)

This commercial capacity is calculated based on the assumption that 50 percent of total commercial plot land area is used for commercial purposes.

1,516,975.06 square meters

CP 1-1.2:**DEVELOPMENT OF COMPETITIVE KUALA LUMPUR COMMERCIAL CENTRE**

Primary commercial centres serve as focus areas for high-value commercial activities, including office space, shopping malls, hospitality and the main services sector. In addition, its play a role in supporting and complementing activities in the Banking and Fintech Focus Zone. This centre has the potential to create innovative commercial spaces and transform commercial activities into more viable ventures.

The financial sector has the potential to drive the growth of commercial activities in Kuala Lumpur. Kuala Lumpur is also the main global hub for Islamic finance that have been recognised as the Most Advanced International Islamic Financial Market (Global Islamic Finance Report, 2023). This effort must be supported through the provision of world-class digital infrastructure as well as a conducive commercial ecosystem by strengthening banking and fintech activities in Kuala Lumpur.

Kuala Lumpur also has various types of commercial activities. The proposal for a themed business activity centre aims to specialise in key activities and rebranding commercial activities in a specific area. The rebranding is based on the identity and the uniqueness of commercial activities performed in these area, including the potential development of its expansion. This proposal will transform the area into special shopping attraction for local visitors and tourists.

The proposal for the implementation of CP 1-1.2 are carried out through three (3) initiatives as follows:

1. Encourage the Development of Advanced and Competitive Primary Commercial Centres;
2. Ensure Thriving and Competitive Financial Activities in Banking and Fintech Zones; and
3. Brand Themed Commercial Activity Centres.

CP 1-1.2

COORDINATION CONTEXT OF SDGs AND KLSP2040

**SUSTAINABLE DEVELOPMENT GOALS CONTEXT****KLSP2040 CONTEXT****1****GOALS**

Kuala Lumpur Innovative And Productive City

IP1**STRATEGIC DIRECTIONS**

Competitive Urban Economic Growth

IP2**STRATEGIC DIRECTIONS**

Conducive Working And Business Environment

IP 1.4**ACTIONS**

Enhance the Development of Digital, Technology and Innovation Economy

IP 2.4**ACTIONS**

Enhance the Readiness of Digital Infrastructure to Support Economic Development

IMPLEMENTATION APPROACH CP 1-1.2

IMPLEMENTATION INITIATIVES 1-1.2A

► ENCOURAGE THE DEVELOPMENT OF ADVANCED AND COMPETITIVE PRIMARY COMMERCIAL CENTRES

Strengthening the competitive primary commercial centre is one of the main focuses to make Kuala Lumpur as a global city. This strengthening will give Kuala Lumpur an advantage in attracting more new investments while expanding existing investments to become more vibrant and dynamic. The necessary actions to support this initiative are as shown in Table 1.1.2.

Table 1.1.2:
Development Initiatives for Primary Commercial Centre

GENERAL INITIATIVES	
1	Encourage commercial activities that support high-value economic growth in key banking, fintech, and primary commercial zones, such as hotel, offices, shopping centres, entertainment, and services;
2	Ensure readiness and planning as well as maintenance of comprehensive provision of infrastructure including digital, communication and ICT infrastructure as well as other high quality supporting facilities to cater the needs of the users and visitors;
3	Strengthen primary and traditional areas through redevelopment or rejuvenation programmes;
4	Provision of informal commercial activities spaces for all level of society to generate employment opportunities in the informal sector;
5	Provide high connectivity for active mobility mode through the provision of pedestrian walkways and micromobility vehicle routes connected to the transportation network and transit station;
6	Ensure continuous maintenance and provision of attractive landscapes to create a conducive and competitive environment; and
7	Implement sustainable planning concepts such as Crime Prevention Through Environmental Designs (CPTED), Universal Design, green building, smart technology and Low-Carbon City concept.

Primary Commercial Centre	Specific Initiatives
Part of City Centre The Primary Commercial Centre of the City Centre is the major commercial activity zone of Kuala Lumpur. <i>(Jalan Ampang, Bukit Bintang towards to Jalan Imbi, Jalan Tunku Abdul Rahman, Jalan Raja Bot, Jalan Pudu, Jalan Dang Wangi, Jalan Petaling (Petaling Street), Jalan Sultan, Jalan Hang Jebat)</i> Area: 699.00 hectares	<ol style="list-style-type: none"> 1. Strengthening the position of KLCC-Bukit Bintang as a major shopping activity precinct by encouraging the growth of a productive and vibrant primary commercial centre; 2. Encouraging the development of high-class commercial and Grade A office spaces; and 3. Encouraging the redevelopment or regeneration of commercial areas that are less competitive, dilapidated and have the potential to become high-value commercial areas without affecting the surrounding development typology.

Table 1.1.2:**Development Initiatives for Primary Commercial Centre (continued)**

Primary Commercial Centre	Specific Initiatives
<p>KL Sentral and its surrounding</p> <p>KL Sentral Primary Commercial Centre is a major integrated transit centre in Malaysia. This development area has corporate office, 5-star hotels, shopping malls and luxury condominiums.</p> <p>Thus, the vicinity surrounding KL Sentral become a potential area for redevelopment and will be the focus of multinational companies (MNC).</p> <p><i>(Jalan Damansara - Jalan Bangsar - Jalan Syed Putra)</i></p> <p>Area: 308.70 hectares</p>	<ol style="list-style-type: none"> 1. Promoting mixed development that includes shopping activities, office complexes, businesses and residing elements to increase the city livability; 2. Encouraging the development of incubators and small office spaces for new entrepreneurs; and 3. Encouraging the development of high-class commercial and Grade A office spaces.
<p>Bangsar South and Media City</p> <p>Bangsar South is a commercial centre that has a high-tech integrated office complex with the application of smart city components.</p> <p>Meanwhile, Media City located near Bangsar South is a development focused on multimedia and broadcasting which is the National International Broadcasting Centre.</p> <p><i>(Jalan Pantai Permai - Jalan Kerinchi - Jalan Kerinchi Kiri 2)</i></p> <p>Area: 45.82 hectares</p>	<ol style="list-style-type: none"> 1. Encouraging commercial activities based on a knowledge-based economy that supports function of the commercial centre involved; 2. Encouraging the development of incubators, start-up and small office spaces for new entrepreneurs; 3. Encouraging creative activities, digital and IT; and 4. Encouraging the provision of supporting facilities for activities and international broadcasting centre's facility.
<p>Damansara City Centre</p> <p>Damansara City Centre is the major commercial area for Bukit Damansara and its surroundings.</p> <p><i>(Jalan Johar - Jalan Semantan - Changkat Semantan - Jalan Beringin)</i></p> <p>Area: 62.37 hectares</p>	<ol style="list-style-type: none"> 1. Encouraging the development of high-class commercial and Grade A office spaces; and 2. Encouraging the development of incubators and small office spaces for new entrepreneurs.
<p>KL Metropolis and its surrounding</p> <p>Centre commercial area and office complex located in the northern part of the city centre.</p> <p><i>(Persiaran Dutamas - Jalan Sultan Haji Ahmad Shah - Jalan Kuching, Segambut)</i></p> <p>Area: 235.10 hectares</p>	<ol style="list-style-type: none"> 1. Creating a Digital Free Commercial Zone that is a platform to facilitate and prioritise digital commercial activities; 2. Developing Satellite Service Centre known as Kuala Lumpur Internet City (KLIC) to be the main digital hub for global and local companies. Development of the centre as a key player in the internet ecosystem that provides support, networking and knowledge sharing to drive innovation in the internet economy and e-commerce industry; 3. Promoting the development of world-class commercials such as hotels, offices, shopping centres, entertainment and services supported by quality infrastructure; and 4. Increasing the role as a centre of professional development and training.

Table 1.1.2:
Development Initiatives for Primary Commercial Centre (continued)

Primary Commercial Centre	Specific Initiatives
<p>Bandar Malaysia</p> <p>A potential area as an international business and transportation hub as well as a centre for intellectual investment.</p> <p><i>(Jalan Sungai Besi - Jalan Istana)</i></p> <p>Area: 296.10 hectares</p>	<ol style="list-style-type: none"> 1. Encouraging the development of high-class commercial and Grade A office spaces; 2. Promoting mixed development that includes shopping activities, office complexes, businesses and residing elements to increase the city livability; 3. Encouraging the development of incubators and small office spaces for new entrepreneurs; and 4. Expanding an integrated transport network comprehensive.
<p>Bukit Jalil City Centre</p> <p>Bukit Jalil Primary Commercial Centre includes the commercial focus area and office complex in the southern part of Kuala Lumpur.</p> <p><i>(Persiaran Jalil Utama - Lebuhraya Bukit Jalil)</i></p> <p>Area: 23.66 hectares</p>	<ol style="list-style-type: none"> 1. Promoting large-scale commercial and retail activities to support the growth of shopping activities; 2. Promoting creative, digital and IT industry activities; and 3. Encouraging the development of incubators and small office spaces for new entrepreneurs.



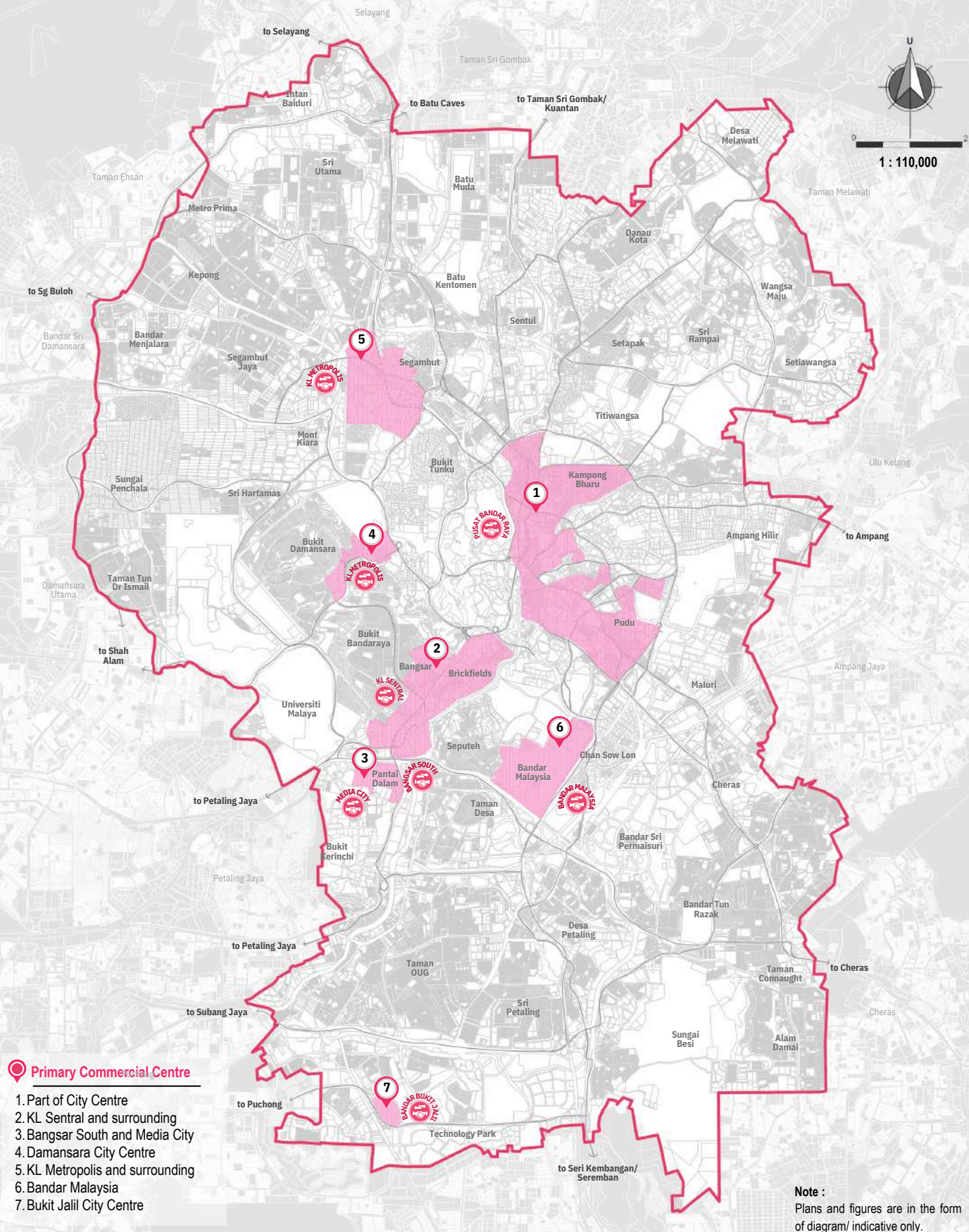


FIGURE 1.1.3 | Plan of Proposed Development of Primary Commercial Centre in Kuala Lumpur

IMPLEMENTATION INITIATIVES 1-1.2B

► ENSURE THRIVING AND COMPETITIVE FINANCIAL ACTIVITIES IN BANKING AND FINTECH ZONES

Banking, fintech, and sharing economy activities will be encouraged in the primary financial activity zone of Kuala Lumpur City. The operation of these activities can be carried out through the provision of space for banking headquarters, multinational companies (MNCs), and the principal hubs of regional business companies. Asset sharing through the use of digital platforms is also encouraged.

This initiative encourages the injection of technology into the current banking system to apply the latest fintech systems. The necessary action need to be considered to ensure financial activities thrive in the designated zones are as follows:

1. Growth of Financial Technology System (Fintech)

- Provision of specific spaces to encourage the growth for start-up and fintech activities;
- Encouraging cashless transaction activities using QR code or card payment systems;
- Implementing a fully digitalised banking system;
- Emphasising the use of Artificial Intelligent (AI) technology;
- Adoption of smart city initiatives; and
- International collaborations in fintech innovations.

2. Upgrading Broadband Infrastructure Technology

- Upgrading the readiness of broadband network infrastructure to minimum stable speed of 500 mbps by the year 2040 comprehensively.

3. Upgrading the Surroundings of Banking and Fintech Zones

- Encouraging commercial development with the concept of Transit-Oriented Development (TOD) and active mobility modes including pedestrian walkways and micromobility vehicle routes;
- Provision of sufficient public space, shaded areas, kiosks and landscape elements;
- Encouraging the construction of pedestrian bridge between buildings; and

- Implement sustainable planning concepts such as Crime Prevention Through Environmental Designs (CPTED), Universal Design, green building, smart technology and Low Carbon City concept.

Location of Primary Financial Activities in Kuala Lumpur City Centre

1

JALAN AMPANG – JALAN TUN RAZAK

It is an area focused on various business and banking activities as well as equipped with digital infrastructure facilities.

2

JALAN SULTAN ISMAIL – JALAN RAJA CHULAN

This existing Kuala Lumpur banking centre area will be more vibrant by improvement of infrastructure and business environment.

3

JALAN TUN RAZAK - TUN RAZAK EXCHANGE (TRX)

TRX is a new catalyst for Kuala Lumpur towards the nation's leading financial hub with the integration of three (3) main components, namely a world-class shopping mall, The Exchange TRX, and TRX Residence.

BRIEF INFO

FINANCIAL TECHNOLOGY SYSTEM (FINTECH)

Refers to the use of technology and innovation in financial services activities to offer better and more productive services to users through activities such as banking, assets, property management and other related activities.

Among the fintech innovations that can be considered are:

- Blockchain
- Cashless payment
- Services using robotic technology
- Online banking



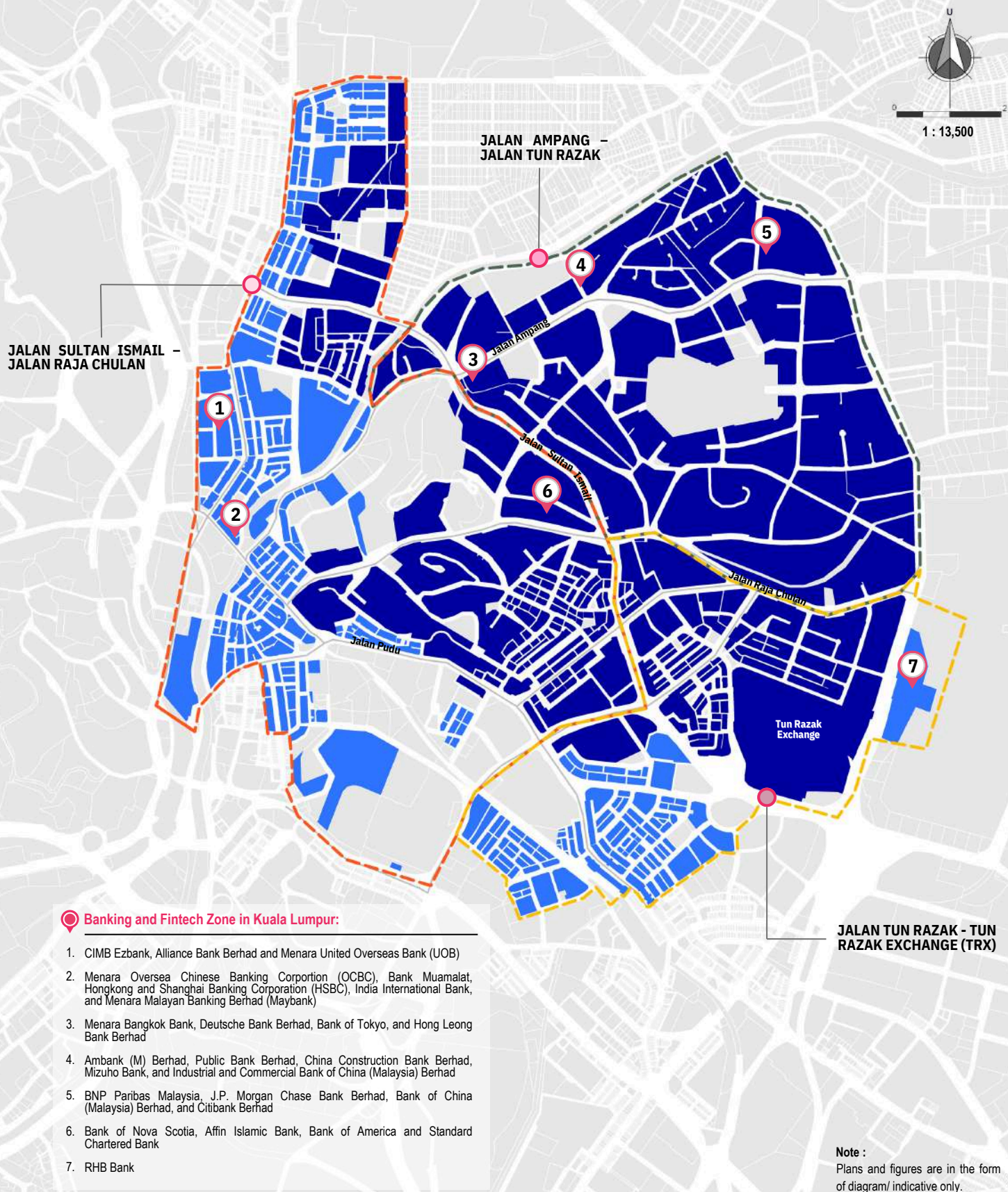


FIGURE 1.1.4 | Plan of Focus Cluster for Banking and Fintech

Legend :

- City Centre Commercial (CCC)
- Major Commercial (MC)
- Jalan Sultan Ismail - Jalan Raja Chulan
- Jalan Ampang - Jalan Tun Razak
- Jalan Tun Razak - Tun Razak Exchange (TRX)

Others

— Main Road

IMPLEMENTATION INITIATIVES 1-1.2C

► BRAND THEMED COMMERCIAL ACTIVITY CENTRES



The theme for commercial activities must be strengthen with sufficient facilities and infrastructures to cater the needs of visitors.

The necessary actions to support this initiative are as follows:

1. Enhancing the image and identity of area through unique and attractive urban design;
2. Provision of public spaces for visitors to shops and rest;
3. Provision for kiosk and food cart;
4. Provision of adequate street furniture, false façade, interconnected pedestrian linkages and signages;
5. Provision of Universal Design facilities; and
6. Implementing area beautification programme.

Table 1.1.3:

Propose Location of Specialisation Commercial Activities Theme

1

Food and Culture

Focus Areas:

Jalan Petaling (Chinatown), Brickfields (Little India), Kampong Bharu, Jalan Alor, Jalan Masjid India and Pasar Seni



2

Electronic Gadgets and IT Equipment

Focus Areas:

Plaza Low Yat, Plaza Imbi, Kompleks Pertama, and MARA Digital



3

Night Market

Focus Areas:

Jalan Tuanku Abdul Rahman, Jalan Petaling (Petaling Street), Kasturi Walk, and Kampung Bharu



5

Electrical and Electronics

Focus Areas:

Jalan Pasar, Jalan Pudu, and Plaza Low Yat



7

Children and Toys

Focus Areas:

Jalan Chow Kit



4

Wholesale

Focus Areas:

Kenanga Wholesale City, Plaza GM, and Jalan Tuanku Abdul Rahman



6

Creative Art

Focus Areas:

Pasar Seni, Kompleks Kraf Kuala Lumpur, Jalan Alor, Lorong Panggung, Jalan Gereja, and Malaysia Tourism Centre (MaTiC)



8

Jewellery and Accessory

Focus Areas:

Jalan Masjid India, Jalan Bukit Bintang, and Jalan Bangsar



BRANDING KUALA LUMPUR AS AN URBAN TOURISM DESTINATION WITH SUSTAINABLE TOURISM ACTIVITIES

SCENARIO OF TOURISM DESTINATION IN KUALA LUMPUR

Kuala Lumpur is known as a metropolitan city (Tourism Malaysia, 2019) that offers a variety of attractive locations as well as rich in diverse cultures, and natural resources nature which attract both domestic and international tourists.

In 2023, Malaysia recorded a total of 231 million tourists, consisting of 20.14 million international tourists and 210.90 million domestic tourists. This tourism sector has generated a total revenue of RM156.20 billion, with contributions of RM84.90 billion from domestic tourists and RM71.30 billion from international tourists. The ten main markets for tourist arrivals in Malaysia are from the Asian region, with Singapore, Indonesia, Thailand, and China being the largest contributors. These four countries collectively contribute 64.20 percent of the total number of tourists (Tourism Malaysia, 2023).

In 2023, Kuala Lumpur received 22.23 million domestic tourists and generated revenue of RM11 billion. Meanwhile, the arrival of international tourists to Kuala Lumpur was 6.88 million with an income of RM24.39 billion (Tourism Malaysia, 2023).

The Tourism Sector is the country's third most important industry after manufacturing and commodities. This industry creates a high economic spillover effect on the country. In 2023, the sector provided 3.4 million jobs which is 21.4 percent of total workforce.

Tourism activities such as shopping, medicine, accommodation facilities, education and Meetings, Incentives, Conferences and Exhibitions (MICE) are contributors to the supply and generation of the urban economy in Kuala Lumpur.

The future of this sector will grow and continue to survive despite the competition from other cities in Asia. The urban recreation, sports, heritage and food sectors are still the choice of domestic and international tourists. Specific mechanisms and

monitoring need to be developed in eco-tourism and nature destinations to maintain the authenticity and sustainability of those destinations.

In addition, demand for the accommodation sector is still remains and increasing in Kuala Lumpur following the government's new policies and strategies after being affected by the COVID-19 pandemic.

The world-class infrastructure and facilities available in Kuala Lumpur have complemented the provision of tourism products to tourists effectively.

Kuala Lumpur's tourism sector has a bright future and has the potential to compete with other urban destinations globally. Kuala Lumpur products need to be more competitive, creative and different from neighbouring countries in Asia.

Existing tourism assets such as traditional business promenades, heritage and iconic buildings provide new opportunities and potential to give an actual picture of Kuala Lumpur in this rapid development. This potential can be strengthened and rebranded with route connectivity between existing or new tourism assets.

Towards realising Kuala Lumpur as an urban tourism destination with sustainable tourism activities, two (2) Implementation Proposals are formulated under Planning Strategy 1–2, as shown in Figure 1.2.1.

Figure 1.2.1:
Implementation Proposals for Planning Strategy 1-2



Heritage Buildings and Sites

- Perkuburan Loke Yew
- Chow Kit
- Kampung Bharu
- Padang Kelab Selangor (Dataran Merdeka)
- Tugu Negara
- Taman Warisan Tun Abdul Razak
- Muzium Negara
- Little India, Brickfields
- Perkuburan Kwong Tong, Kwong Si dan Hokkien
- Rumah Abdullah Hukum
- Pekan Sungai Besi
- Tanah Perkuburan Islam Jalan Ampang
- Bangunan Chan She Shu Yuen
- Bangunan Sultan Abdul Samad (Mahkamah Agung)

Sport and Recreation

- Taman Metropolitan Kepong
- Desa Parkcity
- Stadium Tenis Jalan Duta
- Stadium Hoki Jalan Duta
- Taman Tasik Titiwangsa
- Taman Rama - rama
- Taman Botani Perdana
- Taman Eko Rimba
- Stadium Negara
- Stadium Merdeka
- Kelab Golf Diraja Selangor
- Tournament Player Club (TPC KL)
- Taman Tasik Permaisuri
- Stadium Nasional Bukit Jalil
- Kelab Golf Perkhidmatan Awam (KGPA)
- Taman Persekutuan Bukit Kiara
- Taman Rimba Bukit Kerinchi
- Sebahagian Bukit Dinding
- Sebahagian Bukit Persekutuan
- Taman Eko Rimba Bukit Sungai Puteh
- Taman Burung

Shopping

- Suria KLCC
- Bukit Bintang
- Jalan Petaling (Petaling Street)
- Berjaya Times Square
- Mid Valley
- KL Sentral
- The Exchange TRX

Food and Culinary

- Kampung Bharu
- Datuk Keramat
- Sungai Penchala
- Pantai Dalam
- Pasar Raja Bot
- Pasar TTDI

MICE

- Malaysia International Trade and Exhibition Centre (MITEC)
- World Trade Centre (WTC)
- Kuala Lumpur Convention Centre (KLCC)
- KL Sentral
- Sime Darby Convention Centre (SDCC)
- Mid Valley Exhibition Centre (MVEC)
- Quill Convention Centre
- TM Convention Centre
- CIDB Convention Centre

FIGURE 1.2.2 | Plan of Proposed Kuala Lumpur Tourism

Legend :

Existing Tourist Zone

- Urban Tourism Zone
- MICE
- Medica
- Education
- Shopping

Cultural and Heritage Zone

- Heritage Buildings and Sites
- Religious Buildings
- Food and Culinary
- Creative and Cultural

Nature Tourism Zone

- Sport and Recreation
- Forest (Permanent Forest Reserve and Urban Forest Park)
- River of Life (RoL)

Proposed New Tourist Zone

- Urban Tourism
- Primary Shopping Zone
- Shopping Zone
- Education Zone
- Sports and Recreation Zone
- MICE Zone

Cultural and Heritage Tourism

- Creative and Cultural Zone
- Food and Culinary Zone

Others

- Main Road
- Kuala Lumpur Boundary

Note :
Plans and figures are in the form of diagram/ indicative only.

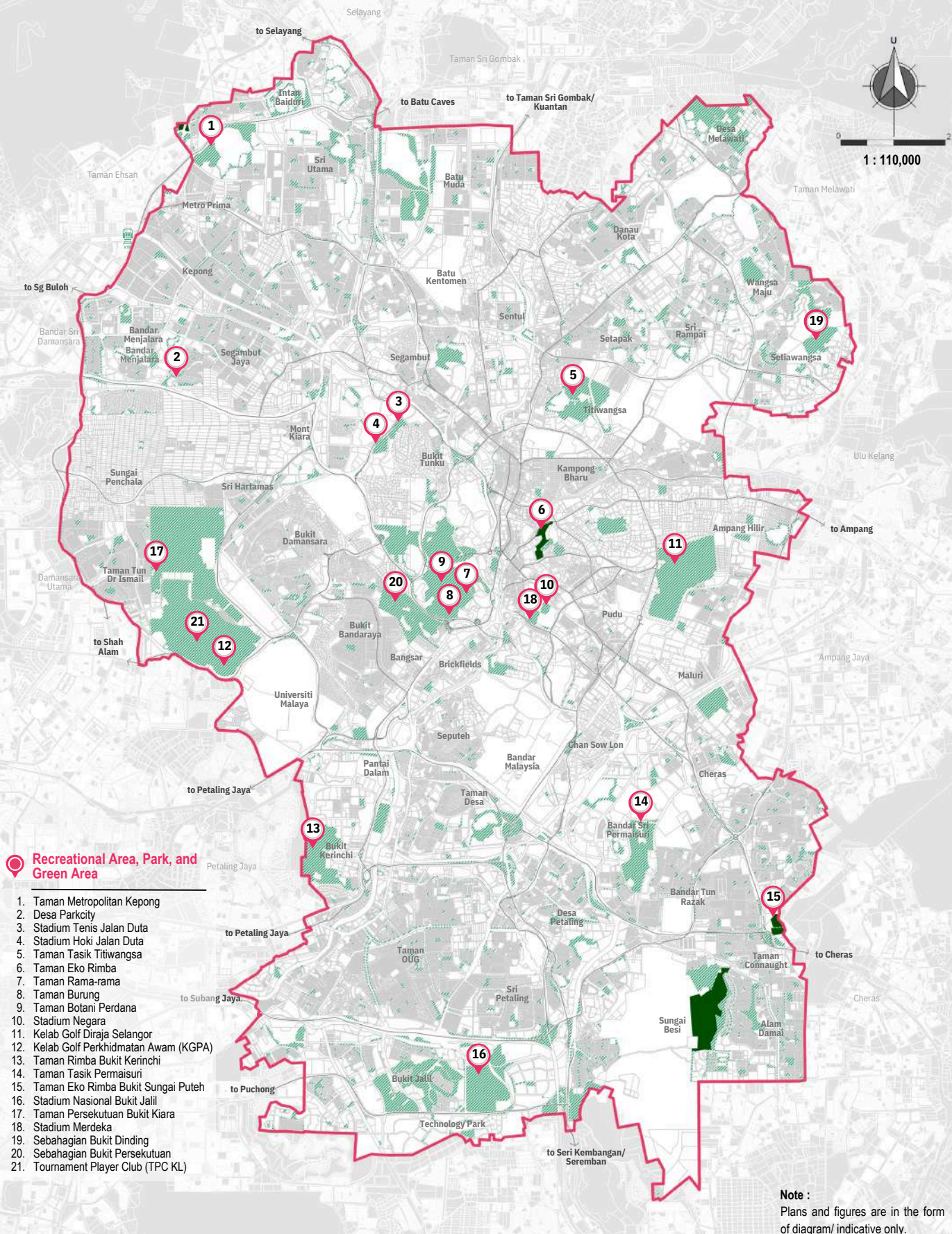


FIGURE 1.2.3 | Plan of Proposed Tourism Recreational Areas, Parks, and Green Areas

Legend :

- Recreational Tourism
- Forest Reserve

Others

- Main Road
- Kuala Lumpur Boundary

The planning of Kuala Lumpur's tourism development strongly depends on the diversity of sectors that generate the city's economy. Supporting sectors such as accommodation, facilities and transportation are key to ensure that the tourism sector can be enhanced as an efforts to encourage domestic and international tourists to visit Kuala Lumpur.

The provision of various types of accommodation as well as suitable placement areas according to the needs of tourists is the strategy for providing accommodation in Kuala Lumpur. The accommodation industry changed occasionally through decades and also the demands and needs of tourist who seek a distinct and unique atmosphere.

Kuala Lumpur has good accessibility to ensure that the movement of tourists from one attraction to another is easy to use, safe, and efficient. Priority given to the movement of tourists through pedestrians and micromobility vehicles becomes an important component in shaping the tourism accessibility network system.

The urban and land use system in Kuala Lumpur has begun to shape an efficient infrastructure and tourist mobility. Pedestrian districts and tourist micromobility vehicles have been established to make this area a special district that is always maintained and easily monitored.

In addition to pedestrian walkways and micromobility vehicle routes, spaces along the roadside or open squares can be designed to become creative spaces for creative and cultural tourism activities.

KLLP2040 will emphasize the need for providing comfortable and safe pedestrian and micromobility vehicle routes in the city for urban communities and tourists.

The proposal for the implementation of CP 1-2.1 are carried out through two (2) initiatives as follows:

1. Increase Availability of Tourist Accommodation in Kuala Lumpur; and
2. Improve Tourist Accessibility Facilities.

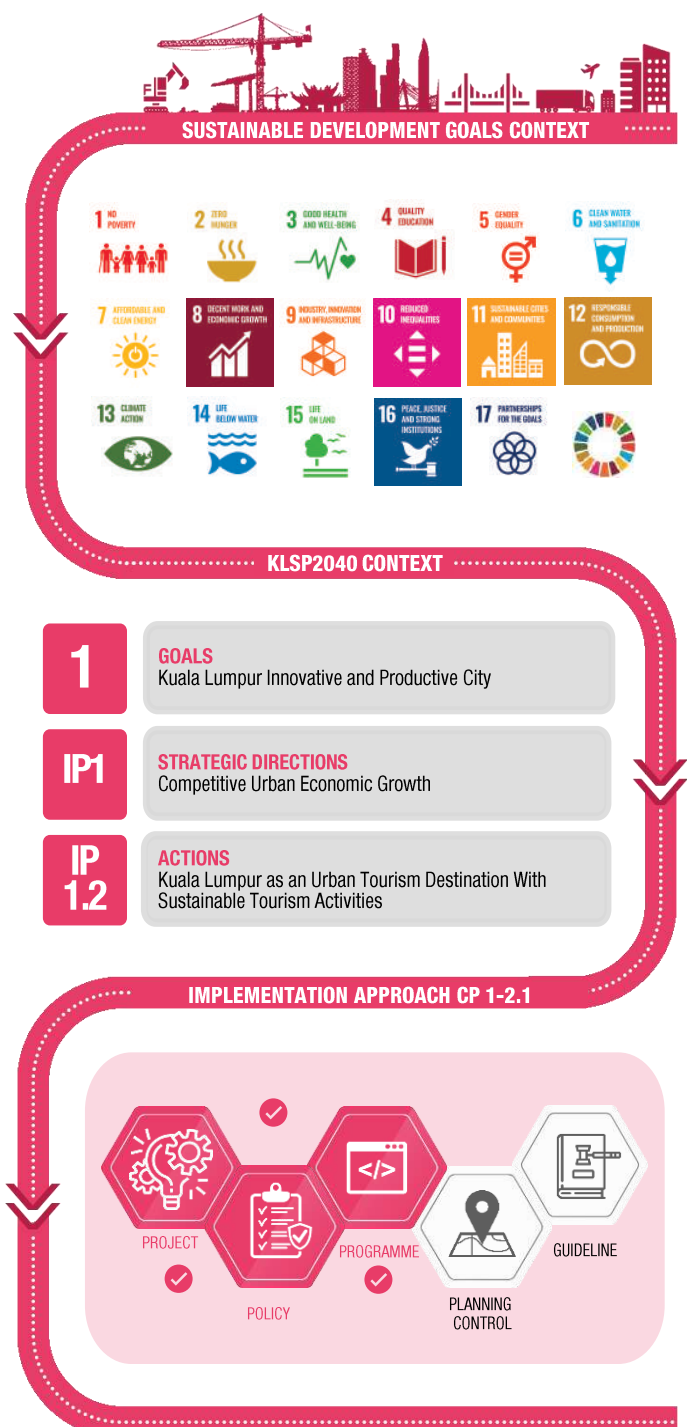
CP 1-2.1**COORDINATION CONTEXT OF SDGs AND KLSP2040**

Table 1.2.1:
Projection of Tourist Accommodation by 2040

Hotel Class	2023		2025		2030		2035		2040	
	Hotel	Room	Hotel	Room	Hotel	Room	Hotel	Room	Hotel	Room
Luxury (200 rooms)	100	37,169	103	38,292	111	41,252	120	44,440	129	47,874
High (150 rooms)	31	5,155	32	5,311	34	5,721	37	6,163	40	6,640
Medium (100 rooms)	108	9,278	111	9,558	120	10,297	129	11,093	139	11,950
Other classes/ budget (less than 50 rooms)	209	9,270	215	9,550	232	10,288	250	11,083	269	11,940
Total	448	60,872	462	62,712	497	67,558	536	72,780	577	78,404

Source: MOTAC and Tourism Malaysia, December 2023

Notes:

1. Projection Base: 1.5% per year, based on hotel growth in Malaysian cities from 2019 to 2023 (MOTAC and Tourism Malaysia, Dec 2023)
2. Information on the number of hotels and accommodation rooms based on the latest data for 2023 (from MOTAC and Tourism Malaysia, Dec 2023)

BRIEF INFO

**BASIC INFORMATION OF TOURIST ACCOMMODATION
KUALA LUMPUR**



Trends in domestic tourist arrivals to
Kuala Lumpur and spending, 2023

**22.23 Million Tourist,
RM 11 Billion/ Year**



Trends in international tourist arrivals to
Kuala Lumpur, 2023

**6.89 Million Tourist
RM24.39 Billion/ Year**



Well-known hotel accommodation area
in Kuala Lumpur, 2023

11 Locations



Total number of hotels in
Kuala Lumpur, 2023

448 Hotels



Total number of accommodation
rooms in Kuala Lumpur, 2023

60,872 Rooms

Source: Tourism Malaysia, 2023



Location: Taman Tasik KLCC

Source: <https://www.shutterstock.com/g/innocent>

The construction of 5-star hotels around KLCC has become the main attraction for tourists to stay in Kuala Lumpur.

IMPLEMENTATION INITIATIVES 1-2.1A

► INCREASE AVAILABILITY OF TOURIST ACCOMMODATION IN KUALA LUMPUR

The availability of tourist accommodations in Kuala Lumpur remains concentrated in strategic areas such as Jalan Bukit Bintang, Jalan Tuanku Abdul Rahman, Jalan Petaling (Petaling Street), Jalan Tun Perak, and Jalan Pudu. These areas have attractions such as shopping, recreation, transportation networks, and a unique identity. The areas outside the city centre, such as Cheras, Bukit Jalil, Maluri, Wangsa Maju, and Kepong, are still relevant as star-rated accommodation areas. Accommodation types such as apartments, luxury residences, budget hotels, and Airbnb are concentrated in the city centre, while homestays are located outside the city centre.

The latest step in the hospitality industry is to begin implementing eco-friendly initiatives or 'green hotels' more comprehensively in terms of concept, design, operations, and maintenance as an attraction for customers. Mandarin Oriental Hotel and The Shangri-La Hotel are among the hotels that have started to implement the green hotel concept.

Distribution of tourist accommodation areas are influenced by tourist segmentation, types and locality. The KLLP2040 will focus on existing accommodation areas as well as new areas. The necessary actions to support this initiative are shown in Table 1.2.2.

Table 1.2.2:
Initiative to Increase Tourist Accommodation Offer in Kuala Lumpur

GENERAL INITIATIVES

- 1 Encourage active mobility modes that include continuous, safe, and comfortable pedestrian walkways and micromobility vehicle routes;
- 2 Provide and maintain quality and comprehensive infrastructure facilities and tourism support facilities; and
- 3 Comply with the guidelines for providing star-rated accommodation and support facilities according to the relevant agency's regulations.

Tourism Accommodation Areas by Products	Specific Initiatives
1. Star-rated Accommodation Focus Areas: Jalan Bukit Bintang, Damansara, Jalan Ampang, Jalan Tun Razak, Jalan Sultan Ismail and others suitable location.	1. Encourage its provision to be in the executive business area as well as close to transportation facilities.
2. Homestay Accommodation Focus Areas: Cheras, Datuk Keramat, Sentul, Setapak, Kampung Sungai Penchala and others suitable location.	1. Encourage its provision to be more focused on areas outside the city centre which are one of the accommodation facilities for local tourists; and 2. Promote tourism activities as well as accommodation design based on Malaysian culture and tradition.
3. Budget Accommodation Focus Areas: Brickfields, Pudu, Jalan Petaling (Petaling Street), Chow Kit, Jalan Tuanku Abdul Rahman, Bangsar, Jalan Bukit Bintang, Kampong Bharu, Cheras, Gombak and surrounding KL Sentral.	1. Encourage its provision to be in tourist hotspots and close to transport facilities; 2. Incorporate appropriate designs according to the character of the surrounding building (building rhythm); and 3. Promote budget accommodation in tourist hotspot areas.



IMPLEMENTATION INITIATIVES 1-2.1B

IMPROVE TOURIST ACCESSIBILITY FACILITIES

Accessibility to attraction areas is a catalyst for attracting tourists to the city centre destination. Improvements to special facilities such as pedestrian walkways and tourist bus need to be established to make this area a special district that is always preserved and easy to monitor.

Plaza areas such as KLCC, Masjid India, and MaTiC can be made focal points for pedestrians. This strategy can contribute to making Kuala Lumpur a creative and cultured city by diversifying creative activities in each suitable space. These spaces are enlivened with night life activities to make them more vibrant at night. The necessary action to support this initiative are as shown in Table 1.2.3.

Table 1.2.3:
Special Initiative for Tourist Accessibility Facilities

Types of Tourist Accessibility Facilities	Special Initiative
Enhancement of Tourist Pedestrian Area Focus Location: Kuala Lumpur tourist attraction area.	<ol style="list-style-type: none"> 1. Prioritising and improving pedestrian walkways to ensure continuity between tourist attraction areas; 2. Providing and maintaining quality and comprehensive infrastructure and tourism support facilities; 3. Activating open spaces such as squares, pocket parks, or vacant land for activities such as arts and cultural performances, informal businesses, and others; and 4. Ensuring continues maintenance of the environment and the provision of an attractive landscape suitable for a vehicle-free area.
Increase in the Use of Hop-On Hop-Off Bus Focus Location: Around Kuala Lumpur City and passing through tourist attractions.	<ol style="list-style-type: none"> 1. Expanding the Hop-On Hop-Off bus routes to heritage, recreation, and shopping tourist destinations; 2. Improving the Hop-On Hop-Off bus service to reduce tourists' waiting time; and 3. Providing adequate tourism infrastructure facilities such as informative signage at every Hop-On Hop-Off bus stop.
Promoting Bicycle and Micromobility Vehicle Tour in Kuala Lumpur Focus Location: Leboh Pasar Besar, Medan Pasar, Jalan Benteng, Jalan Melayu, Jalan Masjid India, Jalan Bunus, Jalan Tuanku Abdul Rahman dan Padang Kelab Selangor (Dataran Merdeka) (such as Cycle Day Rome).	<ol style="list-style-type: none"> 1. Improving and expanding bicycle routes to encourage recreational activities in the tourism sector; 2. Introducing Bicycle and Micromobility Vehicle Routes (subject to suitability) Periodically with set times and schedules; 3. Providing and maintaining quality and comprehensive infrastructure and tourism support facilities; and 4. Ensuring continuous maintenance of the environment and the provision of an attractive landscape suitable for a vehicle-free area.

CP 1-2.2:**STRENGTHENING URBAN TOURISM STRATEGIES**

Based on the Kuala Lumpur Tourism Master Plan 2015-2025, there are 13 types of tourism products in Kuala Lumpur such as shopping, heritage, recreation, medical, education, and Meetings, Incentives, Conferences, and Exhibitions (MICE). This product is an urban tourism product that continues to thrive and contributes to preserve Kuala Lumpur as an international-standard tourism destination.

Kuala Lumpur's urban tourism heavily relies on its existing assets. The focus of tourist attraction is only focused on the city centre, especially in cultural, heritage, and creative areas, open recreation areas, park and green area as well as high-end commercial areas. Apart from that, Kuala Lumpur also has the potential to develop its tourism products which include creative tourism products, arts and culture as well as urban eco-tourism products particularly in parks, rivers and lakes.

The goal of making Kuala Lumpur a Cultural, Heritage, and Creative City is a strategic effort towards becoming a global cultural and creative city. The existing heritage sites and the living culture of Kuala Lumpur are also seen as having the potential to be developed into tourism products rich in the city's history, heritage, and culture. The creative industry can also be highlighted as a tourism product with its own unique image through clear marketing strategies.

Kuala Lumpur also has the potential to become a natural tourism destination with a variety of natural products such as flora and fauna, reserved forest areas, and water recreation. Kuala Lumpur is one of the cities in Asia that can maintain green attractions in the city centre. Recreational areas and parks are popular destinations for the city's residents. Perdana Botanical Gardens is the green recreational heart of Kuala Lumpur. Adequate, appropriate, and safe tourism infrastructure and facilities are key elements that need to be integrated with the hilly tourism sector, parks, lakes, and rivers tourism sectors.

The proposal for the implementation of CP 1-2.2 are carried out through three (3) initiatives as follows:

1. Strengthen Urban Tourism;
2. Strengthen Cultural, Heritage, and Creative Tourism; and
3. Strengthen Recreation Areas, Parks, and Green Areas.

CP 1-2.2

COORDINATION CONTEXT OF SDGs AND KLSP2040

**SUSTAINABLE DEVELOPMENT GOALS CONTEXT****KLSP2040 CONTEXT****1****GOALS**

Kuala Lumpur Innovative and Productive City

IP1**STRATEGIC DIRECTIONS**

Competitive Urban Economic Growth

IP 1.2**ACTIONS**

Kuala Lumpur as an Urban Tourism Destination With Sustainable Tourism Activities

IMPLEMENTATION APPROACH CP 1-2.2



IMPLEMENTATION INITIATIVES

1-2.2A

► STRENGTHEN URBAN TOURISM

KLLP2040 has identified tourism products with potential that need to be strengthened for urban tourism. The identified urban tourist products are shopping centre tourism, arts and culture tourism, heritage, and creative tourism, Meetings, Incentives, Conferences and Exhibitions (MICE) tourism, medical and health tourism, and educational tourism.

The upgrading of existing traditional tourist districts such as Jalan Tuanku Abdul Rahman, Jalan Pudu, and Jalan Petaling (Petaling Street) can also attract international tourists through the rebranding of these districts.

Strategies to expand and develop the tourism sector beyond the city centre can also balance the economic growth of Kuala Lumpur's tourism. Suburban areas such as Cheras, Petaling, Maluri, Damansara, and Bukit Jalil can be given attention considering the availability of infrastructure and efficient public transportation connections.

The necessary actions to support this initiative are shown in the Table 1.2.4.

Table 1.2.4:
Initiatives to Strengthen Urban Tourism

GENERAL INITIATIVES

- 1 Provide adequate tourism infrastructure facilities such as signage or information and cheerful and attractive pedestrian walkways;
- 2 Encourage active mobility modes that include continuous, safe, and comfortable pedestrian walkways and micromobility vehicle routes;
- 3 Ensure the maintenance of a sustainable environment and the provision of an attractive landscape to create a conducive and competitive environment;
- 4 Provide and maintain quality and sufficient infrastructure facilities and tourism support facilities; and
- 5 Implement sustainable planning concepts such as Crime Prevention Through Environmental Design (CPTED) Universal Design, green buildings, smart technology and Low Carbon City concept.

Table 1.2.4:
Initiatives to Strengthen Urban Tourism

Urban Tourism Products	Specific Initiatives
<p>1. Shopping Centre Tourism</p> <p>a. Primary Shopping Centre</p> <ul style="list-style-type: none"> Targeting fans of luxury and branded goods from around the world. <p>Focus Areas: Suria KLCC, Pavilion, Mid Valley Megamall, Berjaya Times Square, Sungei Wang Plaza, The Exchange (TRX), Jalan Bukit Bintang, Changkat Bukit Bintang, Jalan Sultan Ismail, Jalan Imbi, and Jalan Pudu.</p>	<ol style="list-style-type: none"> Strengthen well-known and superior shopping centre as primary shopping centre; and Control the types of business premises according to the exclusive business concepts and themes.
<p>b. Traditional Shopping Centre</p> <ul style="list-style-type: none"> Promoting the customs and culture of the local community. <p>Focus Areas: Jalan Petaling (Petaling Street), Little India (Brickfields), Jalan Masjid India, and Jalan Tuanku Abdul Rahman.</p>	<ol style="list-style-type: none"> Implement urban design and elements with the concept of Malaysian arts and culture; Improve the image and uniqueness of shopping centre based on Malaysian culture and traditions; Diversify specific tourism products such as textiles, food, clothing and antique goods; and Implement innovative and attractive marketing of traditional goods with the concepts of Malay, Chinese, and Indian culture.
<p>c. Specialty Shopping Centre</p> <ul style="list-style-type: none"> A special area or site provided for informal business activities. <p>Focus Areas: Night market and street market in Bukit Bintang, Kampong Bharu, Datuk Keramat, Sungai Penchala, and Pantai Dalam.</p>	<ol style="list-style-type: none"> Improve Kuala Lumpur's local tourism image, especially at night such as night market and periodic sales carnivals, which can be implemented similarly to the Chiangmai Night Market and Pratunam Night Market in Bangkok, Thailand; Diversify specific tourism products such as textiles, food, clothing and antique goods; and Implement a Free Traffic Zone on weekends or certain days.
<p>2. Meetings, Incentives, Conferences and Exhibitions (MICE) Tourism</p> <ul style="list-style-type: none"> MICE sector is an important component in generating Kuala Lumpur's urban tourism economy; Provide quality and large-scale MICE facilities; and Strategic location with modern shopping, recreation and accommodation facilities. <p>Focus Areas: Kuala Lumpur Convention Centre (KLCC), MITEC, WTC, Sime Darby Convention Centre (SDCC), TM Convention Centre, and Mid Valley Exhibition Centre (MVEC).</p>	<ol style="list-style-type: none"> Connecting MICE with public transportation and support facilities such as shopping centres, restaurants and accommodations; Improve the standards of venue for MICE and the quality of supporting infrastructure in the surrounding areas based on international conference centre standards; and Integrate world-class MICE venues and facilities with tourist hotspots and urban activity centres.
<p>3. Medical and Health Tourism</p> <ul style="list-style-type: none"> Medical and Health is one of the main sectors contributing to Kuala Lumpur's economy and has the potential to shape the image of a Medical Smart City. <p>Focus Areas: Ampang, Desa Parkcity, Setapak, Titiwangsa, Cheras, Mont Kiara, and Lembah Pantai.</p>	<ol style="list-style-type: none"> Develop new medical centres or healthcare facilities in accordance with the guidelines and regulations for the provision of medical facilities and components that meets international standard; Provide accommodation components such as serviced apartments, hostels or hotels around medical and healthcare centres for transit facilities or accommodation of patient, caretaker and employees; and Provides accessibility facilities, recreational areas and shopping centre around the medical centre.

Table 1.2.4:
Initiatives to Strengthen Urban Tourism (continued)

Urban Tourism Products	Specific Initiatives
<p>4. Educational Tourism</p> <ul style="list-style-type: none"> Integrated implementation can turn Kuala Lumpur into a world-class educational destination. <p>Focus Areas: Cheras, Gombak, Pudu, Bangsar, Brickfields, Bukit Bintang, Bandar Tun Razak, Sri Petaling, Titiwangsa, Kampong Bharu, Setapak, Bukit Jalil, and Sentul.</p>	<ol style="list-style-type: none"> Preserve existing areas through conservation of image and identity of the educational tourism cluster with comprehensive and sustainable land use planning; Plan the location of higher education institutions in Kuala Lumpur to focus on strategic areas that have urban characteristics; Offers more opportunities for education in the public and private tertiary levels in Kuala Lumpur; Ensure comprehensive, sufficient and efficient provision of educational infrastructure; and Reuse old, abandoned and dilapidated buildings, especially government-owned buildings, as well as shopping centre spaces, shophouses, halls and offices as an alternative for the use of educational centres.

IMPLEMENTATION INITIATIVES 1-2.2B

► STRENGTHEN CULTURAL, HERITAGE, AND CREATIVE TOURISM

Kuala Lumpur has the elements of becoming a Cultural, Heritage, and Creative City at the global level. The strategy to enhance the cultural, heritage, and creative tourism sector will focus on preserving existing tourism products as well as rebranding potential tourism products as outlined in Table 1.2.5.

The necessary actions to support this initiative are as follows:

- Encourage provision of open and information spaces to promote a variety of cultural, arts and heritage activities such as local businesses, social activities and education products;
- Apply retrofit concept for old buildings to stimulate cultural, heritage, and creative tourism activities as well as gastronomic;
- Encourage involvement and investment from the private sector in developing culture, heritage, and creative tourism;
- Encourage active mobility modes which include pedestrian walkways and micromobility vehicle routes that are continuous, safe and comfortable;
- Provide and maintain sufficient tourism infrastructure and supporting facilities such as signage or information boards as well as pedestrian walkways that are pleasant safe; and
- Ensure continuous environmental maintenance and provide an attractive landscapes to create a conducive and competitive environment.

Table 1.2.5:
Specific Initiative and Potential Areas to Strengthen Cultural, Heritage, and Creative Tourism

Cultural, Heritage, and Creative Tourism	Specific Initiatives
<p>Museum and Archives</p> <p>Focus Location: Bangunan Stesyen Keretapi, Tugu Negara, Bangunan Sultan Abdul Samad (Mahkamah Agong), and Muzium Negara.</p>	<ol style="list-style-type: none"> Strengthen the function of these areas or buildings as one of the historical sources of Kuala Lumpur for future generations; and Highlight the architectural elements, design, and character of historical areas or buildings in the Kuala Lumpur Heritage Zone.

Table 1.2.5:

Specific Initiative and Potential Areas to Strengthen Cultural, Heritage, and Creative Tourism (continued)

Cultural, Heritage and Creative Tourism	Specific Initiatives
Music, Performing Art and Visual Art Focus Location: Istana Budaya, Bukit Bintang Cultural Junction (BBJ), Kasturi Walk, Pasar Seni, Medan Pasar, Bangunan Dewan Bandaraya (Panggung Bandaraya), Dewan Filharmonik PETRONAS, and Balai Seni Negara.	<ol style="list-style-type: none"> 1. Incorporate a wide variety of creative cultures that include creative performances and art exhibitions as well as possess their own attraction and uniqueness; and 2. Strengthen and promote main areas of events and festivals that are based on the culture and arts of Malaysia such as art performances, dance and decorated float parades, folk sports, traditional games, and batik painting.
Writing and Publishing Focus Location: Bangunan Masjid Sultan Abdul Samad (Bangunan Masjid Jamek), Dewan Bahasa dan Pustaka, Institusi Terjemahan dan Buku Malaysia (ITBM), Angkasapuri, and Media City.	<ol style="list-style-type: none"> 1. Strengthen main locations for events and festivals based on writing and publishing to promote the culture and arts of Malaysia; and 2. Enhance and encourage writing and storytelling related to history and legacy of Kuala Lumpur.
Handicraft Focus Location: Jalan Melayu, Pasar Seni, Jalan Masjid India, and Kompleks Kraf Kuala Lumpur.	<ol style="list-style-type: none"> 1. Strengthen the handicrafts products of the Malaysian community which is famous for its finesse and uniqueness; 2. Provide special spaces or zones for handicraft, fine arts, and creative arts activities with the participation of various SME entrepreneurs; and 3. Implement incentive programmes in the form of training, advice, and funds for entrepreneurs.
Textile Design and Fashion Focus Location: Jalan Tuanku Abdul Rahman, Jalan Petaling (Petaling Street), and Bangunan Bekas Jabatan Kerja Raya Selangor (Muzium Tekstil).	<ol style="list-style-type: none"> 1. Strengthen these areas as the main location for selling textiles with various patterns and themes with the unique design of preserved old buildings and sturdy structures.
Film, Broadcasting and Digital Content Focus Location: Bangunan Stesyen Keretapi, Kuala Lumpur Performing Art Centre (KLPA), Media City, and Bangunan Sultan Abdul Samad (Mahkamah Agong).	<ol style="list-style-type: none"> 1. Strengthen these areas as main location for the multimedia creative industry, cultural arts and cultural heritage in Kuala Lumpur; and 2. Implement incentive programmes in the form of training and courses for players in the film and broadcasting industry.
Religious Building Focus Location: Masjid Negara dan Makam Pahlawan, Masjid Wilayah Kuala Lumpur, Bangunan Masjid Sultan Abdul Samad (Bangunan Masjid Jamek), Masjid Jamek Kampong Bharu, Masjid Yayasan Al-Bukhari, Masjid India, Gereja St Mary, Gereja St Anthony, Gereja Holy Rosary, Tokong Thean Hou, Tokong Sin Sze Si Ya, Tokong Deng Bi An, Kuil Sri Krishna, and Kuil Sri Maha Mariamman.	<ol style="list-style-type: none"> 1. Strengthen these areas as main location for place of worship, religious learning centre, community gathering space, religious symbol, location for traditional ceremony as well as tourism and heritage attractions; and 2. Implement programmes and efforts to support construction, conservation and maintenance of religious buildings particularly in key locations around Kuala Lumpur.
Heritage Building and Site Focus Location: Perkuburan Loke Yew, Chow Kit, Kampong Bharu, Padang Kelab Selangor (Dataran Merdeka), Tugu Negara, Taman Warisan Tun Abdul Razak, Muzium Negara, Little India, Perkuburan Kwong Tong, Kwong Si dan Hokkien, Rumah Abdullah Hukum, Pekan Sungai Besi, Tanah Perkuburan Islam, Jalan Ampang, Bangunan Chan She Shu Yuen, and Bangunan Sultan Abdul Samad (Mahkamah Agong).	<ol style="list-style-type: none"> 1. Strengthen the main site location and heritage buildings includes the preservation and conservation of the original structure through restoration work; and 2. Encourage promotion through tourism campaigns, cultural festivals, and interactive exhibitions to enhance the attraction of historical sites.
Food and Culinary Focus Location: Kampong Bharu, Datuk Keramat, Sungai Penchala, Pantai Dalam, Pasar Raja Bot, and Pasar TTDI.	<ol style="list-style-type: none"> 1. Strengthen this area as a prime location for gastronomic tourism in Kuala Lumpur; and 2. Encourage promotion through tourism campaigns and cultural festivals to enhance the attractiveness of the location.

IMPLEMENTATION INITIATIVE

1-2.2C

► STRENGTHEN RECREATION AREAS, PARKS, AND GREEN AREAS

Efforts to strengthen recreation areas, parks and green areas as natural tourism products in Kuala Lumpur are important in balancing development with the well-being of urban communities as well as achieving environmental sustainability.

Nature tourism in Kuala Lumpur consists of Travel and Hilly Tourism, Water-Based Tourism, and Lake Park Creative Tourism.

Destinations for travel and hilly areas as well as preserved lakes serve as alternatives to the diversity of tourism in Kuala Lumpur. Meanwhile, the development of water-based tourism projects in urban areas such as the River of Life (RoL) along the Sungai Klang has transformed the river's pattern and function into a passive recreational area.

Major cities around the world make rivers as their main transportation systems and water tourism attractions. For example, the Chao Phraya River in Bangkok, the Cheonggyecheon Stream in Seoul, and the Amstel River in Amsterdam. The functions, characteristics, and elements of these rivers can be applied to the rivers in Kuala Lumpur.

The necessary actions to support this initiative are as follows:

1. Ensure that planning and development in the hilly areas and forests comply the Garis Panduan Perancangan Dan Pembangunan Di Kawasan Bukit Dan Cerun Bagi Wilayah Persekutuan Kuala Lumpur, 2010 (GPWPKL2010) to ensure proper control;
2. Consider environmental, ecological, vegetation, weather, gradient and wildlife factors in planning;
3. Ensure the enforcement of management and control over tourist behavior when entering hilly and natural areas;
4. Intensify nature activities such as the Heritage Tree Programme and Eco-Natural Hiking Zone;
5. Create night event activities such as the Festival of Light; and
6. Beautify the area with landscaping and street furniture with appropriate designs.

Specific Initiatives and potential areas for strengthening recreation areas, parks and green areas are as shown in Table 1.2.6.

Table 1.2.6:

Specific Initiatives and Potential Areas for Strengthening Recreation Areas, Parks and Green Areas

Cultural, Heritage, and Creative Tourism	Specific Initiatives
<p>Travel and Hilly Tourism</p> <p>The concept of Eco-tourism or urban forest can contribute towards balance development intensity and reduce carbon emissions.</p> <p>Focus Area: Taman Rimba Eko Bukit Nanas, part of Bukit Gasing, Taman Rimba Bukit Kerinchi, and Taman Persekutuan Bukit Kiara.</p>	<ol style="list-style-type: none"> 1. Organise international-standard programmes or events such as eco-challenge, eco-fitness, and eco-go green as initiatives for implementing responsible tourism for tourists and included in the Kuala Lumpur Tourism Calendar; and 2. Implement a programmes or events to shift tourists' focus from urban tourism to eco and adventure tourism through special incentives such as fee reductions, facility improvements, and transportation provisions.
<p>Water Based Tourism</p> <p>Sungai Klang is the lifeline of the RoL project which is becoming increasingly popular as one of its unique tourist attractions.</p> <p>Focus Area: Kolam Biru and Sungai Klang Green Corridor.</p>	<ol style="list-style-type: none"> 1. Organize local and international standard programmes or events that can attract visitors such as the Water Festival, Eco Cycling and Running Events, Arts and Culture Festivals, as well as RoL and River Cleaning Programmes; and 2. Provide special spaces or areas for artists to carry out their artistic activities at Kolam Biru or along the Sungai Klang corridor.
<p>Lake Park Creative Tourism</p> <p>A lake park that offers creative tourism, art, culture, and outdoor innovation.</p> <p>Focus Area: Taman Tasik Titiwangsa, Taman Rekreasi Bukit Jalil, Taman Botani Perdana, Taman Metropolitan Kepong, Taman KLCC, and Taman Tasik Permaisuri.</p>	<ol style="list-style-type: none"> 1. Organize local and international programmes or events such as the Lake Park Arts Festival, Photography Festival, Lake Musical Journey, and Lake Mini Marathon and to be included in the Kuala Lumpur Tourism Calendar; and 2. Implement upgrading and regular maintenance actions for tourism infrastructure and facilities at six (6) main lake locations in Kuala Lumpur.

STRENGTHENING WARISAN KUALA LUMPUR

SCENARIO OF WARISAN KUALA LUMPUR

Kuala Lumpur is well-known for its local heritage and cultural art elements. The potential of these elements can be strengthened by increasing the economy based on Malaysia's creative cultural products such as heritage, performing arts, craft arts, fashion, local food, filmmaking, writing and others.

Specific efforts need to be implemented to drive a culture-based and creative economy that should support the development of the industry. The development of Warisan Kuala Lumpur needs to include the creative industry in multimedia, arts and cultural heritage. This approach has the potential to be the catalyst for local economic and social growth in the future. In addition, there is also a proposal to strengthen the existing creative hub to increase the economic competitiveness of Kuala Lumpur.

KLSP2040 has outlined the Creative and Cultural District as one of the supporting actions toward achieving the direction of Kuala Lumpur's development as an Innovative and Productive City, in line with other ASEAN cities such as Bangkok, Bali, Hanoi, and Phnom Penh, which have a strong image and character of Creative and Cultural District.

The current challenge is to form a distinctive identity of Kuala Lumpur with a high level of culture and creativity towards a liveable and attractive city. KLLP2040 established the rebranding of the Kuala Lumpur Creative and Cultural District to Warisan Kuala Lumpur in strengthening efforts to brand Kuala Lumpur's heritage.

Towards realising Kuala Lumpur as a cultural and creative city, one (1) Implementation Proposal has been formulated under Planning Strategy 1–3, as shown in Figure 1.3.1.

Figure 1.3.1:
Implementation Proposals of Planning Strategy 1-3

SP 1-3

STRENGTHENING WARISAN KUALA LUMPUR

CP 1-3.1 Enhancing Warisan Kuala Lumpur

BEST PRACTICE

KYOTO INTERNATIONAL MANGA MUSEUM, JAPAN



Source: <https://www.kyoto-museums.jp/>

The Kyoto International Manga Museum is now one of Kyoto City's main tourist attractions.

The Kyoto International Manga Museum is a cultural museum located in Nakagyo-ku, Kyoto, Japan which is the original building of Tatsuike Elementary School and which is the original building of Tatsuike Primary School and has more than 50,000 manga volumes accessible to visitors and guests. This empty building was later reused and developed into a museum.

This museum act as a manga library and historical resource for the public, as well as a research centre for manga experts who play a role in promoting manga culture in the future. This museum has indirectly enhanced the image and productivity of Kyoto City and contributed to the city's revenue.

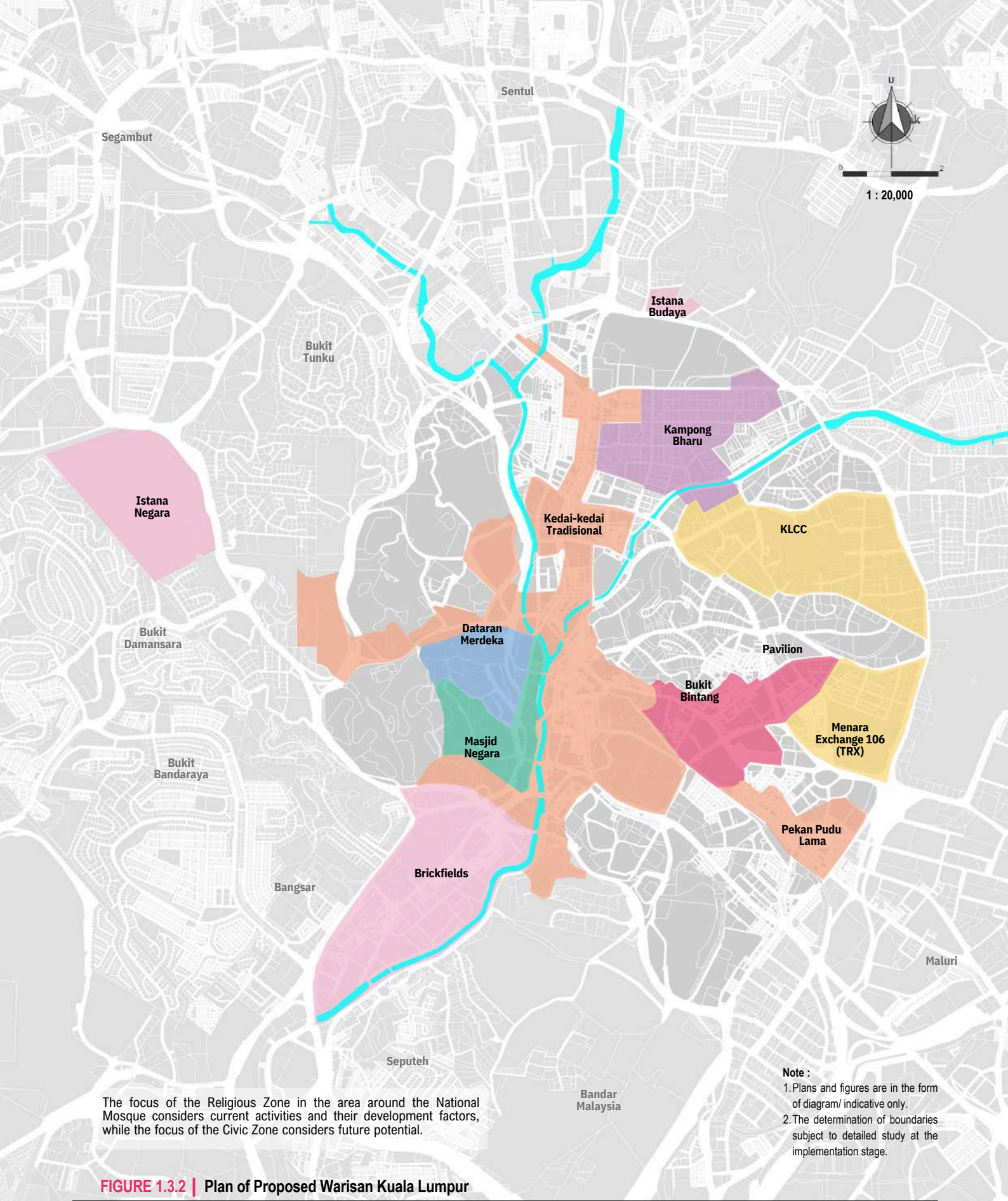


FIGURE 1.3.2 | Plan of Proposed Warisan Kuala Lumpur

Legend :

- Culture Zone
- Creative Heritage Zone
- Creative Youth Zone
- Heritage Village Zone

- Creative Corporate Zone
- Civic Zone
- Religious Zone

Others

- Water Bodies

Warisan Kuala Lumpur is introduced to enhance the local creative industry which involves efforts to conserve, preserve and renewal the area including the regeneration of buildings.

There are three (3) main classifications of creative hub industries in Kuala Lumpur which include multimedia, arts, and cultural heritage. KLSP2040 has identified seven (7) main zones towards the enhancement of the Warisan Kuala Lumpur, as follows:

1. Cultural Zone;
2. Creative Heritage Zone;
3. Creative Youth Zone;
4. Heritage Village Zone;
5. Creative Corporate Zone;
6. Civic Zone; and
7. Religious Zone.

The idea of establishing Warisan Kuala Lumpur also contributes towards achieving the strategic direction of Competitive Urban Economic Growth.

The proposal for the implementation of CP 1-3.1 is to be carried out through one (1) initiative as follows:

1. Improve Environmental Quality Zones Within Warisan Kuala Lumpur.



Location: Pasar Seni
Pasar Seni as one of the shopping centre that introduces Malaysian cultural products.

CP 1-3.1

COORDINATION CONTEXT OF SDGs AND KLSP2040



IMPLEMENTATION INITIATIVE 1-3.1A

► IMPROVE ENVIRONMENTAL QUALITY ZONES WITHIN WARISAN KUALA LUMPUR

Quality improvement of potential areas within the Warisan Kuala Lumpur involves proposals for beautification, upgrading, building conservation as well as the reactivation of areas that require specific initiatives.

The necessary actions to support this initiatives are as follows:

1. Improve building façades by maintaining the original colour of the building or using bright and attractive colours;
2. Improve and encourage vibrant lighting elements to create an attractive environment at night;
3. Conserve and maintain the façade of shop buildings that still preserves the structure of old shophouses;
4. Utilise vacant and abandoned spaces with suitable activities such as art exhibitions for street artists and musicians;
5. Ensure continuous environmental maintenance and provide attractive landscapes to create a conducive environment;
6. Upgrade pedestrian walkways with creative patterns and attractive colours complimented by street furniture;
7. Provide sufficient supporting infrastructure such as attractive and vibrant signages or information boards;
8. Implement sustainable planning concepts such as Crime Prevention Through Environmental Designs (CPTED), Universal Design, smart technology and Low Carbon City concept.

The specific initiatives for the Warisan Kuala Lumpur are shown in Tables 1.3.1 to 1.3.5.



The proposal encourages improvements to the facade of old shophouses buildings and the upgrading of pedestrian walkways fronting the shops within Warisan Kuala Lumpur.



The proposal for vibrant and colourful area identification signage can be applied in Warisan Kuala Lumpur.

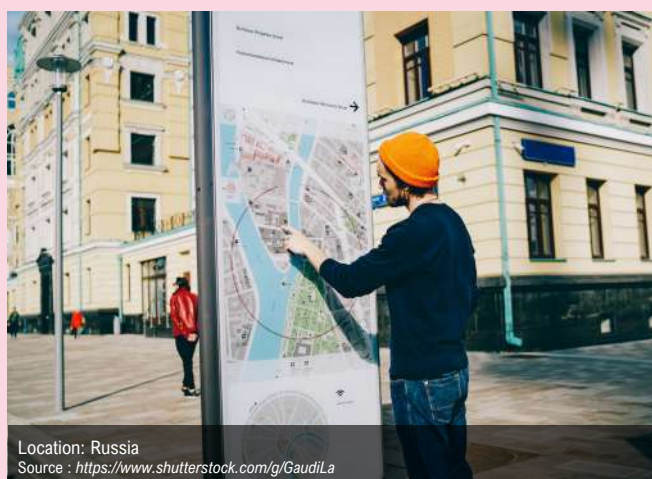




Image of digital interactive information board as an interesting supporting infrastructure.

Table 1.3.1:
Specific Initiative for Cultural Zone in Warisan Kuala Lumpur

Cultural Zone Location		Specific Initiative
Bangunan Istana Budaya		<ol style="list-style-type: none"> 1. Create an outdoor theatre concept space in the courtyard of Istana Budaya as a performance corner to focus on the musical art performance, visual arts and handicrafts; and 2. Construct cultural-themed sculpture structures around the Istana Budaya area such as labu sayong, keris, wau bulan, and others.
Brickfields		<ol style="list-style-type: none"> 1. Extend the brick pavement area in Jalan Tun Sambanthan up to the intersection of Jalan Stesen Sentral 3; and 2. Improve and encourage colourful lighting elements in Jalan Tun Sambanthan, particularly between the intersection of Jalan Sultan Abdul Samad and Jalan Rakyat.

BEST PRACTICE

CULTURAL ZONE INITIATIVE IN WARISAN KUALA LUMPUR



Location: Kamari, Santorini
Source : <https://www.shutterstock.com/g/xelyn114>

Proposed outdoor theatre in the parking spaces in front of Istana Budaya with traditional performances, musical arts, visual arts and handicraft activities.



Location: Serangoon Road, Singapore
Source : <https://www.shutterstock.com/g/Tristanero>

Lighting activities held during the Diwali celebration at Serangoon Road, Singapore.



Location: Leicester Square, London

Proposed lighting in festival celebration area within the cultural zone to attract visitors to this area.

Table 1.3.2:
Specific Initiative for Creative Heritage Zone in Warisan Kuala Lumpur







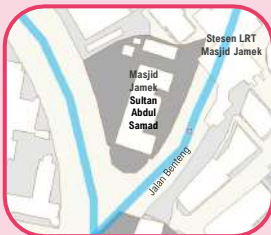

Creative Heritage Zone Location	Specific Initiative
<p>Medan Pasar and Sungai Klang</p> 	<ol style="list-style-type: none"> 1. Reuse the ground and first floor of buildings that need restoration; 2. Regenerate inactive spaces such as first floor, backyard, and alleys facing the river as a creative cultural square to attract large number of visitors such as fine dining area; and 3. Encourage appropriate activities such as reusing old shophouse spaces on the ground floor or back areas into hipster cafes, buskers activities and souvenir shops.
<p>Jalan Melayu</p> 	<ol style="list-style-type: none"> 1. Upgrade the entrance gateway to Jalan Melayu with a Malay identity design concept; 2. Replace the roof structure of walkways along Jalan Melayu by implementing Malay architectural elements; and 3. Restructure the street vendors' activities in Jalan Melayu to allow space for business activities related to handicrafts are more organised and orderly manner.
<p>Pasar Seni, Kasturi Walk and Jalan Hang Kasturi</p> 	<ol style="list-style-type: none"> 1. Strengthen the identification signage for Pasar Seni such as colourful flags; and 2. Control the use of type and design of kiosks in order to form a uniform informal business activities around the area.
<p>Jalan Hang Kasturi from Stesen Bas GoKL Pasar Seni</p> 	<ol style="list-style-type: none"> 1. Strengthen the pedestrian walkways connecting the GoKL Pasar Seni Bus Station to Pasar Seni through a seamless footpath with the provision of landscape elements that do not obstruct the walkways; 2. Ensure the safety of pedestrians by installing bollards in appropriate areas to separate pedestrian walkways from vehicular lanes; 3. Provide adequate lighting along the walkways to increase the safety of users; and 4. Standardise the materials of pedestrian walkways along Jalan Hang Kasturi to enhance the image and identity as the main route to Pasar Seni.
<p>Jalan Tun H S Lee</p> 	<ol style="list-style-type: none"> 1. Upgrade the entrance to the Sin Sze Si Ya Temple and preserve the façade of the shophouse building facing the temple as a heritage building; and 2. Propose the shophouse adjacent to the Sin Sze Si Ya Temple as a museum or heritage information centre.

Table 1.3.2:

Special Initiative for Creative Heritage Zone in Warisan Kuala Lumpur (continued)

Creative Heritage Zone Location	Specific Initiative
<p>Jalan Masjid India</p> 	<ol style="list-style-type: none"> 1. Control and allow peddling for small-sized hawkers (mobile cart) only; and 2. Restructure and replace temporary stalls with small and creative kiosk designs in front of existing traditional shops along Jalan Masjid India.
<p>Dataran Bangunan Masjid Sultan Abdul Samad (Bangunan Masjid Jamek)</p> 	<ol style="list-style-type: none"> 1. Provide digital interactive information kiosks and reading corners around Bangunan Masjid Sultan Abdul Samad (Bangunan Masjid Jamek).
<p>Jalan Petaling (Petaling Street)</p> 	<ol style="list-style-type: none"> 1. Provide and upgrade shophouse signage with unique signboards of Chinese culture concept.



A creative proposal for a hipster café in the front space and lower level of the shophouse at Medan Pasar.
*Illustration of Implementation Initiatives



Illustration of a proposed space projection for AI fresco and fine dining on the shophouse's upper level to enliven activities on the river bank during the day and night.





Illustration of the entrance gateway improvement at Jalan Melayu.



Illustration of a roof structure with latticework depicting Malay art and the use of Jawi writing can be consider on advertising signboards.

Table 1.3.3:
Specific Initiative for Creative Youth Zone in Warisan Kuala Lumpur

Creative Youth Zone Location	Specific Initiative
<p>Jalan Alor</p> 	<ol style="list-style-type: none"> 1. Combine two (2) night market sites at Jalan Alor and Bukit Bintang as a night market district similar to the Phu Quoc Night Market, in Vietnam; and 2. Provide and improve infrastructure and facilities for night market activities on the aspect of premises, public toilets and information centres.
<p>Intersection Jalan Bukit Bintang</p> 	<ol style="list-style-type: none"> 1. Create a small square at the intersection of Jalan Bukit Bintang or Jalan Sultan Ismail which is opposite Bukit Bintang Monorail Station, Lot 10 and McDonald's as a space for busking, magic tricks, speech corners, solo music performances, paintings and artistic activities.

BEST PRACTICE

CREATIVE YOUTH INITIATIVES IN VIETNAM AND LONDON




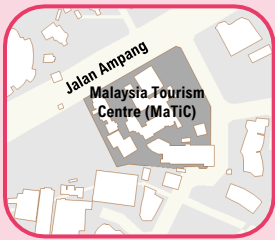
Phu Quoc Night Market is one of the most interesting night markets in Vietnam.



Artists showcase their painting talents in public spaces on the side of the road.

Table 1.3.4:

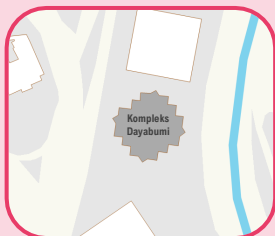


Specific Initiative for Heritage Village and Creative Corporate Zone in Warisan Kuala Lumpur

Heritage Village Zone Location	Specific Initiative
<p>Jalan Raja Muda Musa</p> 	<ol style="list-style-type: none"> 1. Improve shops along Jalan Raja Muda Musa on the aspect of infrastructure and physical structure to be more conducive.
Creative Corporate Zone Location	Specific Initiative
<p>Malaysia Tourism Centre (MaTiC)</p> 	<ol style="list-style-type: none"> 1. Improve the area of the square, gate and courtyard in front of MaTiC with more attractive lighting; and 2. Improve on hard and soft landscape at the entrance area to the MaTiC.

BEST PRACTICE**HERITAGE VILLAGE INITIATIVE AT BOAT QUAY, SINGAPORE**

An example of a uniform shop structure along Boat Quay Road, Singapore

Table 1.3.5:
Specific Initiative for Civic and Religious Zone in Warisan Kuala Lumpur

Civic Zone Location		Specific Initiative
Kompleks Dayabumi		<ol style="list-style-type: none"> 1. Improve the Dayabumi Complex building with more effective activities such as hotels and offices through shared space concept.
Bangunan Stesyen Keretapi		<ol style="list-style-type: none"> 1. Repurpose one of the old train carriages as a Train Café; and 2. Conserve the original architectural structure of the Bangunan Stesyen Keretapi and its surroundings as a railway museum and a centre for filming classic stories.
Religious Zone Location		Specific Initiative
Masjid Negara dan Makam Pahlawan		<ol style="list-style-type: none"> 1. Propose an entrance gateway to the Religious Zone at Jalan Perdana with an Islamic concept carving design and good lighting; 2. Maintain and beautify the mosque grounds with a soft and hard landscape by emphasising the concept of a mosque in a garden; and 3. Improve the brick pavement at Jalan Perdana and Jalan Lembah with Islamic art patterns from the roundabout to the area in front of the Malaysian Islamic Art Museum.

BEST PRACTICE

IMPROVEMENT OF CIVIC AND RELIGIOUS ZONES



Proposed of repurpose old railway station space as a railway museum.



Proposed of soft landscape with the concept of a mosque in a garden.

DEVELOPING INDUSTRIAL CLUSTERS BASED ON CLEAN TECHNOLOGY AND NATIONAL FOURTH INDUSTRIAL REVOLUTION (4IR) POLICY

SCENARIO OF INDUSTRIAL DEVELOPMENT IN KUALA LUMPUR

The contribution of the manufacturing sector compared with other economic sectors showed a declining trend from 3.1 percent in 2010 to 2.6 percent in 2019. This was due to the change in planning policy towards high-tech industries.

The designated size and number of industrial areas in 2040 are 425.37 hectares and involve 21 industrial areas. The 21 industrial areas are divided into three (3) land use zones, namely the Land Use Zone of Industry (IP) involving 13 areas, Land Use Zone of Mixed Industry (MXI) involving seven (7) areas and Land Use Zone of Technology Park (TP) as shown in Figure 1.4.2.

Industrial activity is an important sector in Kuala Lumpur's economic development, especially in terms of job opportunities, investment incentives and the development of local entrepreneurs, especially among Small and Medium Enterprises (SMEs). The planning of these activities must align with current technological evolution.

The approach to clean, high-tech and digital industry, and the use of highly skilled labour can reduce emissions and waste materials that pollute the environment. This approach aligns with the goal of transforming the national industry towards National Fourth Industrial Revolution (4IR) Policy and making Kuala Lumpur Innovative and Productive.

This approach also encourages Kuala Lumpur to become an attractive and viable investment destination, especially in increasing the Domestic Investment Strategic Fund (DISF) and Foreign Direct Investment (FDI) enabling Kuala Lumpur to better compete in the global economy.

Towards realising Kuala Lumpur as a city that implements the elements of 4IR, industrial growth with clean technology, and high competitiveness, five (5) Implementation Proposals have been formulated under Planning Strategy 1–4, as shown in Figure 1.4.1.

Figure 1.4.1:
Implementation Proposals for Planning Strategy 1-4

SP 1-4

DEVELOPING INDUSTRIAL CLUSTERS BASED ON CLEAN TECHNOLOGY AND NATIONAL FOURTH INDUSTRIAL REVOLUTION (4IR) POLICY

CP 1-4.1

Concentrating Industrial Cluster Development

CP 1-4.2

Replanning Industrial Land Use Zone as Land Use Zone of Mixed Development (MX)

CP 1-4.3

Replanning Industrial Land Use Zone as Land Use Zone of Mixed Industry (MXI)

CP 1-4.4

Upgrading Retained Land Use Zone of Industry (IP)

CP 1-4.5

Upgrading Land Use Zone of Technology Park (TP)

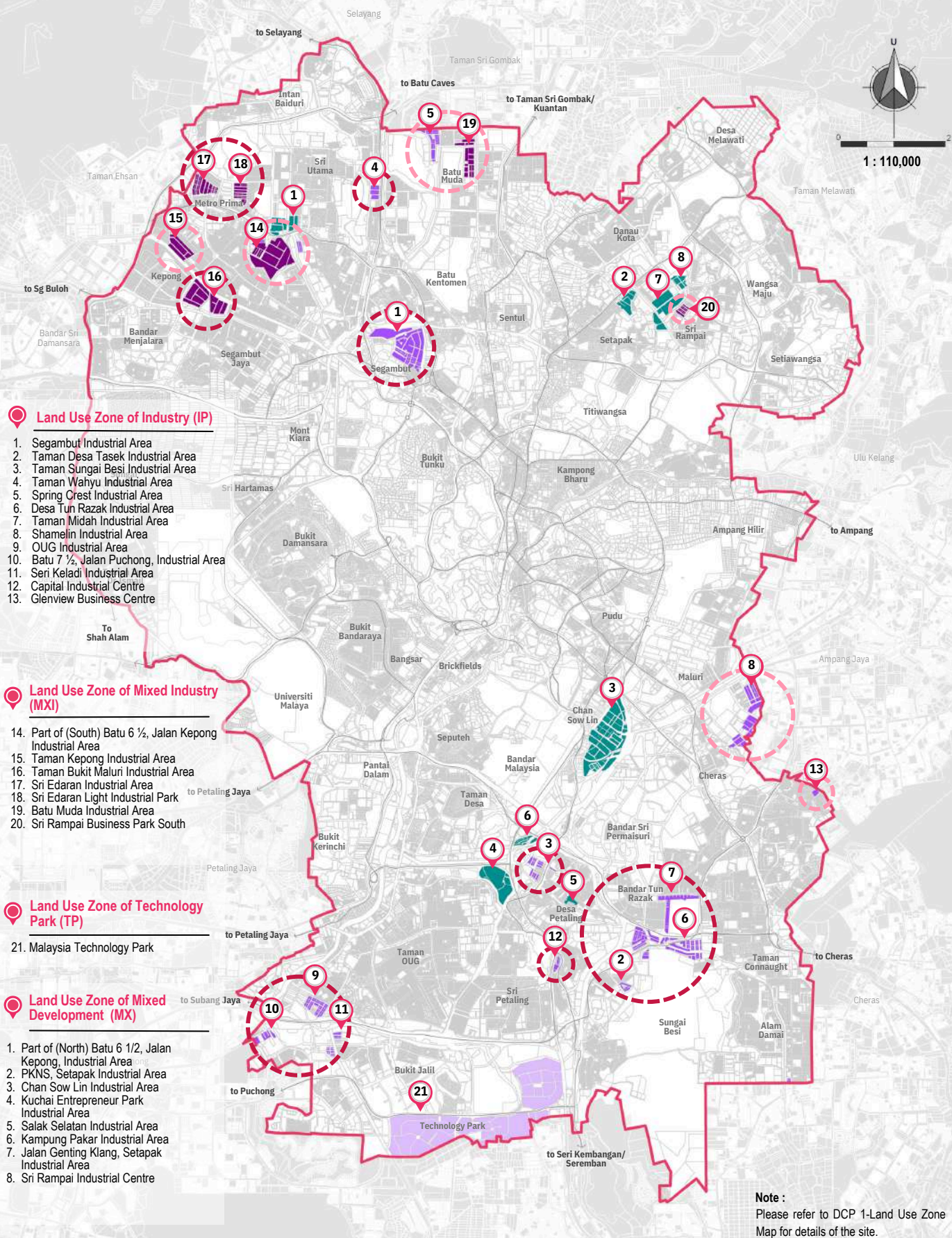


FIGURE 1.4.2 | Plan of Industrial Land Use Zone

IMPLEMENTATION PROPOSAL

CP 1-4.1:

CONCENTRATING INDUSTRIAL CLUSTER DEVELOPMENT

National Fourth Industrial Revolution (4IR) Policy focuses on the manufacturing and industrial services sectors to ensure more progressive and high-productivity contributions from the industrial sector. The implementation of the National 4IR Policy, which encompasses dynamic automation technology, presents new challenges across all economic sectors in the country. Its application is also capable of transforming operational work in line with digital transformation to remain competitive in addressing future challenges.

In line with the direction of the National 4IR Policy, KLLP2040 proposes four (4) components for industrial development in Kuala Lumpur, focusing on the 4IR revolution programme, industrial clusters, batching plant activities, and the provision of labour quarters, Centralized Labour Quarters (CLQ) or labour dormitories.

The development of industrial activities is proposed in clusters to empower and enhance productivity, as well as to expand a network of new innovative partners and open opportunities for entrepreneurial activities.

The concept of industrial clusters is also an approach to enhance promotion to attract investment opportunities according to specialisation and subsequently strengthen the industrial economic chain. The proposed industrial clusters according to industrial areas are as shown in Table 1.4.1.

BRIEF INFO

INDSUTRIAL CLUSTER IN KUALA LUMPUR

SERVICE INDUSTRY CLUSTER

The service industrial cluster has the highest demand in Kuala Lumpur. The industrial can also be encouraged as a clean industry in addition to commercial industry.

COMMERCIAL INDUSTRY CLUSTER

The commercial industry cluster is suitable for areas with dense development due to the low pollution impact on the surrounding development.

CP 1-4.1

COORDINATION CONTEXT OF SDGs AND KLSP2040



SUSTAINABLE DEVELOPMENT GOALS CONTEXT



KLSP2040 CONTEXT

1

GOALS

Kuala Lumpur Innovative and Productive City

IP1

STRATEGIC DIRECTIONS

Competitive Urban Economic Growth

IP2

STRATEGIC DIRECTIONS

Conducive Working and Business Environment

IP 1.5

ACTIONS

Encourage the Development of Industrial Cluster Based on Clean Technology and Industry 4.0 Transformation

IP 2.2

ACTIONS

Strengthen the Economic Zone with Infrastructure Readiness and Conducive Environment for Investment

IMPLEMENTATION APPROACH CP 1-4.1



Table 1.4.1:
Proposed Industry Cluster by Industrial Areas

Industrial Area	Proposed Industrial Cluster
Sentul – Menjalara	
1. Segambut Industrial Area	Service Industrial Cluster
2. Taman Bukit Maluri Industrial Area	
3. Taman Wahyu Industrial Area	
4. Sri Edaran Industrial Area	
5. Sri Edaran Light Industrial Park	
Sentul – Menjalara	
1. Part of (Southern Section) Batu 6 ½ Jalan Kepong, Industrial Area	Commercial Industrial Cluster
2. Spring Crest Industrial Area	
3. Batu Muda Industrial Area	
4. Taman Kepong Industrial Area	
Wangsa Maju – Maluri	Commercial Industrial Cluster
1. Sri Rampai Business Park South	
Bandar Tun Razak – Sungai Besi	
1. Desa Tun Razak Industrial Area	Service Industrial Cluster
2. Taman Midah Industrial Area	
3. Desa Tasek Industrial Area	
4. Taman Sungai Besi Industrial Area	
Bandar Tun Razak – Sungai Besi	
1. Shamelin Industrial Area	Commercial Industrial Cluster
2. Glenview Business Centre	
Bukit Jalil – Seputeh	
1. Batu 7 ½ Jalan Puchong, Industrial Area	Service Industrial Cluster
2. Seri Keladi Industrial Area	
3. OUG Industrial Area	
4. Capital Industrial Centre	
1. Chan Sow Lin Industrial Area	<i>Batching Plant Activity</i> (subject to an appropriate period or a period set by KLCH)
<i>This activity needs to be stopped when the redevelopment of the Chan Sow Lin Industrial Area is carried out.</i>	

The development of industrial areas also proposes the need for environmental impact management controls in the operation of concrete batching plants in line with the designation of Land Use Zone of Industry (IP) in Kuala Lumpur. Indirectly, it can support actions and directions to create a low-carbon and clean urban environment.

The the provision of labour quarters, Centralized Labour Quarters (CLQ) or labour dormitories serves as a support facility for labours in the construction, manufacturing, and services sectors. This proposal is a step toward diversifying the forms of labour housing provision in line with the Buku Panduan Penginapan Pekerja by Department of Labour Peninsular Malaysia (JTKSM).

Based on the low utilisation rate of industrial buildings, the proposal to regenerate the building through the retrofit concept is seen as the best method to address the issue of the areas from becoming dilapidated or neglected.

The 4IR programme is a national effort to develop a broader smart economy sector platform and create a highly skilled talent in the manufacturing sector. Innovation encompassing the use of technology in the industrial sector can have a significant impact in generating a more productive industrial economy in Kuala Lumpur.

The implementation of 4IR can have an impact on economic growth, particularly in generating more job opportunities for skilled labours. The implementation of this program must ensure the availability of the latest broadband networks to cater the needs of industrial activities in line with the implementation of the National 4IR Policy.

The proposal for the implementation of CP 1-4.1 are carried out through five (5) initiatives as follows:

1. Encourage and Promote the Implementation of 4IR.
2. Upgrade Industrial Areas in the Service Industry Cluster;
3. Upgrade Industrial Areas in the Commercial Industry Cluster;
4. Implement and Monitor the Application of the Garis Panduan Perancangan Loji Pembancuh Simen (Batching Plant) di Wilayah Persekutuan Kuala Lumpur; and
5. Implement a Regeneration Programme for Industrial Buildings as Labours' Quarters.

IMPLEMENTATION INITIATIVE 1-4.1A**► ENCOURAGE AND PROMOTE THE IMPLEMENTATION OF 4IR**

The National 4IR Policy will encourage innovative development in the manufacturing and service sectors that are highly technology-based.

The necessary actions to support this initiative are as follows:

1. Enhance a conducive industrial ecosystem to attract more progressive investment;
2. Provide infrastructure and high-tech supporting facilities for the industrial sector;
3. Promote robotics and automation in production and manufacturing activities;
4. Promote integration of data storage using Big Data, Internet of Things (IoT), cloud computing and system integration;
5. Improve aspects of cyber security for data and information protection purposes; and
6. Encourage the operation of 4IR in the suitable service industry cluster area.

BRIEF INFO**FOUNDATIONAL 4IR TECHNOLOGIES**

Artificial Intelligence

Blockchain



Internet of Things

Cloud Computing and
Big Data AnalyticsAdvanced Materials and
And Technologies

Source: The National 4IR Policy, Economic Planning Unit, Prime Ministers's Department



Source : <https://www.shutterstock.com/g/PopTika>

Use of autonomous robotics technology, cloud computing and the Internet of Things (IoT) can be implemented especially in the manufacturing sector.

IMPLEMENTATION INITIATIVE 1-4.1B

► UPGRADE INDUSTRIAL AREAS IN THE SERVICE INDUSTRY CLUSTER

The concept of industrial clusters is implemented by grouping of nearby industrial activities based on specialisation, sharing the use of infrastructure and utilities to reduce production and maintenance costs while maximising the interaction of industrial activities. The planning aligns with the goal to ensure the maintenance of innovative and productive industrial areas in Kuala Lumpur.

The determination of industrial clusters in Kuala Lumpur will take into account the current industrial activities being carried out, the trend of economic hub development, surrounding activities, and align with the established policies and guidelines for industrial development in Kuala Lumpur. This industrial cluster proposal will aim to create a clean and green industry with a primary focus on services and commercial.

Manufacturing industrial activities are permitted in the service and commercial industry cluster with adherence to the established planning guidelines to avoid disturbance issues and control the risk of pollution in the surrounding area.

The necessary actions to support this initiative are as follows:

1. Provide training centres and incubators or start-up as centralised facilities;
2. Implement the concept of clean industry and green technology;
3. Encourage the use of robotics and skilled labour;
4. Ensure the operation of data centres is in line with current government policies, particularly involving aspects of location, design, appropriate development capacity, energy, and infrastructure requirements as well as relevant planning controls and guidelines;
5. Encourage the application of Big Data concepts, Internet of Things (IoT), and other 4IR components in data storage as well as the operational work; and
6. Provide complete industrial support facilities such as parking, food centres, waste disposal, connected walkways, and others.

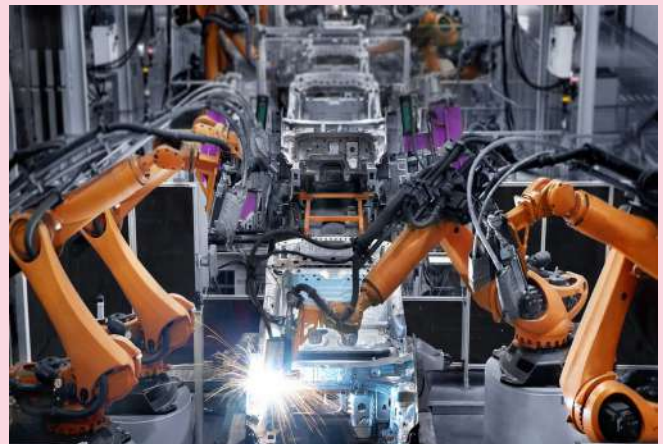
IMPLEMENTATION INITIATIVE 1-4.1C

► UPGRADE INDUSTRIAL AREAS IN THE COMMERCIAL INDUSTRY CLUSTER

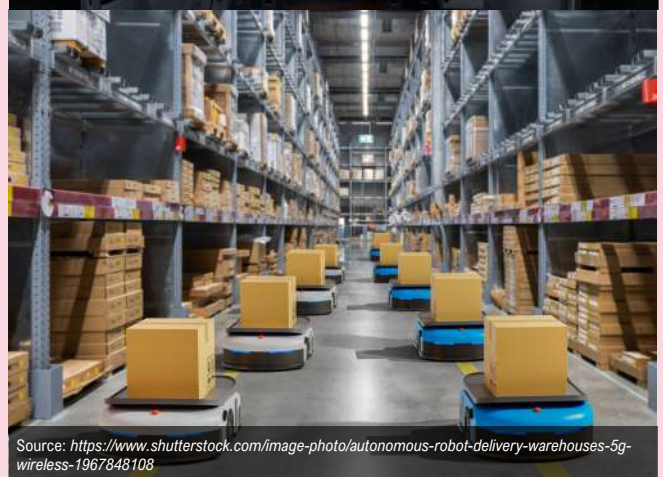
The commercial industry needs to focus on providing support facilities that can accommodate visitor demand and not to cause congestion.

The necessary actions to support this initiative are as follows:

1. Provide adequate parking;
2. Provide connected routes for pedestrian walkways and micromobility vehicles with supporting landscape elements;
3. Provide support facilities such as food courts and sports facilities;
4. Provide dedicated loading area to avoid traffic congestion; and
5. Ensure the provision of a designated waste disposal centre.



Source : <https://www.shutterstock.com/image-photo/car-manufacturer-587205803>



Source : <https://www.shutterstock.com/image-photo/autonomous-robot-delivery-warehouses-5g-wireless-1967848108>

Robotics is encouraged in the industrial sector.

IMPLEMENTATION INITIATIVE**1-4.1D****► IMPLEMENT AND MONITOR THE APPLICATION OF THE GARIS PANDUAN PERANCANGAN LOJI PEMBANCUH SIMEN (BATCHING PLANT) DI WILAYAH PERSEKUTUAN KUALA LUMPUR**

The provision of concrete batching plants must comply with the Garis Panduan Perancangan Loji Pembancuh Simen (Batching Plant) di Wilayah Persekutuan Kuala Lumpur by KLCH and is subject to other relevant guidelines.

The selection of the proposed location must follow the requirements to ensure the distribution of concrete supply throughout Kuala Lumpur is faster and more orderly. It indirectly ensures the continuity of the construction industry's needs in Kuala Lumpur.

The proposal to specialise this location is also seen as capable of controlling environmental pollution issues, public safety, and traffic congestion that are often associated with concrete batching plant activities.

Chan Sow Lin Industrial Area which has been zoned as Land Use Zone of Mixed Development (MX), has also been identified for concrete batching plant activities that operate subject to a suitable period or a period set by KLCH. This activity must be stopped once the redevelopment of the Chan Sow Lin Industrial Area is carried out.

The activity of mixing concrete at other construction sites or undeveloped areas far from the focal areas and located near main roads is permitted for a certain period, subject to KLCH's approval. The operation of this activity must be carried out in-situ, and the supply outside the operational area must be controlled and limited to a certain distance only.

The necessary action to support this initiative are as follows:

1. Ensure the main criteria for selecting industrial areas for concrete batching plant activities emphasise on site planning, facility and infrastructure provision, and related technical aspects;
2. Ensure the catchment area involves three (3) main zones, namely the northern, central, and southern zones;
3. Ensure direct access to the main road without passing through residential, commercial, or facility areas;
4. Propose a site with a minimum area of 0.4 hectares (1 acre) or an appropriate size;
5. Ensure the estimated travel distance for the proposed area is appropriate (between 15 to 45 minutes) to the city centre or development areas within Kuala Lumpur;
6. Recommend an appropriate number of concrete batching plant operators to be controlled for an industrial area subject to its capacity to reduce the risk of environmental pollution;
7. Ensure the concrete batching plant site provides a buffer zone in accordance with the established guidelines; and
8. Comply with guidelines involving batching plant activities in Kuala Lumpur.



Location: Industrial area of Chan Sow Lin, Kuala Lumpur
Activities of the concrete mixing plant at Chan Sow Lin industrial area.

IMPLEMENTATION INITIATIVE 1-4.1E

► IMPLEMENT A REGENERATION PROGRAMME FOR INDUSTRIAL BUILDINGS AS LABOURS' QUARTERS

The implementation of the programme to regenerate industrial buildings as labour quarters, Centralized Labour Quarters (CLQ), or labour dormitories in identified industrial areas as an effort to accommodate labours and facilitate control over social issues and disease outbreaks.

The steps for providing labour quarters, CLQ, or labour dormitories necessary to support this initiative are as follows:

1. Implement the regeneration of labour quarters, CLQ, or labour dormitories by individuals or organisations;
2. Identify suitable companies or parties for renting according to the specified duration;
3. Ensure the background of the residents is appropriate to the job category and location according to the unit or building of labour quarters, CLQ, or labour dormitories;
4. Ensure the construction of dormitory spaces and environments is conducive for labours;
5. Ensure the provision of complete support facilities such as prayer rooms, multipurpose rooms, dining areas, warden rooms, and others; and
6. Ensure full control over the operators of labour quarters, CLQs, or labour dormitories to prevent disturbances to the local community.

KLLP2040 has identified ten (10) potential industrial areas to undergo redevelopment as labour quarters, CLQ, or labour dormitories as shown in Table 1.4.2.

BRIEF INFO

BUKU PANDUAN PENGINAPAN PEKERJA

The Ministry of Human Resources has established the Minimum Standard for Labours' Accommodation, which includes:

Penginapan Bentuk Dormitori	Penginapan Bukan Bentuk Dormitori
Satu ruang rehat	Satu ruang rehat
Satu ruang makan dengan kerusi dan meja	Satu ruang makan dengan kerusi dan meja
Satu ruang dapur	Satu ruang dapur
1 Bilik air dan tandas untuk 1: 15 orang pekerja	1 Bilik air dan tandas untuk 1: 6 orang pekerja
Kipas bagi setiap ruang rehat, ruang makan dan ruang tidur	Kipas bagi setiap ruang rehat, ruang makan dan ruang tidur
Lampu bagi setiap ruang rehat, ruang makan, ruang tidur, ruang dapur, bilik air dan tandas	Lampu bagi setiap ruang rehat, ruang makan, ruang tidur, ruang dapur, bilik air dan tandas
Satu ruang menyidai pakaian	Satu ruang menyidai pakaian
Satu alat pertolongan cemas	Satu alat pertolongan cemas
Satu ruang rehat	Satu ruang rehat
Tong sampah	Tong sampah
3.0 meter persegi setiap pekerja	3.6 meter persegi setiap pekerja

Source:
 Buku Panduan Penginapan Pekerja (cetakan April 2021), Department of Labour Peninsular Malaysia (JTKSM)

Notes: Subject to the current guidelines in use

BEST PRACTICE

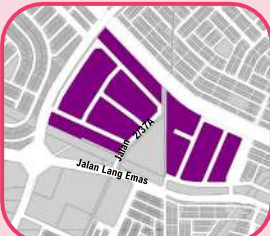








PROVISION OF MOBILE BUILDINGS, SINGAPORE



Location: Singapore
 Source : <https://khomechina.com/projects/container-accommodation-units-in-singapore>

Mobile buildings are another alternative besides building regeneration for labour accommodation facilities.

Table 1.4.2:**Propose area for Labour Quarters, CLQ or Labour Dormitory in Industrial Areas**

1 Taman Bukit Maluri Industrial Area 21.99 hectares		6 Part of (Southern Section) Batu 6 ½ Jalan Kepong, Industrial Area 35.43 hectares	
2 Sri Edaran Industrial Area 8.24 hectares		7 Shamelin Industrial Area 18.00 hectares	
3 Sri Edaran Light Industrial Park 5.35 hectares		8 Desa Tun Razak Industrial Park 20.01 hectares	
4 Taman Kepong Industrial Area 10.69 hectares		9 OUG Industrial Area 5.84 hectares	
5 Batu Muda Industrial Area 10.50 hectares		10 Seri Keladi Industrial Area 2.23 hectares	

CP 1-4.2:**REPLANNING INDUSTRIAL LAND USE ZONE
AS LAND USE ZONE OF MIXED
DEVELOPMENT (MX)**

Replanning of industrial areas through rezoning for mixed-use development takes into account the needs of the area to establish a more economical optimal and sustainable land use zone.

Replanning with Land Use Zones of Mixed Development (MX) encourages the mixing of commercial components to support the basic use of residing in a development. The residing element shall not be less than 60 percent of the total floor area.

Current industrial activities in these industrial areas that have been converted to Land Use Zone of Mixed Development (MX) are allowed to operate until a comprehensive development application is submitted or within a period specified by KLCH.

The proposal for the implementation of CP 1-4.2 are to be carried out through two (2) initiatives as follows:

1. Ensure Feasible Conversion of Industrial Land Use Zone as Land Use Zone of Mixed Development (MX); and
2. Control Industrial Activities During the Transition Development Period.

CP 1-4.2COORDINATION CONTEXT OF SDGs
AND KLSP2040**SUSTAINABLE DEVELOPMENT GOALS CONTEXT****KLSP2040 CONTEXT****1****GOALS**

Kuala Lumpur Innovative and Productive City

IP1**STRATEGIC DIRECTIONS**

Competitive Urban Economic Growth

IP 1.5**ACTIONS**

Encourage the Development of Industrial Cluster Based on Clean Technology and Industry 4.0 Transformation

IMPLEMENTATION APPROACH CP 1-4.2

PROJECT



POLICY



PROGRAMME

PLANNING
CONTROL

GUIDELINE

IMPLEMENTATION INITIATIVE 1-4.2A**► ENSURE FEASIBLE CONVERSION OF INDUSTRIAL LAND USE ZONE AS LAND USE ZONE OF MIXED DEVELOPMENT (MX)**

The changes of the existing land use zone to a more economical zone must be based on feasibility and emphasise on creating a new image and urban form of an area through the provision of the latest infrastructure and facilities.

The necessary actions to support this initiative are as follows:

1. Promote sharing, digital and creative economic activities;
2. Focus on the application of clean and green technology elements;
3. Encourage mixed development with 60 percent of the residing element. However, for former industrial areas or still active industrial areas, an exemption for the residential component can be allowed up to 50 percent of the area to be developed with the commercial component. If the development has reached 50 percent of the total area, the residential component must be provided for the next development;
4. Provide commercial development to generate job opportunities and drive local economic growth.
5. Promote integrated development and provision of connected micromobility infrastructure;
6. Ensure provision of sufficient community facilities to accommodate development needs;
7. Ensure mixed development that has a Transit-Oriented Development (TOD) concept and access to good public services; and
8. Encourage high-intensity development and optimal use of space.

There are eight (8) industrial areas that have been identified with new land use zones, taking into account the potential for future development, covering an area of 118.64 hectares as shown in Table 1.4.3.

IMPLEMENTATION INITIATIVE 1-4.2B**► CONTROL INDUSTRIAL ACTIVITIES DURING THE TRANSITION DEVELOPMENT PERIOD**

The current industrial activities that are allowed to operate are subject to the regulatory control by KLCH to ensure that activities are in accordance with planning control compliance.

The necessary actions to support this initiative are as follows:

1. Conduct regular monitoring to control and ensure that industrial operations do not cause disturbances or pose pollution risks to the surrounding areas;
2. Ensure management and control of the solid waste disposal system and scheduled wastes are according to the established standards;
3. Ensure the provision of sufficient infrastructure to support and accommodate the industrial operations; and
4. Ensure the provision of an appropriate buffer zone as well as compliance with environmental aspects between the industrial area and the proposed new development.

BRIEF INFO**THE BASIS OF CHANGING LAND USE ZONE THAT HAS BEEN IMPLEMENTED**

1. Takes into account new development trends in the surrounding area.
2. Coordinates current activities that are no longer compatible with the environment.
3. Takes into account the need for replanning due to the current dilapidated condition and the expiring lease period.
4. Takes into account the increased development of new infrastructure such as the construction of major roads and new transit stations.



Source : <https://image.shutterstock.com/image-photo/kuala-lumpur-malaysia-january-14-600w-1305531067.jpg>

Wood-based product manufacturing in Kuala Lumpur.

Table 1.4.3:

Proposed Replanning of Industrial Land Use Zones as Land Use Zone of Mixed Development (MX)

<p>1</p> <p>Part of (Northern Section) Batu 6 ½ Jalan Kepong, Industrial Area 10.42 hectares</p>		<p>5</p> <p>Salak Selatan Industrial Area 2.27 hectares</p>	
<p>2</p> <p>PKNS Industrial Area, Setapak 7.12 hectares</p>		<p>6</p> <p>Kampung Pakar Industrial Area 3.55 hectares</p>	
<p>3</p> <p>Chan Sow Lin Industrial Area 50.83 hectares</p>		<p>7</p> <p>Jalan Genting Klang Industrial Area, Setapak 19.46 hectares</p>	
<p>4</p> <p>Kuchai Entrepreneurs Park Industrial Area 21.39 hectares</p>		<p>8</p> <p>Sri Rampai Industrial Centre 3.60 hectares</p>	

CP 1-4.3:**REPLANNING INDUSTRIAL LAND USE ZONE
AS LAND USE ZONE OF MIXED INDUSTRY
(MXI)**

Replanning of Land Use Zone of Mixed Industry (MXI) is proposed in seven (7) existing industrial areas. This is based on the needs and demand to provide more spaces for commercial activities to operate in the Land Use Zone of Industry (IP). These areas were selected based on the capability of existing industrial activities to be developed further by encouraging new commercial activities.

The determination of intensity for Land Use Zone of Mixed Industry (MXI) take into account the needs for development and balancing the industrial areas that have been rezoned to other land use zones.

The basis for replanning of Land Use Zone of Mixed Industry (MXI) is to encourage the development of commercial activities with maximum of 50 percent of the industrial floor area. The combination of industrial and commercial activities can be implemented through mixed land use or mixed building use. Nevertheless, overall development for industrial activities is permitted.

Besides considering the industrial activities being carried out, good access to public transportation is also one of the factor in upgrading the area to a Land Use Zone of Mixed Industry (MXI).

Commercial activities are permitted based on the following criteria:

1. Support major industrial land use activities; and
2. Provide value added to industrial areas through the operation of appropriate commercial activities.

The proposal for the implementation of CP 1-4.3 is carried out through one (1) initiative as follows:

1. Ensure Effective Implementation of Transformation for the Integration of Commercial and Industrial Activities.

CP 1-4.3COORDINATION CONTEXT OF SDGs
AND KLSP2040**SUSTAINABLE DEVELOPMENT GOALS CONTEXT****KLSP2040 CONTEXT****IMPLEMENTATION APPROACH CP 1-4.3**

IMPLEMENTATION INITIATIVE 1-4.3A

► ENSURE EFFECTIVE IMPLEMENTATION OF TRANSFORMATION FOR THE INTEGRATION OF COMMERCIAL AND INDUSTRIAL ACTIVITIES

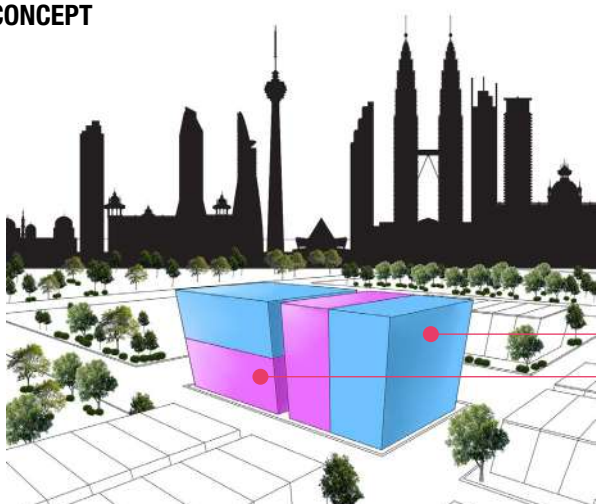
Development in the Land Use Zone of Mixed Industry (MXI) take into account the planning principle of 50 percent commercial development components as an added value to industrial areas. There are seven (7) areas that have been proposed as mixed industrial development areas as shown in the Table 1.4.4.

The necessary actions to support this initiative are as follows:

1. Increase optimal land use through compact industrial and commercial development with suitable intensity in strategic areas;
2. Encourage suitable commercial activities in the Land Use Zone of Mixed Industry (MXI);
3. Encourage application of Big Data concepts, Internet of Things (IoT) and other 4IR components in data storage and operations;
4. Ensure adoption of green building components to realise clean industry practices;
5. Encourage a Knowledge-based economy (K-economy) with the development of incubators or start-up and R&D activities; and
6. Ensure availability of walkways and green linkages are comprehensive and connected with landscape elements to create an industrial area with an active micromobility network.

BRIEF INFO

ILLUSTRATION FOR MIXED INDUSTRIAL DEVELOPMENT CONCEPT

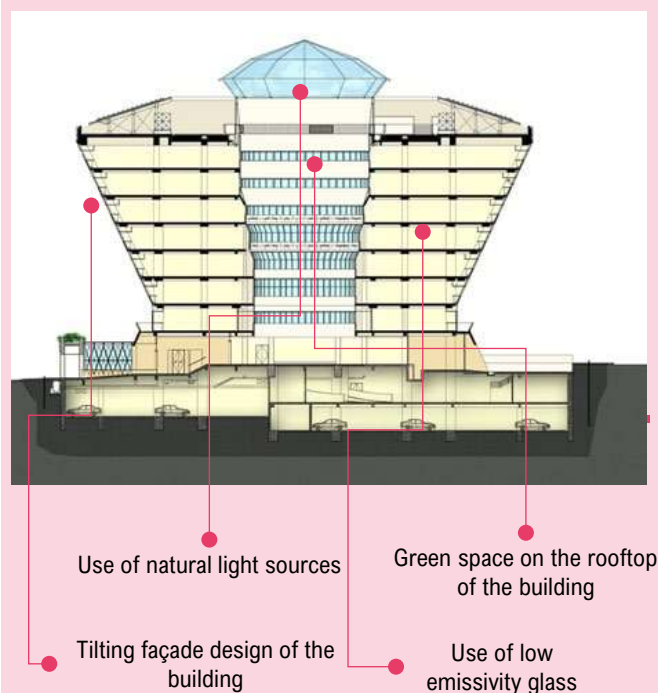


BEST PRACTICE

ADOPTION OF APPLICABLE GREEN BUILDING AND ENVIRONMENTAL COMPONENTS TO GENERATE CLEAN INDUSTRIAL AREAS

The adoption of this green building component is important in translating the concept of generating an industrial area with clean industry and low-carbon characteristics, in line with the direction of Kuala Lumpur as a low carbon, clean and sustainable city. An example of a green building design is as follows:

Energy Commission Building


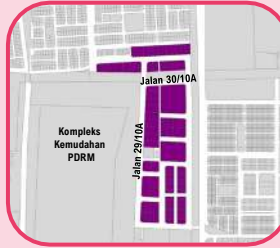
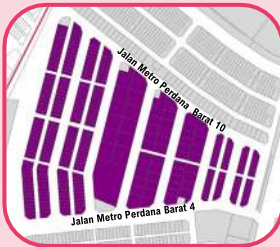






Source: Adapted from the Energy Commission Building Design Strategy

The use of 50 percent of the building's floor space for commercial activities

The use of 50 percent of the building's floor space for industrial activities

Table 1.4.4:**Proposed Replanning of Industrial Land Use Zone as Land Use Zone of Mixed Industry (MXI)**

1 Taman Bukit Maluri Industrial Area 21.99 hectares		5 Batu Muda Industrial Area 10.50 hectares	
2 Sri Edaran Industrial Area 8.24 hectares		6 Part of (Southern Section) Batu 6 ½ Jalan Kepong, Industrial Area 35.43 hectares	
3 Sri Edaran Light Industrial Park 5.35 hectares		7 Sri Rampai Business Park South 2.08 hectares	
4 Taman Kepong Industrial Park 10.69 hectares			

CP 1-4.4:**UPGRADING RETAINED LAND USE ZONE OF INDUSTRY (IP)**

Upgrading of retained industrial land use zone aims to create a conducive, sustainable and high-productivity industrial area. In total, the proposed upgrade involves 112.15 hectare in 13 industrial areas as follows:

1. Segambut Industrial Area;
2. Desa Tasek Industrial Area;
3. Taman Sungai Besi Industrial Area;
4. Taman Wahyu Industrial Area;
5. Spring Crest Industrial Area;
6. Desa Tun Razak Industrial Area;
7. Taman Midah Industrial Area;
8. Shamelin Industrial Area;
9. OUG Industrial Area;
10. Batu 7 ½, Jalan Puchong Industrial Area;
11. Seri Keladi Industrial Area;
12. Capital Industrial Centre; and
13. Glenview Business Centre

The specialisation of industrial types and activities must be coordinated according to the proposed industrial clusters of CP 1-4.1.

The proposed upgrading of this industrial area involves environmental improvement and maintenance of facilities and infrastructure. Such work includes the improvement of the building façade, the provision of connected walkways equipped with street furniture and green landscaping, as well as the provision of supporting facilities such as food court, recycling centres, waste disposal sites and others.

The implementation approach of this proposal is through one (1) implementation initiative as follows:

1. Implement the Upgrading of Industrial Areas.

CP 1-4.4

COORDINATION CONTEXT OF SDGs AND KLSP2040

**SUSTAINABLE DEVELOPMENT GOALS CONTEXT****KLSP2040 CONTEXT**

1	GOALS Kuala Lumpur Innovative and Productive City
6	GOALS Kuala Lumpur Integrated and Sustainable Development City
IP1	STRATEGIC DIRECTIONS Competitive Urban Economic Growth
BM2	STRATEGIC DIRECTIONS Renewal of Old Areas
IP 1.5	ACTIONS Encourage the Development of Industrial Cluster Based on Clean Technology and Industry 4.0 Transformation
BM 2.1	ACTIONS Improve Quality and Reactivate Old Areas Through Area Improvement Programme

IMPLEMENTATION APPROACH CP 1-4.4

Table 1.4.5:

Proposed Retained Land Use Zone of Industry (IP)

<p>1</p> <p>Segambut Industrial Area</p> <p>35.93 hectares</p>		<p>8</p> <p>Shamelin Industrial Area</p> <p>18.00 hectares</p>	
<p>2</p> <p>Desa Tasek Industrial Area</p> <p>1.48 hectares</p>		<p>9</p> <p>OUG Industrial Area</p> <p>5.84 hectares</p>	
<p>3</p> <p>Taman Sungai Besi Industrial Area</p> <p>3.82 hectares</p>		<p>10</p> <p>Batu 7 ½, Jalan Puchong Industrial Area</p> <p>3.69 hectares</p>	
<p>4</p> <p>Taman Wahyu Industrial Area</p> <p>3.45 hectares</p>		<p>11</p> <p>Seri Keladi Industrial Area</p> <p>2.23 hectares</p>	
<p>5</p> <p>Spring Crest Industrial Area</p> <p>5.72 hectares</p>		<p>12</p> <p>Capital Industrial Centre</p> <p>1.60 hectares</p>	
<p>6</p> <p>Desa Tun Razak Industrial Area</p> <p>20.01 hectares</p>		<p>13</p> <p>Glenview Business Centre</p> <p>1.07 hectares</p>	
<p>7</p> <p>Taman Midah Industrial Area</p> <p>9.31 hectares</p>			

IMPLEMENTATION INITIATIVE 1-4.4A

► IMPLEMENT THE UPGRADING OF INDUSTRIAL AREAS

The upgrading of industrial areas focuses on the work of improving the environment and enhancing the facilities. This upgrade is a step towards making the function of the industrial area more effective, in line with new industrial development trends.

The necessary actions to support this initiative are as follows:

1. Encourage area regeneration programme to make it more conducive and competitive;
2. Reorganise the circulation system layout to provide more efficient heavy vehicle access routes;
3. Provide high accessibility especially for active mobility modes including pedestrian walkways and micromobility vehicle routes to public transport networks and transit stations;
4. Ensure continuous environmental maintenance and provision of an attractive landscape to create a conducive and competitive environment;
5. Provide sufficient centralised supporting facilities such as parking, food courts, labour accommodation or labour quarters in vacant industrial lots and other facilities to cater the needs of labours;
6. Provide a centralised waste disposal sites for vehicle parts, metals, plastics, and other wastes; and
7. Implement sustainable planning concepts such as Crime Prevention Through Environmental Designs (CPTED), Universal Design, smart technology, and Low Carbon City concept.

BEST PRACTICE

DEVELOPMENT OF HIGH-TECHNOLOGY AND LOW-POLLUTION INDUSTRY

1. Ensuring industrial operations use clean and low-pollution technology.
2. Provision of innovation centres and incubators equipped with the latest R&D facilities and technology.
3. Provision of operational and promotional training centres as well as digital platforms to attract investment.
4. Provision of broadband networks and services capable of implementing 4IR components such as Big Data and the Internet of Things in industrial activities operations.
5. Providing good access to public transportation services.
6. Provision of support facilities for employee use such as food centres, centralized parking, prayer rooms, and others.
7. The provision of an efficient industrial waste management system.
8. Ensuring that industrial activities do not cause disturbances to the surrounding areas.



Location: Jurong Innovation District, Singapore
Source: https://media.asiaone.com/sites/default/files/styles/article_main_image/public/original_images/Mar2016/jurongpark_JTC.jpg?itok=l49dp5Zi

An industrial area equipped with high-tech consumerism in Jurong, Singapore.



Location: China-Singapore International Smart Industry Park, Guangzhou
Source: https://media.asiaone.com/sites/default/files/styles/article_main_image/public/original_images/Mar2016/jurongpark_JTC.jpg?itok=l49dp5Zi

Development of knowledge-based industrial area equipped with high-tech facilities.

CP 1-4.5:**UPGRADING LAND USE ZONE OF TECHNOLOGY PARK (TP)**

Technology park is a dedicated area that acts as a high-tech industrial hub based on research and development.

The upgrading of technology park should take into account the integration of 4IR components to enhance its function as an innovative and productive smart technology park hub in line with the National 4IR Policy.

This proposal is important to generate job opportunities for skilled labour and increase the competitiveness of the industrial sector, especially the usage of the latest technology in manufacturing, services and other industrial sectors.

In addition, the upgrading of technology park aims to create an industrial area that is conducive, sustainable and highly productive. Indirectly it will expand the application and use of clean and green technology in industrial activities within the technology park.

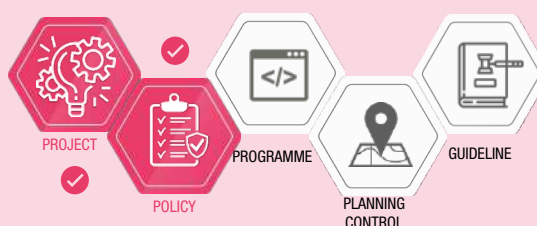
This upgrading must also focus on providing the supporting facilities needed by labours, improving the environment, maintaining the existing facilities and infrastructure. The availability of complete supporting facilities in this technology park will further improve the level of liveability.

The proposal for the implementation of CP 1-4.5 are carried out through two (2) initiatives as follows:

1. Improve Provision of Facilities for Knowledge-based Economy (K-economy) and Research and Development (R&D) that Integrate 4IR Components; and
2. Implement Upgrading Work For Technology Park.

CP 1-4.5**COORDINATION CONTEXT OF SDGs AND KLSP2040****SUSTAINABLE DEVELOPMENT GOALS CONTEXT****KLSP2040 CONTEXT**

1	GOALS Kuala Lumpur Innovative and Productive City
4	GOALS Kuala Lumpur, the Smart Climate and Low Carbon City
IP1	STRATEGIC DIRECTIONS Competitive Urban Economic Growth
PR3	STRATEGIC DIRECTIONS Efficiency in Carbon Emission Reduction
IP 1.5	ACTIONS Encourage the Development of Industrial Cluster Based on Clean Technology and Industry 4.0 Transformation
PR 3.1	ACTIONS Promoting Low Carbon Building Development

IMPLEMENTATION APPROACH CP 1-4.5

IMPLEMENTATION INITIATIVE 1-4.5A

▶ IMPROVE PROVISION OF FACILITIES FOR KNOWLEDGE-BASED ECONOMY (K-ECONOMY) AND RESEARCH AND DEVELOPMENT (R&D) THAT INTEGRATE 4IR COMPONENTS

The focus of industrial activities in technology park should emphasise upgrading efforts and provide supporting facilities through the integration of 4IR components and the use of the latest technology.

The necessary actions to support this initiative are as follows:

1. Establish centralised data storage and monitoring centres using Big Data and the Internet of Things (IoT) to control pollution levels, energy consumption rates, security monitoring, and others;
2. Provide dedicated space or building for product exhibitions, expos as well as research and development;
3. Provide the latest broadband infrastructure;
4. Encourage the use of a robotic workforce through automation or autonomous technology, Artificial Intelligence (AI);
5. Provide interconnected pedestrian walkways and necessary supporting landscape elements; and
6. Provide comprehensive support facilities required by employees and visitors.

IMPLEMENTATION INITIATIVE 1-4.5B

▶ IMPLEMENT UPGRADING WORK FOR TECHNOLOGY PARK

The upgrading of technology park aims to create a conducive, sustainable and highly productive industrial area.

The necessary actions to support this initiative are as follows:

1. Ensure the availability of infrastructure and supporting facilities that are capable of supporting the implementation of a high-tech industrial park;
2. Provide high accessibility especially active mobility modes including pedestrian walkways and micromobility vehicle routes to public transport networks and transit stations;
3. Ensure continuous environmental maintenance and provision of attractive landscape to create a conducive and competitive environment;
4. Provide sufficient centralised supporting facilities such as parking, food courts, and other facilities to cater the needs of labours;
5. Implement sustainable planning concepts such as Crime Prevention Through Environmental Designs (CPTED), Universal Design, smart technology, and Low Carbon City concept.

DRIVING ENTREPRENEURIAL DEVELOPMENT FOR URBAN ECONOMIC GROWTH

SCENARIO OF ENTREPRENEURSHIP DEVELOPMENT IN KUALA LUMPUR

The entrepreneurial sector plays an important role in the urban economic growth. The skills and competence of entrepreneurs promote the competitiveness of urban communities in domestic and international economic activities.

Entrepreneurial activities in Kuala Lumpur include businesses, production and services related to food and beverage products, souvenirs and handicrafts, digital equipment, fashion and accessories, cosmetic products, franchise businesses, small-scale businesses and others.

The use of the latest digital technology in entrepreneurial activities can expand the marketing network for products, research programmes and services while minimising business costs.

Entrepreneurship development is also capable of generating job opportunities through the increased involvement of young entrepreneurs. It is estimated that 120,000 informal sector job opportunities will be generated by 2040.

Towards realising Kuala Lumpur as a city that drives entrepreneurial development and a centre of competitive economic growth, two (2) Implementation Proposals are formulated under Planning Strategy 1–5, as shown in Figure 1.5.1.

Figure 1.5.1:
Implementation Proposals for Planning Strategy 1-5

SP 1-5

DRIVING ENTREPRENEURIAL DEVELOPMENT FOR URBAN ECONOMIC GROWTH

CP 1-5.1

Enhancing Entrepreneurial Potential In Neighbourhood Centres

CP 1-5.2

Planning and Development of the Informal Sector

BRIEF INFO

DEVELOPMENT OF INFORMAL SECTOR IN KUALA LUMPUR



Total informal sector, Kuala Lumpur, 2020
32,119 units



Number of jobs in the informal sector, Kuala Lumpur, 2019
57,700 jobs

Source: Laporan Sosioekonomi Wilayah Persekutuan Kuala Lumpur 2019, Department of Statistics Malaysia



Number of jobs in the informal sector, Kuala Lumpur, 2040
120,000 jobs

Source: KLSP2040



Location: Urban street eatery site, Kuala Lumpur

Source: <https://image.shutterstock.com/image-photo/kualalumpurmalaysiafebruary-22-2018tapak-one-600w-1032171994.jpg>

Food truck activities at TAPAK, Jalan Ampang, Kuala Lumpur.

CP 1-5.1:**ENHANCING ENTREPRENEURIAL POTENTIAL
IN NEIGHBOURHOOD CENTRES**

Neighborhood centres are seen as potential hubs for implementing entrepreneurial activities within local communities. The purpose of establishing entrepreneurship centres are as follows:

1. Encourage entrepreneurial activities, especially the sharing economy and creative arts within the community;
2. Instill entrepreneurial knowledge through courses or programmes offered;
3. Identify and increase the potential of entrepreneurial talent within the local community; and
4. Provide opportunities for all levels of community to be involved in entrepreneurship activities.

This implementation proposal shall focus on 139 community centres in Kuala Lumpur covering an area of 40.01 hectares to strengthen the entrepreneurial potential in neighbourhood centres.

The proposal for the implementation of CP 1-5.1 is carried out through one (1) initiative as follows:

1. Provide an Open Innovation Lab Centre.



Location : Jalan Melayu, Kuala Lumpur
Jalan Melayu is a well-known shopping hub and a popular tourist attraction.

CP 1-5.1COORDINATION CONTEXT OF SDGs
AND KLSP2040**SUSTAINABLE DEVELOPMENT GOALS CONTEXT****KLSP2040 CONTEXT****1****GOALS**

Kuala Lumpur Innovative and Productive City

IP1**STRATEGIC DIRECTIONS**

Competitive Urban Economic Growth

**IP
1.6****ACTIONS**

Drive Entrepreneurship Development Towards Inclusive Urban Economic Growth

IMPLEMENTATION APPROACH CP 1-5.1

IMPLEMENTATION INITIATIVE 1-5.1A

► PROVIDE AN OPEN INNOVATION LAB CENTRE

Entrepreneurial potential in neighbourhood centres will be expanded through the establishment of an open innovation lab which encourage entrepreneurial activities within the local community as shown in the Figure 1.5.2.

The necessary actions to support this initiative are as follows:

1. Establish an entrepreneurship management and research centre within the community;
2. Provide specific spaces for talks and training centres especially to discuss business start-up ideas, online product presentations and training opportunities for young entrepreneurs;
3. Provide an internet centre with collective internet access facilities for the local community, especially low-income groups;
4. Provide information and communication technology (ICT) as well as entrepreneurship training for all age levels; and
5. Provide a suitable spaces for entrepreneurial activities as a start-up particularly for product and service promotion activities conducted within the local community.

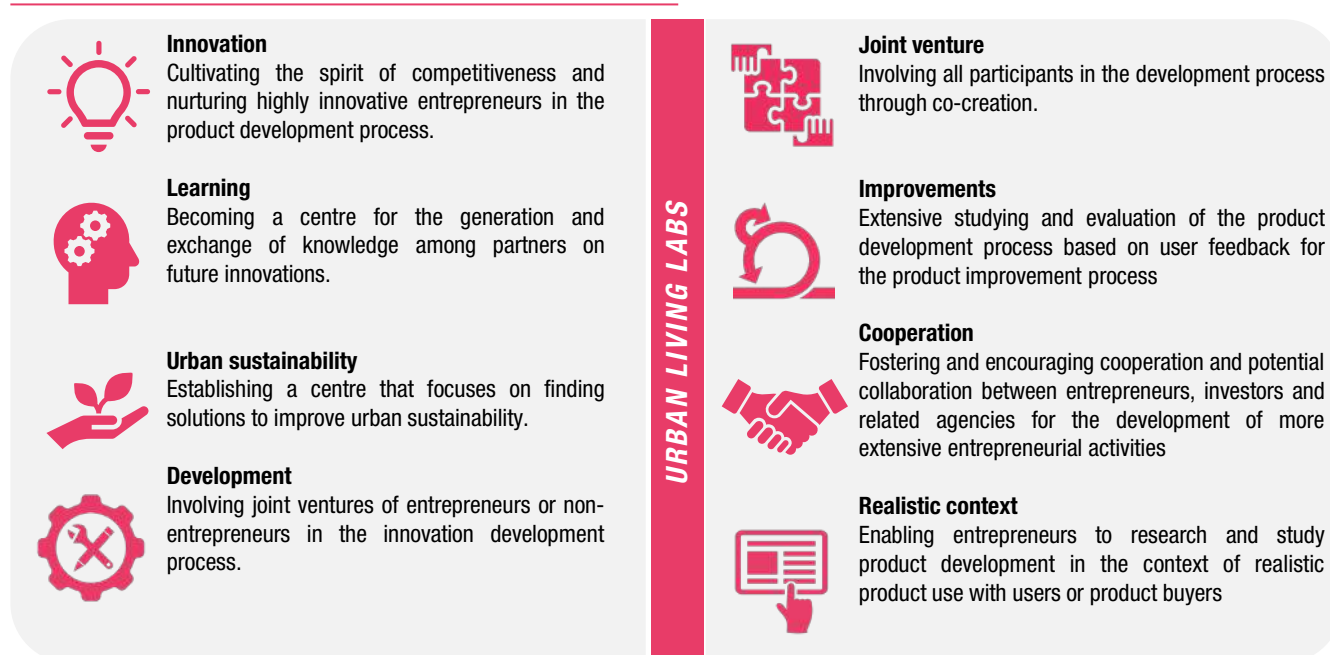
BRIEF INFO

FUNCTIONS OF OPEN INNOVATION LAB

1. A place to promote products and services carried out within the local community. Among the activities that promote the entrepreneurship programmes are discussion on business start-up ideas, online product presentations and training opportunities for young entrepreneurs.
2. Centre for community management and research.
3. A local community centre that provides service facilities such as access to information technology equipment, internet usage and computer software training.



Figure 1.5.2:
Implementation Proposals for Open Innovation Labs



Source: Adapted from the Amsterdam Institute for Advanced Metropolitan Solutions

CP 1-5.2:**PLANNING AND DEVELOPMENT OF THE INFORMAL SECTOR**

Planning and development of the informal sector involving street hawking activities and hawker spaces around Kuala Lumpur need to be given attention. This sector contributes to the increase in household income, especially among the B40 and part of the M40 groups. In general, this sector generated 57,700 job opportunities in Kuala Lumpur up until 2019.

Informal sector activities in Kuala Lumpur consist of micro-businesses such as mobile hawkers, roadside stalls, kiosks, markets and hawker centres. This sector can be further strengthened through the implementation of training in the basic skills of informal business activities as well as effective marketing methods.

The provision of affordable hawker spaces is important to support microeconomic growth within the local community. The planning of the hawker spaces should prioritize high-density residential areas, including affordable housing schemes. The informal sector and street hawking activities are economic activities that generate job opportunities in Kuala Lumpur, especially among the B40 and part of the M40 groups.

The proposed provision of hawker sites or spaces in high-density residential areas is to address hawking activities in unsuitable areas such as road reserves, river reserves, and other infrastructure facilities.

The proposal for the implementation of CP 1-5.2 are carried out through three (3) initiatives as follows:

1. Provide Incubation Programme Mechanisms or Start-up For The Informal Sector;
2. Propose Modernisation of the Informal Sector; and
3. Provide Hawker Spaces in High-Intensity Affordable Housing Areas.

BRIEF INFO**DEFINITION OF THE INFORMAL SECTOR**

The informal sector is an organisation that is not registered with the Companies Commission of Malaysia or any professional body including the local authorities and have fewer than ten (10) employees.

CP 1-5.2

COORDINATION CONTEXT OF SDGs AND KLSP2040

**SUSTAINABLE DEVELOPMENT GOALS CONTEXT****KLSP2040 CONTEXT****1****GOALS**

Kuala Lumpur Innovative and Productive City

IP1**STRATEGIC DIRECTIONS**

Competitive Urban Economic Growth

IP2**STRATEGIC DIRECTIONS**

Conducive Working and Business Environment

IP 1.6**ACTIONS**

Drive Entrepreneurship Development Towards Inclusive Urban Economic Growth

IP 2.3**ACTIONS**

Expand Business Opportunities in the Informal Sector

IMPLEMENTATION APPROACH CP 1-5.2

IMPLEMENTATION INITIATIVE 1-5.2A**► PROVIDE INCUBATION PROGRAMME MECHANISMS OR START-UP FOR THE INFORMAL SECTOR**

Incubation programmes or start-up for the informal sector should be proposed and provided to assist with skill development, marketing, product preparation, and capital support for informal entrepreneurs. This initiative may ease the burden of petty traders while improving the living standard of the people in Kuala Lumpur.

The necessary actions to support this initiative are as follows:

1. Offer courses and guidance related to operations, marketing and product manufacturing techniques which focus on exposure to the e-commerce sector and digital skills;
2. Improve capacity for data collection and database of eligible target groups;
3. Collaborate in programme implementation with related agencies such as TEKUN Nasional, Institut Keusahawanan Negara Berhad (INSKEN), Malaysia Co-operative Societies Commission of Malaysia (SKM), Institut Koperasi Malaysia (IKMa), and SME Corporation Malaysia (SME Corp. Malaysia);
4. Identify potential spaces whether existing or new that are comfortable and with well-equipped for activities especially for hawkers'; and
5. Conduct a hawker incubation programme or start-up that include capital injection and skills training for selected hawkers, focused particularly on petty traders who need assistance such as single mothers, low-income groups, age and disabled-friendly groups, as well as groups in need, including youth who are new to the informal sector.

IMPLEMENTATION INITIATIVE 1-5.2B**► PROPOSE MODERNISATION OF THE INFORMAL SECTOR**

The informal sector must align with current trends, especially the creation of a more conducive environment as well as emphasising more effective payment methods, marketing and product delivery.

The ideal approach must be identified through the informal business concept in order to increase the sales rate as well as to improve the image of the hawkers.

The necessary actions to support this initiative are as follows:

1. Adopt an e-commerce system through the use of ordering and food delivery applications, self-payment kiosks, cashless payments, digital menu board applications as well as marketing and promotion through social media;
2. Adopt a modern, comfortable and attractive designs for informal sector operation centres to ensure durability;
3. Provide adequate facilities and support the diversity of business activities within the same area; and
4. Provide fast product services such as self-pickup, drive-thru, same-day delivery and mobile stall to increase the efficiency of the informal sector in addition to creating a more efficient business environment.

BRIEF INFO**TYPE OF INFORMAL SECTOR**

1. Entrepreneurs who run small businesses.
2. Small vendor.
3. Traders who run their business from home or are mobile.
4. Entrepreneurs who run online businesses.
5. Traders who offer delivery services.

Source:

- i. Tabung Ekonomi Kumpulan Usaha Niaga (TEKUN Nasional)
- ii. Jabatan Perangkaan Malaysia, (*Department of Statistics Malaysia, DOSM*)

IMPLEMENTATION INITIATIVE

1-5.2C

► PROVIDE HAWKER SPACES IN HIGH-INTENSITY AFFORDABLE HOUSING AREAS

Providing hawker spaces or centres as supporting facilities in high-intensity residential areas, particularly affordable housing areas is crucial. This proposal should also be considered in the targeted development of affordable housing until 2040.

The necessary actions to support this initiative are as follows:

1. Identify and provide suitable hawker spaces for existing affordable housing areas without hawkers' facilities;
2. Utilise public parking spaces or suitable open spaces in existing affordable housing schemes, such as Residensi Wilayah, Residensi MADANI and Subsidised Rental Public Housing (PASS), without affecting the original function in the absence of designated areas;
3. Propose the provision of a hawkers' spaces as a requirement for community facilities in planning permission applications of affordable housing projects; and
4. Ensure the number, size and design of hawkers' spaces are subject to current guidelines.

BEST PRACTICE

PROVISION OF HAWKER SPACES

1. Periodically utilise parking for informal business activities such as night markets on weekends.
2. Ensure the availability of access to public transportation services to reduce visitor parking issues.
3. Ensure that these activities do not cause a nuisance to local residents.
4. Ensure that the sites are monitored and maintained as scheduled, especially in relation to waste management and local cleanliness issues.



Location: Pantai Dalam, Kuala Lumpur

Hawker activities along the pedestrian walkways in residential areas.



Location: Jalan Alor, Kuala Lumpur

Source: <https://image.shutterstock.com/image-photo/kuala-lumpur-malaysia-27-january-600w-1011564877.jpg>
Hawkers' activities at Jalan Alor.

REGENERATING EXISTING COMMERCIAL AREAS AS A VIBRANT, ATTRACTIVE AND CONDUCTIVE BUSINESS SPACES

SCENARIO OF EXISTING COMMERCIAL AREAS IN KUALA LUMPUR

An active and comfortable environment is crucial for the growth of a commercial area. However, some commercial areas are no longer attractive due to a deteriorating environment and physical condition.

This approach aims to rejuvenate old commercial areas and potentially improve the local economy. Urban economic development must be supported by the provision of various latest facilities within a comprehensive and conducive environment.

Efficient land use can reduce excess development and land wastage. The reuse of old buildings and improvement of areas are effective initiatives to enhance the quality and environment of commercial areas.

Towards realising Kuala Lumpur as a conducive employment and business centre, one (1) Implementation Proposal have been formulated under Planning Strategy 1–6, as shown in Figure 1.6.1.

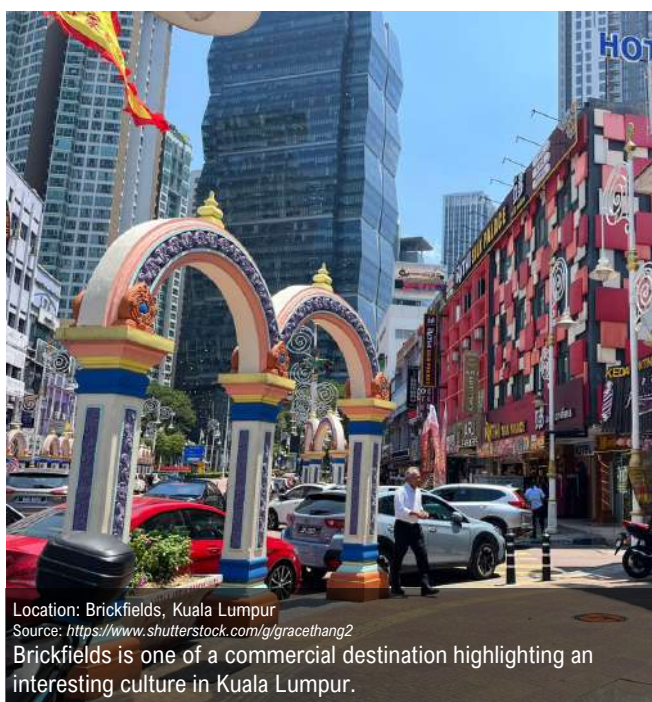


Figure 1.6.1:
Implementation of Proposal for Planning Strategy 1-6

SP 1-6

REGENERATING EXISTING COMMERCIAL AREAS AS A VIBRANT, ATTRACTIVE AND CONDUCTIVE BUSINESS SPACES

CP 1-6.1

Implementing The Commercial Area Improvement Programme (PKK)

BEST PRACTICE

PROVISION OF VIBRANT BUSINESS SPACE

1. Utilisation of the space between buildings or plazas for commercial activities with the concept of stalls or kiosks.
2. Provision of connected and continuous pedestrian walkways and micromobility vehicle routes.
3. Provision of landscaping and complete street furniture as user-supporting facilities.
4. Provision of access to public transport services.



A commercial area with a pedestrian mall concept at the Phuket Weekend Night Market (Naka Market).

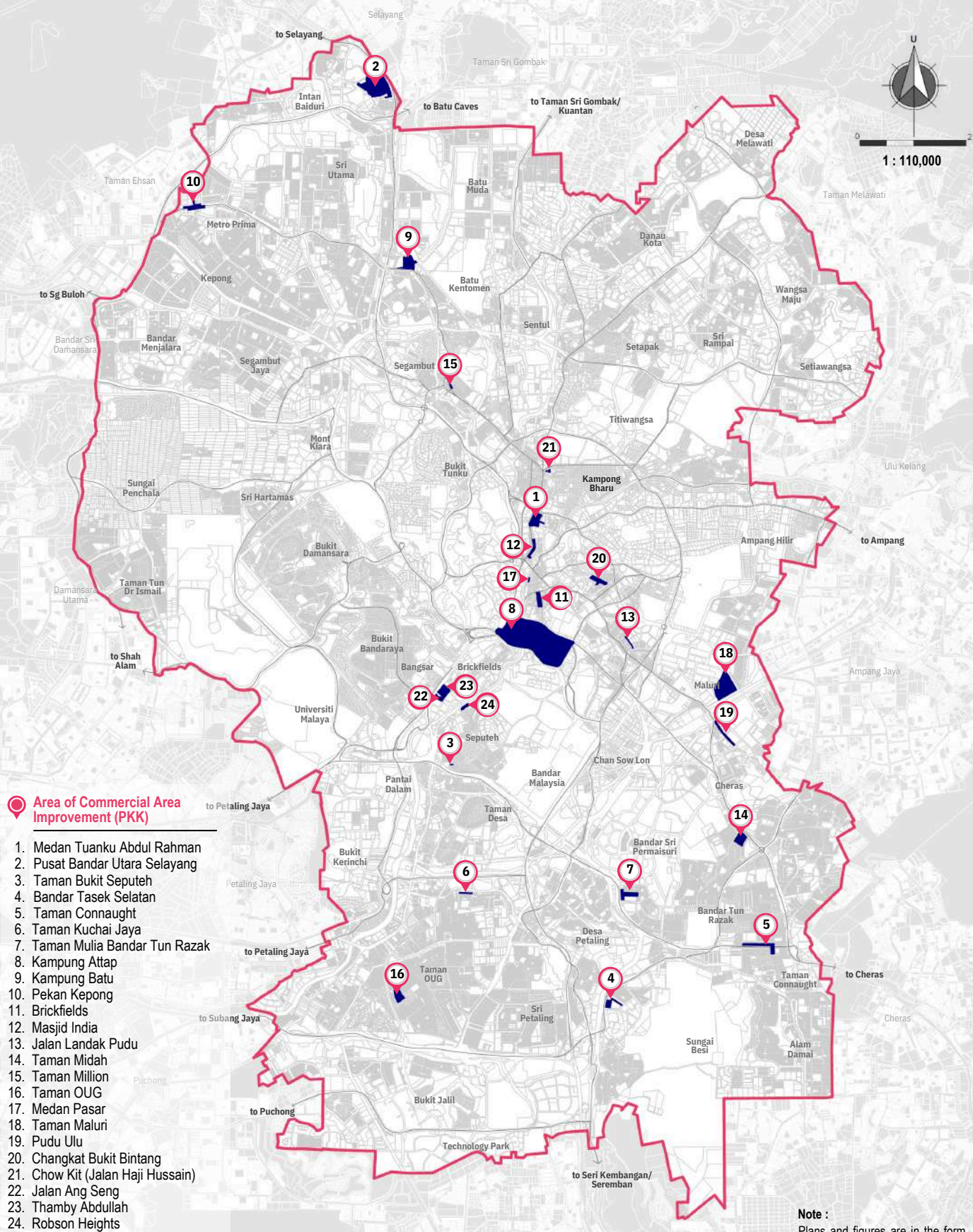


FIGURE 1.6.2 | Plan of Proposed Commercial Area Improvement Programme (PKK)

CP 1-6.1:**IMPLEMENTING THE COMMERCIAL AREA IMPROVEMENT PROGRAMME (PKK)**

Existing commercial areas that have become dilapidated need to be upgraded to create a higher-quality environment and be equipped with various supporting facilities to remain competitive.

The commercial area improvement programme includes the following:

1. Regenerate commercial areas in line with new trend activities to make them more vibrant and attractive to visit;
2. Enhance the visual quality of the areas and their surroundings; and
3. Provide new facility elements such as pedestrian walkways and micromobility vehicle routes, along with landscape beautification and the provision of smart kiosks to enhance the attractiveness for visiting.

KLLP2040 has identified 24 existing commercial areas for upgrading through specific action programmes according to each area.

The proposal for the implementation of CP 1-6.1 is carried out through one (1) initiative as follows:

1. Improve and Provide Facilities in Commercial Area Improvement (PKK).

**CP 1-6.1**

COORDINATION CONTEXT OF SDGs AND KLSP2040

**SUSTAINABLE DEVELOPMENT GOALS CONTEXT****KLSP2040 CONTEXT****1****GOALS**

Kuala Lumpur Innovative And Productive City

6**GOALS**

Kuala Lumpur Sustainable City And Integrated Development

IP2**STRATEGIC DIRECTIONS**

Conducive Working and Business Environment

BM2**STRATEGIC DIRECTIONS**

Renewal of Old Areas

IP 2.1**ACTIONS**

Strengthen the Network of Commercial Centres as Jobs and Local Business Areas

BM 2.1**ACTIONS**

Improve Quality and Reactivate Old Areas Through the Area Improvement Programme

IMPLEMENTATION APPROACH CP 1-6.1

PROJECT



POLICY



PROGRAMME



PLANNING CONTROL



GUIDELINE

IMPLEMENTATION INITIATIVE 1-6.1A

► IMPROVE AND PROVIDE FACILITIES IN COMMERCIAL AREA IMPROVEMENT (PKK)

A conducive commercial development with the provision of comprehensive support facilities will make a commercial focal point more vibrant and capable of attracting the attention of visitors.

The necessary actions to support this initiative are as follows:

1. Introduce commercial activities in public transport transit station areas to attract users and tourists;
2. Incorporate the concept of Malaysia's heritage and culture, especially those with high heritage value;
3. Enhance and upgrade the façades of dilapidated buildings;
4. Refurbish and reuse old or underutilised buildings through regeneration with new purposes;
5. Establish an attractive placemaking space as a public focal point;
6. Improve and maintain necessary supporting infrastructure facilities, such as parking, latest broadband network, and other amenities, to support the commercial centre;
7. Enhance vibrancy and beautify the area through landscape upgrades, green elements, street furniture, signage and wayfinding;
8. Manage the existing traffic circulation system by prioritising the concept of active micromobility;
9. Ensure the provision of connected pedestrian walkways and promote the concept of active micromobility; and
10. Implement sustainable planning concepts, such as Crime Prevention Through Environmental Designs (CPTED), Universal Design, smart technology and Low Carbon City concept.

BRIEF INFO

24 PROPOSALS FOR IMPROVEMENT OF EXISTING COMMERCIAL AREAS IN KUALA LUMPUR

1. Medan Tuanku Abdul Rahman
2. Pusat Bandar Utara Selayang
3. Taman Bukit Seputeh
4. Bandar Tasek Selatan
5. Taman Connaught
6. Taman Kuchai Jaya
7. Taman Mulia Bandar Tun Razak
8. Kampung Attap
9. Kampung Batu
10. Pekan Kepong
11. Brickfields
12. Masjid India
13. Jalan Landak Pudu
14. Taman Midah
15. Taman Million
16. Taman OUG
17. Medan Pasar
18. Taman Maluri
19. Pudu Ulu
20. Changkat Bukit Bintang
21. Chow Kit (Jalan Haji Hussain)
22. Jalan Ang Seng
23. Thamby Abdullah
24. Robson Heights



Source: <https://www.pinterest.com/pin/508906826651138473/>

Illustration of landscaping and street furniture on walkways in a Commercial Area Improvement Programme (PKK).

Table 1.6.1:
Summary of Priorities of Initiatives in Commercial Area Improvement Programme (PKK)

Area	Insert Plan	Area	Insert Plan
1. Medan Tuanku Abdul Rahman <ul style="list-style-type: none"> Proposed pedestrian mall zone Proposed landscape beautification and connected pedestrian walkways Proposed implementation of CPTED elements and smart city components 		5. Taman Connaught <ul style="list-style-type: none"> Proposed landscape beautification and infrastructure maintenance Proposed implementation of CPTED elements and smart city components 	
2. Pusat Bandar Utara Selayang <ul style="list-style-type: none"> Proposed improvements to building façades and provision of centralised parking Proposed traffic system circulation management Proposed implementation of CPTED elements and smart city components 		6. Taman Kuchai Jaya <ul style="list-style-type: none"> Proposed landscape beautification Proposed implementation of CPTED elements and smart city components 	
3. Taman Bukit Seputeh <ul style="list-style-type: none"> Proposed landscape beautification and infrastructure maintenance Proposed implementation of CPTED elements and smart city components 		7. Taman Mulia Bandar Tun Razak <ul style="list-style-type: none"> Proposed landscape beautification Proposed implementation of CPTED elements and smart city components 	
4. Bandar Tasek Selatan <ul style="list-style-type: none"> Proposed landscape beautification, infrastructure maintenance and traffic system circulation management Proposed implementation of CPTED elements and smart city components 		8. Kampung Attap <ul style="list-style-type: none"> Proposed landscape beautification and provision of pedestrian walkways Proposed implementation of CPTED elements and smart city components 	

Table 1.6.1:**Summary of Priorities of Initiatives in Commercial Area Improvement Programme (PKK) (continued)**

















Area	Insert Plan	Area	Insert Plan
9. Kampung Batu <ul style="list-style-type: none"> Proposed landscape beautification and infrastructure maintenance Proposed implementation of CPTED elements and smart city components 		13. Jalan Landak Pudu <ul style="list-style-type: none"> Proposed landscape beautification, infrastructure maintenance, traffic circulation system management and provision of centralised parking Proposed implementation of CPTED elements and smart city components 	
10. Pekan Kepong <ul style="list-style-type: none"> Proposed landscape beautification and infrastructure maintenance Proposed implementation of CPTED elements and smart city components 		14. Taman Midah <ul style="list-style-type: none"> Proposed landscape beautification, infrastructure maintenance, and traffic circulation system management Proposed provision of centralised parking Proposed implementation of CPTED elements and smart city components 	
11. Brickfields <ul style="list-style-type: none"> Proposed landscape beautification, infrastructure maintenance, and cleanliness of the surrounding area Proposed to intensify cultural activities Proposed implementation of CPTED elements and smart city components 		15. Taman Million <ul style="list-style-type: none"> Proposed landscape beautification, infrastructure maintenance, traffic circulation system management, and provision of centralised parking Proposed implementation of CPTED elements and smart city components 	
12. Masjid India <ul style="list-style-type: none"> Proposed landscape beautification Proposed implementation of CPTED elements and smart city components 		16. Taman OUG <ul style="list-style-type: none"> Proposed landscape beautification and infrastructure maintenance Proposed implementation of CPTED elements and smart city components 	

Table 1.6.1:
Summary of Priorities of Initiatives in Commercial Area Improvement Programme (PKK) (continued)

Area	Insert Plan	Area	Insert Plan
<p>17. Medan Pasar</p> <ul style="list-style-type: none"> Proposed landscape beautification Proposed implementation of CPTED elements and smart city components 		<p>21. Chow Kit (Jalan Haji Hussain)</p> <ul style="list-style-type: none"> Proposed landscape beautification, infrastructure maintenance, and cleanliness of the surrounding area Proposed implementation of CPTED elements and smart city components 	
<p>18. Taman Maluri</p> <ul style="list-style-type: none"> Proposed landscape beautification, infrastructure maintenance, traffic circulation system management, and provision of centralised parking Proposed implementation of CPTED elements and smart city components 		<p>22. Jalan Ang Seng</p> <ul style="list-style-type: none"> Proposed landscape beautification, infrastructure maintenance, and cleanliness of the surrounding area Proposed improvements to building façades Proposed implementation of CPTED elements and smart city components 	
<p>19. Pudu Ulu</p> <ul style="list-style-type: none"> Proposed landscape beautification Proposed implementation of CPTED elements and smart city components 		<p>23. Thamby Abdullah</p> <ul style="list-style-type: none"> Proposed landscape beautification, infrastructure maintenance, and cleanliness of the surrounding area Proposed improvements to building façades Proposed implementation of CPTED elements and smart city components 	
<p>20. Changkat Bukit Bintang</p> <ul style="list-style-type: none"> Proposed landscape beautification, infrastructure maintenance, and cleanliness of the surrounding area Proposed traffic circulation system management and provision of centralised parking Proposed implementation of CPTED elements and smart city components 		<p>24. Robson Heights</p> <ul style="list-style-type: none"> Proposed landscape beautification, infrastructure maintenance, and cleanliness of the surrounding area 	

ILLUSTRATIVE EXAMPLES



Illustration of commercial areas with pedestrian mall concept.



Illustration of landscape beautification as well as provision of pedestrian walkways and micromobility vehicle routes.



Illustration of the landscape beautification and creation of an active mobility mode environment.



Illustration of the landscape beautification and provision of pedestrian walkways complete with street furniture.

SUMMARY

GOAL 1 : ENCOURAGING THE DEVELOPMENT OF KUALA LUMPUR AS AN INNOVATIVE AND PRODUCTIVE CITY

Various initiatives and implementation approaches have been proposed to realise Goal 1, which aims to encourage the development of Kuala Lumpur as an Innovative and Productive City.

The planning and implementation of Goal 1 in the KLLP2040 considers the SDGs, KLSP2040 and other national development policies. These considerations are detailed through projects, policies, programmes, planning controls and guidelines.

Strategies, initiatives and implementation approaches emphasise diversifying financial activities and commercial services, branding Kuala Lumpur as an urban tourism destination, strengthening the cultural and creative city, developing industrial clusters, driving entrepreneurial development as well as regenerating existing commercial areas into vibrant, attractive and conducive business spaces.

Table 1.1 provides shows a summary of the planning strategy and implementation proposal for Goal 1.

Table 1.1:
The summary of Planning Strategy and Implementation Proposals of Goal 1

Planning Strategy	Implementation Proposal	Implementation Approach				
		Project	Policy	Programme	Planning Control	Guideline
SP 1-1	CP 1-1.1	-	1	-	1	-
	CP 1-1.2	1	1	1	-	-
SP 1-2	CP 1-2.1	1	1	1	-	-
	CP 1-2.2	1	1	1	-	-
SP 1-3	CP 1-3.1	1	-	1	-	-
SP 1-4	CP 1-4.1	1	1	1	-	-
	CP 1-4.2	-	1	-	1	-
	CP 1-4.3	1	1	-	1	-
	CP 1-4.4	1	-	1	-	-
	CP 1-4.5	1	1	-	-	-
SP 1-5	CP 1-5.1	1	1	-	-	-
	CP 1-5.2	-	-	1	-	-
SP 1-6	CP 1-6.1	1	-	-	-	-
TOTAL		10	9	7	3	0

02



GOAL 2

FOCUSING ON DEVELOPMENT OF
KUALA LUMPUR AS AN INCLUSIVE,
EQUITABLE AND LIVEABLE CITY



GOAL 2

FOCUSING ON THE DEVELOPMENT OF KUALA LUMPUR AS AN INCLUSIVE, EQUITABLE AND LIVEABLE CITY

As a global city, Kuala Lumpur is the focus of various economic activities and national growth nodes that support the diversity of urban activities.

Housing and public facilities planning in Kuala Lumpur must be inclusive, equitable and liveable to all groups. Priority should be given towards the lower and middle-income groups, youth, senior citizens, disabled as well as non-citizens in line with the vision of a City for All.

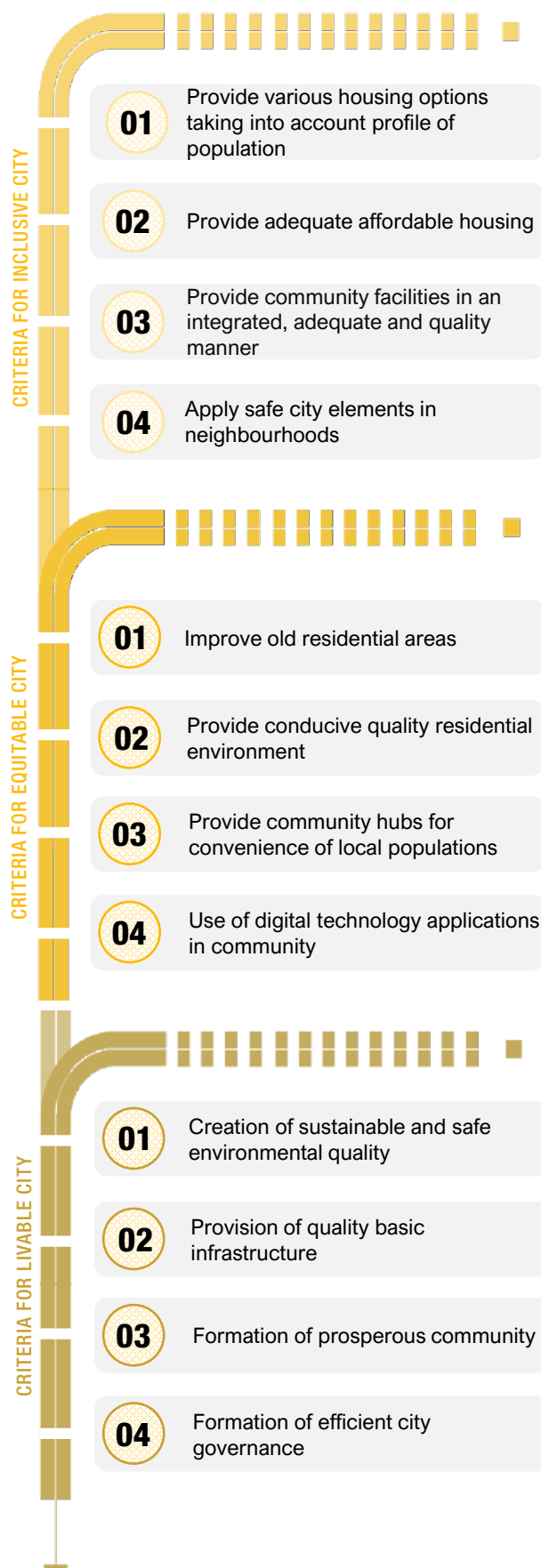
The inclusive city criteria emphasise on providing various housing options taking into account the profile of the population, providing adequate affordable housing, providing community facilities in an integrated, adequate and quality manner as well as application of safe city elements in neighbourhoods.

The equitable city criteria emphasise on improving old residential areas, providing conducive quality residential environment, providing a community hubs for the convenience of local populations and use of digital technology applications in the community.

The liveable city criteria emphasise on creating sustainable and safe environmental quality, provide quality basic infrastructure, formatting prosperous community, and efficient city governance.

Figure 2.1 lists the main criteria that need to be implemented to focus the development of Kuala Lumpur as an Inclusive, Equitable and Liveable City.

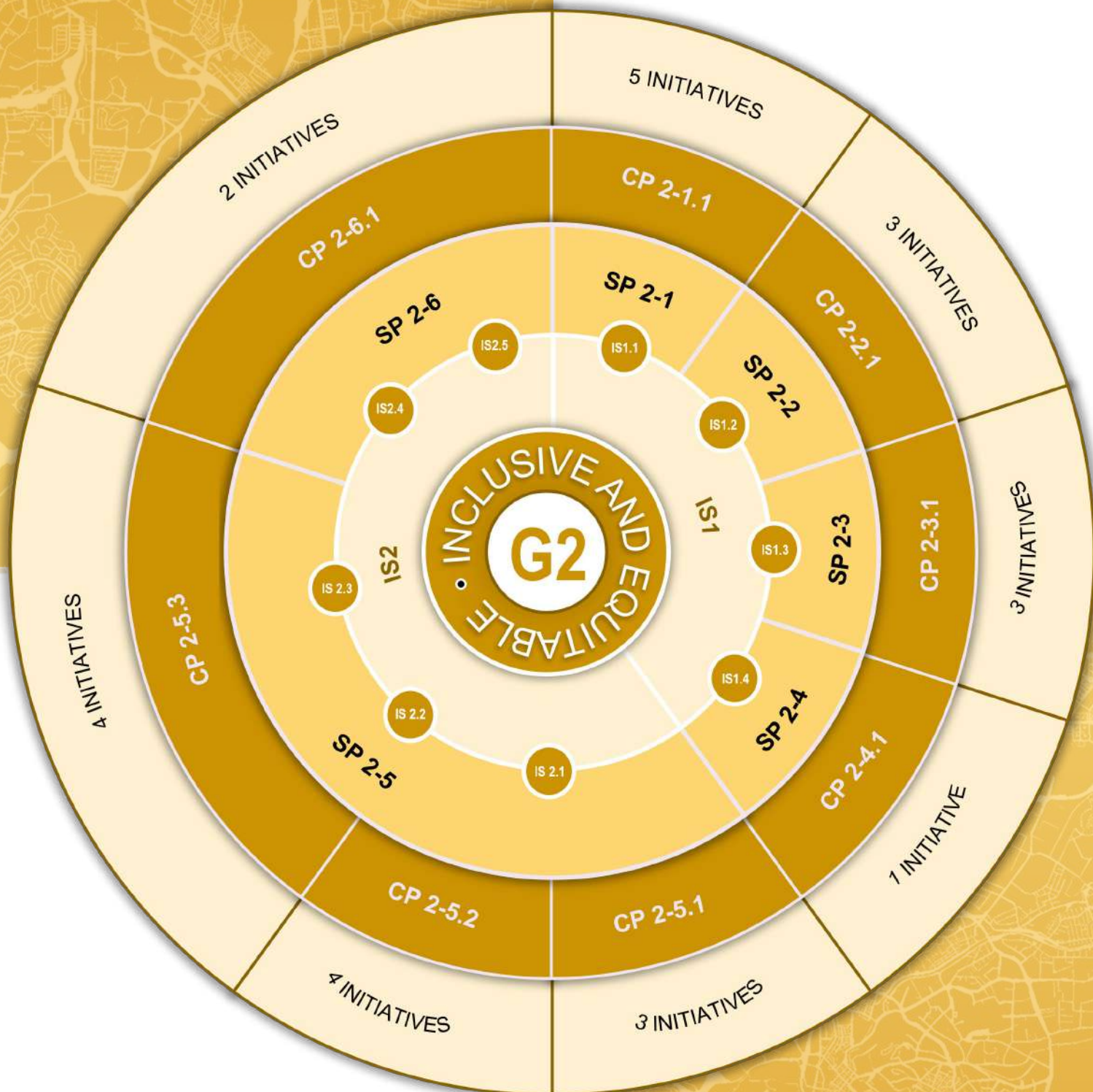
Figure 2.1:
Criteria for Inclusive, Equitable and Liveable City



KLSP2040
2 STRATEGIC DIRECTIONS
9 ACTIONS

FIGURE 2.2
SUMMARY OF PLANNING STRATEGY AND
IMPLEMENTATION PROPOSAL

GOAL 2:
FOCUSING ON DEVELOPMENT OF KUALA LUMPUR
AS AN INCLUSIVE, EQUITABLE AND LIVEABLE CITY



There are six (6) Planning Strategies (SP), eight (8) Implementation Proposals (CP) and 25 Implementation Initiatives (IP) that are formulated in line with KLSP2040 as summarized in Figure 2.2.

KLLP2040
6 PLANNING STRATEGIES
8 IMPLEMENTATION PROPOSALS

PROVIDING VARIOUS HOUSING OPTIONS TO MEET THE NEEDS OF POPULATION

SCENARIO OF HOUSING DEVELOPMENT IN KUALA LUMPUR

Kuala Lumpur is one of the main housing centres for all groups of society in Malaysia. The provision of various housing options equipped with community facilities to meet the needs of the population, especially the lower and middle-income groups is very important to ensure a comfortable and high quality of life can be attained.

The current housing stock in Kuala Lumpur is 500,803 units. The housing development trend in Kuala Lumpur over the past decade has been more focused on condominiums and multi-storey apartments.

The main issue for housing development in Kuala Lumpur is the disparity between house prices and the income of the population.

The way forward in housing development is through the provision of adequate affordable housing, the provision of housing units of various sizes for the needs of all groups of society and the provision of housing in redevelopment areas that have been identified in the KLLP2040.

Housing unit projection is based on population growth and household size by 2040. Other factors such as committed housing, backlog estimation, an immediate and regular replacement are also considered in housing projections.

Towards realising Kuala Lumpur as a city with offer various housing options to meet the needs of the population, one (1) Implementation Proposal is formulated under Planning Strategy 2-1, as shown in Figure 2.1.1.

BRIEF INFO

HOUSING REQUIREMENT IN KUALA LUMPUR BY 2040



Housing Stock, 2020

500,803 units



Projected Housing Units in 2040

762,500 units



Additional Housing Requirements
in 2040

261,697 units



Average Annual Growth Rate
(AAGR) 2013-2023

2.13%

Source: Adapted from KLSP2040

Figure 2.1.1:
Implementation Proposals for Planning Strategy 2-1

SP 2-1

PROVIDING VARIOUS HOUSING OPTIONS TO MEET THE NEEDS OF POPULATION

CP 2-1.1

Planning for Multi-Income Housing

Planning and management for future housing provision should consider the changes in population profile and households size.

Kuala Lumpur is expected to experience a change in population profile in the future in which household size will decrease from 3.2 in 2025 to 3.0 in 2040.

The number of senior citizens is projected to be higher at 17.3 percent in 2040 compared to 6.6 percent in 2020. Meanwhile, the youth will comprise almost one-third of the total population of Kuala Lumpur by 2040.

Planning of housing in Kuala Lumpur needs to be well managed and balanced, especially in ensuring multi-income housing development can be implemented.

The proposal for the implementation of CP 2-1.1 will be carried out through five (5) initiatives as follows:

1. Provide micro housing;
2. Plan For Small-sized Housing Units;
3. Develop Transit Housing;
4. Provide Housing For The Elderly; and
5. Provide Worker Housing.



CP 2-1.1

COORDINATION CONTEXT OF
SDGs AND KLSP2040



IMPLEMENTATION INITIATIVE 2-1.1A

► PROVIDE MICRO-HOUSING

Micro-housing is one of the residential development concepts aimed at meeting the needs of target groups such as newly employed singles, young entrepreneurs and professional expatriates.

This development concept serve as an encouragement to the target groups to live in the city centre, thereby helping to reduce traffic congestion caused by vehicle movement entering and exiting of Kuala Lumpur City Centre.

Provision of micro-housing is proposed to adopt the concept of adaptive reuse and does not involve new development.

The steps necessary to support the initiative are as follows:

1. Encourage provision in the Kuala Lumpur City Centre, TPZ, and TIZ areas only;
2. Focus on the implementation of regarding existing commercial buildings that are non-viable or economically unfeasible and over ten (10) years old;
3. Ensure the minimum size takes into account the needs of the target group (between 200 square feet to 450 square feet);
4. Ensure the provision of comprehensive shared supporting facilities such as prayer rooms, management offices, multipurpose halls or meeting rooms, laundry, and convenience stores; and
5. Ensure the preservation of TLK and TLM spaces according to the original building approval plan and they cannot be repurposed for other uses or converted into accessory spaces.

IMPLEMENTATION INITIATIVE 2-1.1B

► PLAN FOR SMALL-SIZED HOUSING UNITS

The planning of small-sized housing units in line with future population trends in Kuala Lumpur which indicates a demand for smaller size houses for groups such as Dual Income No Kids (DINK) and Young Urban Professionals (YUPPIES).

The housing development pattern in Kuala Lumpur will be affected by the changes in development control from density to plot ratio for land use zones of residential. However, the Land Use Zone of Residential 1 (R1) and the Land Use Zone of Traditional Village 1 (TV1) will use height control.

The use of plot ratio as an intensity control to aims to increase the viability of the development. This change also provides opportunities to provide more housing units of various sizes in line with future population needs.

The planning of small-sized house units is encouraged in the four (4) locations as follows:

1. City Centre area;
2. TPZ and TIZ area;
3. District Growth Centre areas such as in Land Use Zones of Major Commercial (MC) that allow residing elements; and
4. Other areas that are appropriate and their implementation should be subjected to the guidelines set by KLCH.

IMPLEMENTATION INITIATIVE 2-1.1C

► DEVELOP TRANSIT HOUSING

Transit housing is a housing concept implemented by private parties or related agencies that is rented out to target groups as follows:

1. Newly employed youth;
2. Newly married couple; and
3. New families immigrating to Kuala Lumpur should not exceed four (4) people per households.

That group can rent in this transit housing for a certain appropriate period of time before they have the capability to purchase and own their own house.

Transit housing can be provided in the form of shared houses such as hostel-type housing or through adaptive reuse of existing buildings. Facilities such as gyms, rest areas, reading rooms, and other suitable amenities are encouraged to be provided.

Provision of Transit Housing is encouraged in six (6) locations as follows:

1. Redevelopment areas;
2. TPZ and TIZ area;
3. Land Use Zones of Commercial areas such as Land Use Zones of City Centre Commercial (CCC), Major Commercial (MC) and Commercial (C) areas that allow residing elements;
4. Land Use Zone of Mixed Development (MX) areas;
5. Stratified housing zones areas such as Residential 2 (R2), Residential 3 (R3) and Residential 4 (R4); and
6. Land Use Zone of Institutional (INT) areas.

The provision of transit housing must also comply with the standards which is subjected to the land use zone of the proposed lot.

IMPLEMENTATION INITIATIVE 2-1.1D

► PROVIDE HOUSING FOR THE ELDERLY

National Elderly Policy anticipates that Malaysian will attain aging nation status by 2030. This status is expected to be reached when the population aged 60 years and above constitute 15 percent of the total population.

KLSP2040 stated that the elderly group aged 65 years old recorded 6.6 percent of the current population in 2020 and is expected to increase to 17.3 percent by 2040.

The proposal on the development of special housing for the elderly in Kuala Lumpur is to enable them to live independently with the provision of special facilities.

The KLLP2040 proposed various types of housing suitable for the elderly in Kuala Lumpur as follows:

1. Existing housing retrofit with a concept of elderly-friendly concept;
2. Specialized elderly housing with a retirement villages concept;
3. Open-market elderly-friendly housing with a dual-key concept; and
4. Elderly-friendly affordable housing.

The necessary actions to support this initiative are as shown in Table 2.1.1:

Table 2.1.1:
Types and Criteria of Senior Citizen Housing in Kuala Lumpur

Type of Housing	Housing Criteria
1. Existing housing retrofit with elderly-friendly concept	The interior and exterior design of the existing house is retrofitted to incorporate senior-friendly elements and features. Interior design modification elements that can be incorporated include lower placement of electrical switches, wider door openings, provision of ramps and handrails at entrances and staircases. The implementation of such policies and concepts is suitable for private residences and seniors who are able to be independent in carrying out daily activities including working, managing themselves, participating in community social activities and others.
2. Specialized elderly housing with a retirement village concept	Elderly village is defined as a newly planned area with residing elements, provide facilities and support services for the elderly. Residents in this special housing can choose to live here permanently or for a certain period (not based on day-care concept). Home ownership is encouraged on a rental or lease basis. An example of a special housing project for retirement homes is Kampung Admiralty, Singapore, a building complex that consist of housing units, a medical centre, commercial space and green areas. Provision of elderly village is encouraged in three (3) locations as follows: <ol style="list-style-type: none"> 1. Land use zones consisting of Commercial (C), Mixed Development (MX), Residential 1 (R1), Residential 2 (R2), Residential 3 (R3), Residential 4 (R4) and Institutional (INT) with certain conditions; 2. Other areas such as redevelopment areas, TPZ and TIZ; and 3. Health facilities catchment area.
3. Open market elderly-friendly housing with dual-key concept	A dual-key concept house is a house that has two (2) different living spaces. This concept is suitable to be implemented in all types of houses, whether new houses or renovated houses such as terraced, semi-detached, single or multi-storey houses. The dual-key concept is intended to allow children or immediate family to live next to the elderly to provide support to carry out their daily activities.
4. Elderly-friendly affordable housing.	Developers are encouraged to provide at least five (5) percent of the affordable housing as elderly-friendly housing complete with facilities for elderly.

► PROVIDE HOUSING FOR WORKERS

The provision of housing for workers that includes components such as worker quarters, centralized labour quarters (CLQ), or worker dormitories in the construction, manufacturing and service sectors is necessary to ensure a better quality of life in line with the vision of City for All. This housing facility is provided to the majority of workers consisting of local citizens and foreign workers.

KLCH has prepared guidelines for the temporary housing of foreign workers. The provision of housing for these workers is through:

1. New construction or retrofit of worker quarters, CLQ or worker dormitories.

The provision of housing for workers is based on the concept of dormitory rooms through building renewal or new development. The main land use zones that can be considered for housing provision include commercial, mixed development, and institutional.

The provision of temporary accommodation for workers is also suggested at suitable construction sites in accordance with the Buku Panduan Penginapan Pekerja di bawah Akta Standard Minimum Perumahan, Penginapan dan Kemudahan Pekerja 1990, Department of Labour Peninsular Malaysia (JTKSM). The criteria that qualify the temporary accommodation at the construction site are as follows:

1. Sites located far from existing CLQ provided at a distance of more than ten (10) kilometers;
2. Duration of construction less than three (3) years; and
3. Provide adequate space to accommodate employee facilities in accordance with the guidelines set by JTKSM.

BRIEF INFO

BUKU PANDUAN PENGINAPAN PEKERJA DI BAWAH AKTA STANDARD MINIMUM PERUMAHAN, PENGINAPAN DAN KEMUDAHAN PEKERJA 1990 (AKTA 446), 2021

1. Enclosed space area for one worker;
 - a. Provision of no less than three (3) square meters (dormitory-style accommodation) on 3.6 square meter (non-dormitory accommodation) for sleeping or rest room.
 - b. Provide sanitary facilities for employee's accommodation which is at least:
 - One (1) toilet and one (1) bathroom for every 15 workers.
2. Provide gas stove, dustbin, clean water and electricity supply;
3. Provide minimum basic facilities for each employee that cannot be shared:
4. Provide a bed that measures not less than 1.7 square metres. If bunk beds are provided, the space between the two (2) beds should not be less than 0.7 metres of mattress and pillow; and
5. Locked wardrobe measuring not less than 0.35 metres long, 0.35 metres wide and 0.9 metres high; and
6. Other facilities deemed necessary by the Deputy Director General of Department of Labour Peninsular Malaysia (JTKSM).

Source: Adapted from Buku Panduan Penginapan Pekerja di bawah Akta Standard Minimum Perumahan, Penginapan dan Kemudahan Pekerja (Akta 446), 2021, Department of Labour Peninsular Malaysia (JTKSM).

Note: Subject to the current guidelines in use.

BEST PRACTICE

INTEGRATED COMMERCIAL DEVELOPMENT

Bulim Square Dormitory is a new foreign worker dormitory located in Singapore and has the capacity to accommodate a total of 948 people. This dormitory complex on a 1.67 hectares site consists of seven (7) blocks of 2-storey residential buildings and one (1) block dedicated to various facilities such as canteen, laundry, recreation space, lounge, cooking space, TV room and reading room.

This project is part of the Singapore Government's programme to provide better and more spacious worker dormitories to prevent the spread of the COVID-19 pandemic through higher standards.



Location Bulim Square Dormitory, Singapore.

Source: <https://surbanajurong.com/sjconnects/dormitories-with-improved-standards-for-migrant-workers/>

PROVIDING QUALITY AND CONDUSIVE AFFORDABLE HOUSING

SCENARIO OF AFFORDABLE HOUSING DEVELOPMENT IN KUALA LUMPUR

The provision of affordable housing that is targeted according to income category is a proactive approach in line with Strategic Core 6: Regional Inclusion, Shared Prosperity Vision 2030 (WKB 2030). This is to achieve the goal of providing adequate and affordable housing.

Provision of this affordable housing should consider several factors such as affordable prices, safe living environment, innovative house design and proximity to public transport facilities. This provision enables Kuala Lumpur residents especially B40 and some M40 groups to buy and own a house.

The insufficient supply of affordable housing is the main issue for the provision of housing in Kuala Lumpur. This is due to land scarcity as well as increasing and high real estate value.

Some old housing areas have the potential to be redeveloped and turned into quality and conducive affordable housing sites. This can be implemented by increasing development intensity and provision of appropriate incentives. The number of affordable housing units in Kuala Lumpur by 2020 is 40,022 units.

KLSP2040 projects a total of 762,500 housing units until 2040 and sets target of 40 percent for affordable housing which is 305,000 units. This target is to meet the needs of B40 and some M40 groups to achieve the goal of one house for one household in line with the National Housing Policy.

Towards realising Kuala Lumpur as a city with offer the affordable housing to meet the needs of population, one (1) Implementation Proposals are formulated under Planning Strategy 2–2, as shown in Figure 2.2.1.

BRIEF INFO

DEFINITION OF AFFORDABLE HOUSING (RMM)

RMM Rental

Refers to housing built and provided by DBKL and related agencies, rented by the target groups at a set rental rate for a specific period. Examples of Rental RMM are PA, PPR dan PASS.

RMM Ownership

Referring to the development of affordable housing on government or private-owned land with selling prices in line with current policy guidelines. Examples of RMM Ownership are Residensi Wilayah, Residensi MADANI, PPAM, Prima dan SASAR.

AFFORDABLE HOUSING TARGET IN KUALA LUMPUR BY 2040



Affordable Housing Units in 2020

40,022 units



Projected Housing Units in 2040

762,500 units



40 Percent Affordable Housing Units Targeted in 2040

305,000 unit



Existing Public Housing Units and People's Housing Programme in 2024

62,136 units

Source:

1. Adapted from KLSP2040
2. Department of Community Development, KLCH, 2024

Figure 2.2.1:
Implementation Proposals for Planning Strategy 2-2

SP 2-2

PROVIDING QUALITY AND CONDUSIVE AFFORDABLE HOUSING

CP 2-2.1 Planning of Affordable Housing

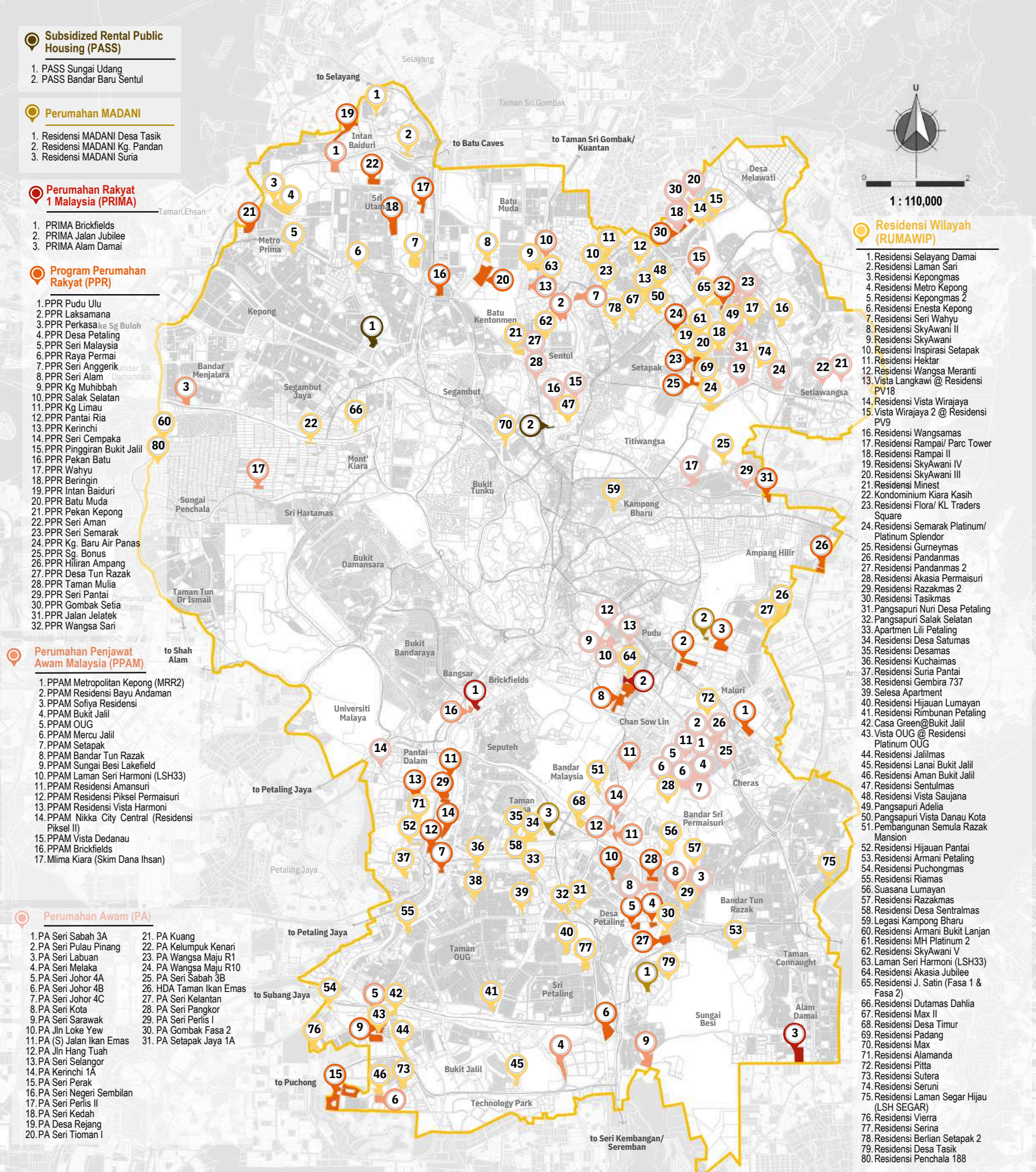


FIGURE 2.2.2 | Plan of Existing and Committed Affordable Housing In Kuala Lumpur

The main agenda for affordable housing development in Kuala Lumpur by 2040 is quality housing and conducive for ownership and rental purposes. It needs to consider affordable purchase or rental price, appropriate sizing, strategic location, good public transportation network, and equipped with quality community facilities. KLLP2040 proposes increasing number of affordable housing to be implemented through the following actions:

1. Continuing existing affordable housing program that be developed in potential areas such as:
 - a. Appropriate government and privately owned lands;
 - b. Selected redevelopment areas zoned as Land Use Zones of Mixed Development (MX) such as Bandar Malaysia and Kem Batu Kentonmen; and
 - c. Appropriate TPZ and TIZ areas.
2. Planning livable affordable housing built and provided by KLCH and related agencies through the provision of Perumahan Awam (PA) and Program Perumahan Rakyat (PPR) for the B40 group with low income that cannot afford to buy a house. This group will be given the opportunity to rent at a rental rate within a specified period. KLCH is also implements a rental housing program for the B40 group and part of the M40 group by building Subsidized Public Rental Housing (PASS);
3. Develop high-intensity affordable housing in Land Use Zones of Residential 3 (R3), Residential 4 (R4) and Mixed Development (MX) that can be integrated with open market housing; and
4. Encourage private developers to develop housing projects with affordable housing units.

The proposal for the implementation of CP2-2.1 will be carried out through three (3) initiatives as follows:

1. Continue Existing Affordable Housing Programme;
2. Provide Subsidised Public Rental Housing (PASS); and
3. Maintain Public Housing (PA) and People's Housing Program (PPR).

CP 2-2.1

COORDINATION CONTEXT OF SDGs AND KLSP2040



SUSTAINABLE DEVELOPMENT GOALS CONTEXT



KLSP2040 CONTEXT

2

GOALS

Kuala Lumpur Inclusive, Equitable and Liveable City

IS1

STRATEGIC DIRECTIONS

Conducive Housing For All Population Groups

IS 1.2

ACTIONS

Provide Quality and Conducive Affordable Housing

IMPLEMENTATION APPROACH CP 2-2.1



IMPLEMENTATION INITIATIVE 2-2.1A

► CONTINUATION EXISTING AFFORDABLE HOUSING PROGRAMME

The existing affordable housing programmes such as Perumahan Rakyat 1 Malaysia (PR1MA), Perumahan Penjawat Awam (PPAM), Perumahan Satu Anggota Satu Rumah (SASAR), Residensi Wilayah dan Residensi MADANI in Kuala Lumpur needs to be continued to enable the low-income group to have comfortable and quality house.

The necessary actions to support this initiative are as follows:

1. Develop affordable housing on government or private land with a selling price that in line with the current policy regulations;
2. Use of plot ratio incentives for development with an affordable housing component. This incentive applies to sites that can be considered for affordable housing development;
3. Establish base plot ratio up to 1:6.0 is proposed to encourage the development of affordable housing. However, coordination needs to be made regarding the allocation of incentive intensity in line with the affordable housing policy by the Department of Federal Territory (JWP); and
4. Affordable housing planning needs to emphasise on the provision of adequate and quality community facilities.



Location: Residensi Wilayah - Residensi Kepongmas
Existing affordable housing programme in Kuala Lumpur offered comfortable and quality house.

IMPLEMENTATION INITIATIVE 2-2.1B

► PROVIDE SUBSIDISED RENTAL PUBLIC HOUSING (PASS)

Subsidized Public Rental Housing (PASS) is one of KLCH's efforts to provide housing for the B40 and some M40 groups to live in the city. Through PASS project, KLCH will provide housing facilities that will be rented to the target group for a certain period. This initiative is among the approaches taken by JWP to alleviate urban poverty in Kuala Lumpur.

PASS will be rented out for a suitable period. After the rental period end, the tenant must find a new residence and be replaced by a new tenant. Beside that, PASS need to be equipped with community facilities to ensure the comfort of residents.

There is one (1) PASS project which is the Residensi Sungai Udang in Segambut that has been completed in 2021. The project comprise of 1,251 units with an area of 807 square feet for each unit and is equipped with three (3) rooms and two (2) bathroom.

There are eight (8) sites that have been identified as suitable to be developed as PASS on land owned by KLCH as shown in Table 2.2.1.

BEST PRACTICE

PROVISION OF ENFIELD COUNCIL, UNITED KINGDOM

Council Housing is provided by Enfield Council located at Edmonton N9. This housing scheme can be implemented through a grant that has been given by the Greater London Authorities (GLA) to Enfield Council in meeting the demand of residents for the provision of good and quality family housing. This Council Housing scheme consists of 12 new units for family homes and ten (10) council flats for the elderly.



Source: Facebook Mayor of London, Sadiq Khan

Design of Council Homes at Enfield Council, United Kingdom

Table 2.2.1:

Proposed of Subsidised Rental Public Housing Plan on Land Owned by KLCH

1	Bandar Baru Sentul 0.57 hectares	
2	Taman Desa 7.00 hectares	
3	Pekan Salak Selatan 1.58 hectares	
4	Jalan Selimang, Cheras 1.36 hectares	
5	Tasik Permaisuri 0.41 hectares	
6	Taman Alam Damai 0.45 hectares	
7	Wayfield Sg. Besi 0.82 hectares	
8	Taman Desa Seputeh 1.12 hectares	

Note: Any amendments subject to KLCH's policies and plans from time to time.

IMPLEMENTATION INITIATIVE 2-2.1C

► MAINTAIN PUBLIC HOUSING (PA) AND PROGRAM PERUMAHAN RAKYAT (PPR)

The initiative to maintain the number of PA and PPR units is one of KLCH's efforts to provide housing for low-income people who are unable to own house. Data for year 2024 shows that there are 27,774 PA units and 34,362 PPR units in Kuala Lumpur. PA and PPR have been zoned as land use zones of Residential 4 (R4) in the KLLP2040 with a base plot ratio up to 1:6.0.

KLLP2040 proposes that PA and PPR involved in the redevelopment program increase by at least 20 percent from the existing units for affordable housing (including replacement units).

Most PAs are more than 30 years old and no longer suitable for the current environment such as PA Seri Selangor in Pudu and PA Sri Pahang in Jalan Bukit Bangsar which was completed in 1975 and is now over 45 years old. These PA units are between 530 square feet and 560 square feet, which are no longer suitable for family households today.

The redevelopment of the PA in Kuala Lumpur will provide an opportunity for the provision of more affordable housing units that are needed. The redevelopment enables the improvement of the provision of community facilities, green space and a variety of mixed activities to support the current and future needs of local residents, such as Residensi Kerinchi and 1 Razak Mansion.

BRIEF INFO

NUMBER OF AVAILABLE PA AND PPR UNITS IN KUALA LUMPUR



Perumahan Awam (PA)

27,774 Units

Program Perumahan Rakyat (PPR)

34,362 Units

Source: Department of Community Development and Urban Wellbeing, KLCH, 2024.



Location: PPR Seri Semarak
Residential areas that implement the Program Perumahan Rakyat (PPR).



SCENARIO OF HOMELESSNESS IN KUALA LUMPUR

The homeless are people without permanent place to live. The number of homeless people is now increasing due to the many people who have lost their jobs and livelihoods following the spread of the COVID-19 pandemic.

Homelessness issue in Kuala Lumpur is often linked to the problems of cleanliness, safety and city image. A preliminary survey conducted in 2019 found that 63 percent of the 73 respondents who were homeless stated that one of the reasons they became homeless was due to unemployment while another 37 percent was due to low income.

Cooperation between KLCH and various responsible agencies is needed to address and meet the needs of the homeless in an effort to ensure the well-being of this group.

Towards realising Kuala Lumpur as a city with realize and address the needs of the homeless, one (1) Implementation Proposal is formulated under Planning Strategy 2–3, as shown in Figure 2.3.1.

Figure 2.3.1:
Implementation Proposal for Planning Strategy 2-3

SP 2-3

ADDRESSING THE NEEDS OF THE HOMELESS

CP 2-3.1

Improving Welfare of The Homeless

KLCH as an agency under JWP is always committed in addressing the homelessness issues within Kuala Lumpur. Homeless people need to be managed and controlled to avoid negative impacts on the well-being of Kuala Lumpur.

Areas where the homeless are concentrated are around:

1. Jalan Tuanku Abdul Rahman;
2. Jalan Tiong Nam (Chow Kit);
3. Masjid Jamek Sultan Abdul Samad;
4. Masjid Negara;
5. Menara Maybank;
6. Mydin Kotaraya;
7. Pasar Seni (Central Market);
8. Dataran Merdeka;
9. Jalan Masjid India; and
10. Jalan Silang.

The proposal for the implementation of CP 2-3.1 will be carried out through three (3) initiatives as follows:

1. Facilitate Provision of Transit Centers for Homeless;
2. Facilitate Provision of Temporary Homeless Shelters (PSG); and
3. Develop Homeless Transformation Centre.



Location: Anjung Singgah, Jalan Hang Lekiu, Kuala Lumpur

Anjung Singgah is a facility provided for homeless in Kuala Lumpur.

CP 2-3.1

COORDINATION CONTEXT OF
SDGs AND KLSP2040



IMPLEMENTATION INITIATIVE 2-3.1A**► FACILITATE PROVISION OF TRANSIT CENTRE FOR HOMELESS**

Provision of Homeless Transit Centre is a temporary accommodation facility that is equipped with basic facilities such as beds, toilets, bathrooms, prayer rooms and dining rooms.

Homeless transit centres have been provided in three (3) locations as follows:

1. Pusat Transit Gelandangan Kuala Lumpur (Jalan Pahang)
2. Pusat Khidmat Gelandangan (Jalan Medan Tuanku); and
3. Anjung Singgah (Jalan Hang Lekiu).

The necessary actions to support this initiative are as follows:

1. Identify suitable sites or buildings for homeless transit centre;
2. Determine appropriate land use classification for the homeless transit centre; and
3. Provide logistical and operational assistance to agencies involved.

IMPLEMENTATION INITIATIVE 2-3.1C**► DEVELOPE HOMELESS TRANSFORMATION CENTRE**

The Homeless Transformation Centre is an initiative by JWP and KLCH to provide temporary accommodation and skills training to the homeless. The development of this transformation centre can assist the homeless towards a more positive life. The current programme being implemented is known as Hijrah Warrior.

Anjung Kelana is one of the existing homeless transformation centres in Taman Danau Desa. This transformation centre provides training and guidance in implementing urban farming projects, business management training and appropriate skills. The training is a preparation for the homeless to live independently.

Proposals to develop Homeless Transformation Centres in other areas can also be implemented in appropriate commercial buildings.

IMPLEMENTATION INITIATIVE 2-3.1C**► FACILITATE PROVISION OF TEMPORARY HOMELESS CENTRES (PSG)**

The spread of COVID-19 pandemic in Kuala Lumpur has caused several existing community centres and multi-purpose halls to be converted into Temporary Homeless Centres (PSG).

PSG can provide temporary accommodation for this group which tends to increase due to the spreading of the pandemic. In the event of future pandemic, crisis or disaster, this PSG approach can be implemented in collaboration with relevant agencies.

Ten (10) PSGs that have been identified are as follows:

1. PSG Sentul Perdana;
2. PSG Ampang Hilir;
3. PSG Desa Tasik;
4. PSG Setiawangsa;
5. PSG Bukit Bandaraya;
6. PSG Seri Delima;
7. PSG Alam Damai;
8. PSG Bukit Damansara;
9. PSG PT80; and
10. PSG Melati Impian.



Location: Anjung Kelana, Taman Danau Desa
Source: Facebook Wilayahku

Urban farming management training project carried out at Anjung Kelana.

IMPROVING THE OLD STABLE RESIDENTIAL AREA

SCENARIO OF ESTABLISHED RESIDENTIAL IN KUALA LUMPUR

Development trends in Kuala Lumpur have caused existing, established residential areas to be subjected to constant development pressure. The old established residential area in Kuala Lumpur refers to landed and landed-strata housing that has been over 30 years old and experienced changes in terms of population profile. The provision of infrastructure and facilities in this area is mostly provided based on previous standards and needs to be replaced or upgraded considering the current needs of the residents.

The KLLP2040 has classified this housing area as a Land Use Zone of Established Residential (EH). Among the areas included are Taman OUG, Bukit Jalil, Taman Connaught, Alam Damai, Batu Muda, Kepong, Bandar Menjalara, Segambut Jaya, Bukit Damansara, Seputeh, Bangsar, Taman Desa and Sri Petaling.

Towards realising Kuala Lumpur as a city with improvement of the old established residential area, one (1) Implementation Proposal is formulated under Planning Strategy 2-4, as shown in Figure 2.4.1.

BRIEF INFO

DEFINITION OF ESTABLISHED RESIDENTIAL

Refers to the land use zone of a well-planned landed and landed strata residential area with low intensity, consisting of detached, semi-detached and terrace houses, of good quality and condition as well as undeveloped lots located among existing residential lots. This area also provides complete provision of facilities and infrastructure that will not experience drastic typological changes during the development plan period. Ensuring the preservation of original character, height control, design and only allowing small-scale structural changes.

Source: Adapted from KLSP2040

Figure 2.4.1:
Implementation Proposal for Planning Strategy 2-4

SP 2-4

IMPROVING OLD ESTABLISHED RESIDENTIAL AREAS

CP 2-4.1

Regeneration of Old Residential Areas



Location: Kepong, Kuala Lumpur
Source: <https://www.shutterstock.com/RoslanR>

The view of a stable residential area in part of Kuala Lumpur.

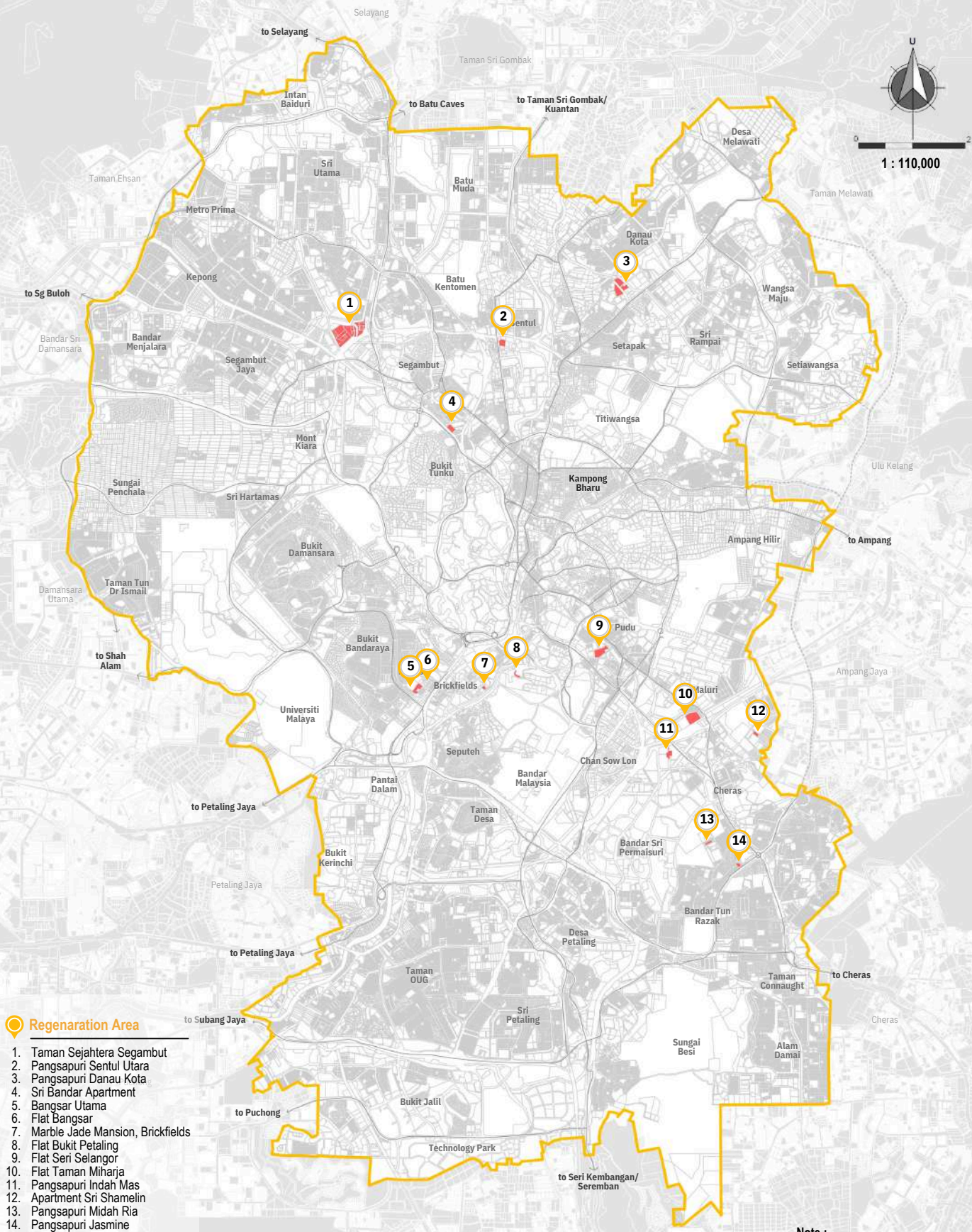


FIGURE 2.4.2 | Plan of Proposed For Regeneration Area

CP 2-4.1:**REGENERATION OF OLD RESIDENTIAL AREAS**

The regeneration programme will involve a Neighbourhood Improvement Programme (PKJ) in the old residential areas that have been identified in KLSP2040. PKJ will be implemented through beautification work as well as improvement of area and building. PKJ does not involve any demolition or new construction at the identified location. Physically, this residential area needs improvement on the existing building structure, level of infrastructure and local facilities.

The implementation of PKJ will involve private sectors and premises owners through collective responsibility to ensure their areas remain viable. Financial resources for the implementation of PKJ are through funding and contributions from corporate bodies, stakeholders and the government.

PKJ for established and high-rise housing is on upgrading programme for urban activities and quality enhancement. PKJ will activate and improve the quality of old and dilapidated residential areas throughout Kuala Lumpur. It needs to be carried out comprehensively and inclusively between KLCH with the involvement of all homeowners.

The proposal for the implementation of CP 2-4.1 is carried out through one (1) initiative as follows:

1. Implement Regeneration of Old Residential Areas.

CP 2-4.1**COORDINATION CONTEXT OF SDGs AND KLSP2040****SUSTAINABLE DEVELOPMENT GOALS CONTEXT****KLSP2040 CONTEXT****2****GOALS**

Kuala Lumpur Inclusive, Equitable and Livable City

IS1**STRATEGIC DIRECTIONS**

Conducive Housing For All Population Groups

IS 1.4**ACTIONS**

Improve Old Established Housing Areas

IMPLEMENTATION APPROACH CP 2-4.1

IMPLEMENTATION INITIATIVE 2-4.1A

► IMPLEMENT REGENERATION OF OLD HIGH-RISE RESIDENTIAL AREAS

Regeneration initiatives through PKJ can improve the quality of the appearance and image of a city by improving the visual value of an area with new elements that suit its environment.

PKJ can also re-create livable urban elements in high-rise and establish housing areas through appropriate implementation actions for the residents of Kuala Lumpur to live, work, socialize, worship, and leisure.

There are some old residential areas that are no longer capable of meeting the current needs and trends for community facilities and existing infrastructure. The regeneration program for this area is suitable to be implemented to meet the needs of the residents in the area. The implementation of the PKJ should take into account the suitability of the location, physical condition, and capacity of infrastructure and facilities according to the current population and needs of the residents.

Other suitable areas can also be considered for implementation of the regeneration program. The regeneration program of old residential areas can also be implemented before the redevelopment program is carried out.


The implementation action of the regeneration program in older residential areas are as follows:

1. Upgrade public spaces by KLCH in the regeneration area involves the following components:
 - a. Street furniture;
 - b. Landscape;
 - c. Infrastructure and community facilities;
 - d. Pedestrian walkway;
 - e. Bicycle lane; and
 - f. Other related components.
2. Implement beautification, improvement, and restoration works for areas including buildings, facilities, and landscapes;
3. Provide assistance and logistical facilities for the implementation of PKJ;
4. Implement the Community Improvement Districts (CIDs) program;

5. Promote Concept of Crime Prevention Through Environmental Design (CPTED);
6. Implement Green Building and Low Carbon City Concept to reduce maintenance costs; and
7. Improve provision of facilities for the disabled and the elderly.



Table 2.4.1:
Proposed Regeneration Areas

1	Taman Sejahtera Segambut 12.37 hectares		8	Flat Bukit Petaling 0.55 hectares	
2	Pangsapuri Sentul Utara 1.37 hectares		9	Flat Seri Selangor 3.05 hectares	
3	Pangsapuri Danau Kota 4.52 hectares		10	Flat Taman Miharja 4.39 hectares	
4	Apartmen Sri Bandar 1.21 hectares		11	Pangsapuri Indah Mas 1.25 hectares	
5	Bangsar Utama 0.65 hectares		12	Apartmen Sri Shamelin 0.55 hectares	
6	Flat Bangsar 0.95 hectares		13	Pangsapuri Midah Ria 0.42 hectares	
7	Marble Jade Mansion, Brickfields 0.31 hectares		14	Pangsapuri Jasmine 0.40 hectares	

PLANNING STRATEGY

SP 2-5

PROVIDING ADEQUATE, QUALITY AND INTEGRATED COMMUNITY FACILITIES

SCENARIO OF COMMUNITY FACILITIES PROVISION IN KUALA LUMPUR

The provision of community facilities is important in meeting the social needs of local residents. Currently, there are six (6) categories of community facilities being provided as follows:

1. Educational Facilities;
2. Health Facilities;
3. Safety Facilities;
4. Religious Facilities;
5. Community Facilities; and
6. Cemetery Facilities.

Existing community facilities in Kuala Lumpur need to be increased in numbers, upgraded and improved in quality to accommodate its population growth. Most of the existing community facilities in neighbourhoods are in the form of free-standing buildings and are not centrally located. The provision of community facilities in a decentralised manner with unsuitable locations causes the facilities to be underutilised. Among the community facilities that are insufficient to meet the needs of the current population are clinics, kindergartens and schools.

There are existing community facilities that are underutilised when the population profile changes, such as kindergarten facilities in areas dominated by the elderly population. The location of the facility was also found to be unsuitable due to changes in development and traffic congestion.

KLLP2040 has identified community facility sites under the relevant technical agencies that have been reserved for future development. However, sites that have the potential to be developed for community facilities in the future can be considered and are subject to relevant policies and guidelines.

The listed facilities are priorities expected to be implemented within the planning period. However, additional sites that have also been identified for community facility as shown in the KLDCP2024 map.

The challenges of providing new facilities in Kuala Lumpur are as follows:

1. Lack of land that causes the facilities provided to be insufficient;
2. Location that is far from the neighbourhood;
3. Vacant public facility sites are converted for other uses such as housing;
4. Not in line with the needs and demands of the local population;
5. The pace of technology and changes in society's lifestyle; and
6. Improving the provision of facilities for the disable and the elderly.

The provision of community facilities should use a new approach that is integrated, multi-purpose and can be developed in a stratified manner. The location of the community facilities should be easily accessible by the public and within walking distance to pedestrian walkways and micromobility vehicle routes. Relevant guidelines need to be prepared to support the provision of quality and sufficient community facilities.

Towards realising Kuala Lumpur as a city with provision of adequate, quality and integrated community facilities, one (1) Implementation Proposal is formulated under Planning Strategy 2-5, as shown in Figure 2.5.1.

Figure 2.5.1:
Implementation Proposals for Planning Strategy 2-5.



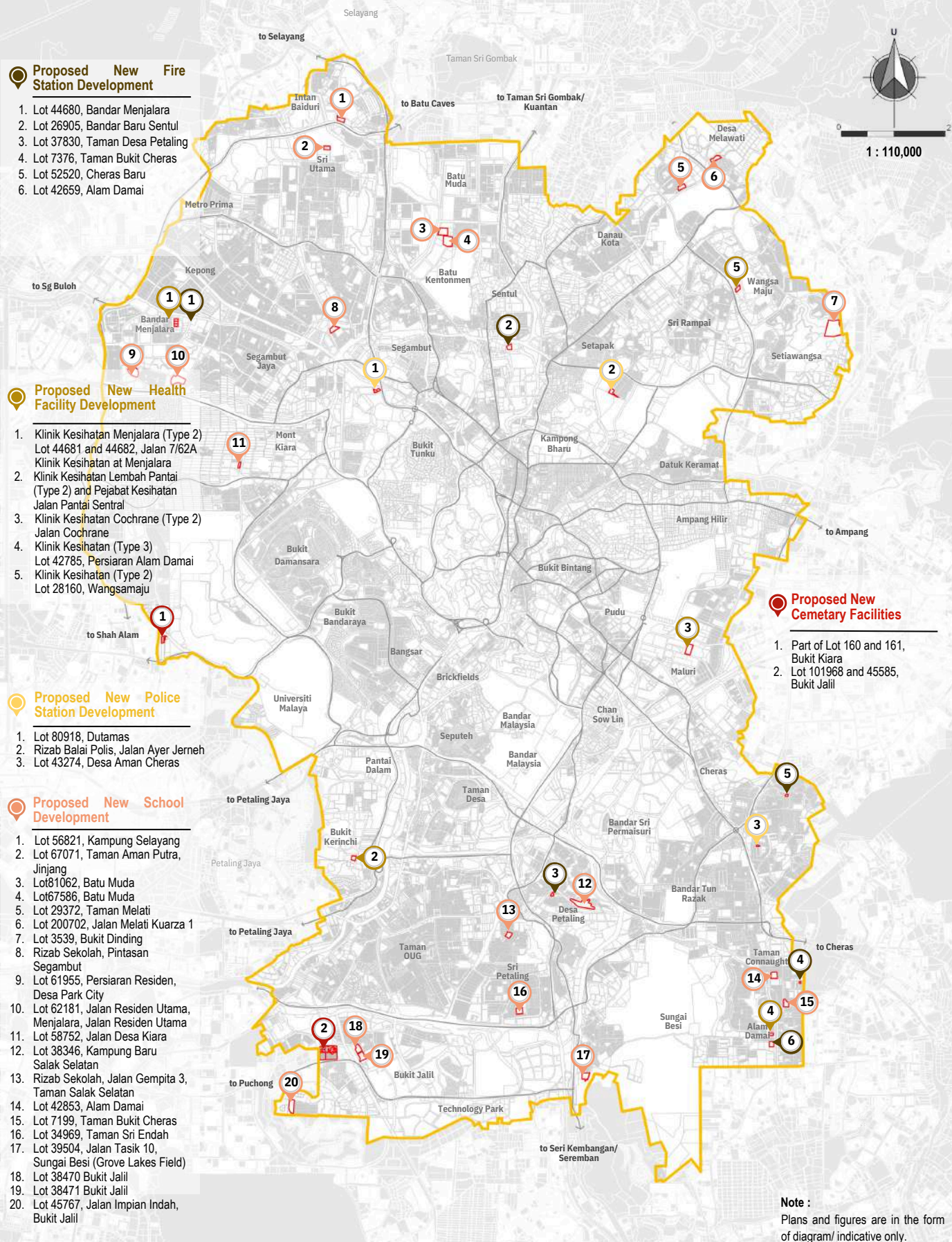


FIGURE 2.5.2 | Plan of Proposed for Public Facilities in Kuala Lumpur

Legend :

- Public Facilities (PF1)
- Cemetary and Mortuary Management (CE)

Others

- Main Road
- Kuala Lumpur Boundary

CP 2-5.1:**PROVIDING INTEGRATED COMMUNITY FACILITIES, MULTIPURPOSE AND SHARED SPACES**

The distribution of community facilities needs to be expanded in terms of number and suitable location to ensure adequacy and easy accessibility for the local residents. The aspect of facilities also emphasizes the need for animal protection in accordance with the provisions of the Animal Welfare Act 2015 (Act 772), subject to suitability and established regulations. New development including redevelopment needs to consider population increase, location of nearby facilities and good accessibility in determining the needs and distribution of community facilities in the development and surrounding areas.

The concept of integrated community facilities, shared use, and space sharing within existing and planned development can optimise land utilisation. The centralised placement of facilities, shared space utilisation and stratified development can enhance accessibility for residents. Planning for the development of community facilities up to the year 2040 is based on the availability and capacity of existing facilities as well as additional development components based on residing elements.

The proposal for the implementation of CP 2-5.1 is carried out through three (3) initiatives as follows:

1. Develop Integrated Community Facilities For Public Housing (PA) Redevelopment;
2. Provide Integrated Community Facilities In Stratified Development; and
3. Providing Community Facilities For Animal Protection.



IMPLEMENTATION INITIATIVE 2-5.1A

► DEVELOP INTEGRATED COMMUNITY FACILITIES FOR PUBLIC HOUSING (PA) REDEVELOPMENT

The KLLP2040 has identified 13 PA sites that will be redeveloped. This redevelopment will increase the number of housing units and provide opportunities for the provision of adequate, centralised and multi-purpose new community facilities.

Redevelopment of PA needs to ensure that existing community facilities are maintained. Additional numbers and capacity of new community facilities should meet future needs.

The existing community facilities that need to be maintained and improved in line with the proposed redevelopment requirements are shown in Table 2.5.1.

Planning and development for these community facilities should consider safe and friendly elements for all community groups, especially in the aspects of accessibility, safety as well as comfort.

Table 2.5.1:
Existing Community Facilities That Need To Be Maintained And Improved

Public Housing Involved With Redevelopment	Existing Community Facilities												
	Madrasah	Preschool	Library	Internet Centre	Surau (S) / Tokong (T) / Temple (K)	Police station	Multi-purpose Hall / Community Hall	Community Centre	Elderly Centre	Community Clinic	Community Rehabilitation Centre	Court / Playground	Business space
1. PA Seri Tioman I		✓		✓	S		✓					✓	
2. PA Seri Langkawi	✓	✓					✓					✓	✓
3. PA Setapak Jaya 1A							✓					✓	
4. PA Seri Kelantan	✓	✓			S					✓		✓	✓
5. PA Bandar Baru Sentul													
6. PA Negeri Sembilan		✓						✓				✓	
7. PA Seri Perak	✓	✓					✓				✓	✓	
8. PA Seri Perlis II		✓			S		✓	✓	✓				✓
9. PA Seri Perlis I					S		✓					✓	
10. PA Jln Hang Tuah					T K								✓
11. PA Jln Loke Yew							✓						✓
12. PA Seri Sarawak		✓	✓	✓	S								✓
13. PA Seri Selangor		✓				✓		✓				✓	✓

IMPLEMENTATION INITIATIVE 2-5.1B

► PROVIDE INTEGRATED COMMUNITY FACILITIES IN STRATIFIED DEVELOPMENT

The provision of community facilities in stratified development should be integrated and centralised under one (1) roof. This concept involves the provision of dedicated spaces for community facilities that can be accessed by the public or restricted to residents of stratified development.

This approach can optimise land use, integrate community activities and ensure efficient management of community facilities in stratified development.

The KLLP2040 proposes the provision of community facilities in three (3) types of implementation, as follows:

1. Community facilities in one building;
2. Community facilities integrate with housing and commercial components; and
3. Community facilities integrate with other suitable facilities.

The community facilities provided should comply with KLCH's Planning Guidelines that have been established. The proposed community facilities are as follows:

1. Multi-purpose Hall;
2. Surau and Other Religious Facilities;
3. Kindergartens and Nurseries;
4. Hawker's space or Food Court;
5. Elderly Centre;
6. Community Clinic;
7. Police Bit;
8. Community Library or IT Centre; and
9. Recycling Centre.

BRIEF INFO

INTEGRATION OF COMMUNITY FACILITIES IN STRATIFIED DEVELOPMENT



Illustration of the integration of community facilities in stratified development.

IMPLEMENTATION INITIATIVE 2-5.1C

► PROVIDE COMMUNITY FACILITIES FOR ANIMAL PROTECTION

The provision of community facilities for animal protection is also taken into account in the planning of community facilities in Kuala Lumpur in the future. This animal shelter is provided to address issues of disturbance and public safety risks during daily activities, as well as to ensure that these animals are not further mistreated.

Animal shelters are places or premises where rescued stray animals are housed. The establishment of animal shelters is in accordance with the Animal Welfare Act 2015 (Act 772) and is subject to guidelines such as the Kod Amalan Kebajikan Haiwan Aktiviti Kawalan Haiwan Terbiar Serta Pengurusan Tempat Kurungan dan Perlindungan Haiwan.

The proposed actions for establishing an animal shelter are as follows:

1. Identify suitable categories of animals that do not consist of wild or protected animals;
2. Ensure the suitability of the location, site area, and surroundings;
3. Ensure that it does not cause disturbances to the environment; and
4. Obtain the views of the surrounding community

KLLP2040 proposes that the establishment of animal shelters be permitted under certain conditions in the Land Use Zone of Major Commercial (MC), Commercial (C), Mixed Development (MX), Mixed Industry (MXI), Institution (INT), and Private Open Space (OS3).

BRIEF INFO

KOD AMALAN KEBAJIKAN HAIWAN (KAKH)

It is a standard and guideline related to animal welfare provided by the Department of Veterinary Services Malaysia as a reference for all parties to ensure the welfare and well-being of the involved animals are always preserved, especially in aspects of stray animal control management and animal shelter management.

Source: Department of Veterinary Services Malaysia, 2020

BEST PRACTICE

KOTOR: CITY OF CATS

Kotor, located in Montenegro, is an ancient city surrounded by walls and listed as a UNESCO World Heritage Site. It is one of the main tourist destinations in Montenegro, known for its unique scenery and the population of cats that inhabit the city. Cats are the main attraction in this city because they are considered a symbol of good luck.

The provision of protective facilities for cats includes beds, food and water, waste management, and others. There is an organization responsible for managing and ensuring the welfare of these cats is preserved.



Source: <https://www.portomontenegro.com/attractions-events/old-town-kotor/>

CP 2-5.2:**PROVIDING ADEQUATE, QUALITY AND ACCESSIBLE EDUCATIONAL, HEALTH AND SAFETY FACILITIES**

The provision of adequate, quality and integrated educational facilities is to ensure that is accessible to all levels of society in line with population growth by 2040.

Health facilities in Kuala Lumpur need to be improved by 2040 to accommodate population growth so that quality health services can be delivered and uplift the well-being of local populations.

Improvement of safety facilities in Kuala Lumpur should also be given priority. Security measures and a quick level of service delivery must be provided to ensure a safe living environment can be achieved in line with the Crime Prevention Through Environmental Design (CPTED) Implementation Guide.

The proposal for the implementation of CP 2-5.2 is carried out through four (4) initiatives as follows:

1. Increase Access to Children's Early Education;
2. Provide Quality Primary and Secondary School Facilities;
3. Improve Access to Health Facilities; and
4. Provide Comprehensive Safety Facilities.

CP 2-5.2**COORDINATION CONTEXT OF SDGs AND KLSP2040**

IMPLEMENTATION INITIATIVE

2-5.2A

► INCREASE ACCESS TO CHILDREN'S EARLY EDUCATION

Early educational facilities including kindergartens and nurseries provide a foundation of knowledge for children. Kindergarten is defined as preschool education for children between the ages of four (4) to six (6) years. A nursery is defined as a premise that accepts four (4) children or more under four (4) years of age to be looked after for a fee.

Kindergartens and nurseries will be provided in affordable housing areas, community centres, shop lot buildings and government offices to increase the level of accessibility to these facilities.

Provision of kindergartens and nurseries in accordance with the KLCH Planning Guidelines is important to ensure that facilities are provided effectively and conveniently as well as can ensure children's safety.

There are two (2) types of early childhood educational facilities as follows:

1. Provision of kindergartens and nurseries in residential areas; and
2. Provision of kindergartens and nurseries in integrated office, commercial and institutional buildings.

The proposed actions to support this initiative are as follows:

1. Provide an appropriate area along with support facilities for operational purposes;
2. Ensure the location is equipped with good access;
3. Ensure that it does not cause disturbances to the environment; and
4. Obtain approval and register with the involved agency.



Early childhood education with playschool concept.

IMPLEMENTATION INITIATIVE 2-5.2B

► PROVIDE QUALITY PRIMARY AND SECONDARY SCHOOL FACILITIES

The provision of educational facilities should be of high quality and accessible to local populations. In addition, it also needs to be provided according to the catchment area and be within walking distance.

Population growth by 2040 shows that the school-age population group will increase. Therefore, the provision of primary and secondary school education facilities should be adequate and of quality to meet future needs.

The KLLP2040 proposes several actions in the provision of primary and secondary school facilities as follows:

1. Upgrade and promote vertical development to increase classroom capacity without expansion of school area;
2. Encourage common usage of school facilities between adjacent schools such as fields and other related facilities;
3. Retain designated sites for school development that have yet to be development as future school site requirements; and
4. Provide school facilities to cater for the needs of new populations, especially for large-scale and high-intensity redevelopment.

There are 20 sites owned by the Malaysian Ministry of Education (KPM) and school reserve that have been identified and proposed to be developed as primary and secondary schools as shown in Figure 2.5.2 and Table 2.5.2.

BRIEF INFO

CRITERIA OF EDUCATIONAL FACILITY SITE LOCATIONS

1. Proximity to residential areas and public transport services such as buses, LRT and so on;
2. Proximity to existing roads with less traffic such as small collector roads;
3. Availability of utility supply such as water supply, electricity and communication system; and
4. Distant from industrial areas, airports, mining, quarries and highways.

Source: Adapted from GPP Kemudahan Masyarakat, PLANMalaysia, 2022



Location: St. John's Institution



Location: SMK Danau Kota, Setapak











The provision of adequate and quality educational facilities to meet the future needs of the people in Kuala Lumpur.

Table 2.5.2:**Proposed of New School Development**

1 Lot 56821, Kampung Selayang 1.22 hectares		6 Lot 200702, Jalan Melati Kuarza 1 1.45 hectares	
2 Lot 67071, Taman Aman Putra, Jinjang 0.94 hectares		7 Lot 3539, Bukit Dinding 9.60 hectares	
3 Lot 81062, Batu Muda 2.65 hectares		8 Rizab Sekolah Pintasan Segambut 1.50 hectares	
4 Lot 67586, Batu Muda 3.74 hectares		9 Lot 61955, Persiaran Residen, Desa Park City 3.33 hectares	
5 Lot 29372, Taman Melati 1.22 hectares		10 Lot 62181, Jalan Residen Utama, Menjalara, Jalan Residen Utama 4.07 hectares	

Table 2.5.2:

Proposed of New School Development (continued)

<p>11</p> <p>Lot 58752, Jalan Desa Kiara</p> <p>0.83 hectares</p>		<p>16</p> <p>Lot 34969, Taman Sri Endah</p> <p>1.55 hectares</p>	
<p>12</p> <p>Lot 38346, Kampung Baru Salak Selatan</p> <p>5.35 hectares</p>		<p>17</p> <p>Lot 39504, Jalan Tasik 10, Sungai Besi (Grove Lakes Field)</p> <p>1.90 hectares</p>	
<p>13</p> <p>Rizab Sekolah, Jalan Gempita 3, Taman Salak Selatan</p> <p>1.20 hectares</p>		<p>18</p> <p>Lot 38470, Bukit Jalil</p> <p>1.67 hectares</p>	
<p>14</p> <p>Lot 42853, Alam Damai</p> <p>1.69 hectares</p>		<p>19</p> <p>Lot 38471, Bukit Jalil</p> <p>2.01 hectares</p>	
<p>15</p> <p>Lot 7199, Taman Bukit Cheras</p> <p>1.38 hectares</p>		<p>20</p> <p>Lot 45767, Jalan Impian Indah, Bukit Jalil</p> <p>2.75 hectares</p>	

► IMPROVE ACCESS TO HEALTH FACILITIES

Planning of health facilities is essential to provide comfortable and easily accessible services to the community. An adequate health facility needs to be developed in a suitable location so it can be fully utilised by local populations and generate a quality living environment.

The appropriate catchment area for health clinics including dental as well as maternal and child health clinics is 0.8 kilometres to 1.6 kilometres in considering pedestrian and cycling distance in line with the current applicable guidelines.





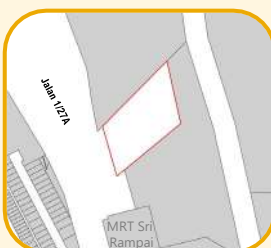
Provision of health clinics needs to accommodate increasing number of patients and long waiting period to receive treatment raised by most Kuala Lumpur residents. The COVID-19 pandemic and various other possible health crisis make the provision of health facilities increasingly more important and need to be planned comprehensively.

The KLLP2040 proposes several actions that can be implemented in the provision of health facilities as follows:

1. Upgrade existing health clinics to further improve the quality of services to residents;
2. Expedite development of new health clinic on land owned by the Ministry of Health Malaysia (KKM);
3. Develop public health clinic within large scale redevelopment area;
4. Establish community clinics in potential and suitable locations; and
5. Improve public health clinic services with the support of services provided by private clinics.

The KLLP2040 has identified and proposed five (5) sites owned by Ministry of Health Malaysia (KKM) to be developed as health clinics, as shown in Figure 2.5.2 and Table 2.5.3.

Table 2.5.3:
Proposed of New Health Facility Development

1	Klinik Kesihatan Menjalara (Type 2) Lot 44681 dan 44682, Jalan 7/62A 0.83 hectares	
2	Klinik Kesihatan Lembah Pantai (Type 2) dan Pejabat Kesihatan Lot 480932, Jalan Pantai Sentral 0.84 hectares	
3	Klinik Kesihatan Cochrane (Type 2) Jalan Cochrane 2.30 hectares	
4	Klinik Kesihatan (Type 3) Lot 42785, Persiaran Alam Damai 0.46 hectares	
5	Klinik Kesihatan (Type 2) Lot 28160, Wangsamaju 0.81 hectares	

BRIEF INFO

TYPES OF HEALTH CLINICS

Type 1, 2 and 3 Health Clinics

1. Provided within a Global City or Region or State area;
2. The total population catchment is the highest which is 30,001 populations and above; and
3. The estimated arrival of patients per day is 301 patients and above.

Type 4 and 5 Health Clinics

1. Provided in Main City and Local areas;
2. The total population catchment is moderate which is 10,001 to 30,000 populations; and
3. Estimated daily patient arrivals are 101 to 300 patients.

Type 6 and 7 Health Clinics

1. Provided in Town and Village areas;
2. The total population catchment is the lowest which is between 5000 to 10,000 populations; and
3. Estimated daily patient arrivals are 51 to 100 patients.

Community Clinic

1. Primary health facility that provides outpatient services with medical and pharmacy services for areas with a population catchment of less than 5,000 populations; and
2. Provision in the form of shop house lots.

Source: GPP Kemudahan Masyarakat, PLANMalaysia, 2022

Note:

1. The implementation is subject to appropriateness set by agencies at Kuala Lumpur.
2. These guidelines should be referred together with the latest Ministry of Health Guidelines.

HEALTH CLINIC



The site of the health clinic proposed by the KLLP2040

5 sites



The catchment area for health clinics including dental as well as maternal and child health clinics

0.8 km to 1.6 km



Location: Klinik Kesihatan Batu Muda

Klinik Kesihatan Batu Muda is a newly built type 2 health clinic to cater the needs of the surrounding populations.

► PROVIDE COMPREHENSIVE SAFETY FACILITIES

Safety facilities need to be adequately provided in line with the increase in population by 2040. The provision of safety facilities needs to be upgraded and improved in appropriate locations to ensure the safety and well-being of the population.

The provision of safety facilities is divided into two (2) categories as follows:

1. Fire Station; and
2. Police Station.

The selection of a strategic location within the main residential area is important to control the safety of the local population. The number of firemen and police personnel also needs to be increased to improve security control in Kuala Lumpur.

The KLLP2040 suggests several actions to be implemented in the provision of safety facilities as follows:

1. Upgrade existing fire stations and police stations to further improve the quality of services to residents;
2. Maintain and develop designated sites for fire station and police station facilities; and
3. Provide community fire facilities, community police stations and police bits for areas with low population density to help control local safety.

The KLLP2040 has identified several sites that have been designated and zoned as reserves for the proposed new fire station and police station, as shown in Figure 2.5.2, Table 2.5.4 and Table 2.5.5.



Location: Balai Bomba dan Penyelamat Bukit Jalil
Provision of security facilities such as Police Stations and Fire Stations to ensure the well-being of Kuala Lumpur's citizen.

BRIEF INFO

CATEGORY OF FIRE STATION

Category A	<ol style="list-style-type: none"> 1. Provided in global cities, state capitals, regional cities, major industrial centres, high risk industrial centres, major commercial centres and strategic government centres. 2. This facility needs to be provided for catchment population of 100,000 people. 3. The area within the fire risk grid falls under the very high-risk category.
Category B	<ol style="list-style-type: none"> 1. Provided in state urban areas, major cities in port areas, major airports and major state borders. 2. Minimum population of catchment is 50,000 to 100,000 people. 3. The area within the fire risk grid falls under the very high-risk category.
Category C	<ol style="list-style-type: none"> 1. Provided in local urban areas, royal cities, islands, resort mountains, towns and new administrative districts. 2. Minimum population of catchment is 50,000 people. 3. The area within the fire risk grid falls under the very high-risk category.

Source: GPP Kemudahan Masyarakat, PLANMalaysia, 2022

CATEGORY OF POLICE STATION

Category A (City area)	Required for every city or major city area, international border area, major industrial areas and also areas that far from IPD.
Category B (City area)	Located in every major residential or residential centre or major urban or suburban area with a population of over 40,000 people.
Category C (Semi-Urban Area)	Provided in areas surrounding large cities, settlement centres or semi-urban areas with a population of over 30,000 people.

Source: GPP Kemudahan Masyarakat, PLANMalaysia, 2022

Note:

1. The implementation is subject to appropriateness set by agencies at Kuala Lumpur
2. These guidelines should be referred together with the latest Ministry of Home Affairs Guidelines

Table 2.5.4:**Proposed of New Fire Station Development**






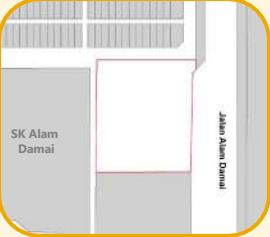
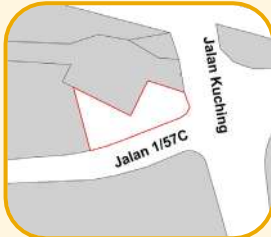


1 Lot 44680, Bandar Menjalara 0.41 hectares		4 Lot 7376, Taman Bukit Cheras 0.13 hectares	
2 Lot 26905, Bandar Baru Sentul 0.93 hectares		5 Lot 52520, Cheras Baru 0.22 hectares	
3 Lot 37830, Taman Desa Petaling 0.33 hectares		6 Lot 42659, Alam Damai 1.02 hectares	

Table 2.5.5:**Proposed of New Police Station Development**

1 Lot 80918, Duta Mas 0.61 hectares		3 Lot 43274, Desa Aman, Cheras 0.18 hectares	
2 Rizab Balai Polis, Jalan Ayer Jerneh 0.99 hectares			

CP 2-5.3:**PROVIDING OPTIMAL AND WELL-MANAGED CEMETERY FACILITIES**

The provision of cemetery facilities in Kuala Lumpur by 2040 needs to be improved so that it will be efficiently planned and well-managed, as well as to ensure optimal use of cemetery land.

Table 2.5.6 shows the area of Land Use Zone of Cemetery and Mortuary Management .

Table 2.5.6:
Land Use Zone of Cemeteries and Mortuary Management
Area KLLP2040

Type of Cemetery	Area (hectares)	Percent
Muslim	87.20	24.21
Chinese	231.96	64.41
Hindu	6.21	1.72
Christian	24.24	6.73
Others	10.50	2.92
Total	360.11	100.00

The Chinese Cemetery recorded the largest area of 231.96 hectares (64.41 percent) followed by the Islamic Cemetery of 87.20 hectares (24.21 percent) as shown in Table 2.5.6.

The proposal for the implementation of CP 2-5.3 will be carried out through four (4) initiatives as follows:

1. Upgrade Existing Muslim Cemetery (TPI) with Raudhatul Sakinah Concept;
2. Develop the Designated Islamic Cemetery;
3. Redevelop Muslim and Non-Muslim Cemeteries; and
4. Provide Crematorium (Cremation) and Columbarium (Ash Storage) Facilities.

CP 2-5.3COORDINATION CONTEXT OF
SDGs AND KLSP2040**SUSTAINABLE DEVELOPMENT GOALS CONTEXT****KLSP2040 CONTEXT****2****GOALS**

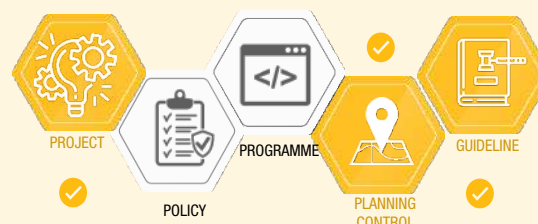
Kuala Lumpur Inclusive, Equitable and Liveable City

IS2**STRATEGIC DIRECTIONS**

Neighbourhoods that are Conducive and Encourage Social Interaction

IS 2.1**ACTIONS**

Provide Adequate, Quality and Integrated Community Facilities

IMPLEMENTATION APPROACH CP 2-5.3

IMPLEMENTATION INITIATIVE 2-5.3A

► UPGRADE EXISTING MUSLIM CEMETERY (TPI) WITH RAUDHATUL SAKINAH CONCEPT

Existing Muslim cemeteries need to be upgraded using Raudhatul Sakinah concept to increase the capacity of grave plots and beautification of cemeteries.

This concept emphasises on optimal and systematic layout of grave plots. In addition, the cleaning of the area, improvement and maintenance of public facilities, prevention of intrusion as well as uniform design for grave enclosers can be implemented.

Cemetery management can also be improved with the use of a comprehensive e-cemetery application for all Muslim cemeteries in Kuala Lumpur to make it easier to identify the location of the grave plot.

The KLLP2040 has identified 11 existing Muslim cemeteries that need to be upgraded as shown in Table 2.5.7.

Table 2.5.7:
Potential Existing Muslim Cemeteries to be Upgraded

Muslim Cemetery (TPI)	
1. TPI Jalan Ampang;	7. TPI Taman Sri Sinar;
2. TPI Kampung Puh;	8. TPI Jalan Ang Seng;
3. TPI Bandar Tun Hussein Onn;	9. TPI Salak Selatan;
4. TPI Kampung Selayang Lama;	10. TPI Kampung Kerinchi; and
5. TPI Kampung Batu 5;	11. TPI Jalan Kuari.
6. TPI Segambut Luar;	

Source: Jabatan Agama Islam Wilayah Persekutuan (JAWI), 2021



Location: TPI Raudhatul Sakinah KL – Karak
Muslim cemetery based on Raudhatul Sakinah concept at TPI Raudhatul Sakinah KL-Karak.



Location: TPI Raudhatul Sakinah KL - Karak
Areas of Muslim cemeteries that have been reserved according to guidelines.

IMPLEMENTATION INITIATIVE 2-5.3B

► DEVELOP DESIGNATED MUSLIM CEMETERIES



The provision of cemetery land to meet future needs involves the designation of certain areas as reserved for Muslim cemeteries .

Development of these designated Muslim cemeteries should include the following components as follows:

1. Grave plot;
2. Management office;
3. Parking lot;
4. Storage for tools or equipment used in the funeral process; and
5. Waqf hut.

KLLP2040 has identified two (2) reserved Muslim cemetery sites to be developed by 2040 as shown in Table 2.5.8.

Table 2.5.8:
Propose of New Muslim Cemetery

<div>1</div> <p>Part of Lot 160 and 161, Bukit Kiara 1.23 hectares</p>	
<div>2</div> <p>Lot 101968 and 45585, Bukit Jalil 10.50 hectares</p>	

IMPLEMENTATION INITIATIVE 2-5.3C

► REDEVELOP MUSLIM AND NON-MUSLIM CEMETERIES

Muslim and non-Muslim burial grounds that have reached capacity and are neglected are proposed to be redeveloped. This approach can increase the supply of burial plots and the facilities needed for cemeteries in Kuala Lumpur by the year 2040.

This initiative proposes that 30 percent of the cemetery area be preserved for cemetery relocation area while the remaining 70 percent is utilised to accommodate new capacity.

This proposal needs in-depth study considering fatwas or religious beliefs, customs and stakeholder consent. This proposal also needs the agreement of an organization or agency that regulates the cemetery.

IMPLEMENTATION INITIATIVE 2-5.3D

► PROVIDE CREMATORIUM (CREMATION) AND COLUMBARIUM (ASH STORAGE) FACILITIES

The cremation ceremony has been practiced by Non-Muslims for funeral purposes. The ashes will be kept in a special container and placed in a columbarium depending on religious and individual needs.

Proposal for the provision of a crematorium can be considered and implemented by private sector to meet the demand of non-Muslim.

These facilities are proposed in suitable areas such as within existing non-Muslim cemeteries and in accordance with designated land use class. Provision of these facilities must follow the standards used in order not to cause social and environmental issues.

The provision of the crematorium building must have facilities as follows:

1. Ventilation requirements;
2. Fuel storage;
3. Cremation chamber;
4. Space for storing and receiving ashes;
5. Supporting facilities for family members and visitors;
6. Staff room;
7. Landscape reserve; and
8. Provision of parking spaces.

PROVIDING INTEGRATED PUBLIC FACILITIES AND COMMUNITY HUB FACILITIES

SCENARIO OF COMMUNITY HUB AND PUBLIC FACILITIES PROVISION IN KUALA LUMPUR

A community hub is a centre that offers space for social interaction, educational activities and community programmes for local community .

Multi-purpose hall is one of the most provided public facilities, especially in high-density areas. Data in 2020 shows that Kuala Lumpur has a total of 81 multi-purpose halls as shown in Figure 2.6.2 and has the potential to be upgraded as a community hub in the future.

16 existing multi-purpose halls are proposed to be upgraded or reused as community hubs to allow community hold discussions and implement local social development programmes.

Towards realising Kuala Lumpur as a city with provision of a quality and integrated community hub, one (1) Implementation Proposal is formulated under Planning Strategy 2–6, as shown in Figure 2.6.1.

Figure 2.6.1:
Implementation Proposal for Planning Strategy 2-6.

SP 2-6

PROVIDING INTEGRATED PUBLIC FACILITIES AND COMMUNITY HUB FACILITIES

CP 2-6.1

Providing Community Hubs and Public Library in Neighbourhood Areas



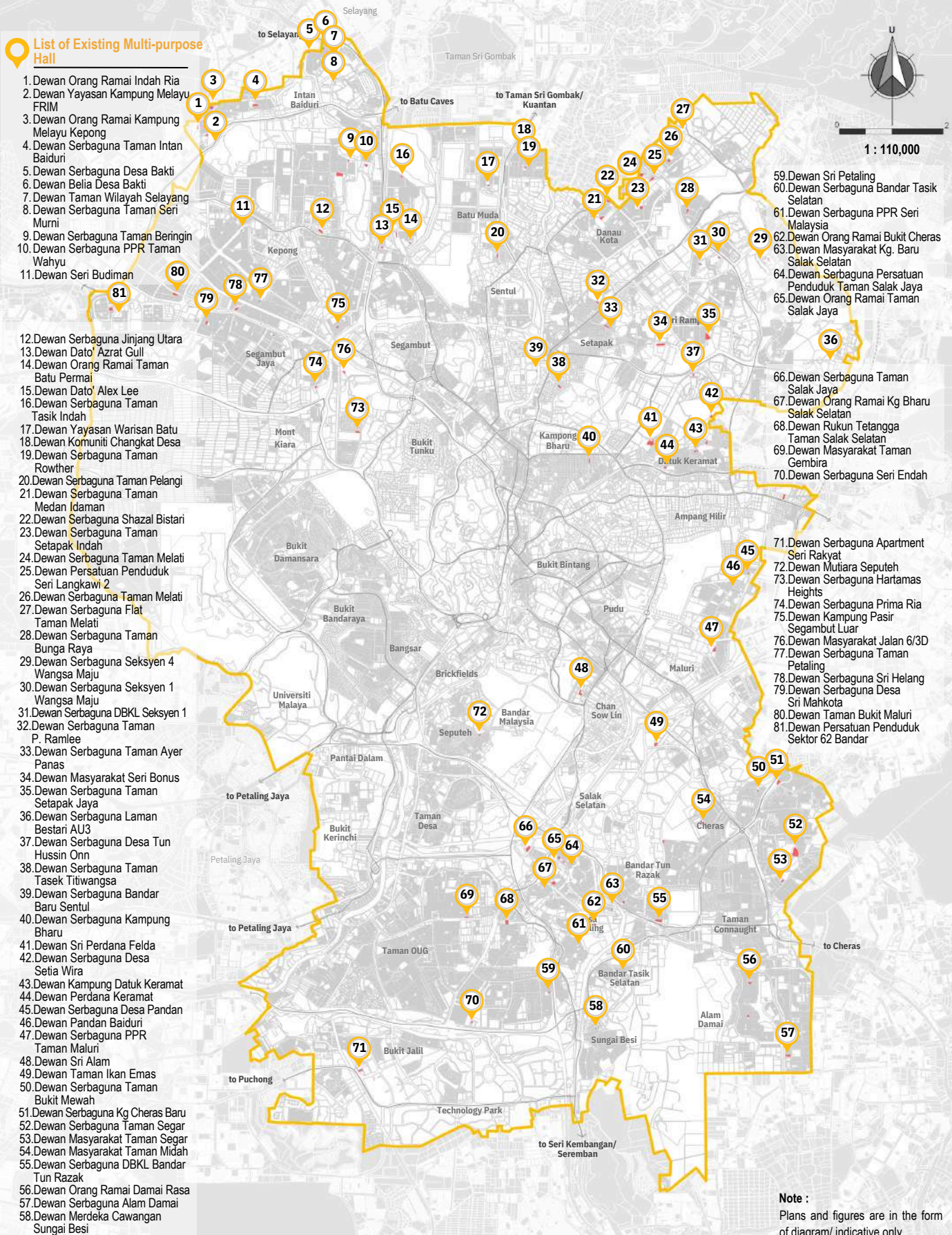


FIGURE 2.6.2 | Plan of Existing Multi-purpose Hall in Kuala Lumpur

Legend :

● Existing Multi-purpose Hall

Others

— Main Road
— Kuala Lumpur Boundary

CP 2-6.1:**PROVIDING COMMUNITY HUBS AND PUBLIC LIBRARY IN NEIGHBOURHOOD AREAS**

A community hubs and public library act as facilities that connect individuals, organizations, community groups and government as well as private agencies for the purpose of service, discussion, sharing, learning and the implementation of local social development programs.

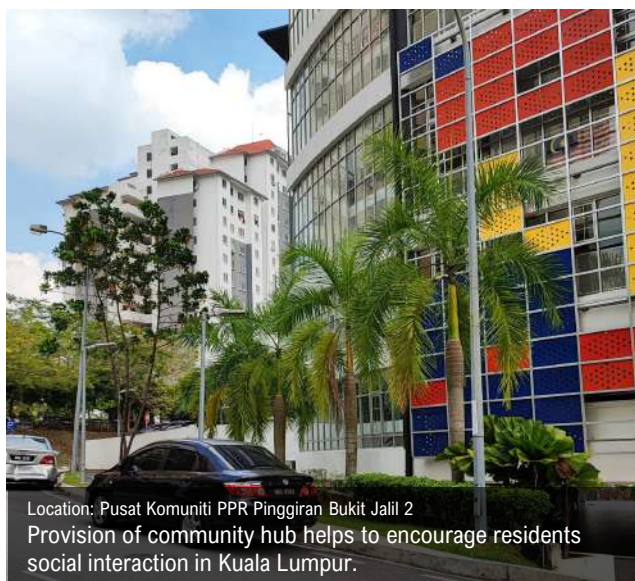
The provision of these facilities is also proposed to be equipped with universal design to encourages interaction within the community which will build a tighter community and a strong sense of ownership in their neighbourhood.

The provision of community hubs and public library needs to be implemented to accommodate the needs of residents in an area. It can be provided through the upgrading of existing halls and libraries in neighbourhoods and redevelopment areas.

The provision of integrated community hubs and public library can reduce the cost of infrastructure development and maintenance which can be shared with related agencies. It can also increase the effectiveness of building use through renovation and sharing space in an integrated manner.

The proposal for the implementation of CP 2-6.1 is carried out through two (2) initiatives as follows:

1. Provide A Community Hub in The Neighborhood; and
2. Implement Easy Access Public Library Facilities.



Location: Pusat Komuniti PPR Pinggiran Bukit Jalil 2
Provision of community hub helps to encourage residents social interaction in Kuala Lumpur.

CP 2-6.1**COORDINATION CONTEXT OF SDGs AND KLSP2040**

IMPLEMENTATION INITIATIVE 2-6.1A

► PROVIDE A COMMUNITY HUB IN THE NEIGHBOURHOOD

Existing multi-purpose halls have the potential to be upgraded as community hubs in Kuala Lumpur. This proposal is in line with the input and feedback from an online survey conducted with the Resident Representative Council (MPP) and representatives of the Resident Association.

KLLP2040 has identified 16 existing multi-purpose halls to be upgraded into community hubs that encourage active participation from local residents, as shown in Table 2.6.1.

The KLLP2040 propose several actions to upgrade the multipurpose hall as a community hub are:

1. Identify the scale of upgrades according to location, site size, and accessibility;
2. Identify a combination of community hub elements in line with the needs of the local residents and site suitability;
3. Ensure the suitability of program implementation is subject to the provided community hub elements;
4. Ensure the involvement of local residents and relevant agencies in the planned and implemented community activities; and
5. Encourage private sector involvement in programs and activities at the community hub.

BRIEF INFO

ELEMENTS OF MULTI-PURPOSE COMMUNITY HUB

A total of 11 community hub elements were identified, as follows:

1. Information and communication technology centre (ICT)
2. Mother and children health services
3. Sports and Recreational centre
4. One stop payment centre

5. Mini Library/ Reading space
6. Parents, family and youth support centre
7. Cafeteria;
8. Neighbourhood Garden
9. Multi-purpose community centre and focal area for community activity and entrepreneurship
10. Recycling Centre
11. Neighborhood Watch



VIEW OF RIGHT FAÇADE

VIEW OF LEFT FAÇADE

Illustration of a community hub elements for the convenience of local populations.

Table 2.6.1:

Proposed of Community Hub in Neighbourhood Areas




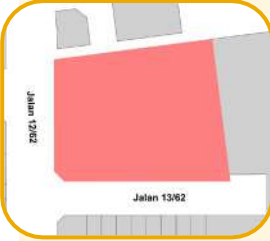





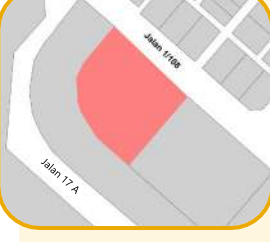

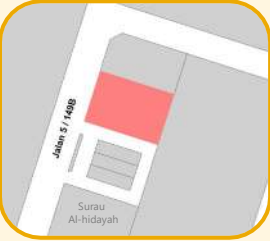




<p>1</p> <p>Dewan Serba Guna Kampung Melayu Kepong Lot 59506, Jalan 2/1 0.42 hectares</p>		<p>6</p> <p>Dewan Serba Guna Kampung Pasir, Segambut Lot 10370, Jalan Umbut 0.16 hectares</p>	
<p>2</p> <p>Dewan Serba Guna Taman Wilayah Selayang Lot 55598, Jalan 19/2B 0.23 hectares</p>		<p>7</p> <p>Dewan Serba Guna Sektor 62, Bandar Menjalara Lot 44690, Jalan 13/62 0.45 hectares</p>	
<p>3</p> <p>Dewan Serba Guna Taman Seri Murni Lot 53990, Jalan 9/3A 0.41 hectares</p>		<p>8</p> <p>Dewan Serba Guna Taman Segambut (SPPK) Lot 55267, Jalan Dutamas Raya 0.16 hectares</p>	
<p>4</p> <p>Dewan Serba Guna Taman Melati Lot 25389, Jalan Taman Melati 6 0.31 hectares</p>		<p>9</p> <p>Dewan Serba Guna Taman Makmur, Bandar Tun Razak Lot 52937, Jalan Ikhlas 2 0.19 hectares</p>	
<p>5</p> <p>Dewan Serba Guna Seri Wangsa 1 Lot 30356, Jalan Seri Wangsa 1 0.20 hectares</p>		<p>10</p> <p>Dewan Serba Guna Kampung Bharu Salak Selatan 0.22 hectares</p>	

Table 2.6.1:**Proposed of Community Hub in Neighbourhood Areas (continued)**

11 Dewan Serba Guna KLCH, Cawangan Setiawangsa Lot 28336, Jalan 4/27E 0.17 hectares		14 Dewan Serba Guna Seri Endah Lot 35077, Jalan 5/149B 0.09 hectares	
12 Dewan Serba Guna Jinjang Utara Lot 58068, Jalan Jinjang 0.27 hectares		15 Dewan Serba Guna Bandar Tun Razak Lot 51529, Lorong Mewah 11 0.56 hectares	
13 Dewan Serba Guna Kampung Cheras Baru Lot 51017, Jalan 22 0.41 hectares		16 Dewan Serba Guna Taman Sungai Besi Lot 49509, Jalan 1/108C 0.58 hectares	

IMPLEMENTATION INITIATIVE

2-6.1B

► IMPLEMENT EASY ACCESS PUBLIC LIBRARY FACILITIES

The concept of an easy-access public library is the use of space in community facilities such as mosques, suraus, multi-purpose halls, community hubs and health clinics located in the neighbourhood.

Easy-access public library aim to encourage community involvement using digital or conventional reading facilities.

Existing library in Kuala Lumpur are equipped with interactive library facilities such as reading rooms, learning as well as and technology and information rooms. There are 14 existing library locations that operate using the same space in community facility buildings or separate buildings as follows:

1. Pustaka KL @ Bandar Baru Sentul;
2. Pustaka KL @ Setiawangsa;
3. Pustaka KL @ Lembah Pantai;
4. Pustaka KL @ Medan Idaman;
5. Pustaka KL @ Bandar Tun Razak;
6. Pustaka KL @ Gombak Setia;
7. Pustaka KL @ Sri Sabah;
8. Pustaka KL @ Desa Tun Razak;
9. Pustaka KL @ Sri Pantai;
10. Pustaka KL @ Muhibbah;
11. Pustaka KL @ Jelatek;
12. Pustaka KL @ Pudu Sentral;
13. Pustaka KL @ Taman Tun Dr Ismail; and
14. Pustaka KL @ Keramat.

The necessary actions to support this initiative are as follows:

1. Encourage common use of space in community facilities for library purposes such as mosques, suraus and health clinics;
2. Apply conducive and creative design in the provision of reading spaces in community facilities; and
3. Provide comprehensive digital and information technology facilities such as high-speed broadband facilities and equipment for public library use as well as access in community facility buildings.

BEST PRACTICE

DIGITAL LIBRARY PULAU PINANG

Penang Digital Library – an initiative by the Penang State Government in collaboration with Keysight Technologies and Eastern and Oriental Berhad (E&O) and supported by TIME which aims to redesign the way information is organized and used in today's digitally driven world and bring back the human aspect in social cooperation.

The Penang Digital Library aims to change this by utilising a variety of interactive information displays to push the latest content on concepts and technological revolutions to users.

The Penang Digital Library is also a bookless library that only relies on a digital-based network to access a variety of information. The interior of the building is also equipped with good natural sunlight flow and green landscaping to create a contemporary atmosphere. These spaces are well connected with facilities designed to encourage face-to-face discussions and sharing sessions.



Source : <https://www.penangdigitallibrary.com/digital-library>

SUMMARY

GOAL 2 : FOCUSING ON DEVELOPMENT OF KUALA LUMPUR AS AN INCLUSIVE, EQUITABLE AND LIVABLE CITY

Various initiatives and implementation approaches have been proposed so that Goal 2 towards focusing on the development of Kuala Lumpur as an Inclusive, Equitable and Livable City can be realized.

The planning and implementation of Goal 2 in the KLLP2040 considers the SDGs, proposal of KLSP2040 and other national development policies which are detailed through projects, policies, programmes, planning controls and guidelines.

The proposed strategies, initiatives and implementation approaches emphasise on the providing various housing options to meet the needs of population, providing quality and conducive affordable housing, addressing the needs of the homeless, improving old residential areas, providing adequate, quality and integrated community facilities as well as providing integrated community hub facilities.

Table 2.1 shows a summary of the planning strategy and implementation proposal for Goal 2.

Table 2.1:
The Summary of Planning Strategy and Implementation Proposal of Goal 2

Planning Strategy	Implementation Proposal	Implementation Approach				
		Project	Policy	Programme	Planning Control	Guideline
SP 2-1	CP 2-1.1	1	1	1	1	1
SP 2-2	CP 2-2.1	1	1	-	1	1
SP 2-3	CP 2-3.1	-	1	1	-	1
SP 2-4	CP 2-4.1	1	1	1	-	1
SP 2-5	CP 2-5.1	-	1	-	1	1
	CP 2-5.2	1	-	-	1	1
	CP 2-5.3	1	-	-	1	1
SP 2-6	CP 2-6.1	-	1	-	1	1
TOTAL		5	6	3	6	8

03



GOAL 3

STRENGTHENING SURROUNDING DEVELOPMENT
OF KUALA LUMPUR AS A GREEN, HEALTHY
AND VIBRANT CITY



GOAL 3

STRENGTHENING ENVIRONMENTAL DEVELOPMENT OF KUALA LUMPUR AS GREEN, HEALTHY AND VIBRANT CITY

Kuala Lumpur is Malaysia's capital and main focus area centre. Planning and development of Kuala Lumpur will focus on healthy social development and a sustainable environment that creates good quality of life for the population.

An attractive urban environment must be planned to create a conducive environment for all. Developing Kuala Lumpur as Green, Healthy and Vibrant City will be strengthened to fulfil current needs without compromising future generation capacity and needs.

The Green City criteria emphasise on the preservation and conservation of the environment and natural resources, improve environmental quality, minimise impact urban activities, enhance green environment through the addition of continuous open space as well as including the local community in urban greening projects and activities.

The Healthy City criteria emphasise on the management of comprehensive, systematic and safe urban planning, provide public facilities that promote a Healthy City, provide access to public facilities for everyone in society as well as improve lifestyle through active social, physical and cultural activities.

The Vibrant City criteria emphasise on integration of local values (genius-loci) into design concepts, rebrand the image, character and identity of Kuala Lumpur City Center, develop public spaces with suitable facilities and amenities as well as plan for cultural, artistic and heritage activities.

Figure 3.1 lists the main criteria that need to be implemented as a strengthen environmental development of Kuala Lumpur as a Green, Healthy, and Vibrant City.

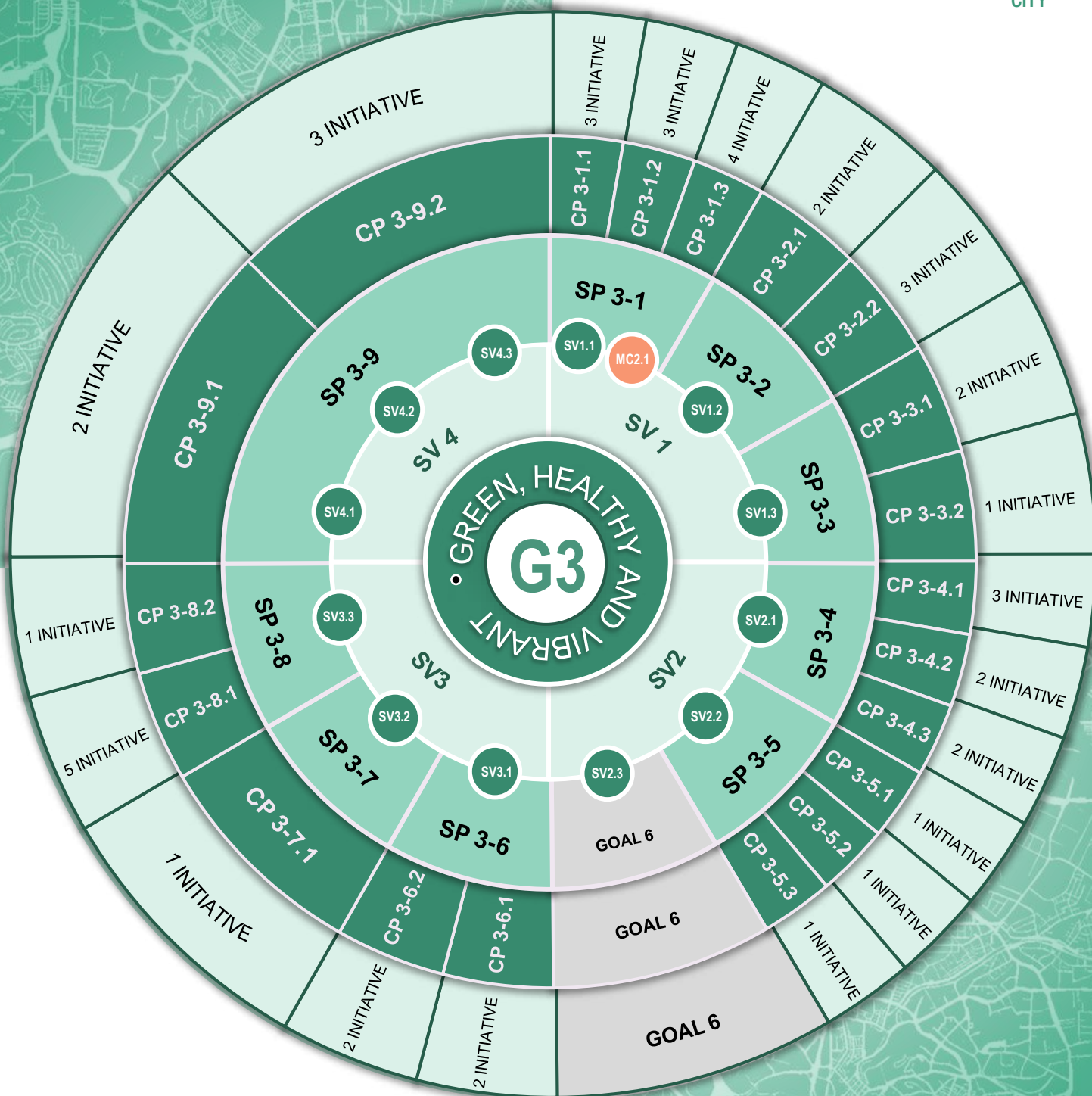
Figure 3.1:
Criteria for Green, Healthy and Vibrant City



KLSP2040
4 STRATEGIC DIRECTIONS
12 ACTIONS

FIGURE 3.2
SUMMARY OF PLANNING STRATEGY AND
IMPLEMENTATION PROPOSAL

GOAL 3:
 STRENGTHENING ENVIRONMENTAL DEVELOPMENT
 OF KUALA LUMPUR AS A GREEN, HEALTHY AND VIBRANT
 CITY



There are nine (9) Planning Strategies (SP), 20 Implementation Proposals (CP) and 44 Implementation Initiatives (IP) that are formulated in line with KLSP2040, as summarized in Figure 3.2.

KLLP2040
9 PLANNING STRATEGIES
20 IMPLEMENTATION PROPOSALS

MANAGING KUALA LUMPUR BIODIVERSITY ASSETS

SCENARIO OF BIODIVERSITY ASSETS IN KUALA LUMPUR

Kuala Lumpur's biodiversity assets which contribute to ecosystem services include forest areas, green cover, flora and fauna, natural hilly areas as well as water bodies. Permanent Forest Reserves (PFR), open areas and other green coverage are expected to have an area of 4,813.39 hectares by 2040.

The PFR area, under the supervision of the Department of Forestry, Federal Territory of Kuala Lumpur, has an area of 84.62 hectares. The Urban Forest Park comprises Taman Persekutuan Bukit Kiara, Taman Rimba Bukit Kerinchi and part of Bukit Dinding, which cover an area of 244.11 hectares.

There are 43 ponds or flood retention areas that serve as water bodies that need to be maintained and preserved. The KLLP2040 has identified hilly areas with a slope exceeding 35 degree (Class IV) encompassing an area of 153.80 hectares as are disaster-risk and sensitive to development.

The current scenario of this biodiversity asset record shows a need to protect and conserve biodiversity to achieve a green, healthy and vibrant environment for city residents.

Kuala Lumpur's management strategy focuses on the need to protect its biodiversity assets to ensure stability and sustainable survival of the community. Rapid development in Kuala Lumpur will impact the quality of the environment and affect biodiversity assets which offer various forms of goodness to the community.

These biodiversity assets need to be conserved, restored, and sustainably managed to contribute towards the stability of the assets.

Towards realizing Kuala Lumpur as a city that can protect the biodiversity assets, three (3) Implementation Proposals are formulated under Planning Strategy 3–1, as shown in Figure 3.1.1.

BRIEF INFO

BIODIVERSITY ASSETS OF KUALA LUMPUR



43 pond or flood retention areas (386.92 hectares)
3 main rivers, 9 big rivers and 13 small rivers (429.69 hectares)
816.61 hectares Water Bodies



Hills and Slopes
153.80 hectares Hills and Slopes

Source: Department of Forestry, Federal Territory of Kuala Lumpur

Figure 3.1.1:
Implementation Proposals for Planning Strategy 3-1

SP 3-1

MANAGING KUALA LUMPUR BIODIVERSITY ASSETS

CP 3-1.1 Managing Biodiversity Assets

CP 3-1.2 Implementing River of Life Programme

CP 3-1.3 Managing Pollution Control

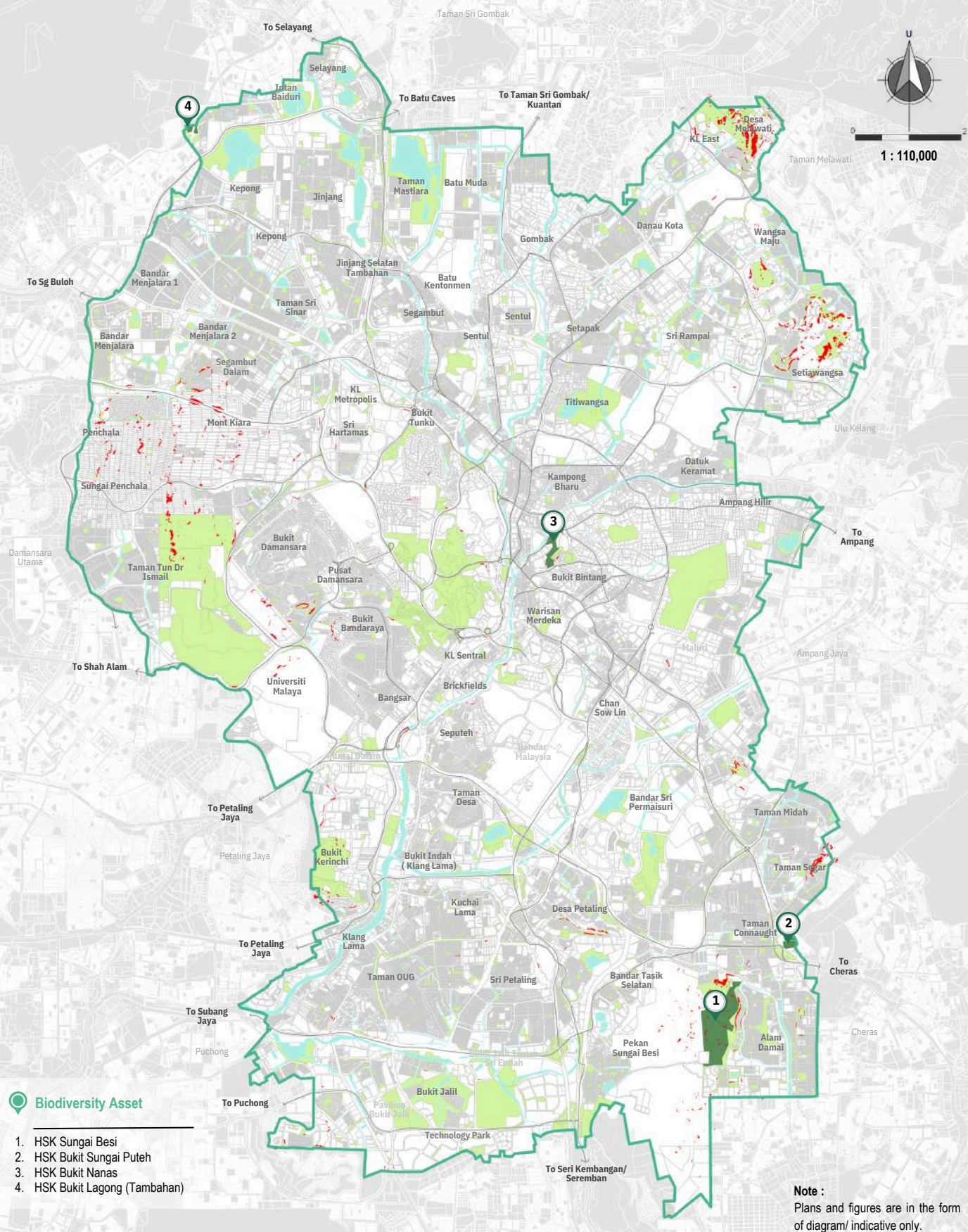


FIGURE 3.1.2 | Plan of Kuala Lumpur Biodiversity Asset

Legend :

- Gradient Classification IV
- Open Space
- Forest Reserve (FR)
- Water Bodies (BDA)

Others

— Kuala Lumpur Boundary

In general, biodiversity assets are essential to be conserve and preserve for Kuala Lumpur, which is experiencing rapid physical, economic and social development that puts pressure on environmental protection.

These development challenges need to be addressed with efficiently through the involvement of all relevant stakeholders in line with the Sustainable Development Goal (SDGs). Preservation of biodiversity assets is necessary to ensure sustainable development is achieved.

The limited availability of biodiversity assets in Kuala Lumpur needs to be emphasised in land use planning to balance economic growth and quality of life to be achieved. These emphasise on managing forest areas and green coverage, rivers and water bodies as well as hilly and slope areas. It is in line with the Fourth National Physical Plan (NPP4) which emphasises the importance of sustainable and resilient environmental management.

The proposal for the implementation of CP 3-1.1 will be carried out through three (3) initiatives as follows:

1. Conserve Permanent Forest Reserve (PFR) And Green Coverage;
2. Increase River Water Quality Through Integrated Approach; and
3. Conserve Hill And Slope Areas.

BRIEF INFO

THE IMPORTANCE OF ENVIRONMENT IN FOURTH NATIONAL PHYSICAL PLAN (NPP4) RELATED TO KLLP2040

KD 2.1 • Preserve and conserve the country's ecological assets.

KD 2.2 • Manage and regulate development in environmentally sensitive areas.

KD 2.3 • Maintain sustainability of water resources.

Source: Fourth National Physical Plan (NPP4)

CP 3-1.1

COORDINATION CONTEXT OF SDGs AND KLLP2040



SUSTAINABLE DEVELOPMENT GOALS CONTEXT



KLLP2040 CONTEXT

3

GOALS

Kuala Lumpur Green, Healthy and Vibrant City

SV1

STRATEGIC DIRECTIONS

Integrating Urban Development with Natural Assets and Biodiversity

SV 1.1

ACTIONS

Protect the City's Natural Assets

IMPLEMENTATION APPROACH CP 3-1.1



IMPLEMENTATION INITIATIVE 3-1.1A

► CONSERVE PERMANENT FOREST RESERVE (PFR) AND GREEN COVERAGE

Forest areas and green coverage will contribute to the community's quality of life such as oxygen production, sound and carbon absorption, local temperature stabilisation and natural habitat provision. This proposal maintains the gazettelement of four (4) Permanent Forest Reserves (PFR), including all Public Open Space 1 (OS1), Public Open Space 2 (OS2), Private Open Space (OS3) and Public Open Space within Private Development Scheme (OS4) as biodiversity asset areas in Kuala Lumpur.

According to the Pekeliling Ketua Pengarah Perhutanan Semenanjung Malaysia Bil. 5 (2014), the provision of a buffer zone with an appropriate distance from the PFR boundary is required, depending on the types of development on the neighbouring land.

By 2040, forest areas and green coverage will cover 19.81 percent of Kuala Lumpur's land area. It is a good achievement as the capital of a rapidly developing country.



Location: Taman Rimba Bukit Nanas
Taman Rimba Bukit Nanas is the best example of maintaining green areas in Kuala Lumpur.

BRIEF INFO

PFR AND GREEN COVERAGE IN SELECTED CITIES

KUALA LUMPUR	• 19.81 percent
JOHOR BHARU	• 25.30 percent
SHAH ALAM	• 26.50 percent

Source: Rancangan Tempatan Daerah Johor Bahru dan Kulai 2025 (Penggantian) and Rancangan Tempatan Majlis Bandaraya Shah Alam 2035 (Penggantian)

CATEGORIES OF BIODIVERSITY ASSETS



PFR, Urban Forest Park, open space and other green coverage

Forest Area and Green Coverage



Rivers, ponds and flood retention area

Water Bodies



Hills and slopes

Hills and Slopes Areas



More than 40 bird species including birds of prey in Taman Persekutuan Bukit Kiara and Taman Rimba Bukit Kerinchi.

There are two (2) main bird species in the Urban Forest Park such as Eurasian Cicada (*Passer montanus*) and Tiung Gembala Kerbau.

Source: Institute of Biological Sciences

Birds



There are more than 60 species of butterflies in Kuala Lumpur out of a total of 1,000 in Peninsular Malaysia.

Insects

Source: UM 2016



There are 425 tree species, 16 endemic species (for example: *Tarennia rudis*) and 16 species of Damar (*Dipterocarpaceae*) in HSK Bukit Nanas

Plants

Source: Institute of Biological Sciences

The necessary actions to support this initiative are as follows:

1. Develop a digital application of PFR area and green coverage as shown in Table 3.1.1 based on four (4) components, as follows:
 - a. Tree inventory database system;
 - b. Database system for biodiversity index;
 - c. Oxygen emission data; and
 - d. Carbon dioxide sink data.

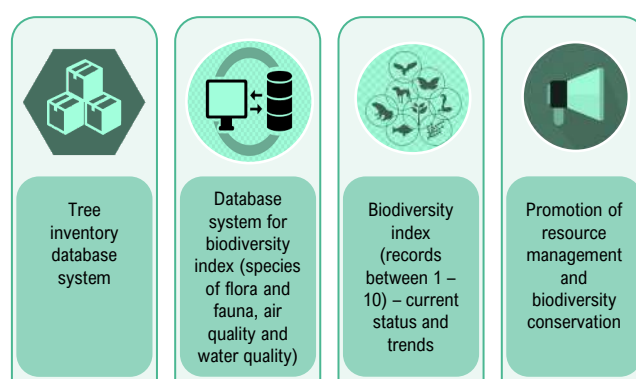
The system contains timeline data to generate biodiversity status in an index measurements such as index readings of 1 to 10 determine different status levels from weak, moderate, and excellent. The use of this application should align with KLLP2040 and should be accessible and updatable by system coordinators or administrators.

Scientific research is needed to provide an integrated database system to develop this digital application. Several countries, such as Singapore, Sweden and New Zealand, have provided this application. Figure 3.1.3 shows the conceptual model of the biodiversity index application that can be used in KLLP2040.

Table 3.1.1:
Proposed for Digital Application of PFR and Green Coverage

Proposed Location
<ol style="list-style-type: none"> a. Four (4) PFR as follows: <ul style="list-style-type: none"> • HSK Sungai Besi; • HSK Bukit Sungai Puteh; • HSK Bukit Nanas; and • HSK Bukit Lagong (Tambahan). b. Three (3) Urban Forest Park as follows: <ul style="list-style-type: none"> • Taman Rimba Bukit Kerinchi; • Taman Persekutuan Bukit Kiara; and • Part of Bukit Dinding. c. Other open spaces: OS1, OS2, OS3 and OS4.

Figure 3.1.3:
Conceptual Model of Biodiversity Index Application for the KLLP2040



BRIEF INFO

EXAMPLES OF CITY BIODIVERSITY INDEX APPLICATION

Environmental Performance Index

- Developed by Yale University, United States of America

City Biodiversity Index

- Developed by European Space Agency

COORDINATOR OR ADMINISTRATOR OF PFR DATABASE SYSTEM AND GREEN COVERAGE

KLCH

- Department of Information Management
- Department of Landscape Development and Recreation

External agencies

- Department of Forestry, Federal Territory of Kuala Lumpur
- Forest Research Institute Malaysia (FRIM)
- Department of Wildlife and National Parks (DWNP)
- Department of Environment

Source:

Adapted from

1. <https://eo4society.esa.int/projects/duo-innovator-iii-eo4cbi-earth-observation-for-city-biodiversity-index/>
2. <https://epi.yale.edu/epi-results/2022/component/epi>

2. Preserve the bird migration corridor (Taman Bukit Persekutuan - Taman Botani Perdana - Taman Tugu) as shown in Table 3.1.2, as follows:
 - a. Identify the bird migration corridor that cover the green areas at Taman Bukit Persekutuan, Taman Botani Perdana and Taman Tugu;
 - b. Preserve green coverage with a canopy of fruiting and flowering trees as part of the city's ecological corridor and support the eco-tourism industry; and
 - c. Protect bird habitats in wide and dense canopy areas with large silara trees.
3. Preserve habitats for other fauna (mammals, birds, and insects) through maintaining the habitat involving green coverage areas to sustain biodiversity assets that are in line with sustainable development. The presence of fauna such as otters and squirrels indicates the diversity of biodiversity in Kuala Lumpur.

Table 3.1.2:

Proposed Location for Bird Migration Corridor

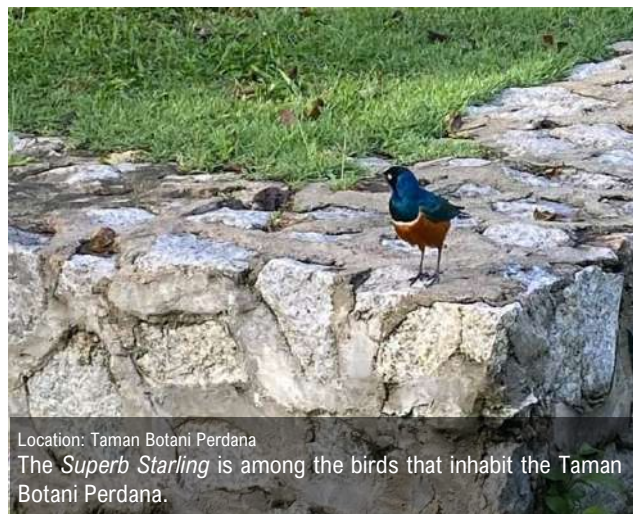
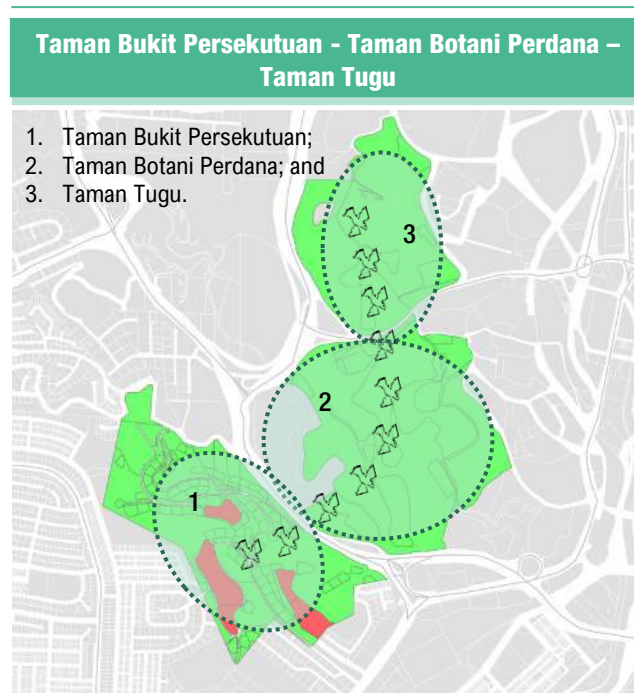


Table 3.1.3:

Proposed Permanent Forest Reserve (PFR) Area for Preservation

1		3	
2		4	

IMPLEMENTATION INITIATIVE 3-1.1B

INCREASE THROUGH INTEGRATED APPROACH RIVER WATER QUALITY

Water bodies (rivers, lakes, and ponds) are important blue corridors with various functions such as lowering the surrounding temperature, supporting elements of urban design, becoming a habitat for aquatic life and as recreational areas.

The main action is to gazette the potential water body area as a biodiversity asset under the administration of KLCH and Department of Irrigation and Drainage (DID), with an area of 816.61 hectares. In addition, river reserves can be used for public comfort zones, such as pedestrian walkways and micromobility vehicle routes to be integrated with RoL proposal.

The necessary actions to support this initiative are as shown in Tables 3.1.4, Tables 3.1.5 and Tables 3.1.6.

In addition, the Flood Forecasting and Warning Programme (PRAB) Phase 2 (DID) should go hand in hand to deal with the issue of flash floods.

BEST PRACTICE

COMPONENTS OF INTEGRATED RIVERSIDE MANAGEMENT IN THE DELAWARE RIVER, UNITED STATES OF AMERICA



River trails



Street art programme



Graffiti and mural projects

The Delaware Riverside project in the United States uses the river as an urban design element and serves as flood mitigation using a hydrological approach and a sustainable urban drainage system.

Table 3.1.4:

Supporting Actions to Improve Quality of Water Bodies

Supporting Actions
1. Integrated river basin management programme through: <ol style="list-style-type: none"> Land use studies; Monitor of floodplain areas; Provide of green buffer zone areas; Management of river catchment areas; and Groundwater resource management (source: Jalan Ipoh) and water quality of rivers, lakes, retention pond for Sungai Klang River Basin and Sungai Gombak.
2. Compliance with the Garis Panduan Pembangunan Berhadapan Sungai 2005.
3. Addition of 93 telemetry stations is in line with the planning of the Department of Irrigation and Drainage (DID) Kuala Lumpur.
4. Addition of river water quality stations.
5. Addition of litter trap and log boom.

Table 3.1.5:

Proposed River Reserve in Kuala Lumpur

The Width of River between Banks (metre)	Reserve from Both Banks (metre)	Recommended Reserve Width * (Public Comfort Zone) (metre)
10-20	20	10
5-10	10	7-10
< 5	5	5

Source: Adapted from DID, 2021

Note: Less than this width is allowed considering the nature of the river which is tied to the physical condition of the development on riverbank.

Table 3.1.6:

Proposed of Priority Area for Water Body Management Programme (Rivers and Ponds) from 2021 to 2030

River	Pond
1. Sungai Klang	1. Kolam Batu
2. Sungai Gombak	2. Kolam Taman Wahyu
3. Sungai Kerayong	3. Kolam Benteng
4. Sungai Batu	4. Kolam Kampung Puah
5. Sungai Bunus	5. Kolam Midah
6. Sungai Kuyoh	6. Kolam Ampang
7. Sungai Keroh	7. Kolam Sri Segambut
8. Sungai Jinjang	8. Kolam Taman Desa
9. Sungai Kayu Ara	9. Kolam Sri Johor
10. Sungai Penchala	10. Kolam Bohol

Source: Adapted from DID, 2021

Note: Recommendations from the flood mitigation programme by DID need to be integrated in this programme.

IMPLEMENTATION INITIATIVE 3-1.1C

► CONSERVE HILL AND SLOPE AREAS

There are four (4) hilly areas in Kuala Lumpur, which are located in the northeast area (Bukit Batu Tabor, Bukit Wangsa Maju, and Bukit Dinding), in the western area (Bukit Lanjan and Bukit Kiara), in the central area (Bukit Arang) and in the southern area (Bukit Gasing, Bukit Pudu and Bukit Sungai Besi).

The highest peak of the hill area is Bukit Batu Tabor, at a height of 320.00 metres above sea level. A part of this area is zoned as a Land Use Zone of Residential 2 (R2) located in Kampung Sungai Penchala. This area still allowed for development purposes through an environmentally friendly hydraulic engineering approaches.

Proposed guidelines for Level 3 Special Area Management that involve Class IV hillside and slope areas (above 35 degree) should be provided. These guidelines consist of permissible activities and development controls.

The necessary actions to support this initiative are as shown in Table 3.1.7.

Table 3.1.7:

Proposed Actions in Conserving Hill and Slope Areas

Stage	Action
Identify hill and slopes areas	<ol style="list-style-type: none"> 1. Data collection of slope geological mapping attributes; and 2. Slope geological mapping field studies.
Record hill and slope areas with mapping methods	<ol style="list-style-type: none"> 1. Slope classification mapping; and 2. Engineering geological mapping.
Intensify Enforcement	<ol style="list-style-type: none"> 1. Periodic inspection of dangerous slopes; and 2. Slope monitoring through an early warning system.
Perform maintenance	<ol style="list-style-type: none"> 1. Slope maintenance and mitigation.

BRIEF INFO

CLASSIFICATION OF GRADIENT



2,215 danger points and 1,694 risk points (2013)

CLASS I	Less than 15°: Low geotechnical limitations
CLASS II	15° to 25°: Simple geotechnical limitations
CLASS III	25° to 35°: High geotechnical limitations
CLASS IV	Above 35°: Extreme geotechnical limitations

Source: Slope Unit, Department of Engineering and Drainage, KLCH

Figure 3.1.4:
Hill Area Surrounded by Residential Areas



Location: Wangsa Maju

Bukit Dinding is Class III slope area that bordering the Kaleidoscope Wangsa Maju residential development, requires maintenance to prevent landslide issues in the future.

CP 3-1.2:**IMPLEMENTING RIVER OF LIFE PROGRAMME**

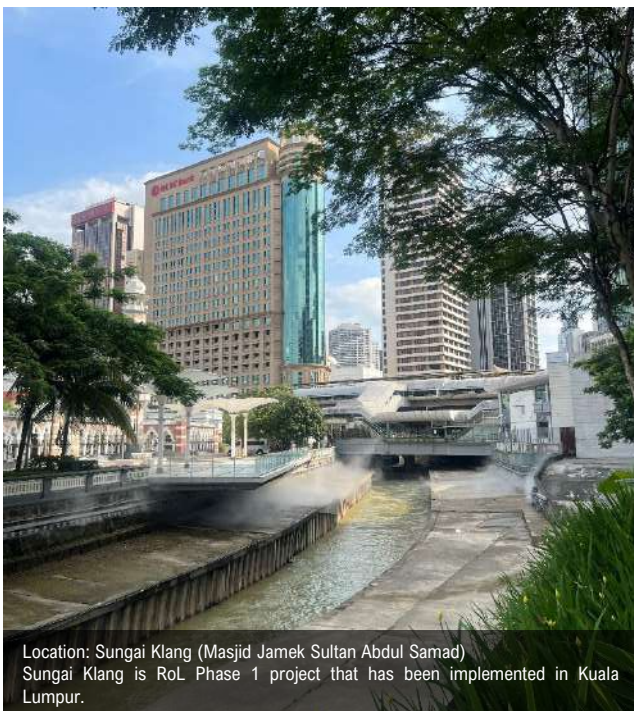
KLSP2040 has identified three (3) main rivers for upgrading to continue the River of Life (RoL) project initiative namely Sungai Bonus (RoL 2 programme), Sungai Keroh (RoL 3 programme) and Sungai Kuyoh (RoL 4 programme).

This upgrade involves cleaning and beautifying the rivers and its surroundings area. This initiative is an effort to protect biodiversity assets and create a more vibrant green environment in Kuala Lumpur.

Pedestrian walkways and micromobility vehicle routes is the main access connecting green areas in Kuala Lumpur through the green corridor and blue corridor. The proposed programme is according to suitability at the implementation level based on the initiatives that have been outlined.

The proposal for the implementation of CP 3-1.2 is carried out through three (3) initiatives as follows:

1. Implement River and Its Surrounding Cleans;
2. Beautify River Environment; and
3. Manage A Linear Recreation Park To Supports Local Economy.

**CP 3-1.2**COORDINATION CONTEXT OF
SDGs AND KLSP2040**SUSTAINABLE DEVELOPMENT GOALS CONTEXT****KLSP2040 CONTEXT**

GOALS	
3	Kuala Lumpur Green, Healthy and Vibrant City
5	Kuala Lumpur Efficient and Environmental-Friendly Mobility City
STRATEGIC DIRECTIONS	
SV1	Integrating Urban Development with Natural Assets and Biodiversity
MC2	Active Mobility Mode to Enhance Accessibility
ACTIONS	
SV1.1	Protect the City's Natural Assets
MC2.1	Ensure A Safe, Quality, Seamless, Connected and Easily Accessible Pedestrian Network

IMPLEMENTATION APPROACH CP 3-1.2

IMPLEMENTATION INITIATIVE 3-1.2A**► IMPLEMENT RIVER AND ITS SURROUNDING CLEANS**

Cleaning the river and its surrounding which involve of Sungai Bonus, Sungai Keroh and Sungai Kuyoh along 26.80 kilometres is to conserve and preserve as well as to improve the current of water quality.

The necessary actions to support this initiative are as follows:

1. Implement cleaning of river and premises areas that are close to riverbanks from solid waste and pollutants;
2. Implement segregation activities of recyclable items from solid waste and scrap items to reduce delivery to landfill sites;
3. Identify action control to allocate main sources of pollution such as discharge of sewage and industrial substances as well as solid waste disposal into river system;
4. Improve water quality through science and technology approaches such as biofiltration methods; and
5. Ensure river maintenance as one of the natural flood mitigation measures.

IMPLEMENTATION INITIATIVE 3-1.2C**► MANAGE A LINEAR RECREATION PARK TO SUPPORTS LOCAL ECONOMY**

Effective river management will make the river and its surroundings a safe and attractive place to visit. The proposal to upgrade the potential river corridor as a recreational park that offers a variety of recreational activities will give benefits from the aspects of health, economy and quality of lifestyle.

The necessary actions to support this initiative are as follows:

1. Prepare a master plan for the proposal of RoL 2, 3 and 4;
2. Control development located next to RoL river by taking into account alignment of the river in future development proposals; and
3. Encourage participation of public, private or corporate bodies through related programmes or projects.

IMPLEMENTATION INITIATIVE 3-1.2B**► BEAUTIFY RIVER ENVIRONMENT**

Beautification of a river is intended to make the river as a focal point that will attract visitors to carry out various leisure activities.

The necessary actions to support this initiative are as follows:

1. Build a network of pedestrian walkways and micromobility vehicle routes along the river corridor;
2. Plant trees such as *Saraca thaipingensis*, *Melaleuca cajuputi* and *Dillenia suffruticosa* along the river to form riparian areas that can improve the river's natural habitat; and
3. Propose hardscape elements to highlight local identity.



Melaleuca cajuputi
Gelam



Dillenia suffruticosa
Simpoh air



Saraca thaipingensis
Gapis

BRIEF INFO**PROPOSAL OF RoL 2, RoL 3 AND RoL 4**

RoL 2	• Sungai Bonus (9.60 kilometres)
RoL 3	• Sungai Keroh (8.60 kilometres)
RoL 4	• Sungai Kuyoh (8.60 kilometres)



Locations: Sungai Kuyoh
Sungai Kuyoh which is located near the Kompleks Sukan Bukit Jalil has the potential to be upgraded as part of RoL project.

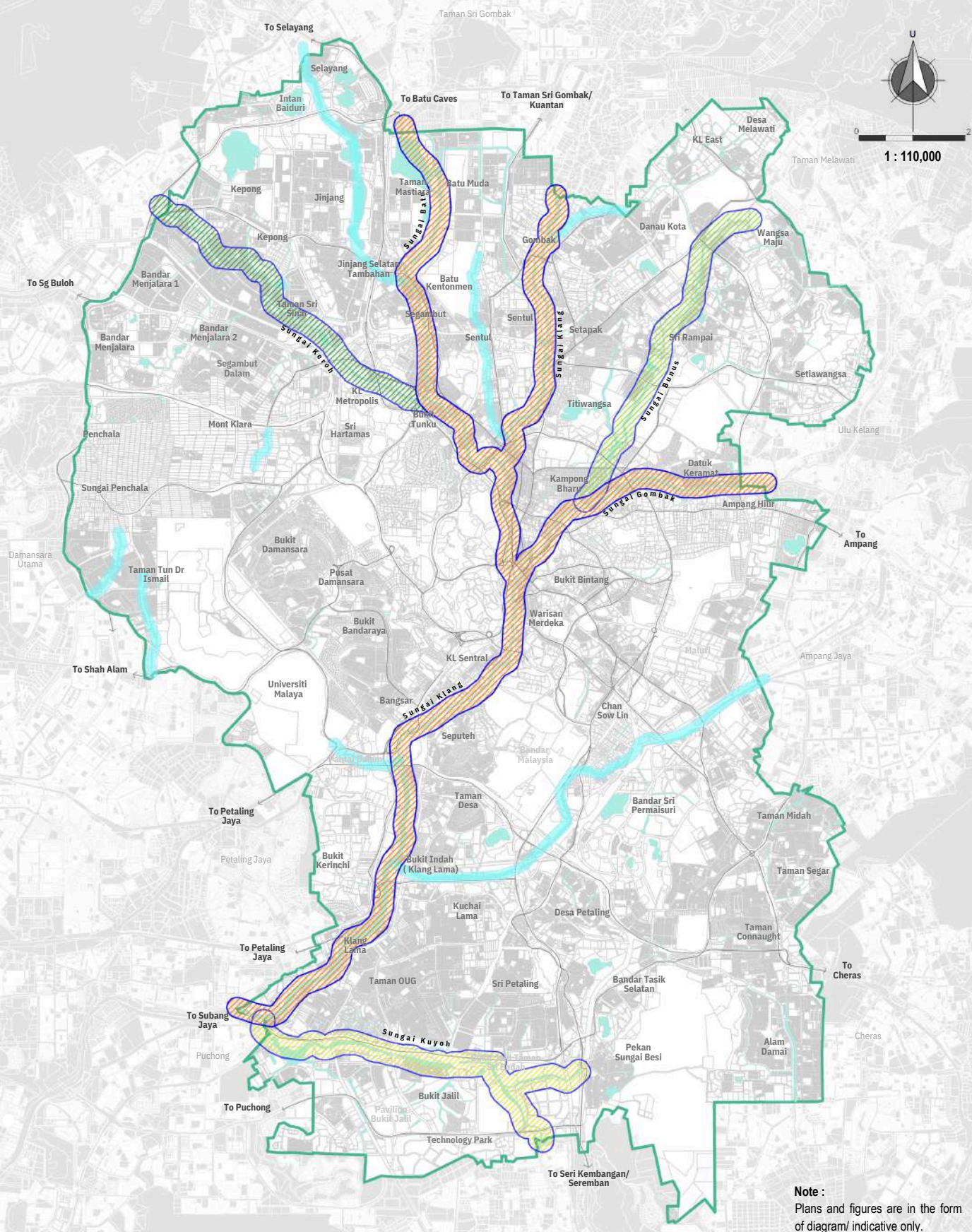


FIGURE 3.1.5 | Plan of Proposed Development River of Life (RoL) 2, 3 and 4

The rapid development of housing, commercial, and industrial sectors in Kuala Lumpur significantly impacts the quality of the environment such as water, air, noise and nuisance pollution. Periodic data from the Department of Environment (DOE) shows that water, air and noise quality indicators can affect the community's quality of life.

In general, the level of water quality in Kuala Lumpur is in Class III and IV. In 2018, Sungai Kerayong and Sungai Bunus recorded a Water Quality Index (WQI) indicator in Class IV, which is only allowed for irrigation purposes. The RoL project in Sungai Klang and Sungai Gombak aims to improve the water quality to Class IIB, which is suitable for recreational purposes. Air Pollution Index (API) readings show moderate API levels (51-100) at two (2) air quality monitoring stations which are in Cheras and Batu Muda.

Noise pollution is caused by vehicles, business areas, construction sites and social activities such as entertainment. These areas and activities recorded 75 dBA noise readings exceeding the permissible standard of 65 dBA during the day.

The proposal for the implementation of CP 3-1.3 is carried out through four (4) initiatives as follows:

1. Control And Monitor Pollution From Industrial Activities;
2. Control Pollution From Commercial Activities;
3. Monitoring Pollution from Residential Areas; and
4. Control And Monitor Pollution From Other Land Use Zone.

BRIEF INFO

CLASSIFICATION OF WATER QUALITY INDEX (WQI)

Class I	WQI more than 92.7: Very clean
Class IIA	WQI 85.0 – 92.7: Clean
Class IIB	WQI 76.5 – 85.0: Moderate clean
Class III	WQI 51.9 - 76.5: Slightly polluted
Class IV	WQI 31.0- 51.9: Moderate polluted
Class V	WQI less than 31.0: Very polluted

Source: Indeks-Kualiti-Air-Sungai.pdf/https://www.doe.gov.my

CP 3-1.3

COORDINATION CONTEXT OF
SDGs AND KLSP2040



SUSTAINABLE DEVELOPMENT GOALS CONTEXT



KLSP2040 CONTEXT

3

GOALS

Kuala Lumpur Green, Healthy and Vibrant City

SV1

STRATEGIC DIRECTIONS

Integrating Urban Development with Natural Assets and Biodiversity

SV
1.1

ACTIONS

Protect the City's Natural Assets

IMPLEMENTATION APPROACH CP 3-1.3



IMPLEMENTATION INITIATIVE

3-1.3A

► CONTROL AND MONITOR POLLUTION FROM INDUSTRIAL ACTIVITIES

Operation of the industrial area in Kuala Lumpur has the potential to pollute environmental quality. There is a need to control and monitor industrial activities in the involved area to ensure unpolluted environment.

The necessary actions to support this initiative are as follows:

1. Enforce individual industrial sewage treatment plants in existing and new factory premises;
2. Encourage the use of applicable green technology such as solar technology, rainwater harvesting and reuse systems, application of the Green Building Index (GBI) as well as others in operation of industrial activities;
3. Encourage the use of air and noise pollution control devices in industrial premises as well as using environmentally friendly fuel;
4. Provide supporting facilities such as parking spaces, truck parking and temporary solid waste collection sites as needed;
5. Ensure sufficient infrastructure and utility facilities such as treated water supply, periodic disposal system for toxic waste and waste materials, drainage system, electricity supply, telecommunication facilities and other facilities;
6. Improve green landscape around industrial areas to reduce carbon emissions in the air. Pocket parks can also be provided in existing industrial areas;
7. Conduct monitoring and enforcement of pollution control in industrial areas; and
8. Upgrade the sewage system in industrial areas near river and main drain from retention pond to treatment plant.

BEST PRACTICE

JTC CLEANTECH ONE OF SINGAPORE



JTC CleanTech One is the pilot building in Singapore's first eco park. The two-tower building houses companies and research centres that provide world-class clean technology solutions.



Unique design feature of JTC CleanTech One is Living Atrium at its centre. Living Atrium features landscaped walkways, vertical landscaping and green façades in an open environment for public interaction as a semi-shaded open space.

Source: <https://www.jtc.gov.sg/find-space>

IMPLEMENTATION INITIATIVE 3-1.3B

► CONTROL POLLUTION FROM COMMERCIAL ACTIVITIES

Commercial activities include shopping, hotel, offices and informal commercial activities such as hawkers. Commercial activities can affect the quality of the environment if not effectively controlled.

Control and monitoring of pollution, especially from commercial activities, need to be given special attention.

There are 1,361 units at the KLCH hawker centers and 32,119 units of other forms of informal businesses operating in Kuala Lumpur. These activities also affect the quality of the environment, which needs to be controlled and monitored. Failure to adhere to good practices will pollute the river water quality due to the discharge of untreated waste.

The necessary steps to support this initiative are as follows:

1. Formal Commercial Activities

- Adopting a green technology sewage treatment plant;
- Practicing the concept of eco-friendly buildings, for example, the Green Building Index (GBI);
- Controlling the discharge of sewage from fixed sources as pollution from commercial activities;
- Establishing renewable energy usage centers and implementing the 4R program (reuse, reduce, recycle, and recovery) particularly in the manufacturing and commercial sectors;
- Promoting energy-efficient practices and green infrastructure in all development sectors, including design and technology;
- Providing trash bins and recycling bins in appropriate places;
- Controlling commercial activities such as workshops and restaurants that can impact the environment in terms of solid waste management and noise; and
- Providing trash traps and oil filters at pollution sources before wastewater and sewage are discharged into rivers or water channels, especially for new licenses and business permit extensions.

2. Informal Commercial Activities

- Enforcing Kuala Lumpur Hawker Licensing By-Laws 2016 and the WPKL Food Establishment Licensing By-Laws 2016 will be carried out to regulate the operation of these hawker activities;
- Identifying the types of hawker activities that can impact the environment in terms of waste disposal and management;
- Ensuring the construction and placement of stalls or bazaars, kiosks, mobile vendors, and food trucks. Located in an area that does not disrupt traffic flow;
- Ensuring that grease and oil from food sales are not disposed of in drains or waterways; and
- Providing trash bins and recycling bins in appropriate places to encourage a recycling culture.

BRIEF INFO

DATA OF VENDOR AND OUTLET IN KUALA LUMPUR



1,361 unit
Hawker centres



32,119 unit
Other informal commercial activities

Source: KLCH, 2022



Location: Sri Rampai

Night market is among the informal commercial activities that have an impact in terms of solid waste disposal.

IMPLEMENTATION INITIATIVE

3-1.3C

BEST PRACTICE

CONTROL POLLUTION FROM RESIDENTIAL AREAS

Provision various types of housing units in Kuala Lumpur including high rise apartment, terraced houses, semi-detached houses and detached houses within residential neighbourhoods, traditional villages and established residential areas.

This area affects the environmental quality, especially in terms of water, air and noise quality. Continuous control is necessary to ensure that environmental quality within permissible standards. Control and monitoring of pollution from residential activities need to be given special attention.

The necessary actions to support this initiative are as follows:

1. Increase green areas such as urban parks, pocket parks, urban farms or green linkages to trap dust and improve air quality;
2. Provide a safe public space and practice social interaction between local populations;
3. Implement segregation activities of recyclable items from solid waste and scrap items to reduce wastage;
4. Control the noise limit for motor vehicles at an acceptable level (55 - 65 dBA) through periodic enforcement operations by the Road Transport Department;
5. Provide pedestrian walkways and micromobility vehicle routes in residential areas;
6. Encourage the practice of using solar energy to reduce dependence on electricity sources;
7. Provide communal bins in suitable locations; and
8. Provide garbage trap facilities for outlets or drainage systems in the housing area.

TAISUGAR CIRCULAR VILLAGE OF TAIWAN



Taisugar Circular Village in Shalun, Tainan, one of the cities in Taiwan, is the first residential project to apply the Circular Economy concept. The residence is equipped with an environmental management system for security control, a grid, smart water metres as well as a compost waste programme through smart applications and green technology.

This initiative also offers the community in this residence a micromobility, low-carbon transport network and encourages the use of green vehicles.



Source: <https://www.taisugar.com.tw/circular>

BEST PRACTICE

INITIATIVE OF GREEN CAMPUS IN SUNWAY UNIVERSITY

KLCH officers have conducted a technical visit to Sunway University to see the university's initiatives towards a green campus such as implementing recycling practices and using renewable energy.



Location: Sunway University

Recycling bins are placed strategically on campus to make it easier for students to practice recycling culture.



Location: Sunway University

Solar panels are installed on the top floor of a building to absorb sunlight. Solar energy is a clean and renewable energy source. Solar energy usage can reduce carbon footprint and lessen the impact of environmental pollution.

IMPLEMENTATION INITIATIVE 3-1.3D

► CONTROL AND MONITOR POLLUTION FROM OTHER LAND USE ZONE

Other land use zone activities such as Land Use Zone of Institutional (INT), Land Use Zone of Public Facilities (PF), and Land Use Zone of Transportation (TR) also have the potential to pollute the quality of the environment if not controlled and monitored effectively.

Operations from activities in this land use zone usually produce waste, wastewater and noise.

The necessary actions to support this initiative are as follows:

1. Increase green areas and green network to trap dust and noise as well as improve air quality;
2. Implement segregation activities of recyclable items from solid waste and scrap items to reduce solid waste disposal;
3. Encourage the practice of using solar energy to reduce dependence on electricity sources;
4. Provide pedestrian walkways and micromobility vehicle routes that are connected in urban areas;
5. Provide noise absorption panels on main roads and highways near the affected areas; and
6. Control the noise limit for motor vehicles at an acceptable level (55 - 65 dBA) through periodic enforcement operations by the Road Transport Department.

DIVERSIFYING FUNCTIONS OF GREEN AND BLUE CORRIDORS

SCENARIO OF EXISTING GREEN AND BLUE CORRIDORS IN KUALA LUMPUR

The post-pandemic situation has shown a positive effect on the use of recreational parks and natural green areas, especially in urban areas. Department of National Landscape reported a four (4) fold increase in the use of Taman Persekutuan Bukit Kiara from 2018 to 2021. Visitor turnout increased after the country entered the National Recovery Plan (NRP) with 682,272 visitors compared with 218,832 visitors during the Movement Control Order (MCO).

The planning strategy is supporting the vision of Second National Urbanisation Policy (NUP2) which is the formation of sustainable cities for the well-being of people. The strategy can be achieved through the preservation and improvement quality of the existing green environment in Kuala Lumpur. A conducive green environment is important to promote the generation of recreational, health, educational and economic activities. Encouragement of these activities must be in line with the pace of development and increase the number of people in order to make Kuala Lumpur a liveable and sustainable city.

This strategy emphasises the provision of more open space that are accessible with a variety of active and passive activities. This helps Kuala Lumpur to become a city that has a functional, attractive, visitor-friendly environment with interconnecting areas through comprehensive green and blue corridors.

These green and blue corridors are habitats for urban biodiversity that are connected through a network of urban ecological nodes such as river corridors and infrastructure reserves. These corridors prioritise the protection and enrichment of the city's biodiversity assets.

Towards realizing Kuala Lumpur as a city with diversify the functions of green and blue corridors, two (2) Implementation Proposals are formulated under Planning Strategy 3-2, as shown in Figure 3.2.1.



Figure 3.2.1:
Implementation Proposals for Planning Strategy 3-2

SP 3-2

DIVERSIFYING FUNCTIONS OF GREEN AND BLUE CORRIDORS

CP 3-2.1

Optimising Lakes and Retention Ponds As Recreational Parks

CP 3-2.2

Establishing Ecological Corridors

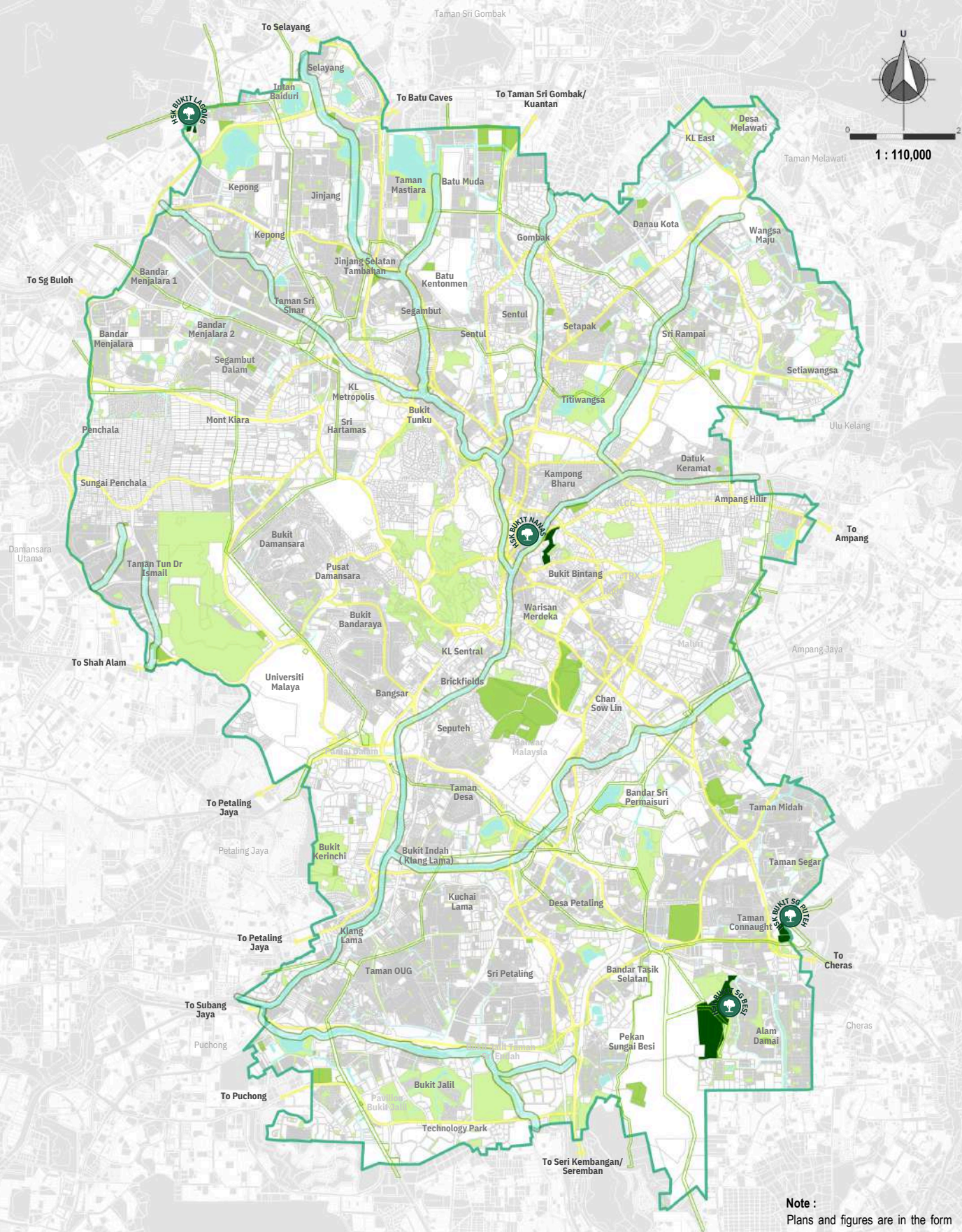


FIGURE 3.2.2 | Plan of Proposed Ecological Corridors

CP 3-2.1:

OPTIMISING LAKES AND RETENTION PONDS AS RECREATIONAL PARKS

The function of blue corridor can be diversified by utilising lakes and retention ponds as recreational parks. This contributes to preserving lakes and retention ponds in Kuala Lumpur as well as to avoiding development pressure on them.

KLSP2040 has identified lakes and retention ponds for improvement through landscape beautification as well as increasing new recreational activities. Optimisation of lakes and retention ponds should emphasise on recreational, educational, conservation and preservation elements of natural resources.

The proposal for the implementation of CP 3-2.1 will be carried out through two (2) initiatives as follows:

1. Identify Lakes And Flood Retention Ponds For Upgrading; and
2. Ensure Recreational Activities Maintained Original Function of The Flood Retention Pond.

BRIEF INFO

MAIN RECREATIONAL PARK OF KUALA LUMPUR

Community Zone



Location: Taman Tasik Permaisuri



Location: Taman Rekreasi Ayer Panas

Recreational Zone



Location: Taman Tasik Titiwangsa

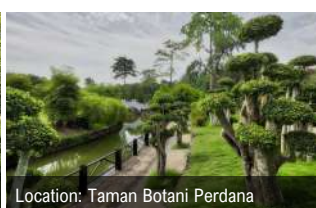


Location: Taman Botani Perdana

Conservation Zone



Location: Taman Tasik Permaisuri



Location: Taman Botani Perdana

CP 3-2.1

COORDINATION CONTEXT OF
SDGs AND KLSP2040



SUSTAINABLE DEVELOPMENT GOALS CONTEXT



KLSP2040 CONTEXT

3

GOALS

Kuala Lumpur Green, Healthy and Vibrant City

SV1

STRATEGIC DIRECTIONS

Integrating Urban Development with Natural Assets and Biodiversity

SV1.2

ACTIONS

Connect Green Areas and Blue Corridors as Urban Ecology Nodes

IMPLEMENTATION APPROACH CP 3-2.1



PROJECT



POLICY



PROGRAMME



PLANNING
CONTROL



GUIDELINE

IMPLEMENTATION INITIATIVE 3-2.1A

► IDENTIFY LAKES AND FLOOD RETENTION PONDS FOR UPGRADING

The step in identifying and upgrading of lakes and flood retention ponds as recreational parks can preserve the function of flood retention ponds. This effort indirectly increases the size of green areas in Kuala Lumpur. Identification of lakes and flood retention ponds as recreational areas is based on the following criteria;

1. Flood retention ponds are under the supervision of KLCH;
2. Area with more than 0.80 hectares (neighbourhood field hierarchy); and
3. Located within the local neighbourhood.

The KLLP2040 has identified four (4) potential flood retention ponds as recreational areas, as follows:

1. Kolam Takungan Banjir Intan Baiduri;
2. Kolam Takungan Banjir Pasar Borong Selayang;
3. Kolam Takungan Banjir Kampung Cheras Baru; and
4. Kolam Takungan Banjir Kampung Bohol.

The necessary actions to support this initiative are as follows:

1. Proposed Community Zone as an active public space for community integration with the following recommendations:
 - a. Centralised public facilities;
 - b. Recreational, game lots and sports facilities;
 - c. Community gardens;
 - d. Softscape and hardscape elements; and
 - e. Security and lighting elements.
2. Proposed Recreation Zone as a semi-active open space that provides various support facilities for the following activities:
 - a. Lake shore stabilisation;
 - b. Recreational facilities;
 - c. Softscape and hardscape elements; and
 - d. Security and lighting elements.

3. Proposed Conservation Zone as a passive area that conserves and preserves lakeside ecology to encourage interaction between visitors and nature through the following activities:

- a. Tree replanting;
- b. Lake shore stabilisation;
- c. Educational activities;
- d. Hardscape elements; and
- e. Security and lighting elements.

IMPLEMENTATION INITIATIVE 3-2.1B

► ENSURE RECREATIONAL ACTIVITIES MAINTAINED ORIGINAL FUNCTION OF THE FLOOD RETENTION POND

Flood retention ponds retain water runoff before it is discharged to the drainage system and river. It can also control the problem of flooding in Kuala Lumpur.



The proposed establishment of a recreational park at the pond area can increase the size of open space (land) in Kuala Lumpur.

The necessary actions to support this initiative are as follows:

1. Conserve and preserve lakeside corridor and pond through establishment of ten (10) metres corridor along the lake shores and retention ponds;
2. Providing a continuous green network that connects lakes and flood retention ponds, rivers, community areas, and local centers; and
3. Prepare a development and management plan through the following aspects:
 - a. Effective accessibility elements that allow visitors to enjoy the facilities provided;
 - b. Suitable activities according to zones such as community zones, recreational zones and conservation zones; and
 - c. Safe, quality and well-functioning recreational facilities.

The proposed flood retention pond development plan is shown in Table 3.2.1.

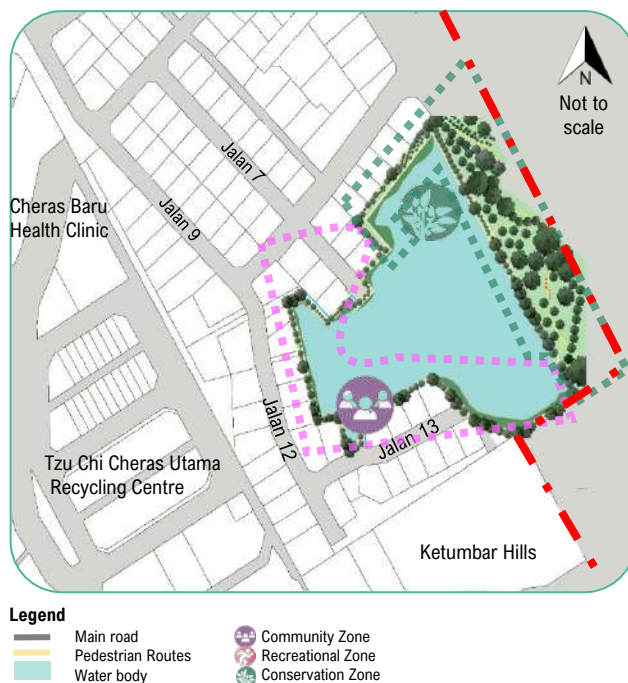
Table 3.2.1:
Proposed Flood Retention Pond as a Potential Open Space (Land)

<p>1</p> <p>Kolam Takungan Banjir Intan Baiduri</p> <p>25.37 hectares</p>	 <p>Legend</p> <ul style="list-style-type: none"> Main road Pedestrian Routes Water body Community Zone Recreational Zone Conservation Zone 	  <p>Current conditions: Basic recreational facilities such as pedestrian walkways routes and gazebos are available at Kolam Takungan Banjir Intan Baiduri.</p>
<p>2</p> <p>Kolam Takungan Banjir Pasar Borong Selayang</p> <p>12.18 hectares</p>	 <p>Legend</p> <ul style="list-style-type: none"> Main road Pedestrian Routes Water body Community Zone Recreational Zone Conservation Zone 	  <p>Current conditions: The service roads around this lake can be upgraded.</p>

Note: Plans and figures are in the form of diagram/ indicative only.

Table 3.2.1:**Proposed Flood Retention Pond Area as Potential Open Space (Land) (continued)****3**Kolam Takungan
Banjir Kampung
Cheras Baru

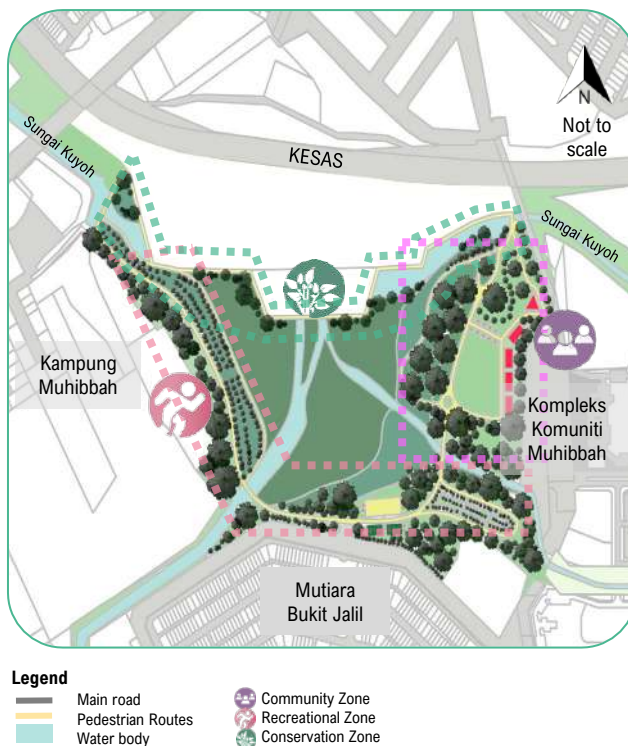
2.35 hectares



Current conditions:
Pond area has the potential to be upgraded.

4Kolam Takungan
Banjir Kampung
Bohol

26.14 hectares



Current conditions:
The flood retention pond has the potential to be developed for recreation with public facilities.

Note: Plans and figures are in the form of diagram/ indicative only.

CP 3-2.2:

ESTABLISHING ECOLOGICAL CORRIDORS

Green and blue corridors that make up ecological corridors can become habitats for urban biodiversity. These are connected through a network of urban ecological nodes such as river corridors and infrastructure reserves. These corridors prioritise to protect and enrich the city's biodiversity assets.

Ecological corridors can be formed by planting suitable trees as well as upgrading landscape elements in existing infrastructure and river corridors.

The KLLP2040 stipulates that ecological corridors can be implemented at two (2) main corridors, as follows:

1. Infrastructure corridors which include highways, roads, rail lines, utility line reserves, linear green areas and slopes areas; and
2. River corridors which include river reserves and drainage.

The proposal for the implementation of CP 3-2.2 is carried out through three (3) initiatives as follows:

1. Establish Infrastructure Corridor As An Ecological Corridor;
2. Establish Riverside Corridor As An Ecological Corridor; and
3. Plant Multi-layer Silara Tree Species.



Location: Sungai Gombak at Kampung Sungai Mulia
The river corridor has potential to increase its function as an urban ecological node and attractive recreational area.

CP 3- 2.2

COORDINATION CONTEXT OF
SDGs AND KLSP2040



SUSTAINABLE DEVELOPMENT GOALS CONTEXT



KLSP2040 CONTEXT

3

GOALS

Kuala Lumpur Green, Healthy and Vibrant City

SV1

STRATEGIC DIRECTIONS

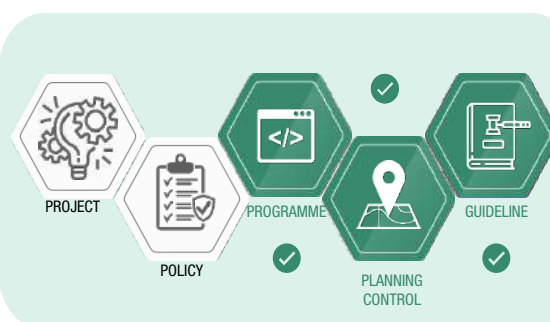
Integrating Urban Development with Natural Assets and Biodiversity

SV
1.2

ACTIONS

Connect Green Areas and Blue Corridors as Urban Ecology Nodes

IMPLEMENTATION APPROACH CP 3-2.2



IMPLEMENTATION INITIATIVE 3-2.2A

ESTABLISH INFRASTRUCTURE CORRIDOR AS AN ECOLOGICAL CORRIDOR

The KLLP2040 has identified five (5) main road reserves where ecological corridors in Kuala Lumpur could be implemented. Part of the appropriate segment of road reserve will be upgraded with tree planting as well as pedestrian walkways and micromobility vehicle routes.

The necessary actions to support this initiative are as follows:

1. Provide adequate and suitable planting space; and
2. Ensure continuity of planting space and interconnected with other ecological corridors.

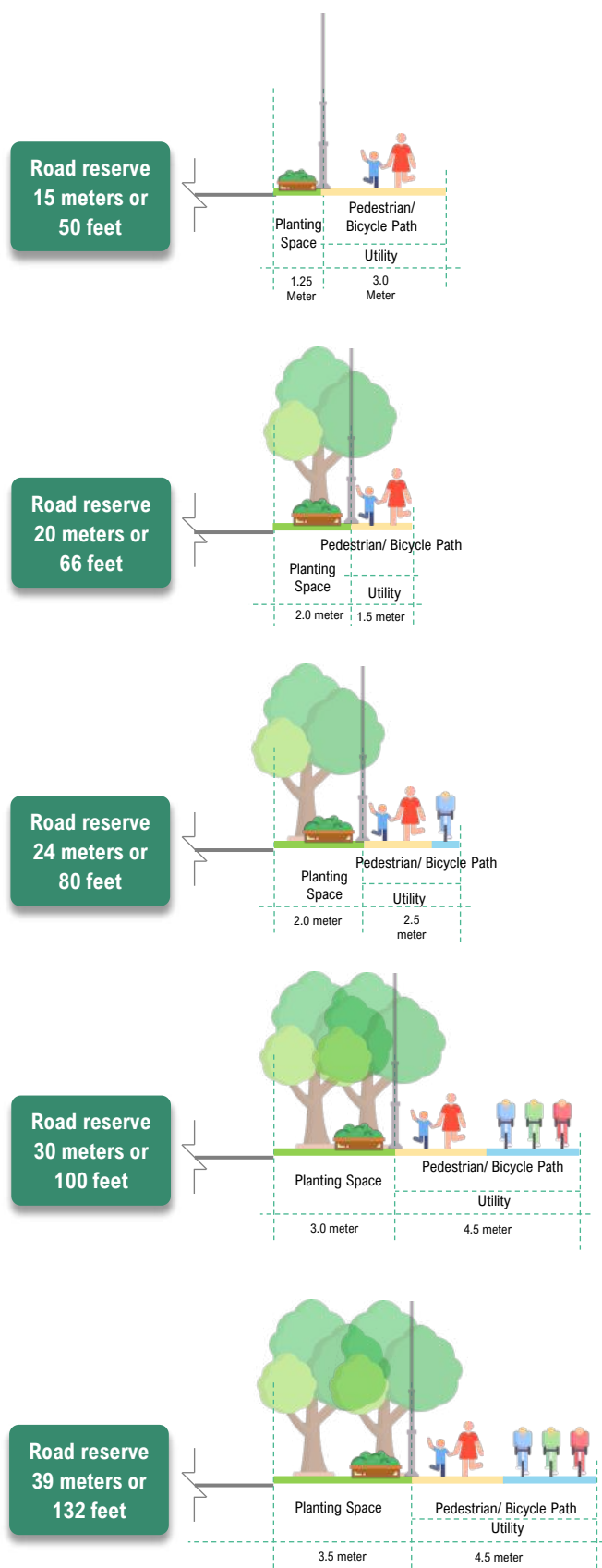
The implementation of this ecological corridor will focus on five (5) road reserves, as follows;

1. Road reserve of 15 metres or 50 feet;
2. Road reserve of 20 metres or 66 feet;
3. Road reserve of 24 metres or 80 feet;
4. Road reserve of 30 metres or 100 feet; and
5. Road reserve of 39 metres or 132 feet.

Figure 3.2.3 shows the minimum green space requirements to be provided based on the width of the road reserve. This implementation is also subject to detailed planning.



Figure 3.2.3:
Proposed Ecological Corridor at Infrastructure Corridor



Source: Pelan Pengurusan Pokok Rendang KLCH

IMPLEMENTATION INITIATIVE 3-2.2B

ESTABLISH RIVERSIDE CORRIDOR AS AN ECOLOGICAL CORRIDOR

The establishment of the riverside corridor as the city's ecological corridor is to improve the quality of the environment and promote preservation and ecological conservation along the river. The widths of the riverside corridor are as shown in Figure 3.2.4, based on the potential and suitability of space for the following river categories:

1. Categories I (main river) and II (large river): ten (10) metres; and
2. Category III (small river): seven (7) metres.

The KLLP2040 has identified 16 main rivers to be coordinated as riverside corridors as shown in Table 3.2.2.

IMPLEMENTATION INITIATIVE 3-2.2C

PLANT MULTI-LAYER SILARA TREE SPECIES

Conservation and preservation of ecological corridors in Kuala Lumpur aim to connect biodiversity assets and create urban biodiversity habitats.

The necessary actions to support the initiative are as follows:

1. Plant tree species that have various layers of urban tree height as shown in Figure 3.2.5; and
2. Plant trees of local species and species that can attract small fauna.

Figure 3.2.4:
Proposed Ecological Corridor at Riverside Corridor

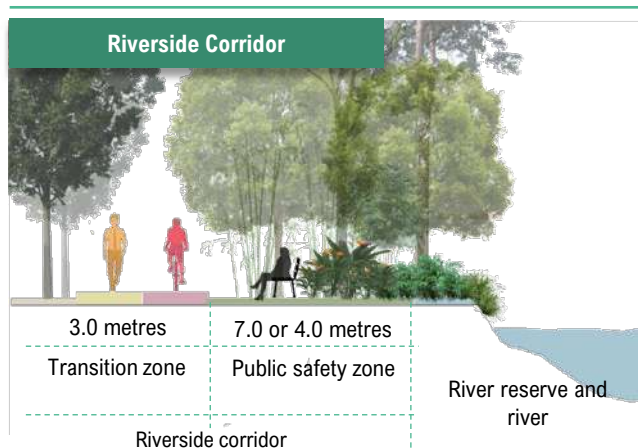
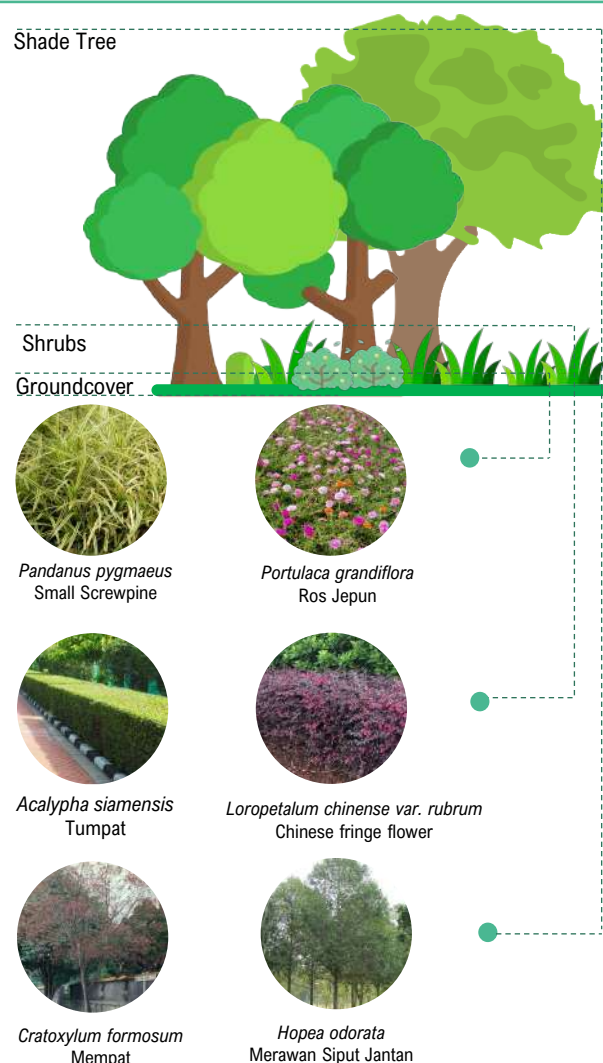


Table 3.2.2:

Proposed Riverside Corridor with Potential to Be Ecological Corridor

River		Length (kilometres)
Category I: Main River		
1.	Sungai Klang	16.50
2.	Sungai Gombak	8.20
3.	Sungai Batu	8.10
Category II: Large River		
1.	Sungai Kerayong	9.37
2.	Sungai Kuyoh	6.82
3.	Sungai Bohol	0.80
4.	Sungai Midah	1.74
5.	Sungai Penchala	3.00
6.	Sungai Jinjang	5.37
7.	Sungai Keroh	6.90
8.	Sungai Kemuning	4.30
9.	Sungai Belankong	3.50
Category III: Small River		
1.	Sungai Bunus	9.60
2.	Sungai Toba	4.20
3.	Sungai Kayu Ara	3.60
4.	Sungai Untut	3.70

Figure 3.2.5: Urban Tree Planting Layers



Source:
1. <https://www.mybis.gov.my/one/>
2. <https://www.nparks.gov.sg>

IMPLEMENTING GREEN DENSITY IN KUALA LUMPUR

SCENARIO OF EXISTING GREEN DENSITY IN KUALA LUMPUR

The ministry of Natural Resources and Environmental Sustainability (NRES) is implements the Malaysian Greening Programme through the 100 Million Tree Planting Campaign over a period of five (5) years from 2021 to 2025.

The campaign aims to raise awareness and foster a love of nature among the people on the importance of green areas and forests for the well-being and quality of life of city dwellers.

Efforts to improve the country's ecosystem and biodiversity require the involvement of all levels of society. This can be done through planting various types of trees in support of the commitment to maintain the coverage of forested areas and green areas in Malaysia, especially Kuala Lumpur.

The proposal to implement Kuala Lumpur's green density is formulated as one of the strategies to support the country's commitment to maintaining at least 50 percent of the country's land area covered with trees and forested areas. This increase in green density can reduce the effect of heat islands, especially in urban areas.

Canopy covered areas can reduce heat by 1.1 to 2.5 degrees Celsius compared to uncovered areas. Limited land availability is the main constraint in increasing the level of greenery in Kuala Lumpur.

This green density proposal will focus on potential areas for tree planting in car parks, road reserves and spaces between buildings as well as on buildings. The trees planted must have a high carbon absorption capacity and a large crown.

Towards realizing Kuala Lumpur as a city with implement green density, two (2) Implementation Proposals are formulated under Planning Strategy 3-3, as shown in Figure 3.3.1.

BRIEF INFO

SCENARIO OF GREEN DENSITY IN KUALA LUMPUR

Planting of 100 million trees within 5 years period from 2021 to 2025

Malaysia Greening Programme

Production of 117 tons of oxygen and reduction of 22 tons of carbon dioxide per year

1 Million Trees

- Target of 30 percent canopy cover and planting of 5 million trees
- 60 square kilometres of low-impact development and 25 percent permeability or absorption rate

2050 Climate Action Plan

Kuala Lumpur is expected to experience an increase in temperature of 1.5 degrees Celsius between 2030 and 2052

Kuala Lumpur Climate Change

The number of trees planted in Kuala Lumpur in the period 2010 to 2019

600 Thousand Trees

Sources:

1. Action Plan of Climate 2050
2. <https://www.100jutapokok.gov.my>

Figure 3.3.1:
Implementation Proposals for Planning Strategy 3-3

SP 3-3

IMPLEMENTING GREEN DENSITY IN KUALA LUMPUR

CP 3-3.1

Expanding Area of Tree Canopy Coverage

CP 3-3.2

Implementing Vertical Landscape

CP 3-3.1:

EXPANDING AREA OF TREE CANOPY COVERAGE

Planting shade trees of various species is the main landscape element in urban areas that has an impact on the green environment and can absorb light reflection from skyscrapers.

Shade trees can also balance the temperature and reduce temperature as well as climate of an area, filter heat, produce oxygen naturally and absorb polluting gases such as carbon dioxide through the process of photosynthesis. These trees can function as strong wind buffers, especially in highway areas and control soil erosion through tree root structure. It also serves as a wind tunnel to create a comfortable environmental atmosphere.

This implementation proposal encourages the planting of shade tree species and plants with a high carbon absorption capacity, especially in road reserves and parking. These tree planting can help to reduce the urban heat island effect.

The proposal for the implementation of CP 3-3.1 is carried out through two (2) initiatives as follows:

1. Plant Carbon Absorbing Tree Species; and
2. Encourage Tree Planting In Road Reserves, Open Parking Spaces and Open Spaces (Land).



Location: Jalan Tuanku Abdul Rahman

The rebranding of Jalan Tuanku Abdul Rahman through tree planting makes this a more attractive area to visit.

CP 3-3.1

COORDINATION CONTEXT OF SDGs AND KLSP2040



SUSTAINABLE DEVELOPMENT GOALS CONTEXT



KLSP2040 CONTEXT

3

GOALS

Kuala Lumpur Green, Healthy and Vibrant City

SV1

STRATEGIC DIRECTIONS

Integrating Urban Development with Natural Assets and Biodiversity

SV 1.3

ACTIONS

Increase the Green Density of Kuala Lumpur

IMPLEMENTATION APPROACH CP 3-3.1



PROJECT



POLICY



PROGRAMME



PLANNING CONTROL



GUIDELINE

IMPLEMENTATION INITIATIVE 3-3.1A

► PLANT CARBON ABSORBING TREE SPECIES

Planting shade tree and ground cover species with a high carbon absorption capacity can help reduce the urban heat island effect, stabilize local temperature and climate of a place, filter heat and contribute oxygen naturally.

Selection of tree species with wide canopy and tall can increase the green space in urban areas and form urban green corridors. The KLLP2040 has identified among suitable tree species to support this initiative, as shown in Table 3.3.1.

Table 3.3.1:
Proposed List of Tree Species and Carbon Dioxide Absorption Capacity Per Year

	Scientific Name	Carbon Dioxide Absorption Capacity/ Tree (kilogramme/ year)	Mature Height (metre)
1.	<i>Khaya senegalensis</i> (Khaya)	72,119.00	30
2.	<i>Samanea saman</i> (Hujan-hujan)	28,488.40	20-30
3.	<i>Syzygium grande</i> (Jambu Laut)	32,740.00	25-45
4.	<i>Hopea odorata</i> (Merawan siput jantan)	11,878.00	25-30
5.	<i>Pongamia pinnata</i> (Mempari)	8,990.00	15-25
6.	<i>Mimusops elengi</i> (Tanjung)	8,289.00	15
7.	<i>Syzygium polyanthum</i> (Salam)	6,748.00	36
8.	<i>Sandoricum koetjape</i> (Sentul)	5,060.00	50
9.	<i>Fagraea fragrans</i> (Tembusu)	1,488.00	30
10.	<i>Garcinia griffithii</i> (Kandis)	1,211.00	30
11.	<i>Cananga odorata</i> (Kenanga)	756.59	10-20
12.	<i>Delonix regia</i> (Semarak api)	729.00	9-20
13.	<i>Ficus benjamina</i> (Beringin)	535.90	20
14.	<i>Filicium decipiens</i> (Kiara payung)	404.80	30
15.	<i>Pometia pinnata</i> (Kasai)	329.80	20-50
16.	<i>Swietenia mahagoni</i> (Mahogani)	295.70	40
17.	<i>Michelia champaca</i> (Cempaka)	207.90	50
18.	<i>Lagerstroemia speciosa</i> (Bungor)	160.14	30
19.	<i>Melaleuca cajuputi</i> (Gelam)	87.60	40

Figure 3.3.2:
Proposed Carbon Absorbing Tree Species



Khaya senegalensis
Khaya



Samanea saman
Hujan-hujan



Delonix regia
Semarak api



Syzygium grande
Jambu laut



Hopea odorata
Merawan siput jantan



Pongamia pinnata
Mempari



Mimusops elengi
Tanjung



Syzygium polyanthum
Salam



Sandoricum koetjape
Sentul



Fagraea fragrans
Tembusu

Sources:

1. <https://www.mybis.gov.my/one/>
2. <https://www.nparks.gov.sg>

► **ENCOURAGE TREE PLANTING IN ROAD RESERVES, OPEN PARKING SPACES AND OPEN SPACES (LAND)**

Green cover areas can be improved by increasing the number of trees in road reserves, open parking, and open spaces (land). Shade trees can increase biodiversity in green areas and support efforts to connect environmental sustainability with communities and provide comfortable space for pedestrians and micromobility vehicles.

The area involved can form a green corridor that is capable of improving the urban ecosystem, strong wind buffer, especially along highways and controlling soil erosion

The selection of species suitable for the planting location depends on the compatibility of the species' growth characteristics. Planting unique and endangered tree species can raise awareness about the importance of conserving tropical tree species, which are valuable national assets. This effort can also foster a culture of love for tropical natural landscapes within the community and preserve it for future generations to admire.

KLLP2040 encourages tree planting to be carried out in the following areas:

1. Main road reserves exceeding 15 meters;
2. Open parking or public spaces suitable to be designated as parklets; and
3. Open spaces (land) with a combination of various types of plants to create a harmonious, functional, and aesthetically pleasing environment.

The necessary actions to support this initiative are as follows:

1. Planting method

- a. Interplant of shade trees in areas that have the following criteria:
 - Roadside trees that do not provide shade; and
 - Replace existing trees that are unhealthy and dangerous.
- b. Plant trees in layered, mixed trees and naturally form in the wide and extensive reserves are encouraged to support urban biodiversity habitats;

- c. Plant shrubs will serve as a safety barrier between the pedestrian walkways and micromobility vehicle routes on existing roads that do not have a dedicated tree planting area;
- d. Plant shade trees at intersections, roundabouts and elevated road areas should take into account drivers' visibility and serve as direction indicators; and
- e. Encouraged installation of root barriers around transport infrastructure poles and curbs.

2. Selection of tree species

The necessary actions in the selection of tree species are as follows:

- a. Tree species with thick flowering and fragrant are planted in protocol and main road reserve areas for attractiveness and highlight the area's identity;
- b. Maintree species should have a straight trunk with past growth rate and a wide, dense canopy to provide shade;
- c. Tree species suitable for stabilisation, conservation and preservation of slopes such as those with taproots and a firm grip;
- d. Tree species that are easy to maintain such as those with branches that are not easily broken or fragile, low leaf fall rate and pollution resistant;
- e. Tree species capable of attracting urban life such as birds, squirrels and butterflies;
- f. Tree species with a minimum clear trunk height of 2.0 metres from ground level; and

Vertical landscape serves as an alternative approach to encourage the provision of green elements in dense neighbourhoods and townships. This can increase the green density of an area and act as thermal insulation by protecting a building from direct sunlight.

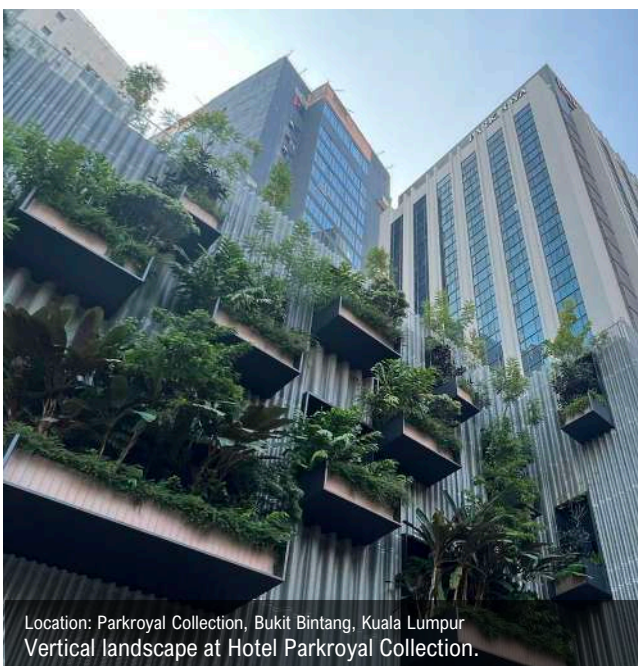
The form of the insulation layer is able to cool the surface of the building and promote energy efficiency in the building.

The application of vertical landscape is a main feature in the development of the Sponge City. This concept focuses on a comprehensive approach to managing the water cycle in urban areas and helps in mitigating the risk of flash floods.

Vertical landscape can be implemented in high-density developments such as mixed developments, apartment or commercial developments. The emphasis should be on new development areas, redevelopment or regeneration areas.

The proposal for the implementation of CP 3-3.2 is carried out through one (1) initiative as follows:

1. Implement Vertical Landscape Concept.



Location: Parkroyal Collection, Bukit Bintang, Kuala Lumpur
Vertical landscape at Hotel Parkroyal Collection.

CP 3-3.2

COORDINATION CONTEXT OF
SDGs AND KLSP2040

SUSTAINABLE DEVELOPMENT GOALS CONTEXT



KLSP2040 CONTEXT

3

GOALS

Kuala Lumpur Green, Healthy and Vibrant City

SV1

STRATEGIC DIRECTIONS

Integrating Urban Development with Natural Assets and Biodiversity

SV
1.3

ACTIONS

Increase the Green Density of Kuala Lumpur

IMPLEMENTATION APPROACH CP 3-3.2



PROJECT



POLICY



PROGRAMME

PLANNING
CONTROL

GUIDELINE

► IMPLEMENT VERTICAL LANDSCAPE CONCEPT

The concept of vertical landscape can contribute to the greening of the sustainable urban environment. It can increase value added to the building and its environment through the improvement of the visual quality of the softscapes planted.

Plants covering the building can reduce the internal temperature and save energy consumption which will contribute to improving the quality of the urban ecosystem.

Implementation of this concept is one of the strategies to achieve the target of providing 20 square metres of open space for each resident and an effort to increase the area of green cover.

The necessary actions to support this initiative are as shown in Table 3.3.2.

LAYER OF VERTICAL LANDSCAPE PLANTING

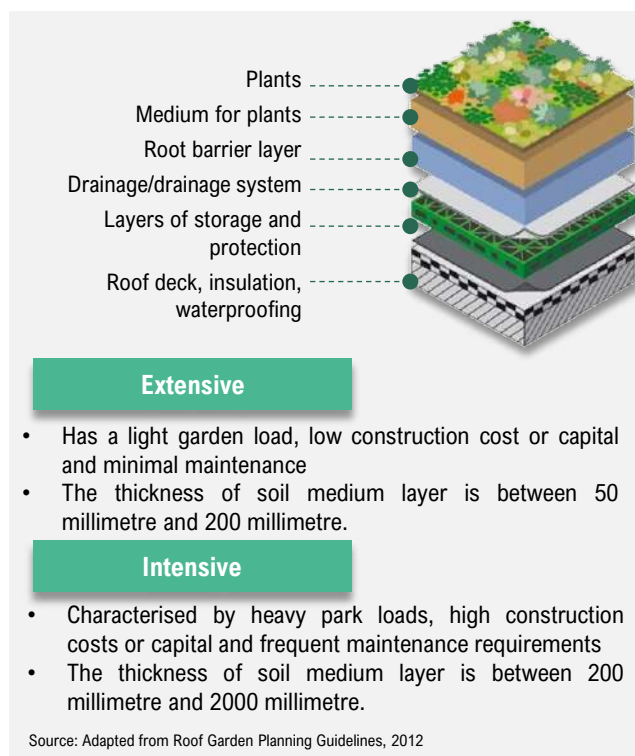


Table 3.3.2:
Implementation Action Vertical Landscape Concept

Location	Implementation Actions
1. Roof Level Garden located on the roof of a building.	1. Encourage vertical landscape concept in high-density development areas such as; <ol style="list-style-type: none"> City centre; New development area; Redevelopment area; and Regeneration area.
2. Building Facade Plants that are planted vertically on building façades either on building walls or on separate structures.	2. Ensure 50 percent of this greenery is provided through two (2) methods as follows; <ol style="list-style-type: none"> Ten (10) percent is provided at the ground level of the building and 40 percent vertically (multi-level landscape); or Eight (8) percent is provided at ground level and 42 percent vertically of which 16 percent is a covered green area.
3. Terraced Garden Garden located on the intermediate floor level, balcony and podium deck.	3. The suggested planting method are as follows; <ol style="list-style-type: none"> The vertical garden irrigation system must be well planned as well as rainwater harvesting and reuse are encouraged; The orientation of the garden, wind directions and the sun's rays must be taken into account in designing the garden; and Drainage systems such as drains, ditches, downspouts, sub-soil drains, discharge outlets, scupper drains as well as barriers to prevent blocked drainage systems must be provided and approved.
4. Community Site Located either on the lobby level or on the ground and accessible to the public and building users as common areas such as plazas, children's playgrounds, water landscapes and others.	4. The necessary actions in the selection of plant types are as follows: <ol style="list-style-type: none"> Extensive vertical landscape area – small, climbing and creeping plants, ground cover plants or grasses, cacti and hardy plants; and Intensive vertical landscape area – medium-sized trees, shrubs, palms, ferns, bamboos, herbs and other suitable plants.

DIVERSIFYING THE FUNCTION OF PARKS AND OPEN SPACES (LAND)

SCENARIO OF CURRENT OPEN SPACES (LAND) IN KUALA LUMPUR

An adequate provision, high-quality and well maintained open space will support towards creating a healthy and vibrant city. High-quality green spaces are capable to balance the urbanisation negative impacts such as urban heat islands, climate change, pollution and the loss of urban biodiversity.

Garis Panduan Perancangan Keperluan Kawasan Lapang (KLCH) requires each development to provide a minimum of ten (10) percent for public open space. A high-quality open space will balance green spaces and development as well as increase the community's quality of life.

KLSP2040 targets to achieve the provision of 20 square metres of open space per person in Kuala Lumpur by 2040. This target will support the increase and requirements of present and future populations. Apart from that, efforts to gazette open spaces in Kuala Lumpur needs to be enhanced.

Generally, major Asian countries have open spaces (land) less than 20 square metres per person compared to European countries as shown in Table 3.4.1.

Table 3.4.1:
Benchmark for the Preparation of Overseas Open Spaces (Land)

City/Country	Square Metres per Person
1. London (2021)	27.00
2. Amsterdam (2021)	45.50
3. Stockholm (2021)	87.50
4. Vienna (2021)	12.0
5. Buenos Aires (2021)	1.90
6. Tokyo (2021)	3.0
7. Istanbul (2021)	6.40
8. Singapore (2021)	6.60

Note: Interpretation of open space provision differs between countries.

Source: Adapted from:

1. Baharash.com/liveable-cities
2. <http://www.pland.gov.uk>

BRIEF INFO

PROVISION OF REQUIREMENTS FOR OPEN SPACE (LAND)

Fourth National Physical Plan (NPP4)

Utilised of green landscape in urbanised areas to support and improve habitat continuity

Biodiversity Concept

Emphasised on preserving green landscape in urbanised areas

National Biodiversity Policy 2016-2025

WHO Targets

Nine (9) square metres per person

World Health Organization (WHO)

2040 Target

Kuala Lumpur 2040: 20.00 square metres per person

Kuala Lumpur Structure Plan 2040

BRIEF INFO

PROVISION OF OPEN SPACES (LAND) IN THE UNITED STATES

- It is an open space that includes public parks, schoolyards, and other areas available for public use.
- Public parks consist of gardens with green spaces such as trees, grass, and shrubs.
- Community open spaces consist of schoolyards, playgrounds, community gardens, and cemeteries.
- Community open spaces consist of public seating areas, public plazas, and vacant lots.

The level of open space (land) provision in Kuala Lumpur when compared to other states and major towns in Malaysia is moderate as shown in Tables 3.4.2 and 3.4.3. The requirements for its provision need to be enhanced through various additional initiatives and re-definitions of open space (land) that include open space and green area to meet the target of 20 square metres of open area per person.

Toward realizing Kuala Lumpur as a city with a variety of parks and open areas functions, three (3) Implementation Proposals are formulated under Planning Strategy 3–4, as shown in Figure 3.4.1.

Table 3.4.2:
Status of Open Space (Land) Provision in Malaysia, 2024

State	Square Metres per Person
1. Wilayah Persekutuan Putrajaya	191.59
2. Melaka	5.64
3. Negeri Sembilan	3.72
4. Wilayah Persekutuan Labuan	1.91
5. Terengganu	14.71
6. Pahang	5.89
7. Selangor	18.79

Source: PLANMalaysia (Research and Development Division), 2024

Table 3.4.3:
Status of Open Space (Land) Provision in Klang Valley

City/Town	Square Metres per Person
1. Petaling Jaya (2016)	26.80
2. Shah Alam (2016)	58.10
3. Subang Jaya (2016)	36.70
4. Klang (2016)	19.40
5. Sabak Bernam (2016)	19.80
6. Kuala Lumpur (2023)	10.69

Source: Seksyen Makro dan Penswastan, UPEN

BRIEF INFO

- PROVISION OF OPEN SPACES (LAND) IN THE UNITED KINGDOM**
- Open spaces are areas that are open and accessible to the public, such as parks, beaches, public squares, and pavements.
 - Green spaces consist of parks, playgrounds, forests, cemeteries, and green corridors.
 - Having open spaces that include 15 national parks, beaches, new forests, and lakes.
 - Having more than 27,000 parks and green spaces consisting of large parks and small neighborhood gardens.
 - A total of 198,000 hectares of green space in Great Britain and 164,000 hectares of green space in England.
 - The Green Flag Award is a scheme that recognizes well-managed parks and green spaces.

Figure 3.4.1:
Implementation Proposals for Planning Strategy 3-4



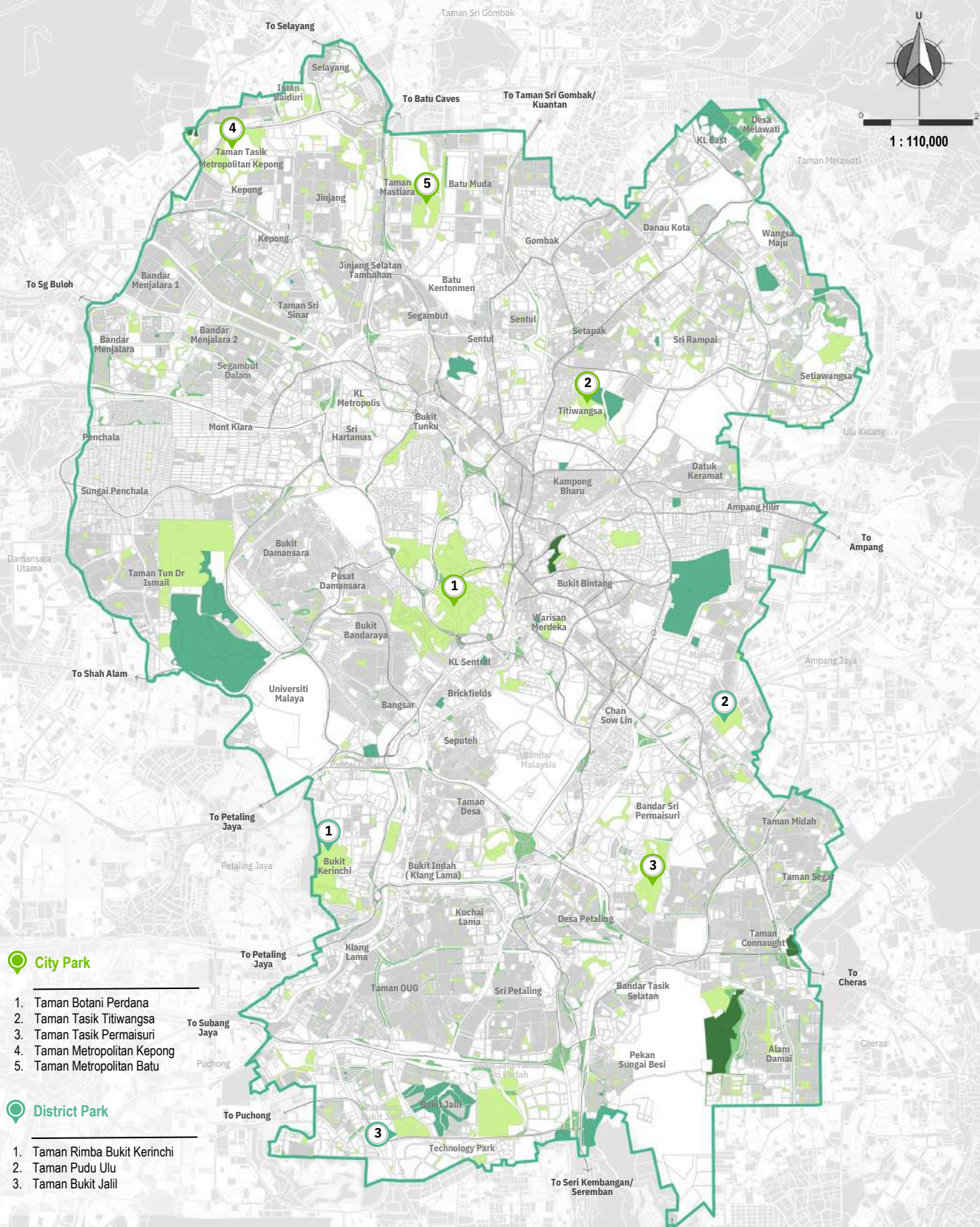


FIGURE 3.4.2 | Plan of Open Space and Green Area Distribution 2040

CP 3-4.1:**STRENGTHENING THE FUNCTION OF OPEN SPACE (LAND)**

Sustainable Cities and Communities is one of the agenda outlined by the United Nations (UN) in the Sustainable Development Goals (SDGs) 2030 to ensure cities and human settlements are inclusive, safe, resilient and sustainable.

The Fourth National Physical Plan (NPP4), through Action KI 3.3B, lists several measures to bolster green areas. Among the measures is to protect and preserve open spaces including urban parks through gazettelement of open space to prohibit any change of land use activities. In addition, strengthening green networks, enforcing the Tree Preservation Order (TPO), and carrying out periodic maintenance to ensure ecosystem balance and community well-being.

The Initiatives to bolster the provision of open space will increase urban resilience and make Kuala Lumpur a liveable city with a high-quality and conducive green environment.

The proposal for the implementation of CP 3-4.1 is carried out through three (3) initiatives as follows:

1. Strengthen The Interpretation Of Open Land In Land Use Zones;
2. Impose Open Space Requirements In Land Use Zones; and
3. Strengthening Existing Open Space (Land).

BRIEF INFO**FOURTH NATIONAL PHYSICAL PLAN (NPP4)**

Liveable Environment and Inclusive Community

Thrust 3

Mainstreaming Clean, Healthy and Safe Lifestyles in Planning and Development

Strategy KI 3.3

Increasing Green Areas and Improving Their Functions as Beneficial Space for Social Interaction

Action KI 3.3B

Source: Fourth National Physical Plan (NPP4)

CP 3-4.1COORDINATION CONTEXT OF
SDGs AND KLSP2040**SUSTAINABLE DEVELOPMENT GOALS CONTEXT****KLSP2040 CONTEXT****3****GOALS**

Kuala Lumpur Green, Healthy and Vibrant City

SV2**STRATEGIC DIRECTIONS**

Attractive and Creative Urban Environment

**SV
2.1****ACTIONS**

Enhance the Quality and Diversify the Functions of Parks and Open Spaces

IMPLEMENTATION APPROACH CP 3-4.1

IMPLEMENTATION INITIATIVES

3-4.1A

► STRENGTHEN THE INTERPRETATION OF OPEN SPACES (LAND) IN LAND USE ZONES

KLLP2040 strengthens the interpretation of open spaces (land) in the context of Kuala Lumpur's development. This initiative is implemented to support strategies for addressing the heat island phenomenon and low water permeability levels in urban areas.

Open spaces (land) in Kuala Lumpur consist of open areas and green areas. The categories and details are as shown in Figure 3.4.3.

The necessary actions in strengthening the interpretation of open spaces (land) are as follows:

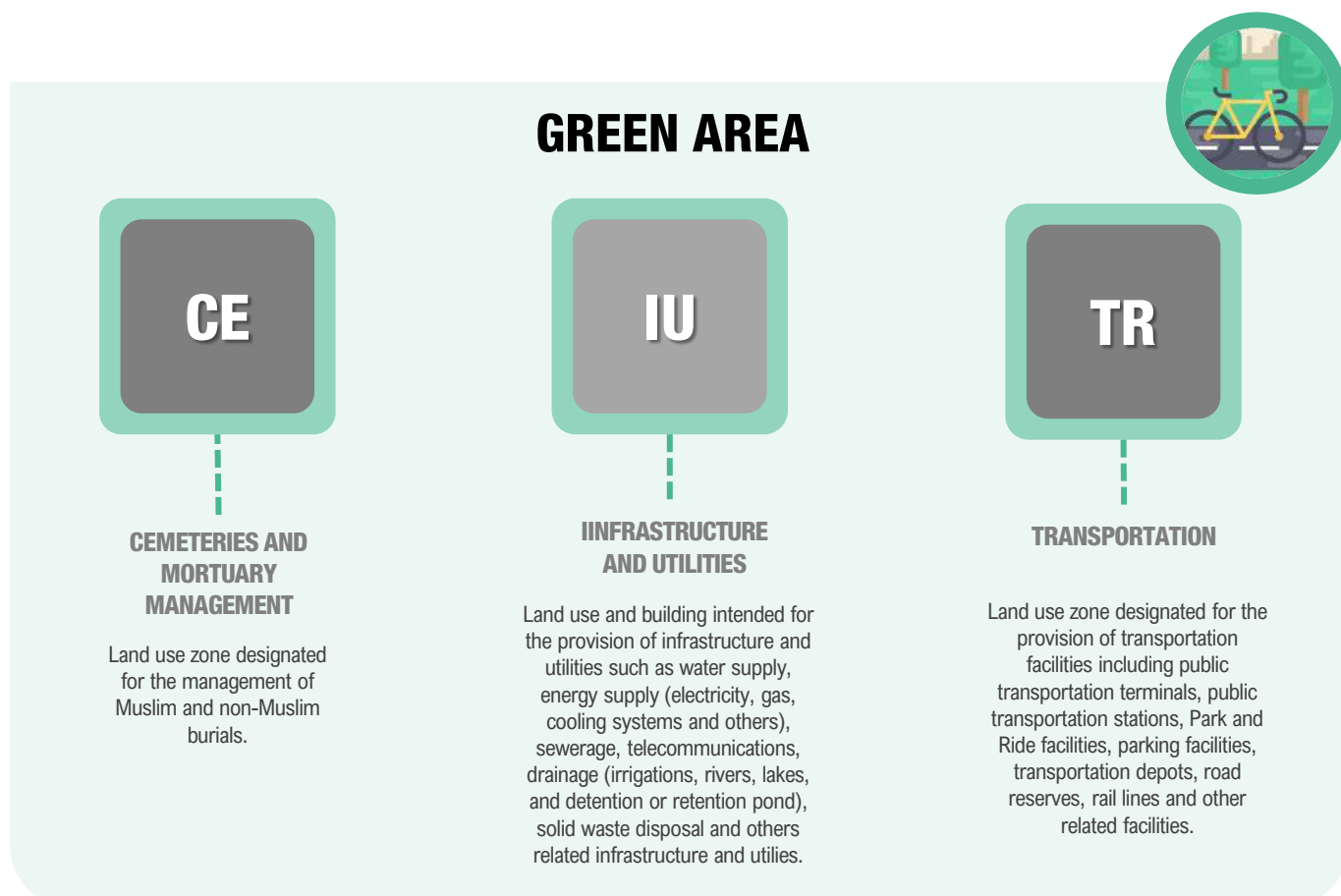
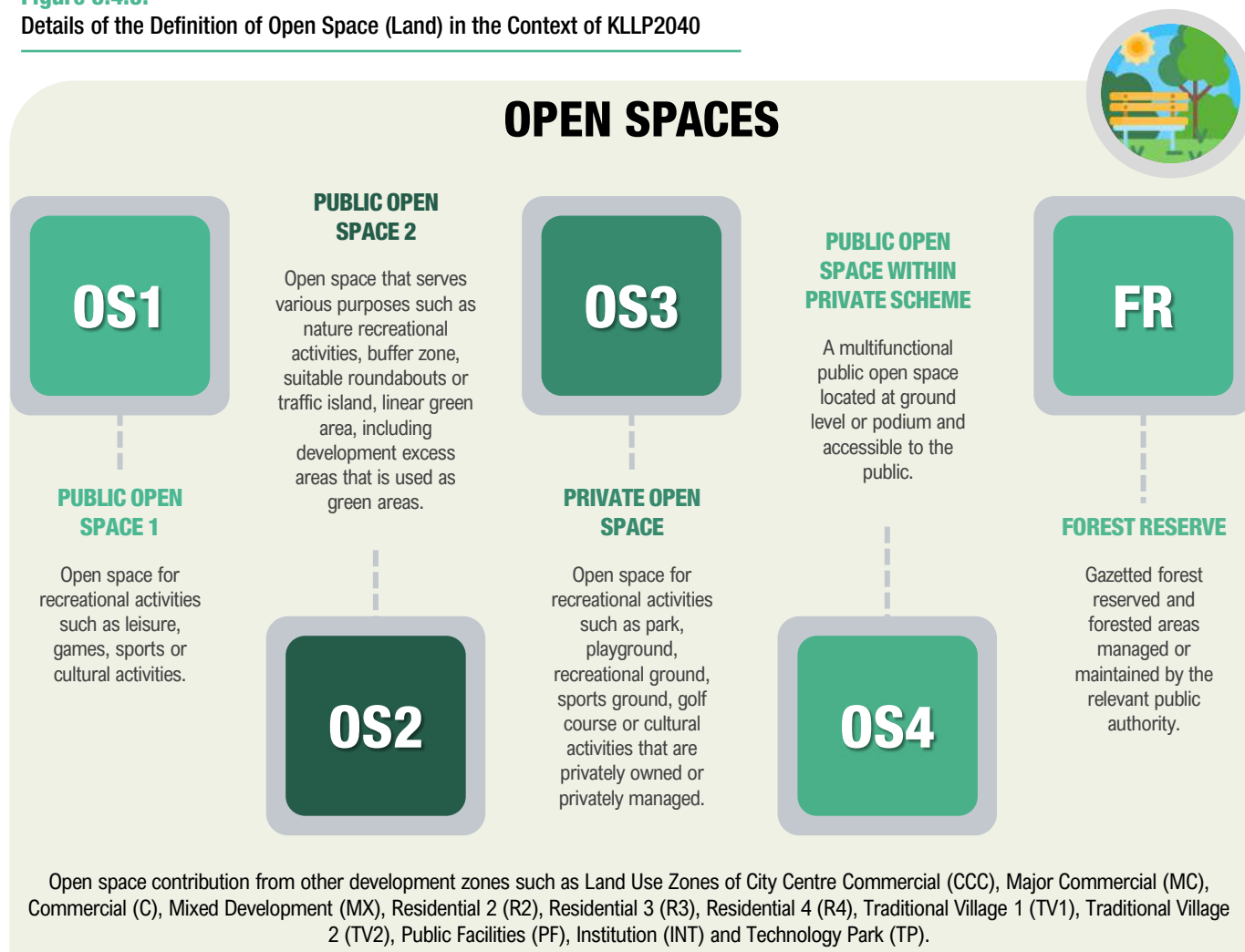
1. Through the interpretation of open spaces (land) referring to open spaces and green areas based on the KLLP2040 land use zones;
2. Strengthen the components of open spaces consisting of Public Open Space 1 (OS1), Public Open Space 2 (OS2), Private Open Space (OS3), Public Open Space within Private development Schemes (OS4), and Reserved Forests (FR); and
3. Strengthen the components of green areas consisting of part of the Land Use Zones of Cemeteries and Mortuary Management (CE), Infrastructure and Utilities (IU), and Transportation (TR).

The interpretation of the land use zone in question should refer to Chapter 2 of the Land Use Zone, Volume 1, Section 1.

The necessary actions for determining the need for open spaces (land) are as follows:

1. Establish the budget for open space contributions based on land use zones as in Table 3.4.5; and
2. Establish the estimated contribution of green areas based on land use zones as in Table 3.4.4.

Figure 3.4.3:
Details of the Definition of Open Space (Land) in the Context of KLLP2040



IMPLEMENTATION INITIATIVE 3-4.1B

► IMPOSE OPEN SPACE (LAND) REQUIREMENTS IN LAND USE ZONES

The requirement of open space (land) for development schemes in various land use zones must be regulated and implemented to ensure the well-being and quality of life for Kuala Lumpur citizens by 2040.

The land use zone requirements for open space (land) are as shown in Tables 3.4.4 and Table 3.4.5.

Table 3.4.4:
Estimated Contribution of Green Area Requirements in Land Use Zones

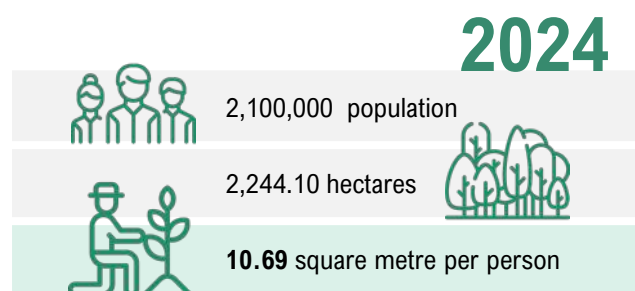
Estimated Contribution for Green Area
Cemeteries and Mortuary Management (CE)
1. 20 percent of the total area.
Transportation (TR)
1. 15 percent of the total road reserve area.
Infrastructure and Utilities (IU)
1. Ten (10) percent of the total area of the utility route, transmission line or utility corridor; and
2. Ten (10) percent of the total area of rivers and lakes.

Table 3.4.5:
Estimated Contribution for Open Space in Land Use Zones

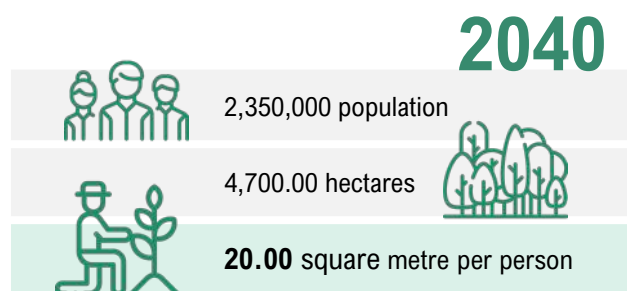
Estimated Contribution for Open Space
1. 100 percent area for Land Use Zones of Public Open Space 1 (OS1), Public Open Space 2 (OS2) and Private Open Space (OS3);
2. 100 percent of the area for Public Open Space within Private Development Scheme (OS4) and the Land Use Zone of Forest Reserve (FR);
3. Ten (10) percent from the total area of the Land Use Zones of Residential 2 (R2), Residential 3 (R3) dan Residential 4 (R4);
4. Five (5) percent from the total area of the Land Use Zones of Traditional Village 1 (TV1) and Traditional Village 2 (TV2);
5. Five (5) percent from the total area of the Land Use Zones of City Centre Commercial (CCC), Major Commercial (MC) and Commercial (C);
6. Five (5) percent from the total area of the Land Use Zone of Mixed Development (MX);
7. Five (5) percent from the total area of the Land Use Zone of Public Facilities (PF); and
8. 20 percent from the total area of the Land Use Zone of Institutional (INT); and
9. Five (5) percent from total area of the Land Use Zones of Industry (IP), which is Technology Park (TP).

BRIEF INFO

PROJECTION OF OPEN SPACE (LAND) 2040



Sourcer: <https://open.dosm.gov.my/dashboard/population/kul>



Source: KLSP2040

Table 3.4.6:
Estimation for Open Space (Land) Contribution in KLLP2040

Main Land Use	Land Use Zone	Area (hectares)	Estimated Contribution Percentage of Open Space (Land)	Open Space (Land) (hectares)	
Open Space					
Commercial	City Centre Commercial (CCC)	447.48	5%	22.37	
	Major Commercial (MC)	673.61	5%	33.68	
	Commercial (C)	1,066.49	5%	53.32	
Mixed Development	Mixed Development (MX)	1,869.97	5%	93.50	
Industry	Technology Park (TP)	211.97	5%	10.60	
Residential	Residential 2 (R2)	696.43	10%	69.64	
	Residential 3 (R3)	1,925.49	10%	192.55	
	Residential 4 (R4)	353.53	10%	35.35	
	Traditional Village 1 (TV1)	41.23	5%	2.06	
	Traditional Village 2 (TV2)	131.52	5%	6.58	
	Institutional	Institutional (INT)	2,270.98	25%	567.75
Public Facilities	Public Facilities (PF1)	1,048.45	5%	52.42	
	Private Facilities (PF2)	46.50	5%	2.33	
Open Space	Public Open Space 1 (OS1)	1,430.58	100%	1,430.58	
	Public Open Space 2 (OS2)	386.03	100%	386.03	
	Private Open Space (OS3)	591.38	100%	591.38	
	Public Open Space within Private Development Schemes (OS4)	9.26	100%	9.26	
	Forest Reserve (FR)	84.62	100%	84.62	
Green Area					
Cemeteries and Mortuary Management	Cemeteries and Mortuary Management (CE)	360.11	20%	72.02	
Infrastructure and Utilities	Infrastructure and Utilities (IU)	1,406.52	10%	140.65	
Transportation	Transportation (TR)	5,569.03	15%	835.35	
Riverside Corridor		121.32	100%	121.32	
- Seven (7) metres wide for river Category I and II	Refer to Volume 1 (4-2: Planning Control Layers for River, Lake and Pond Corridors)	TOTAL OPEN SPACE			4,813.37
- Four (4) metres wide for river Category III					
		2,350,000	Population Projection 2040		
		4,813.37	Total Open Area (hectares)		
		48,133,695	Total Open Area (square metre)		
		20.48	Square meters of open area per person		

IMPLEMENTATION INITIATIVE 3-4.1C

► STRENGTHEN EXISTING OPEN SPACE (LAND)

The rapid urbanisation process causes urban areas to become saturated and creates constraints in the provision of new open spaces (land) due to limited land availability. Existing open spaces (land) will be maintained to prevent it from being converted to other land use activities. Functions and usage of existing open spaces (land) needs to be strengthen to ensure the local resident can enjoy high-quality and comfortable public recreational facilities.

The necessary actions to support this initiative are as follows:

1. Gazetted open spaces (land) that have been identified as potential public recreational areas;
2. Determine a hierarchy of open spaces (land) based on function, area and population catchment;
3. Activate the use of gazetted open spaces (land) to prevent encroachment and misuse;
4. Ensure developers comply with the requirements of open spaces (land) in the development scheme with suitable recreational facilities;
5. Identify and upgrade potential pocket parks and plazas especially in strategic and public focused areas;
6. Ensure continuous maintenance of open spaces (land) for the comfort of local populations and users;
7. Periodical monitoring of open spaces (land) to ensure the facilities provided are in good condition safe as well as continue to benefit local populations and users; and
8. Ensure that open land, especially the open space land use zones, has accessibility for the public to optimise its function.

BEST PRACTICE

STRENGTHEN OF RECREATIONAL PARKS AND LOCAL COMMUNITIES

Recreational parks offer facilities to every level of society regardless of background or status. Local communities and recreational park users also receive positive effects and impacts through recreational park development and programmes.

THEME	
<i>Playground</i> Urbandale Park City of Dallas	<i>Destination of Joy</i> 
<i>Nature Play</i> Nay Aug Avenue/ Lackawanna Heritage Valley Authority Scranton	<i>Earth's Wonderland</i> 
<i>Sports Fields</i> Lou Costello, Jr. Recreation Centre City of Los Angeles	<i>Game On!</i> 
<i>Community Gardens</i> Skinner Park City of Chicago	<i>Putting Down Roots</i> 
<i>Gathering Places</i> Joe Kneip Park City of North Las Vegas	<i>Everyone Is There!</i> 
<i>Fitness</i> Labour Street Park City of San Antonio	<i>Working It Out</i> 
PARK PROGRAMMES AND EXAMPLES	

CP 3-4.2:**STRENGTHENING OPEN SPACES (LAND) AND RECREATIONAL AREA AS A WORLD-CLASS PARK**

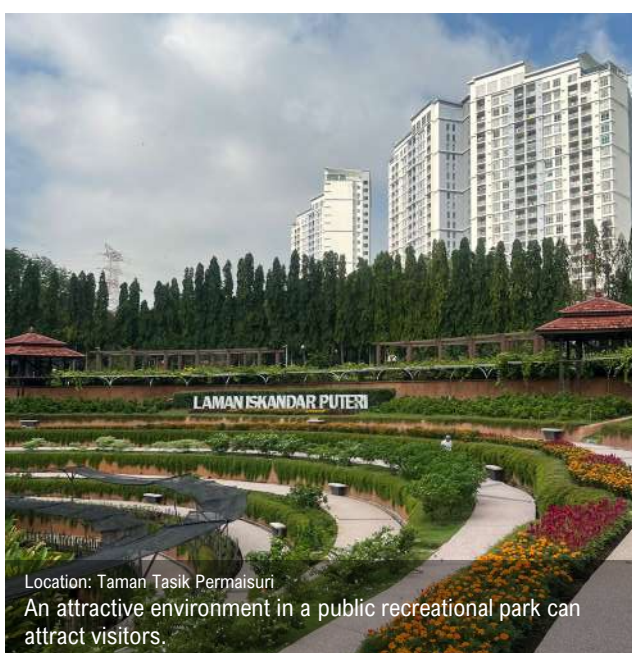
Quality open space (land) and recreational facilities play an important role in enhancing the environment of Kuala Lumpur as well as serves as an attraction for both local and international tourists. The quality of open spaces (land) and recreation areas is influenced by the design concept of the park, types of activities and supporting facilities offered by the respective recreation areas.

The main goal of strengthening and upgrading open and recreational areas is provide high-quality facilities and a green environment. It also makes Kuala Lumpur as the node of the city's green corridor and an attraction to its neighbouring cities. The purpose of this strengthening and upgrading is to preserve green areas, improve supporting facilities for recreation activities and created learning spaces related to the environment.

The KLLP2040 identify various categorised of parks in Kuala Lumpur according to the type and hierarchy of parks.

The proposal for the implementation of CP 3-4.2 will be carried out through two (2) initiatives as follows:

1. Coordinate Hierarchy and Function of Open Space (Land) in Kuala Lumpur; and
2. Upgrade Main Recreational Area As World-Class Park.

**CP 3-4.2**COORDINATION CONTEXT OF
SDGs AND KLSP2040**SUSTAINABLE DEVELOPMENT GOALS CONTEXT****KLSP2040 CONTEXT****3****GOALS**

Kuala Lumpur Green, Healthy and Vibrant City

SV2**STRATEGIC DIRECTIONS**

Attractive and Creative Urban Environment

**SV
2.1****ACTIONS**

Enhance the Quality and Diversify the Functions of Parks and Open Spaces

IMPLEMENTATION APPROACH CP 3-4.2

PROJECT



POLICY



PROGRAMME

PLANNING
CONTROL

GUIDELINE

IMPLEMENTATION INITIATIVE 3-4.2A

► COORDINATE HIERARCHY AND FUNCTION OF OPEN SPACE (LAND) IN KUALA LUMPUR

The provision of open space (land) needs to take into account the macro and micro aspects of development through functional, accessible and safe planning principles. These principles can ensure the goal of providing quality open spaces as well as playing a role in economic, social, educational and heritage development.

The necessary actions to support this initiative are as shown in Table 3.4.7.

Table 3.4.7:
Hierarchy and Function of Open Space (Land)

Hierarchy and Function
City Parks City park is the highest main hierarchy of park in Kuala Lumpur that provide facilities to the residents of KL and around the National Conurbation.
District Parks Large parks located in several major areas of Kuala Lumpur to cater to the needs of 200,000 population catchment. The park is provided with integrated recreational and sports facilities such as stadiums and playgrounds with optimal use of land.
Neighbourhood Parks Park located in a neighbourhood to cater to the needs of 50,000 population catchment. The facilities provided can accommodate large-scale activities and sports events.
Local Parks Park is located in a residential area locally accessible to 10,000 population catchment. The park provides daily recreational facilities within walking and cycling distance.
Local Playground and Pocket Parks Parks in residential areas and city centres that are located within walking distance.

Source: KLSP2040

BEST PRACTICE

EXAMPLES OF WORLD-CLASS RECREATIONAL PARKS

1. Central Park, New York



Central Park, New York is a tourist attraction and generates an economy that has impacts on the level of physical and mental health, social, economic, environmental and cultural of the surrounding population.

2. Vondelpark, Amsterdam



Vondelpark is a public town park with a total area of 47 hectares (120 acres) and is visited by almost 10 million visitors each year. The park is designed with an open theatre, playground and several food service facilities. The uniqueness of this park is its strategic location, comprehensive access, activities and facilities provided and safe as well as comfortable park areas for visitors.

3. Ibirapuera Park, Brazil



Ibirapuera Park was built by the world famous Landscape Architect Roberto Burle Marx. The park is planted with more than 500 species of vegetation and offers a variety of facilities such as museums, galleries within the park, children's playgrounds, bike and jogging paths as well as natural landscape elements.

► **UPGRADE MAIN RECREATIONAL AREA AS WORLD-CLASS PARK**

Recreational parks play an important role in creating a clean and comfortable environment the well-being of humans and others. These areas can enhance the quality of the design and image of the urban landscape.

Planning and development of a world-class recreational park in Kuala Lumpur can be implemented based on case studies of public parks abroad through the preparation of a matrix of best practices. The purpose of this matrix is as follows;

1. Guidelines and standards to ensure the objectives and level of development can be materialised for the development of the local community;
2. Planning requirements and design of the development master plan; and
3. References for park planning and design such as the preparation of a list for softscape species, recreational facilities and requirements as well as management and maintenance.

KLSP2040 has identified nine (9) major parks in Kuala Lumpur that have the potential to be upgraded as world-class parks as follows;

1. Taman Warisan Tun Abdul Razak;
2. Taman Botani Perdana;
3. Taman Bukit Jalil;
4. Taman Tugu;
5. Taman KLCC;
6. Taman Metropolitan Batu;
7. Taman Tasik Metropolitan Kepong;
8. Taman Tasik Titiwangsa; and
9. Taman Persekutuan Bukit Kiara.

The necessary actions to support this initiative are as follows:

1. Park management:

- a. Plan sustainable park management through specific action plans;
- b. Form a network of strategic partners with major parks around the world; and
- c. Establish a special committee to monitor the development, upgrading and maintenance programme of the park.

2. Green application:

- a. Provide environmentally friendly drainage such as rain garden, bioswale, retention pond, damp soil and water permeable surface;
- b. Promote application of rainwater collection and harvesting systems, irrigation as well as usage of renewable energy; and
- c. Provide a recycling centre for producing organic plant fertilizer through dry leaf and grass composting.

3. Image and character:

- a. Ensure priority and focus are given to multi-functional as well as well-connected public spaces;
- b. Develop mega structures or landmarks as the park's identity; and
- c. Provide visitor hotspots such as amphitheatres, squares, plazas, herbariums, theme parks and galleries.

4. A park environment suitable for all levels of society :

- a. Provide a variety of facilities that are inclusive, age-friendly and disabled-friendly; and
- b. Ensure the provision of comprehensive safety elements such as panic buttons and assembly areas during an emergency.

5. Connectivity:

- a. Provide a network of interconnected pedestrian and micromobility vehicle routes within and outside the park area; and
- b. Ensure the location of the park entrance is strategic and nearby to parking lot.

6. Support and preservation of urban biodiversity:

- a. Create natural habitats through the preservation and conservation of the park's biodiversity assets; and
- b. Introduce interesting and unique softscape elements such as planting local and endangered species.

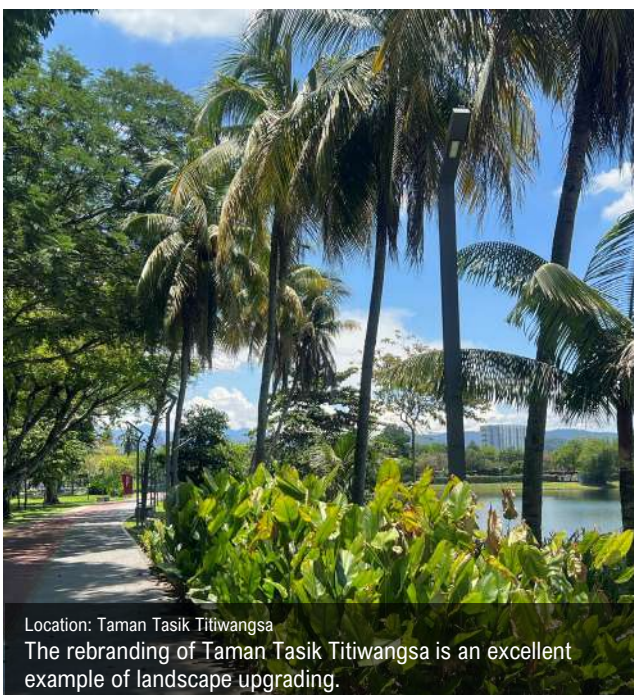
CP 3-4.3:**ACTIVATING PARK AND OPEN SPACE (LAND)**

The initiative to activate parks and open spaces (land) focuses on zones and activities that can be carried out in these area. Existing open spaces and recreational areas need to be given a new lease of life to ensure that the spaces and recreational facilities provided are safe. Open spaces need to be upgraded in line with the demands and changes of the local community as well as the provision of facilities for age-friendly and disabled-friendly groups.

Activities in city parks and district parks must be more focused on passive recreation to preserve and increase the biodiversity of these open spaces (land). Local parks and neighbourhood parks need to improve the provided facilities and recreation to encourage active community activities. In addition, environmental education programmes can be carried out to promote awareness and exposure to the importance of nature to all ages.

The proposal for the implementation of CP 3-4.3 will be carried out through two (2) initiatives as follows:

1. Upgrade Existing Recreational Parks; and
2. Identify Open Spaces (Land) As Green Preservation Areas.

**CP 3-4.3**COORDINATION CONTEXT OF
SDGs AND KLSP2040**SUSTAINABLE DEVELOPMENT GOALS CONTEXT****KLSP2040 CONTEXT****3****GOALS**

Kuala Lumpur Green, Healthy and Vibrant City

SV2**STRATEGIC DIRECTIONS**

Attractive and Creative Urban Environment

**SV
2.1****ACTIONS**

Enhance the Quality and Diversify the Functions of Parks and Open Spaces

IMPLEMENTATION APPROACH CP 3-4.3

PROJECT



POLICY



PROGRAMME

PLANNING
CONTROL

GUIDELINE

IMPLEMENTATION INITIATIVE 3-4.3A

► UPGRADE EXISTING RECREATIONAL PARKS

The addition of attractive facilities and recreation elements is an effort to activate and upgrade existing recreational parks. The KLLP2040 has identified 11 out of 19 public parks under the supervision of the KLCH that could potentially be upgraded as shown in Table 3.4.8.

The necessary actions to support this initiative are as follows:

1. Intensify themed programmes and activities for sports and games, festivals and events as well as art and design;
2. Increase awareness programme and exposure on the importance of nature through the following implementation actions:
 - a. Preserve and conserve biodiversity assets of the park;
 - b. Carry out environmental educational programmes;
 - c. Encourage activities of community work among locals; and
 - d. Implement sustainable park elements such as rainwater collection and reuse systems in public toilets and for watering purposes.
3. Improve the implementation of upgrading programme for public facility elements through the following actions:
 - a. Ensure all facilities are safe, age-friendly and disabled-friendly;
 - b. Provide access and a continuous network of pedestrian walkways and micromobility vehicle routes;
 - c. Provide parking that is suited to the needs of the local community; and
 - d. Upgrade other infrastructural facilities to support activities that are being provided.

Table 3.4.8:

List of Public and Recreational Parks in Kuala Lumpur

1. Taman Rimba Bukit Kerinchi
2. Taman Tasik Datuk Keramat
3. Taman Tasik Ampang Hilir
4. Taman Tasik Menjalara
5. Taman Tasik Danau Kota
6. Taman Tasik Sri Rampai
7. Taman Alam Damai
8. Taman Dusun Bandar
9. Taman Medan Idaman
10. Taman Rekreasi Ayer Panas
11. Taman Lake Fields
12. Taman Tasik Titiwangsa
13. Taman Botani Perdana
14. Taman Tasik Permaisuri
15. Taman Rimba Bukit Kiara
16. Taman Pudu Ulu
17. Taman Bukit Jalil
18. Taman Metropolitan Kepong
19. Taman Metropolitan Batu

11 public parks that have been identified for rebranding

BRIEF INFO

PROGRAMMES AND ACTIVITIES OF PUBLIC RECREATIONAL PARK



Active Activities: Optimum activation of open space as an active space for community integration.



Semi-Active Activities: Activation of open spaces through provision of multifunctional areas for group recreational activities.



Passive Activities: Preservation and conservation of open spaces (land) to encourage interaction between visitors and nature.

IMPLEMENTATION INITIATIVE 3-4.3B

IDENTIFY OPEN SPACES (LAND) AS GREEN PRESERVATION AREAS

The identification of open spaces (land) as green preservation areas one of the measures to preserve the environment as a natural heritage. It can also potentially become an area for natural research in Kuala Lumpur. This green preservation area is under the category of a city park based on the function and hierarchy of open space.

The KLLP2040 has identified several open spaces as potential green preservation areas as follows:

1. City Park:
 - a. Taman Botani Perdana;
 - b. Taman Tasik Titiwangsa;
 - c. Taman Tasik Permaisuri;
 - d. Taman Metropolitan Kepong; and
 - e. Taman Metropolitan Batu.
2. District Park:
 - a. Taman Rimba Bukit Kerinchi;
 - b. Taman Pudu Ulu; and
 - c. Taman Bukit Jalil.

The actions to support this implementation initiative should be based on the International Union for Conservation of Nature (IUCN) Green List which involves three (3) aspects of development as follows:

1. Good governance;
2. Eco-friendly design; and
3. Effective management.

BRIEF INFO

PROGRAMME OF IUCN GREEN LIST

Protected and Conserved Areas

- Maintain at least 60 percent green cover area.
- Encourage, achieve and promote effective, equitable and successful protected areas among national partners and authorities.
- Provide a global reference benchmark for protected and conserved areas to assess whether successful conservation outcomes through effective and equitable governance and management have been achieved.



Table 3.4.9:

Proposed Green Protection and Preservation Areas in Kuala Lumpur

City Park	
1 Taman Botani Perdana 74.96 hectares	
2 Taman Tasik Titiwangsa 46.27 hectares	
3 Taman Tasik Permaisuri 55.42 hectares	
4 Taman Metropolitan Kepong 80.28 hectares	
5 Taman Metropolitan Batu 27.74 hectares	
District Park	
1 Taman Rimba Bukit Kerinchi 65.79 hectares	
2 Taman Pudu Ulu 22.97 hectares	
3 Taman Bukit Jalil 33.20 hectares	

STRENGTHENING URBAN SPACE FOR ACTIVE AND CREATIVE ACTIVITIES

SCENARIO OF CURRENT ACTIVE AND CREATIVE USE OF URBAN SPACE IN KUALA LUMPUR

Kuala Lumpur as a rapidly developing city needs to emphasise active and creative usage of urban spaces. KLCH has carried out various efforts to ensure that the use of urban space becomes more vibrant and attractive, especially in the city centre. Elements of urban design and heritage that are harmoniously intertwined will form Kuala Lumpur's distinctive image and identity.

However, the COVID-19 pandemic has greatly affected the lifestyle of urban communities and indirectly has made the use of urban public spaces less optimum. The challenge nowadays is to strengthen the existing urban space by optimising the use of urban space in line with the current lifestyle of society.

The main aspiration of the KLLP2040 is to transform Kuala Lumpur as a green, healthy and vibrant city. It can be achieved through the revitalisation of neglected urban spaces by improving the quality of natural environment, preserving the heritage and historical values of Kuala Lumpur. The emphasis is also given on efforts to improve the sense of place in the urban space by proposing active and creative activities.

Towards realizing Kuala Lumpur as a city with strengthening urban space for active and creative activities, three (3) Implementation Proposals are formulated under Planning Strategy 3–5, as shown in Figure 3.5.1.



Figure 3.5.1:
Implementation Proposals for Planning Strategy 3-5

SP 3-5

STRENGTHENING URBAN SPACE FOR ACTIVE AND CREATIVE ACTIVITIES

CP 3-5.1

Rebranding Kuala Lumpur Old City Centre

CP 3-5.2

Sharing and Activating of Street and Public Area

CP 3-5.3

Implementation of Light-Emitting Diode (LED) Zone in City Centre

Kuala Lumpur has experienced rapid development from a tin mining town to a metropolis. This development has greatly changed the urban character of the old city of Kuala Lumpur.

The proposed rebranding through an urban design perspective is seen to be able to upgrade and revitalize the old city of Kuala Lumpur. It is also to ensure that the history and value of the original formation of Kuala Lumpur can be preserved and appreciated by all generations.

Conservation of environmental area, activation of space and placement of a wayfinding system can restore the identity of Kuala Lumpur as it once was. This implementation proposal is seen as support for the 'KL Dulu' Project which has been carried out by KLCH.

The proposal for the implementation of CP 3-5.1 is carried out through one (1) initiative as follows:

1. Reintroduce The Old City of Kuala Lumpur.

BRIEF INFO

FORMATION OF KUALA LUMPUR OLD CITY FROM THE YEAR 1875 TO 1878

Kuala Lumpur began to form around 1875. Development in previous time was limited to the area on the east bank of the Sungai Klang which is located between Market Street (Lebuh Pasar Besar) and Java Street (Jalan Tun Perak).



Source: Kuala Lumpur 1880-1895, A City in The Making, J.M. Gullick

CP 3-5.1

COORDINATION CONTEXT OF SDGs AND KLSP2040



SUSTAINABLE DEVELOPMENT GOALS CONTEXT



KLSP2040 CONTEXT

3

GOALS

Kuala Lumpur Green, Healthy and Vibrant City

SV2

STRATEGIC DIRECTIONS

Attractive and Creative Urban Environment

SV
2.2

ACTIONS

Enhance Active and Creative Use of Urban Space

IMPLEMENTATION APPROACH CP 3-5.1



PROJECT



POLICY



PROGRAMME



PLANNING
CONTROL



GUIDELINE

IMPLEMENTATION INITIATIVE 3-5.1A

► REINTRODUCE THE OLD CITY OF KUALA LUMPUR

Urban elements in the old city of Kuala Lumpur are proposed to be renewed and improved from the aspect of urban design. It is seen as the best effort in recreating the characteristics and character of the old city in Kuala Lumpur. This initiative can re-introduce the old city area of Kuala Lumpur to the community.

The necessary actions to support this initiative are as follows:

1. Conserve and maintain the structure, façade, character, height and design of old shop buildings;
2. Place identification marks and place markers (entry statement) to early buildings in the old Kuala Lumpur city area as shown in Table 3.5.1;
3. Propose a floor sculpture (marker) that shows the old city area in Kuala Lumpur;
4. Display original old name on road signs in Kuala Lumpur. The proposed location is the wall of building at intersection of main road in the old city of Kuala Lumpur as shown in Table 3.5.2;
5. Synchronise design, writing and color of signs to reflect the image of old city of Kuala Lumpur;
6. Introduce and improve streetlights, bollards, direction signs with a vintage concept; and
7. Introduce digital interactive information kiosk that displays the history and development of Kuala Lumpur.

Table 3.5.1:
Proposed Location of First Construction Marking

1. Kuala Lumpur Early Malay School at Jalan Raja
2. The site of Kuala Lumpur's Old Mosque (Masjid Kampung Rawa) at Jalan Tun Perak
3. Kuala Lumpur Main Bridge in Leboh Pasar Besar
4. Kuala Lumpur Early Chinese School at Jalan Hang Lekir
5. Kuala Lumpur Early English School at Jalan Tun H.S. Lee



Table 3.5.2:
Proposed Reintroduce Old Street Names in Kuala Lumpur's Old Town Area

Current Name and Old Street Name
Leboh Pasar Besar - Market Street
Medan Pasar - Old Market Square
Jalan Tun H.S. Lee - High Street
Leboh Ampang - Ampang Street
Jalan Tun Tan Siew Sin - Cross Street
Jalan Tun Perak - Java Street, Mountbatten Road



CP 3-5.2:

SHARING AND ACTIVATING OF STREET AND PUBLIC AREA

The city center has several streets and spaces that have the potential to be proposed as activity nodes focusing on street activity areas or pocket parks and plazas. This area is not fully utilized and is only used as a parking space and small food stalls.

Activities in a space, play an important role in shaping the character and function of an area. Most major cities focus on business activities and pay less attention to the importance of social activities and urban aesthetics.

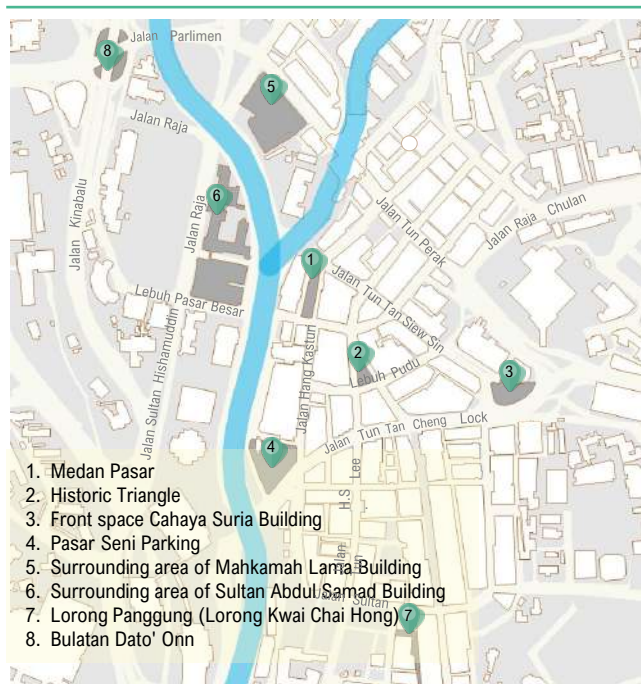
This proposal involves improvements to urban elements and upgrading of supporting facilities in an effort to create public spaces for effective and quality street activities and pocket park.

The proposal for the implementation of CP 3-5.2 is carried out through one (1) initiative as follows:

1. Improve Environmental Design Elements of The Identified Street and Public Areas.

Figure 3.5.2:

Location of Proposed Potential Public Spaces for Improvements



CP 3-5.2 | COORDINATION CONTEXT OF SDGs AND KLSP2040



SUSTAINABLE DEVELOPMENT GOALS CONTEXT



KLSP2040 CONTEXT

3

GOALS

Kuala Lumpur Green, Healthy and Vibrant City

SV2

STRATEGIC DIRECTIONS

Attractive and Creative Urban Environment

SV
2.2

ACTIONS

Enhance Active and Creative Use of Urban Space

IMPLEMENTATION APPROACH CP 3-5.2



PROJECT



POLICY



PROGRAMME



PLANNING
CONTROL

GUIDELINE

► IMPROVE ENVIRONMENTAL DESIGN ELEMENTS OF THE IDENTIFIED AREA

Art exhibitions and open galleries such as performances by street artists, dance performances, or speaker corners should be placed in appropriate streets or public spaces. The determination of the location must take into account the ability of an area to carry out the proposed activities while also enhancing space utilisation and safety aspects in the area.

The presentation content must be appropriate for the chosen space and should not cause disturbances to the environment and daily activities of the area. The proposed activities should be held periodically and involve efforts to enhance the environment and urban design.

Improve urban design elements in identified areas with a high frequency of pedestrian interaction. The improvements are essential to optimised and increased use of existing space. This initiative proposed improvements in aspects of shading, pedestrian walkways and micromobility vehicle routes, lighting, supporting facilities as well as other design elements. The KLLP2040 has identified eight (8) roads or public spaces that have the potential to implement this initiative as follows:

1. Historic Triangle (Jalan Bandar);
2. Front space of Cahaya Suria Building;
3. Medan Pasar;
4. Pasar Seni parking;
5. Area surrounding the Bangunan Mahkamah Lama;
6. Area surrounding the Bangunan Sultan Abdul Samad;
7. Lorong Panggung (Lorong Kwai Chai Hong); and
8. Bulatan Dato' Onn.

The necessary actions to support this initiative are as follows:

1. Provide safe and comfortable pedestrian walkways and micromobility vehicle routes;
2. Beautify shaded areas with more practical landscape and street furniture to create a conducive environment;

3. Improve elements and encourage colourful lighting activities to create a cheerful, attractive and safe environment, especially at night such as creative lighting on suitable buildings;
4. Provide supporting facilities such as wayfinding signages or information in the focus area;
5. Reactivate old and unused buildings through adaptive reuse with suitable activities such as cafés, co-working spaces, galleries and student training centres for cultural and arts institutions; and
6. Activate the back lane and empty spaces with suitable themed activities such as buskers or held cultural performances periodically.



Location: *Historic Triangle (Jalan Bandar)*

A depiction of musicians performing at the Historic Triangle.
*Illustration of Implementation Initiatives

The quality of pocket parks or plazas can be improved by considering three (3) main basic qualities which are easily accessible, encourage public involvement and have a comfortable and suitable space.

The KLLP2040 has identified seven (7) pocket parks or plazas that have the potential to be effectively improved as follows;

1. Plaza Masjid India;
2. Lot 227 at Jalan Bukit Nanas in front of Muzium Telekom;
3. Space at Jalan Gading;
4. Space at Persimpangan Jalan Inai;
5. Plaza at Jalan Jati;
6. Lot 716 at Medan Imbi; and
7. Lot 743 at Jalan Khoo Teik Ee.

The necessary actions to support this initiative are as follows:

1. Provide and encourage active mobility modes around pocket parks or plazas including pedestrian and micromobility vehicle routes that are safe as well as comfortable;

2. Design pedestrian and micromobility vehicle routes with traffic calming elements especially in areas with a high frequency of pedestrian users such as roads near school areas and main focus areas;
3. Ensure maintenance of the environment and the provision of continuous supporting facilities with an attractive landscape to create a conducive and competitive environment;
4. Beautify and enhance the image of the current parking area with attractive and more practical urban landscape and street furniture to create a vibrant environment;
5. Improve and encourage colourful lighting activities to create a cheerful, attractive and safe environment; and
6. Activate vacant space by diversifying the use of the space for informal activities such as art exhibitions for artists and buskers.



Before and after pictures of the back space of the Old Court Building, which has been upgraded in the River of Life Project, used as a space for musicians to perform.



*Illustration of Implementation Initiatives

IMPLEMENTATION PROPOSAL

CP 3-5.3:

IMPLEMENTATION OF LIGHT-EMITTING DIODE (LED) ZONE IN CITY CENTER

Road intersection areas can be used as a space for interaction between people and urban spaces. The night lighting can bring scenes to life as in Shibuya City in Tokyo and Fifth Avenue in New York. The city has used digital advertising in combination with creative lighting. This approach can provide a lively atmosphere for night activities in the city.

This concept is proposed to be a focal point for visitors at night. The improvement proposal will also focus on the existing area to have a greater impact at night.

Kuala Lumpur City Lighting Master Plan has identified lighting strategies according to area, building characteristics, land use and appropriate use of lighting types. The implementation of this recommendation should be read together with the master plan.

The proposal for the implementation of CP 3-5.3 is carried out through one (1) initiative as follows:

1. Used Light-Emitting Diode (LED) For Urban Space Lighting.

BEST PRACTICE

ADVERTISING BOARD LIGHT-EMITTING DIODE (LED)



Location: Fifth Avenue, New York
Source: <https://www.shutterstock.com/Albo>

Fifth Avenue, New York has various digital advertising spaces with LED lighting and has become the focal point of international business tourism.

CP 3-5.3

COORDINATION CONTEXT OF
SDGs AND KLSP2040



SUSTAINABLE DEVELOPMENT GOALS CONTEXT



KLSP2040 CONTEXT

3

GOALS

Kuala Lumpur Green, Healthy and Vibrant City

SV2

STRATEGIC DIRECTIONS

Attractive and Creative Urban Environment

SV
2.2

ACTIONS

Enhance Active and Creative Use of Urban Space

IMPLEMENTATION APPROACH CP 3-5.3



PROJECT



POLICY



PROGRAMME



PLANNING
CONTROL



GUIDELINE

IMPLEMENTATION INITIATIVE 3-5.3A

► USED LIGHT-EMITTING DIODE (LED) FOR URBAN SPACE LIGHTING

The use of LED provides lighting of urban spaces and is able to increase safety, and comfort as well as become an attraction for visitors at night. The approach of using LED lights is suitable to be applied in shopping centres, areas with attractive vista and areas with a high frequency of pedestrian use.

The KLLP2040 has identified four (4) potential locations to use LED for urban lighting as follows:

1. Plaza Low Yat and MARA Digital;
2. Pavillion Shopping Centre area up to Tun Razak Exchange (TRX);
3. Jalan Bukit Bintang; and
4. River of Life corridor (RoL).

The necessary actions to support this initiative are as follows:

1. Ensure implementation of urban lighting in accordance with the Kuala Lumpur Lighting Master Plan and the guidelines set by KLCH and the relevant agencies;
2. Encourage the use of LED billboards to replace conventional billboards;
3. Improve the image of buildings and surrounding areas through the use of LED billboards in key business areas such as Pavilion and MARA Digital; and
4. Encourage the provision of LED billboards on pedestrian walkways and micromobility vehicle routes with high-frequency usage.

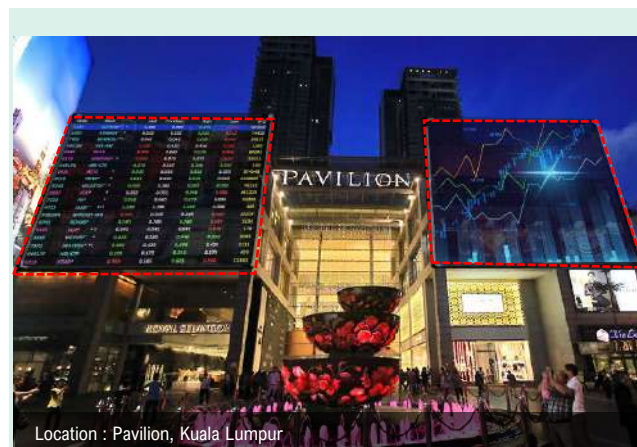


Illustration of LED advertising boards based on financial and stock exchange activities can be implemented in main attraction buildings in Kuala Lumpur.



Illustration of LED billboards in shopping mall buildings around Bukit Bintang.



Illustration of the use of LED Curtain Wall screens around the Muamalat Bank Tower, OCBC Tower and UAB Tower which can become an attraction for international and local tourists.

DEVELOPING PARK CONNECTOR NETWORKS

SCENARIO OF CURRENT PARK CONNECTOR NETWORKS IN KUALA LUMPUR

The Twelfth Malaysia Plan (12MP) focuses on active mobility planning and infrastructure development for pedestrians and cyclists. This emphasis on development that requires the provision of integrated and user-friendly infrastructure, sheltered, safe as well as comfortable to use. Efforts to continuously develop green networks had previously been outlined through local plans. The green network consisting of the connection of open spaces (land) and green areas in Kuala Lumpur must be improved so it is more friendly to users and the local population.

The park connector network will promote the concept of linkages between open spaces (land) and green areas throughout Kuala Lumpur. It can also increase the amenity value of green areas, blue corridors, infrastructure buffer reserves and the greening of border areas. This network can help preserve ecosystems by reducing the fragmentation of green areas as a result of rapid urban development. The beautification and restoration measures along the park connector network can create more focal areas for social and recreational activities.

The development of the park connector network can guarantee easy access and proximity to the local population to encourage a healthier lifestyle and continued physical activity. It provides comfort for visitors to carry out recreational activities as well as increases urban mobility between areas. The development of this network will stimulate social and economic activities and increase the liveability of the city. This also supports the strategy to increase green density and open land area in the future.

Towards realizing Kuala Lumpur as a city that can develop park connector networks, two (2) Implementation Proposals are formulated under Planning Strategy 3–6, as shown in Figure 3.6.1.



Location: Jalan Ampang
Existing cycling routes in Kuala Lumpur City Center.

BRIEF INFO

CYCLING ROUTE OF KUALA LUMPUR



- Kuala Lumpur City Center
 - Wangsa Maju
 - Kampung Batu
- Taman Tun Dr Ismail

Existing Cycling Route

Source: Kuala Lumpur Pedestrian and Cycling Master Plan 2019-2028



- Six (6) main networks of 254.40 kilometres length

KLLP2040 Proposal

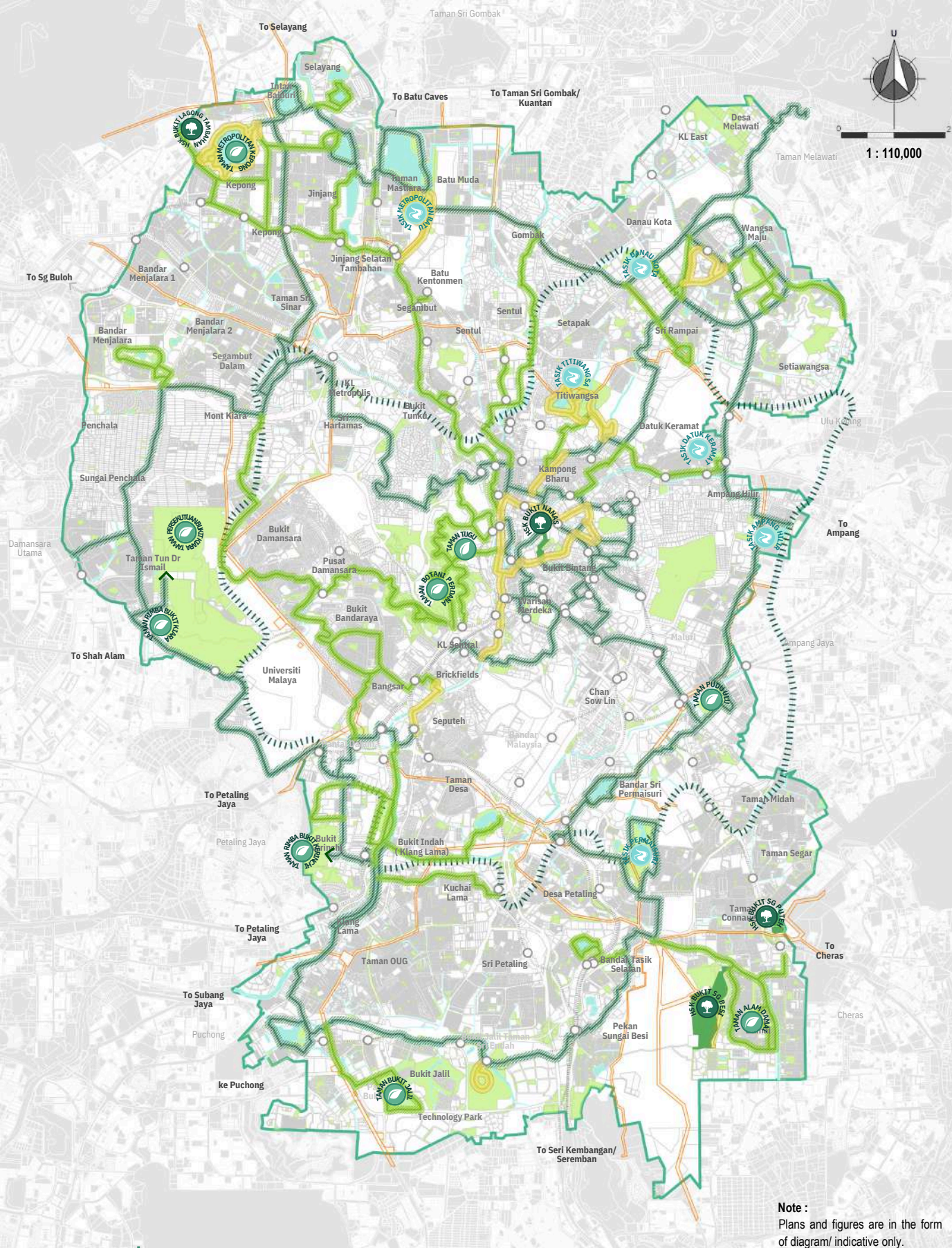
Figure 3.6.1:
Implementation Proposals for Planning Strategy 3-6

SP 3-6

DEVELOPING PARK CONNECTOR NETWORKS

CP 3-6.1 Establishing Park Connector Networks

CP 3-6.2 Marking Kuala Lumpur City Boundary



Legend :

Existing

- Transmission Line
- Open Space
- Forest Reserve (FR)
- Water Bodies (BDA)

Proposed

- Main Park Connector
- Secondary Park Connector
- Existing Park Connector

Public Transportation Line

- Transportation Lines and Stations
- Proposed MRT Line 3 and Station

Others

- Kuala Lumpur Boundary
- Open Space
- Forest Reserve
- Open Space and Lake

CP 3-6.1:

ESTABLISHING PARK CONNECTOR NETWORKS

A Healthy City must be planned and equipped with infrastructure and health-supporting facilities for the city population. These facilities will create an environment that promotes a healthy lifestyle. This approach also supports the Healthy Walkable City policies through a healthy lifestyle among city populations by providing facilities to support walking and cycling as daily activities.

The establishment of the park connector network need to identify potential network locations for implementation. It needs to consider the formation of more functional space that can integrate various activities such as pedestrian walkways and micromobility vehicle routes in line with the goal of making Kuala Lumpur as a green, healthy and vibrant city.

The proposal for the implementation of CP 3-6.1 is carried out through one (1) initiative as follows:

1. Identify Park Connector Networks; and
2. Provide Main And Support Facilities.

BRIEF INFO

GUIDELINES OF HEALTHY WALKABLE CITY

Definition

A city with a connected pedestrian and bicycle environment that is user-friendly, comfortable, safe and sustainable that promotes healthy and active lifestyles



Five (5) Main Principles

1. Connectivity
2. User-friendly
3. Comfortable
4. Safe
5. Sustainable

Source: Garis Panduan Pelaksanaan Bandar Sihat Mesra Pejalan Kaki (Healthy Walkable City) (2017), PLANMalaysia

CP 3-6.1

COORDINATION CONTEXT OF
SDGs AND KLSP2040



SUSTAINABLE DEVELOPMENT GOALS CONTEXT



KLSP2040 CONTEXT

3

GOALS

Kuala Lumpur Green, Healthy and Vibrant City

SV3

STRATEGIC DIRECTIONS

Green Network and Urban Heritage

SV
3.1

ACTIONS

Develop Park Connector Network

IMPLEMENTATION APPROACH CP 3-6.1



PROJECT

POLICY



PROGRAMME



PLANNING
CONTROL



GUIDELINE

IMPLEMENTATION INITIATIVE 3-6.1A

► IDENTIFY PARK CONNECTOR NETWORKS

The KLLP2040 has identified six (6) potential main park connector networks with a length of 254.40 kilometres as shown in Table 3.6.1. The details of these six (6) main park connector networks are as shown in Table 3.6.2 to Table 3.6.7.

The necessary actions to support this initiative are as follows:

1. Connect open spaces (land) through active mobility (pedestrian walkways and micromobility vehicle routes); and
2. Identify potential networks for implementation such as utility corridors, riverside corridors, main road reserves, back lanes and parks as well as existing open spaces (land).

Table 3.6.1:

Proposed Six (6) Park Connector Networks

1. **Taman Bandar Utara Park Connector Network:**
 - a. Covering Sentul – Menjalara (SM) area; and
 - b. Six (6) main segments.
2. **Wangsa Maju and Tasik Titiwangsa Park Connector Network:**
 - a. Covering Wangsa Maju – Maluri (WMM) area; and
 - b. Nine (9) main segments.
3. **Kuala Lumpur City Center Park Connector Network:**
 - a. Covering City Center area; and
 - b. Ten (10) main segments.
4. **Pudu Ulu and Alam Damai Park Connector Network:**
 - a. Covering Bandar Tun Razak - Sungai Besi (BTRRS) area; and
 - b. Nine (9) main segments.
5. **Bukit Jalil and Bohol Park Connector Network:**
 - a. Covering Bukit Jalil – Seputeh (BJS) area; and
 - b. Four (4) main segments.
6. **Bukit Kiara and Kerinchi Park Connector Network:**
 - a. Covering Damansara – Penchala (DP) area; and
 - b. Six (6) main segments.

BEST PRACTICE

BIKE FRIENDLY CITY OF COPENHAGEN

The use of bicycle by people of all ages in Copenhagen is driven by the provision of infrastructure and safety features which consist of four (4) basic factors as follows:

1. Provision of traffic calming elements;
2. Painted bike lanes;
3. Separated cycling paths from roadway; and
4. Interconnected green path.



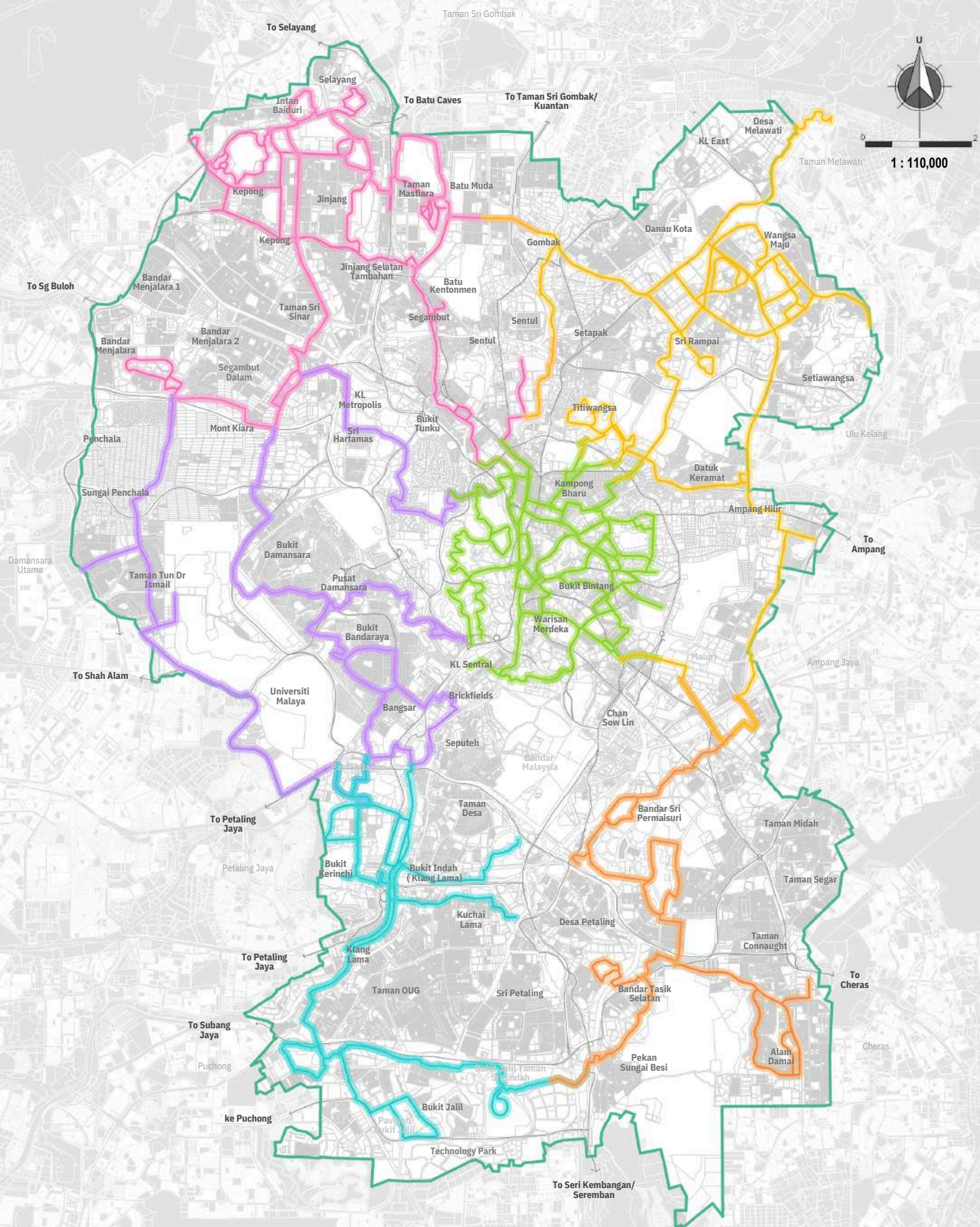
Source: https://www.shutterstock.com/Steve_Heap

Inderhavnsbroen is a 180 metres (590 feet) bridge spans across Copenhagen harbour and specifically built for pedestrians and cyclists.



Source: <https://www.shutterstock.com/Mollebjerg>

Among the safety facilities provided are traffic lights, signs and road dividers that separate cycling lanes and roads.



Note :
Plans and figures are in the form
of diagram/ indicative only.

FIGURE 3.6.3 | Plan of Proposed Six (6) Park Connector Network

Legend :

- Taman Bandar Utara Park Connector Network
- Wangsa Maju and Tasik Titiwangsa Park Connector Network
- Kuala Lumpur City Center Park Connector Network

- Taman Pudu Ulu and Alam Damai Park Connector Network
- Taman Bukit Jalil and Bohol Park Connector Network
- Taman Bukit Kiara and Kerinchi Connector Network

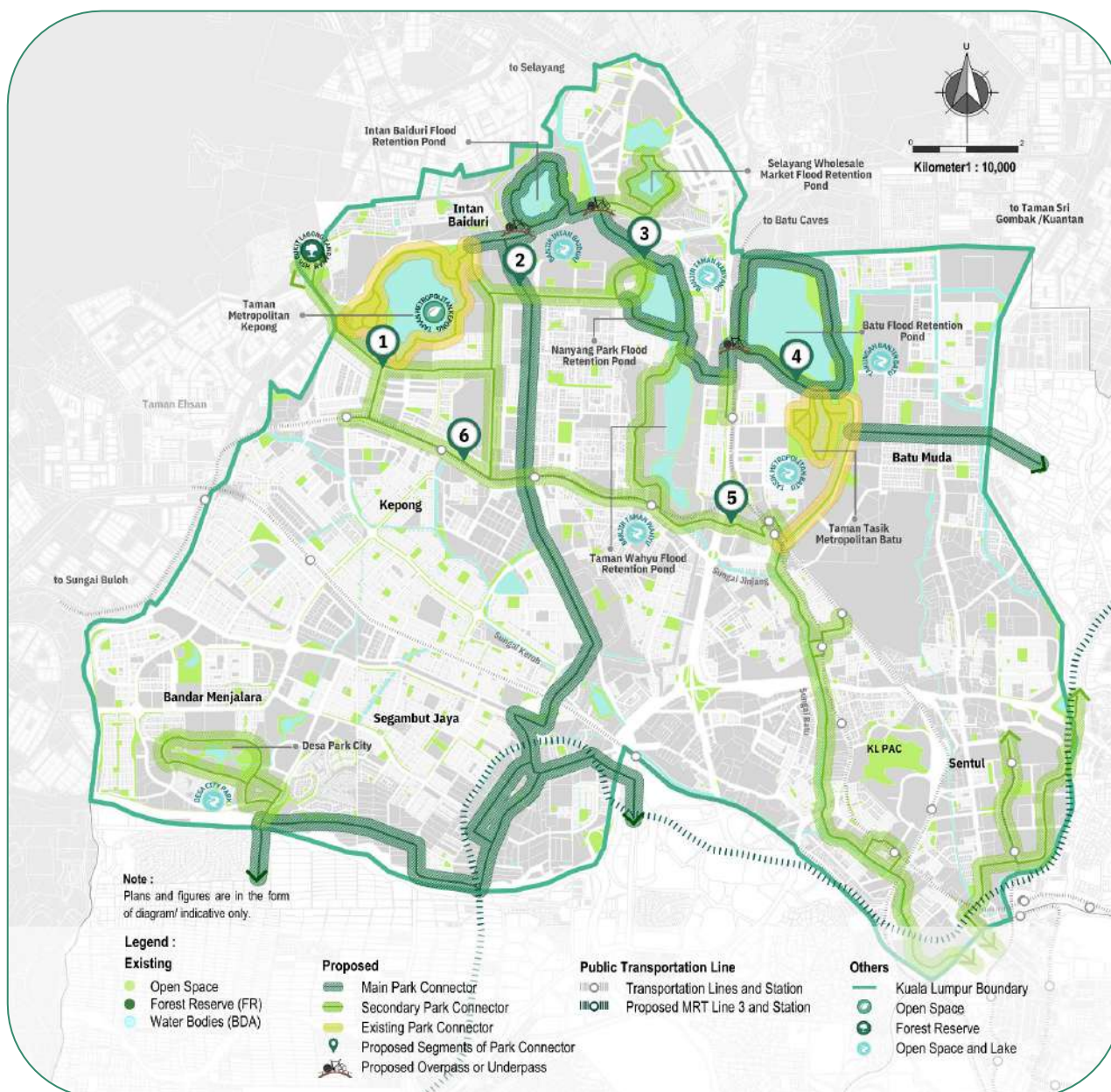
Others

- Main Road
- Kuala Lumpur Boundary

Table 3.6.2:**Proposed Taman Bandar Utara Park Connector Network****1. Taman Bandar Utara Park Connector Network**

There are six (6) main segments, as follows:

- a. **Segment 1** (5.1 kilometres): Jalan Selayang-Lebuhraya Kepong, Kawasan Taman Metropolitan Kepong, Jalan Metro Perdana Barat and Jalan 15/34C;
- b. **Segment 2** (4.8 kilometres): Taman Metropolitan Kepong, Lebuhraya Lingkaran Tengah II (MRR2), Kolam Takungan Banjir Intan Baiduri and Kolam Takungan Banjir Pasar Borong Selayang;
- c. **Segment 3** (6.2 kilometres): Sungai Batu, Kolam Takungan Banjir Taman Nanyang, Jalan Jinjang Setia, Kolam Takungan Banjir Taman Wahyu and Jalan 15/34C;
- d. **Segment 4** (4.8 kilometres): Jalan Kuching, Kolam Takungan Banjir Batu, Taman Metropolitan Batu and Sungai Batu;
- e. **Segment 5** (4.6 kilometres): Jalan Besar Kepong, Jalan Kepong Lama, Jalan 1/18B and Sungai Batu; and
- f. **Segment 6** (2.3 kilometres): Lebuhraya Lingkaran Tengah II (MRR2), Jalan Jinjang Setia and Jalan Besar Kepong.

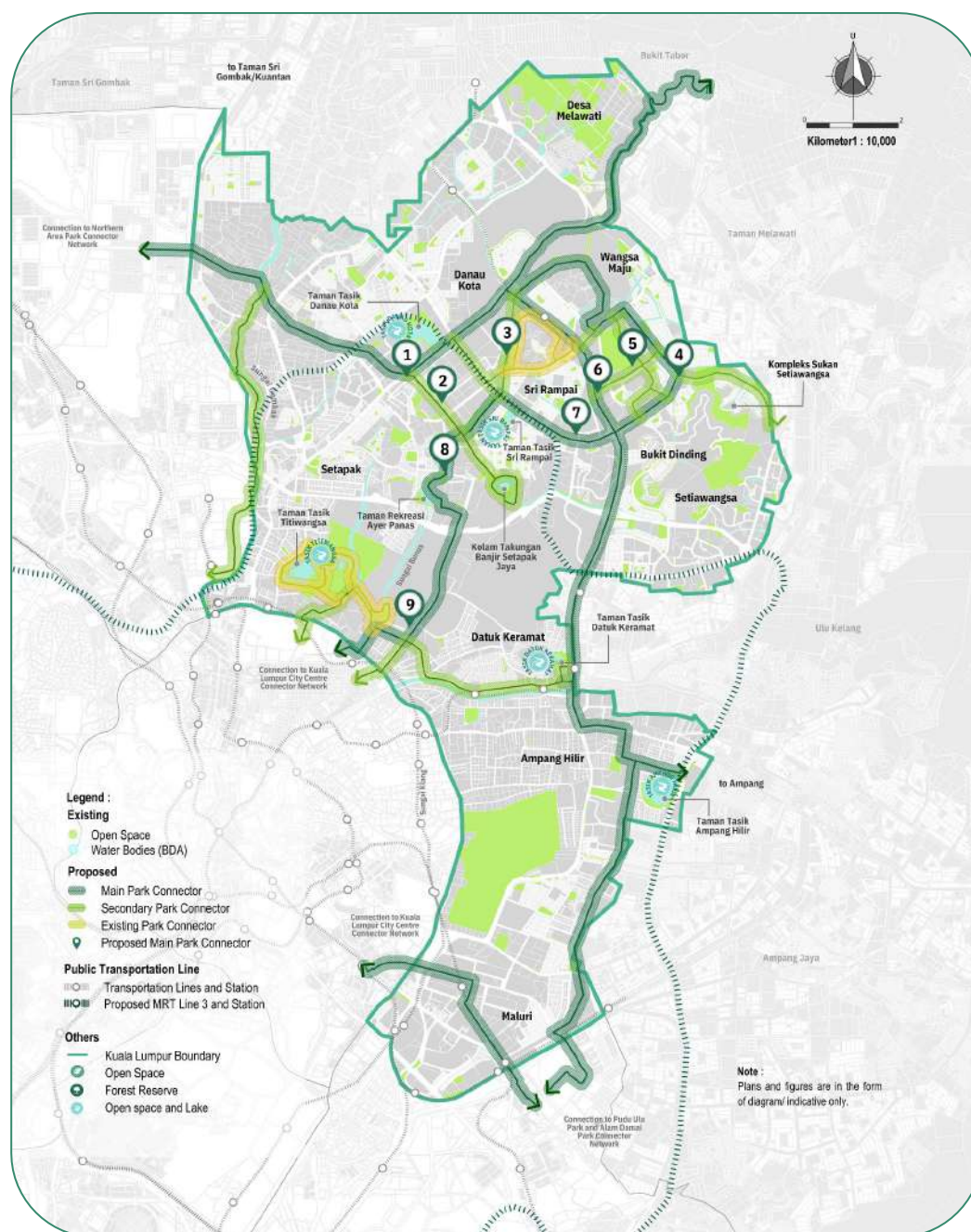


Note: *Proposal is subject to a detailed study.

Table 3.6.3:**Proposed Wangsa Maju and Tasik Titiwangsa Park Connector Network****2. Wangsa Maju and Tasik Titiwangsa Park Connector Network**

There are nine (9) main segments, as follows:

- a. **Segment 1** (1.7 kilometres): Laluan Rentis, Taman Tasik Danau Kota and Jalan Genting Klang;
- b. **Segment 2** (2.8 kilometres): Laluan Rentis, Sungai Bunus and Kolam Takungan Banjir Setapak Jaya;
- c. **Segment 3** (2.0 kilometres): Sungai Bunus, Jalan 4/27A and Jalan 2/27A;
- d. **Segment 4** (1.0 kilometres): Jalan 6/27A, Kompleks Sukan Setiawangsa and Bukit Dinding;
- e. **Segment 5** (5.3 kilometres): Jalan 2/27A, Jalan Wangsa Perdana 3, Jalan 6/27A, Jalan Wangsa Perdana 1, Jalan Wangsa Delima and Jalan 34/26;
- f. **Segment 6** (2.3 kilometres): Jalan 1/27A and Jalan Mohd Yatim Yahya;
- g. **Segment 7** (2.5 kilometres): Jalan 34/26, Sungai Bunus, and Taman Tasik Sri Rampai;
- h. **Segment 8** (3.5 kilometres): Sungai Bunus and Taman Rekreasi Ayer Panas; and
- i. **Segment 9** (2.2 kilometres): Jalan Sultan Yahya Petra, Lorong Gurney and Taman Tasik Titiwangsa.

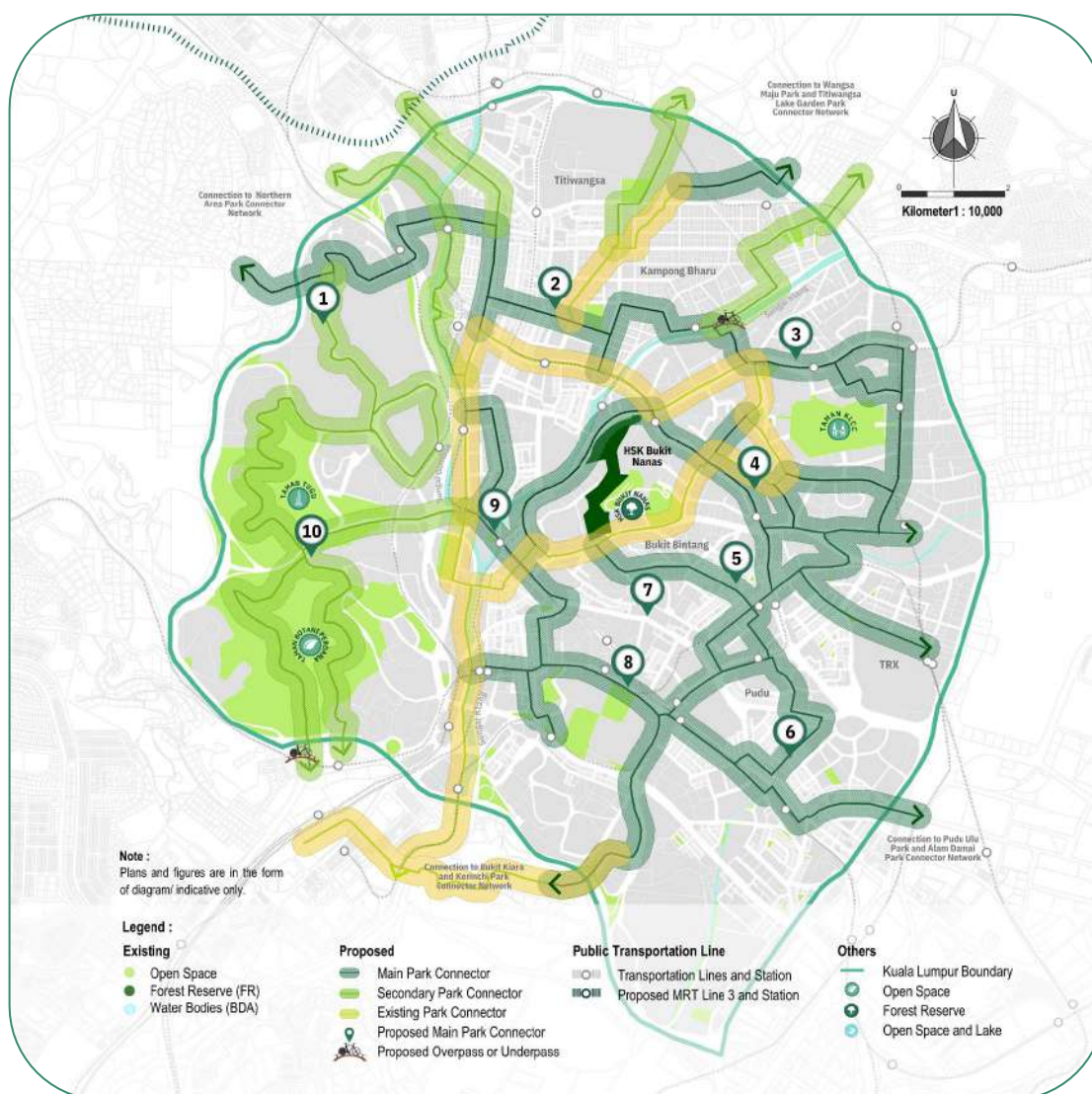


Note: *Proposal is subject to a detailed study.

Table 3.6.4:**Proposed Kuala Lumpur City Center Park Connector Network****3. Kuala Lumpur City Center Park Connector Network**

There are ten (10) main segments, as follows:

- a. **Segment 1** (4.9 kilometres): Jalan Dato Onn, Jalan Sultan Salahuddin, Jalan Tun Ismail, Jalan Tunku, Jalan Putra and Jalan Raja Laut;
- b. **Segment 2** (2.2 kilometres): Jalan Sri Amar, Jalan Dewan Sultan Ismail, Jalan Raja Abdullah, Jalan Raja Muda Musa, Jalan Hassan Salleh, Pintasan Saloma and Jalan Saloma;
- c. **Segment 3** (4.4 kilometres): Jalan Ampang, Jalan 1/68B, Jalan Binjai, Persiaran KLCC, Jalan Stonor, Jalan Conlay, Jalan Kia Peng and Jalan Perak;
- d. **Segment 4** (2.4 kilometres): Jalan Sultan Ismail, Jalan Ampang and Jalan Gereja;
- e. **Segment 5** (1.1 kilometres): Jalan Bukit Bintang, Changkat Bukit Bintang, Jalan Ceylon and Jalan Raja Chulan;
- f. **Segment 6** (7.3 kilometres): Jalan Sultan Ismail, Jalan Bukit Bintang, Jalan Gading, Jalan Utara, Jalan Barat, Jalan Harley, Jalan Kampung Pandan, Jalan Imbi, Jalan Khoo Teik Ee, Jalan Walter Granier, Jalan Sultan Ismail, Jalan Bulan 2, Jalan Bulan 1, Jalan 1/77B, Jalan Changkat Thambi Dollah, Jalan Brunei and Jalan Pudu;
- g. **Segment 7** (0.9 kilometres): Jalan Bukit Bintang, Jalan Pudu and Jalan Tun Perak;
- h. **Segment 8** (1.4 kilometres): Jalan Merlimau, Lorong Meranti, Jalan Hang Jebat and Jalan Sultan;
- i. **Segment 9** (2.8 kilometres): Jalan Tun Perak, Jalan Pudu, Jalan Sultan, Jalan Petaling, Jalan Sultan Mohamed, Lebuhraya Pasar Besar, Jalan Hang Kasturi and Jalan Tun Sambathan; and
- j. **Segment 10** (7.1 kilometres): Jalan Sultan Salahuddin, Jalan Parlimen, Jalan Tanglin, Jalan Tembusu and Taman Botani Perdana.



Note: *Proposal is subject to a detailed study.

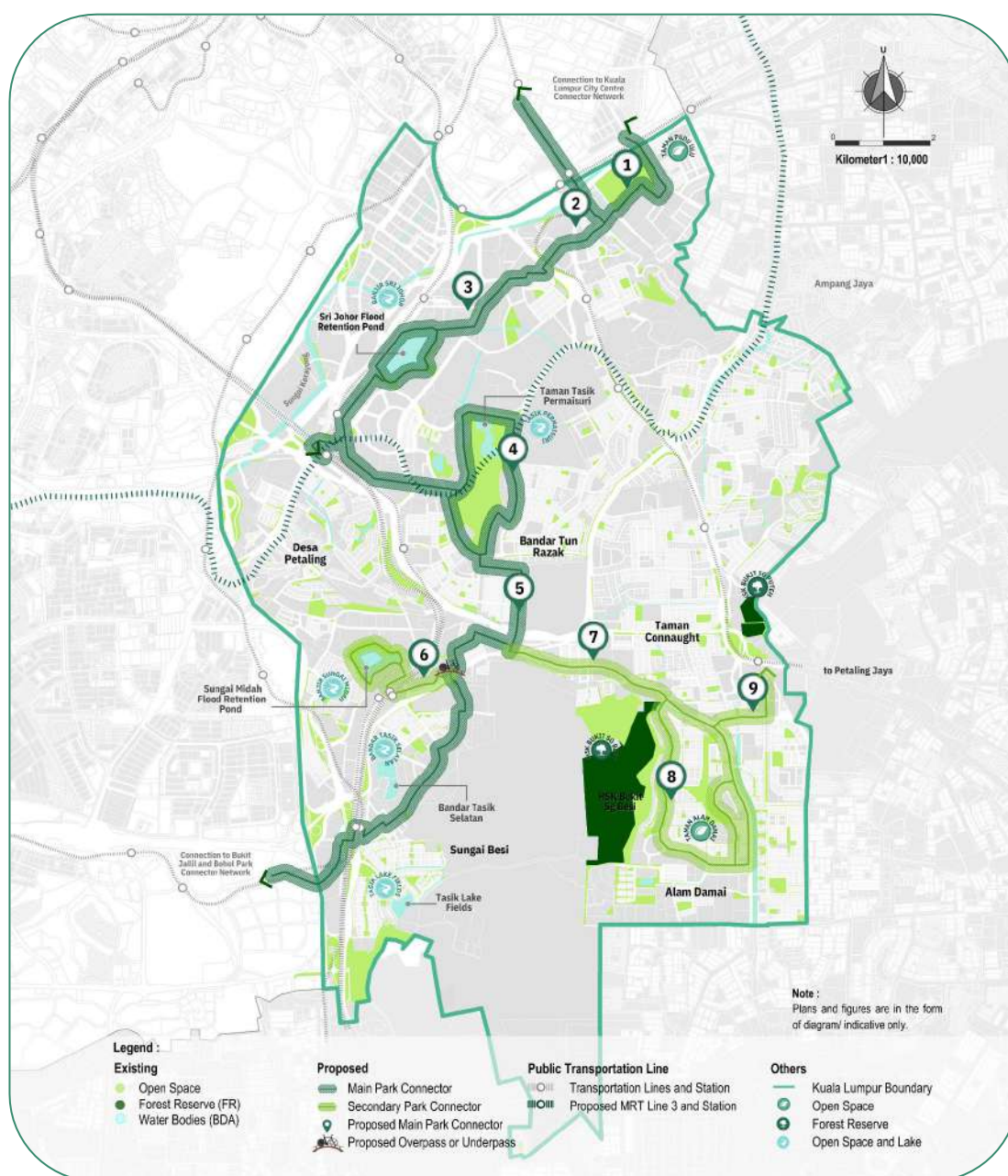
Table 3.6.5:

Proposed Taman Pudu Ulu and Alam Damai Park Connector Network

4. Taman Pudu Ulu and Alam Damai Park Connector Network

There are nine (9) main segments, as follows:

- a. **Segment 1** (1.3 kilometres): Jalan 4/91, Taman Pudu Ulu, Jalan 3/91A and Jalan Pudu Perdana;
- b. **Segment 2** (1.5 kilometres): Jalan Pudu Perdana, Jalan 1/92B, Jalan 2/92B, Jalan Ikan Ayu and Jalan Sekilau;
- c. **Segment 3** (6.0 kilometres): Laluan rentis, Kolam Takungan Banjir Sri Johor, laluan rentis, Jalan Sri Permaisuri 6, Laluan Rentis and Taman Tasik Permaisuri;
- d. **Segment 4** (3.9 kilometres): Jalan Budiman, Jalan Tasik Permaisuri 2, Taman Tasik Permaisuri, Stadium Cheras Kuala Lumpur, Jalan Yaacob Latif, Jalan Bakti and Jalan Adil;
- e. **Segment 5** (2.3 kilometres): Jalan Jujur, Persiaran Mewah, Jalan 2/118B, Jalan 12/118B and Jalan 9/118B;
- f. **Segment 6** (2.4 kilometres): Lebuhraya Lingkaran Tengah II (MRR2), Terminal Bersepadu Selatan and Kolam Takungan Banjir Sungai Midah;
- g. **Segment 7** (1.8 kilometres): Jalan 3/118B and Persiaran Alam Damai;
- h. **Segment 8** (5.6 kilometres): Lingkungan Alam Damai and Taman Alam Damai; and
- i. **Segment 9** (1.1 kilometres): Jalan 1/144A and Jalan 3/144A.

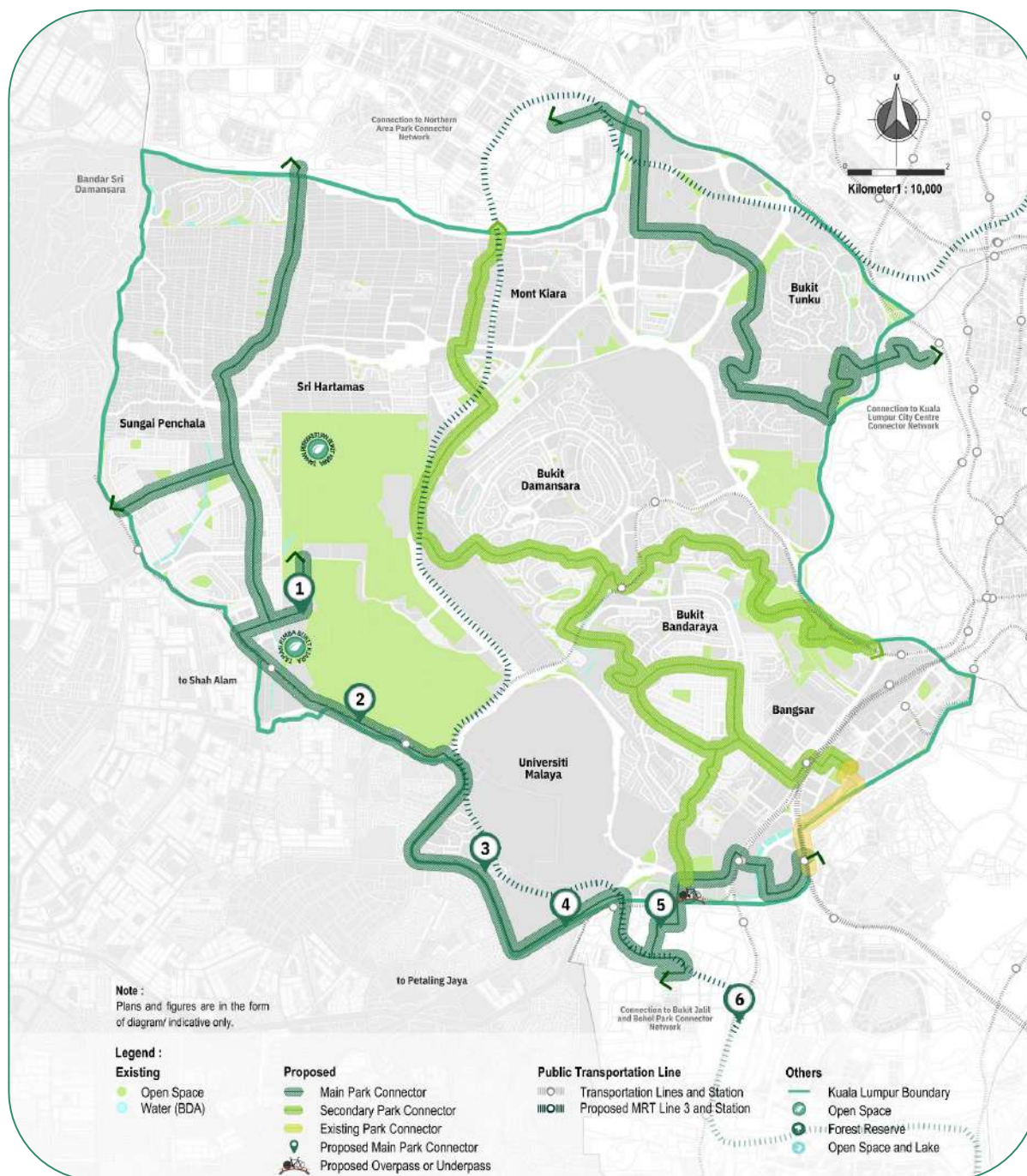


Note: *Proposal is subject to a detailed study.

Table 3.6.6 :**Proposed Taman Bukit Kiara and Kerinchi Park Connector Network****5. Taman Bukit Kiara and Kerinchi Park Connector Network**

There are six (6) main segments, as follows:

- a. **Segment 1** (1.3 kilometres): Taman Persekutuan Bukit Kiara, Jalan Datuk Sulaiman, Jalan Tun Mohd Fuad 3 and Taman Awam Bukit Kiara;
- b. **Segment 2** (2.5 kilometres): Jalan Damansara;
- c. **Segment 3** (3.0 kilometres): Jalan 16/1 and Jalan Profesor DiRaja Ungku Aziz;
- d. **Segment 4** (1.2 kilometres): Lebuhraya Persekutuan (Motorcycle Line);
- e. **Segment 5** (1.3 kilometres): Jalan Kerinchi; and
- f. **Segment 6** (4.6 kilometres): Jalan Pantai Permai, Jalan Pantai Murni, Lorong 17/122E and Taman Rimba Bukit Kerinchi.



Note: *Proposal is subject to a detailed study.

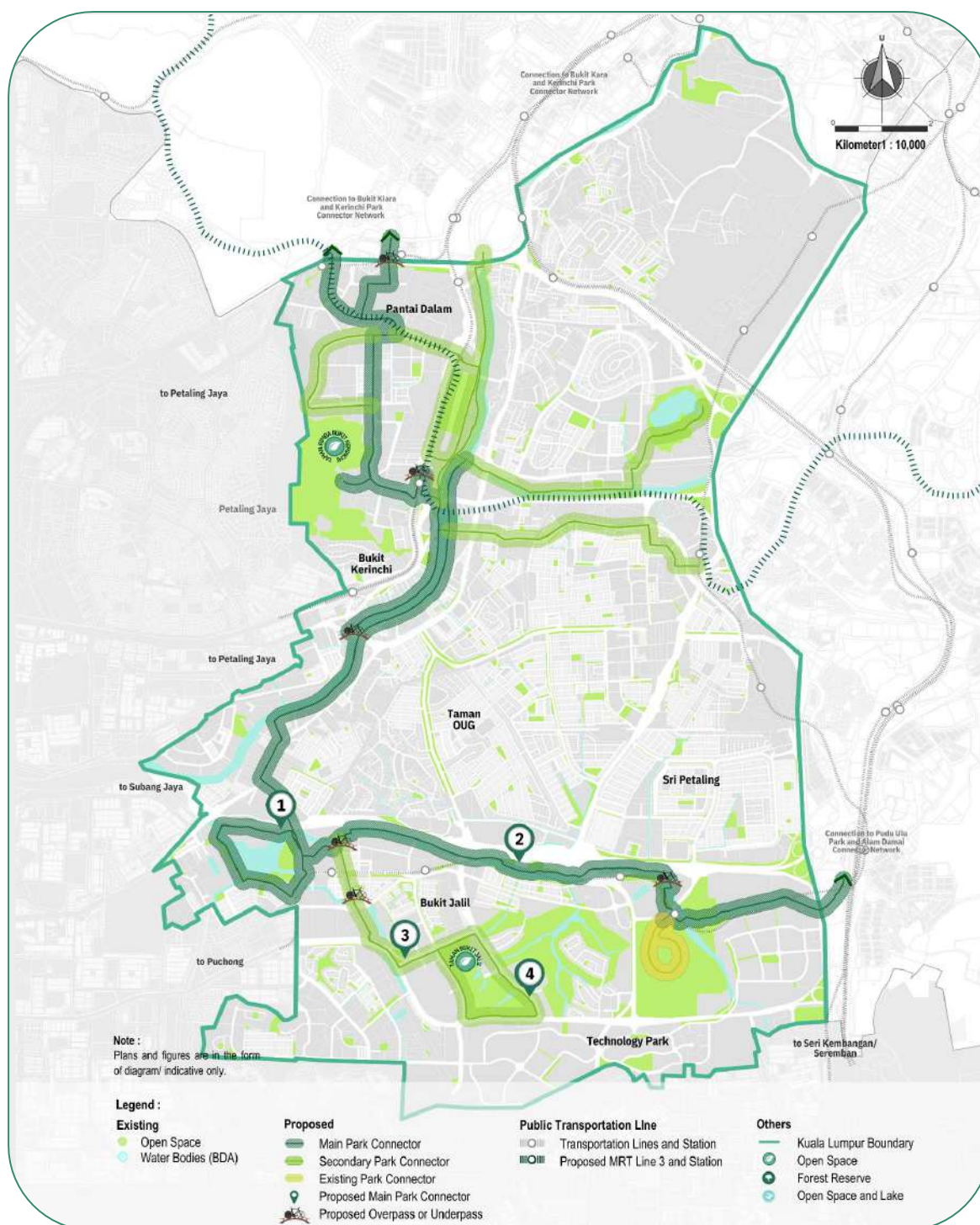
Table 3.6.7

Proposed Taman Bukit Jalil and Bohol Park Connector Network

6. Taman Bukit Jalil and Bohol Park Connector Network

There are four (4) main segments, as follows:

- a. **Segment 1** (2.5 kilometres): Jalan 1/152, Tasik Kampung Bohol, Jalan Tiara, Jalan 4/155 and Jalan 1/152;
- b. **Segment 2** (4.4 kilometres): Jalan 1/152, Sungai Kuyoh, Jalan Merah Caga, LRT Bukit Jalil and Stadium Nasional Bukit Jalil;
- c. **Segment 3** (1.5 kilometres): Jalan 16/1, Sungai Kuyoh, Laluan rentis, Jalan 4/155, laluan rentis, Lebuhraya Bukit Jalil and Jalan 13/155c; and
- d. **Segment 4** (3.2 kilometres): Lebuhraya Bukit Jalil, Jalan 13/155C, Jalan Jalil Perkasa 1, Lebuhraya Bukit Jalil, Persiaran Jalil Utama and Jalan 13/155C.



Note: *Proposal is subject to a detailed study.

IMPLEMENTATION INITIATIVE 3-6.1B

► PROVIDE PRIMARY AND SUPPORTING FACILITIES

The provision of infrastructure facilities for the park connector network must be adapted to the needs of users, taking into account the principles of connectivity, comfort, age-friendly and disabled-friendly, safety as well as sustainability.

Emphasis on these needs can help to facilitate and improve the accessibility of the park connector network to users.

The necessary actions to support this initiative are as shown in Table 3.6.8.

Table 3.6.8:

Actions In Providing and Primary Supporting Facilities for The Park Connector Network



Details	
<p>PRIMARY FACILITY</p> <ol style="list-style-type: none"> Pedestrian walkways and micromobility vehicle routes: <ol style="list-style-type: none"> Has a non-slip surface: <ul style="list-style-type: none"> The surface is clean and free of obstacles such as the provision of the channel to prevent water from pooling on the surface of the pathway; Ensure safe and comfortable network routes taking into account the type of cycling route to be implemented: <ul style="list-style-type: none"> Controlled lanes: isolated or roadside lanes with dividers such as road medians and landscaped areas; and Shared lane: a lane on the surface of the road that separates bicycles and motor vehicles using road markings such as bollards and road barriers. Provide cycling paths with a minimum width of 1.5 metres: <ul style="list-style-type: none"> Bicycle routes must be provided adjacent to pedestrian walkways routes with a width of not less than 1.2 metres for low-usage two-way paths or 1.5 metres for high-usage two-way paths. Linking structures such as overpasses and bridges: <ol style="list-style-type: none"> Ensure a network route that is connected and not interrupted by railways and rivers; and Provision of pedestrian and cycle bridges if crossings at road level cannot be provided due to high traffic volume. 	 <p>Location: Kolam Takungan Banjir Batu</p> <p>Illustration of pedestrian and cycle bridge on Jalan Kuching that connects Kolam Takungan Banjir Taman Wahyu and Kolam Takungan Banjir Batu.</p>  <p>Location: Jalan Lingkaran Tengah (Kepong)</p> <p>Illustration of pedestrian and cycle bridge at Sungai Batu that connects Kolam Takungan Banjir Intan Baiduri and Kolam Takungan Banjir Pasar Borong Selayang.</p>

Table 3.6.8:

Actions In Providing and Primary Supporting Facilities for The Park Connector Network (continued)

Details

SUPPORTING FACILITIES

1. Comfort:

- Ensure appropriate size and width, unobstructed paths and maintain the cleanliness of network paths;
- Provide shade, soft and hard landscaping as well as supporting facilities such as benches, dustbins, lights and others; and
- Provide public spaces such as pocket parks along network path as an element of attraction and to serve as meeting points or nodes for users.

2. Age-friendly and Disabled-friendly:

- Apply Universal Design elements and easily accessible to all levels of society especially elderly, disabled and children.

3. Safety:

- Guarantees the safety of users from accident and crime risks by applying elements of Crime Prevention Through Environmental Design (CPTED) as follows;
 - Accident risk:
Separation of bicycle and pedestrian walkways routes from motorised lanes by creating buffer zones or placing street furniture such as road bollards, guard rails and landscaping plants; and
 - Crime risk:
Installation of closed circuit cameras (CCTV) and panic buttons in public or protected areas.



Illustration of supporting facilities provision for park connector network

- A** Cycling or pedestrian walkways routes
- B** Signage or directional signs
- C** Bicycle parking
- D** Handrail and footrest
- E** Road crossing
- F** Road bollards or guard rails

- G** Age-friendly and disabled-friendly elements
- H** Traffic light
- I** Pocket park
- J** Green canopy
- K** Security elements (CCTV + panic button + fence)
- L** Lighting elements

Boundary is one of the urban design elements that form the image and identity of a city. A boundary mark serves as a physical and administrative separator of an area. Kuala Lumpur being a rapidly developing city is experiencing an overflow of development to surrounding areas and not limited by the boundary line.

The boundary between Kuala Lumpur and its neighbouring cities is not clearly marked. The purpose of physically marks the boundaries of Kuala Lumpur is to strengthen a clearer identity and serve as a welcoming element. The KLLP2040 has identified 70 potential areas for boundary marking as shown in Figure 3.6.4.

The proposal for the implementation of CP 3-6.2 is carried out through two (2) initiatives as follows:

1. Identify Boundary Marking Elements; and
2. Prepare Matrix Boundary Marking Elements.

BRIEF INFO

CATEGORY AND AREA OF CITY BOUNDARY



Crossing or parallel road boundary
51 Areas



Railway boundary
4 Areas



Utility corridor boundary (trails)
4 Areas



River boundary
11 Areas

CP 3-6.2

COORDINATION CONTEXT OF
SDGs AND KLSP2040



SUSTAINABLE DEVELOPMENT GOALS CONTEXT



KLSP2040 CONTEXT

3

GOALS

Kuala Lumpur Green, Healthy and Vibrant City

SV3

STRATEGIC DIRECTIONS

Green Network and Urban Heritage

SV
3.1

ACTIONS

Develop Park Connector Network

IMPLEMENTATION APPROACH CP 3-6.2



PROJECT



POLICY

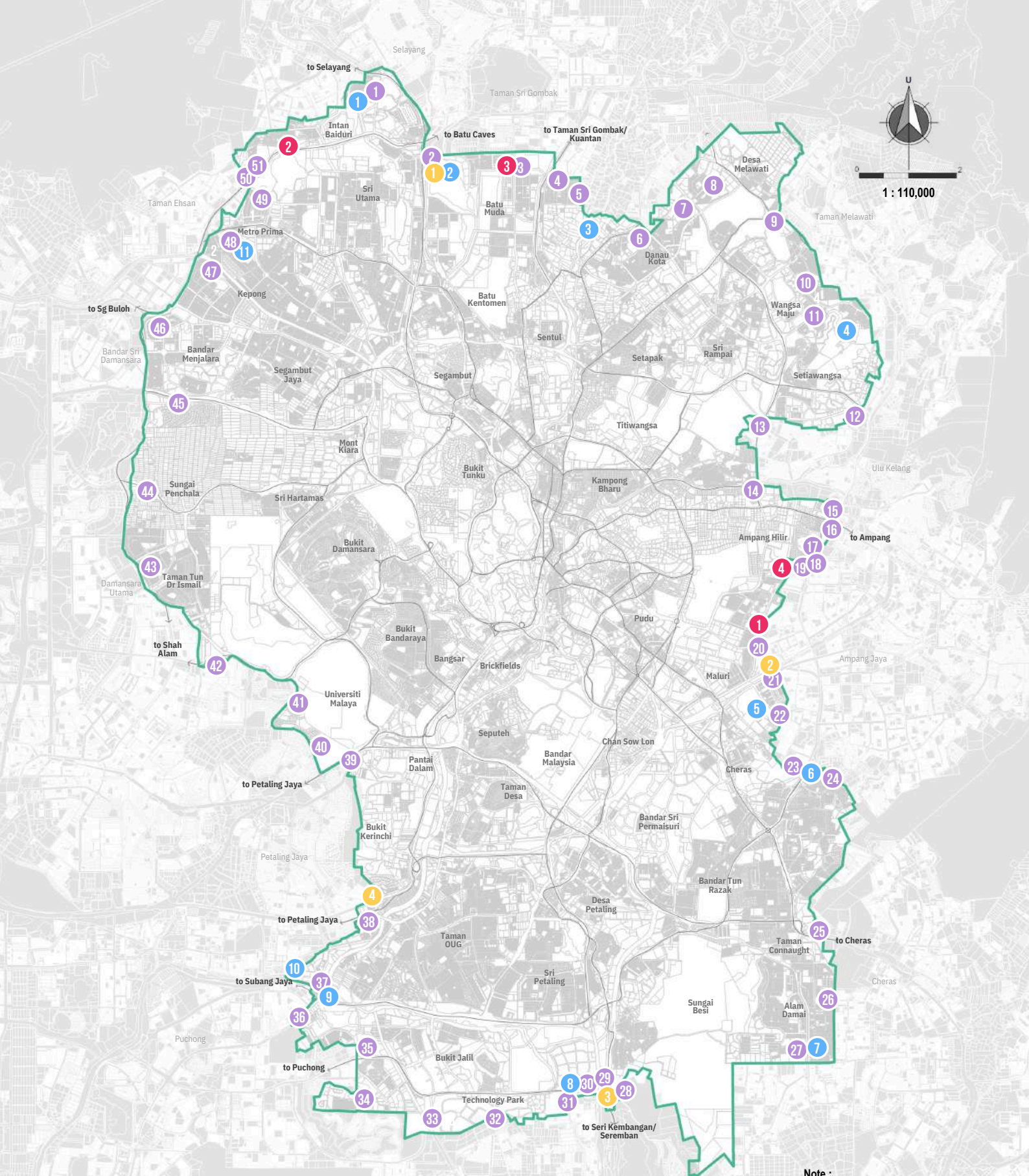


PROGRAMME



GUIDELINE

PLANNING
CONTROL



Note :
Plans and figures are in the form of diagram/ indicative only.

FIGURE 3.6.4 | Plan of Proposed Kuala Lumpur Boundary Markers

Legend :

- Utility Corridor Boundary
- River Boundary
- Crossing or Parallel Road Boundary
- Railway Boundary

Others

- Main Road
- Kuala Lumpur Boundary

IDENTIFY BOUNDARY MARKING ELEMENTS

The elements of boundary marking are determined according to boundary categories with the aim of creating a clear boundary image. It also forms the welcoming element at the boundary of Kuala Lumpur.

The necessary actions to support this initiative are as follows:

1. The demarcation of Kuala Lumpur's boundaries is proposed in five (5) areas, namely:
 - a. Crossing or parallel road boundary;
 - b. Railway boundary;
 - c. Utility corridor boundary (trails);
 - d. River boundary; and
 - e. Boundary of green space.
2. Appropriate and potential boundary marker elements based on site conditions:
 - a. **Road markings:** Horizontal marker elements on the road such as lines or marking plaques;
 - b. **Boundary post:** vertical marker element at a boundary such as a boundary stone, post or gate;
 - c. **Signboard:** Welcome elements such as 3D signs and Light-Emitting Diode (LED) lightboxes on transport infrastructure or overpasses;
 - d. **Murals:** Marker elements in the form of sketches that are related to the image and identity of Kuala Lumpur such as on transport infrastructure pillars, footpaths or road barriers; and
 - e. **Vertical green:** Vertical green elements through the planting of suitable and easy-to-maintain species in separate structures on transport infrastructure poles or border posts.

EXAMPLES OF BOUNDARY MARKERS

1. Road markings



Location: Virginia – Tennessee



Location: Netherland – Belgium

2. Boundary post



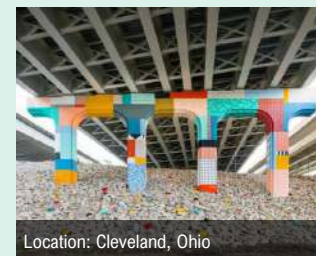
Location: Lloydminster – Saskatchewan

3. Signboard

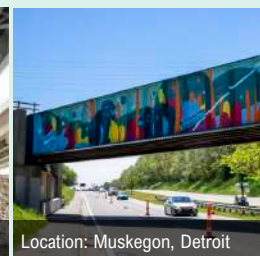


Location: Seoul, Korea

4. Murals



Location: Cleveland, Ohio



Location: Muskegon, Detroit

5. Vertical green



Location: Mexico City

► ESTABLISH MATRIX BOUNDARY MARKING ELEMENTS

The matrix of boundary marker elements is a reference in the provision of appropriate boundary marking elements at identified areas. The necessary actions to support this initiative are as shown in Table 3.6.9.

Table 3.6.9:

Kuala Lumpur Boundary Marker Matrix

Location	Boundary Marking Proposal				
	Road marking	Boundary post	Signboard	Mural	Vertical green
Crossing or Parallel Road Boundary (refer to location in Figure 3.6.4)					
1. Jalan Kuching (Selayang) – existing gateway	✓		✓		
2. Lebuhraya Lingkaran Tengah II (MRR2) (Bulatan Batu Caves)	✓				
3. Jalan Sri Batu Caves (Batu Muda)	✓		✓		
4. Lebuhraya DUKE Gombak – existing gateway	✓	✓	✓	✓	
5. Taman Melewar				✓	
6. Jalan Gombak (Persimpangan Jalan Ibu Kota)		✓			
7. Jalan Taman Melati			✓	✓	✓
8. Lebuhraya Lingkaran Tengah II (MRR2) (LRT Gombak)	✓		✓	✓	✓
9. Jalan Kolam Air (Taman Melawati)	✓	✓			
10. Lebuhraya Lingkaran Tengah II (MRR2) (Taman Melawati)	✓	✓			
11. Jalan AU5D/1 (Lembah Keramat)	✓	✓			
12. Lebuhraya DUKE (Setiawangsa)	✓		✓	✓	
13. Jalan Jelatek Setiawangsa	✓	✓		✓	
14. Lebuhraya AKLEH (Datuk Keramat)	✓		✓		
15. Lebuhraya Lingkaran Tengah II (MRR2) (KPJ Ampang)	✓	✓		✓	
16. Jalan Ampang (Ampang Point)	✓		✓		
17. Lebuhraya Lingkaran Tengah II (MRR2) (Taman Tasik Ampang Hilir)	✓	✓	✓		✓
18. Jalan Ampang Putra	✓	✓			
19. Lebuhraya Lingkaran Tengah II (MRR2) (Masjid Nurul Islam)		✓	✓	✓	
20. Jalan Perkasa (Pandan Jaya)	✓		✓		
21. Lebuhraya Sungai Besi (Taman Shamelin)	✓		✓		
22. Jalan Perdana Utama	✓	✓	✓	✓	
23. Lebuhraya Lingkaran Tengah II (MRR2) (Pandan Perdana)	✓	✓	✓		
24. Jalan Kuari	✓	✓	✓	✓	
25. Lebuhraya Cheras – Kajang (Cheras)	✓		✓	✓	
26. Jalan 8/154 (Alam Damai)	✓	✓		✓	
27. Jalan Desa Cheras (Alam Damai)	✓	✓	✓		
28. Lebuhraya BESRAYA (Seri Kembangan)		✓	✓	✓	✓
29. Lebuhraya PLUS (Sungai Besi) – existing gateway			✓	✓	
30. Jalan Serdang Raya	✓	✓	✓	✓	✓
31. Jalan PBS 14/1 (TPM)	✓	✓			
32. Lebuhraya Kuala Lumpur – Putrajaya (MEX)	✓	✓			
33. Persiaran Puncak Jalil	✓	✓	✓		
34. Jalan Impian Indah (Bukit Jalil)	✓	✓			

Table 3.6.9: Kuala Lumpur Boundary Marker Matrix (continued)

Location	Boundary Marking Proposal				
	Road marking	Boundary post	Signboard	Mural	Vertical green
35. Lebuhraya Bukit Jalil	✓	✓	✓	✓	✓
36. Jalan Puchong (Taman Kinrara)	✓	✓	✓	✓	
37. Lebuhraya KESAS (Sungai Kuyoh)	✓	✓	✓		✓
38. Jalan Kelang Lama dan Lebuhraya NPE	✓		✓	✓	
39. Lebuhraya Persekutuan – existing gateway		✓	✓	✓	
40. Jalan Prof Diraja Ungku Aziz (PPUM)			✓	✓	
41. Jalan 16/1 (UM)	✓	✓	✓		
42. Damansara Link - Lebuhraya SPRINT	✓		✓	✓	
43. Jalan Burhanuddin Helmi (TTDI)	✓		✓	✓	
44. Penchala Link			✓	✓	
45. Lebuhraya NKVE – existing gateway	✓	✓	✓	✓	
46. Lebuhraya LDP - Lebuhraya Lingkaran Tengah II (MRR2)	✓		✓	✓	
47. Lebuhraya Lingkaran Tengah II (MRR2) (Kepong Sentral)			✓	✓	
48. Jalan Besar Kepong	✓		✓		
49. Lebuhraya Lingkaran Tengah II (MRR2) (Simpang Selayang)	✓		✓	✓	
50. Persimpangan Frim		✓			
51. Pintasan Selayang Kepong (Kampung Melayu)		✓	✓	✓	
Railway Boundary (refer Figure 3.6.4)					
1. Laluan KTMB (Bulatan Batu Caves)	✓		✓	✓	
2. Laluan KTMB (Pandan Jaya)	✓		✓		
3. Laluan KTMB/ERL (Sungai Kembangan)	✓		✓	✓	
4. Laluan KTMB (Jalan Templer)	✓	✓			
Utility Corridor Boundary (refer to the location in Figure 3.6.4)					
1. Laluan Rentis (Pandan Jaya)			✓		
2. Kampung Melayu Kepong			✓		
3. Jalan Taman Batu Muda		✓	✓		
4. Jalan Tujuh (Ampang Hilir)			✓		
River Boundary (refer to the location in Figure 3.6.4)					
1. Sungai Jinjang (Selayang)	✓			✓	✓
2. Sungai Batu		✓	✓		✓
3. Sungai Gombak (Padang Balang)		✓			✓
4. Sungai Klang (Kompleks Sukan Setiawangsa)	✓	✓			✓
5. Sungai Kerayong (LRT Pandan Jaya)	✓		✓	✓	✓
6. Sungai Kerayong (Cheras Baru)	✓	✓	✓	✓	✓
7. Sungai (Alam Damai)	✓		✓	✓	✓
8. Sungai Kuyoh (TPM)	✓	✓	✓	✓	✓
9. Sungai Kuyoh (Tasik Kampung Bohol)		✓			✓
10. Sungai Klang (Sri Manja/KESAS)		✓	✓		✓
11. Sungai Keroh (Kepong)	✓	✓	✓	✓	✓

CONNECTING THE CITY KEY ACTIVITY CENTRES

SCENARIO OF CURRENT KEY ACTIVITY CENTRES CONNECTIVITY IN KUALA LUMPUR

The interconnected network of pedestrian walkways and micromobility vehicle routes of key activity areas in Kuala Lumpur is at a satisfactory level. The newly completed Pintasan Saloma is an initiative to connect the City Centre with other focal areas such as the KLCC area to the Kampong Bharu area and the Pintasan Saloma elevated walkway Bukit Bintang.

These existing pedestrian walkways and micromobility vehicle routes need to be constantly improved from the aspect of road design, seamless access and compatibility with surrounding development activities. The objective of improving these pedestrian walkways and micromobility vehicles routes is to continuously link the areas within the City Centre and to increase the usage of pedestrian walkways and micromobility vehicle routes.

Towards realizing Kuala Lumpur as a city that can connect the city's key activity centres, one (1) Implementation Proposal is formulated under Planning Strategy 3-7, as shown in Figure 3.7.1.

BRIEF INFO

CHARACTERISTICS OF AN EFFECTIVE PEDESTRIAN NETWORK

Located in the key activity area 	Age-friendly and disable-friendly 
Clear directional signboard 	Continuous (seamless) and free of barrier 
Connected to a pocket park or art gallery 	Inobtrusive change of path level 

Figure 3.7.1:
Implementation Proposal for Planning Strategy 3-7

SP 3-7

CONNECTING THE CITY KEY ACTIVITY CENTRES

CP 3-7.1 Improving The Side Lane, Back Lane and Lane Between Building



Location: Pintasan Saloma, Kampong Bharu
Source: <https://www.shutterstock.com/WilliamBarton>
Saloma Bypass which connects Kampong Bharu to KLCC.

CP 3-7.1:**IMPROVING THE SIDE LANE, BACK LANE AND LANE BETWEEN BUILDING**

The main focus of the provision of good pedestrian walkways and micromobility vehicle routes is to prevent users from getting involved in any road accidents involving motor vehicles and incidents of street crimes. A seamless and safe pedestrian walkways and micromobility vehicle routes will be a preferred choice for users to get to the focal area in the City Centre.

The side lane, back lane and lane between building lanes are seen to have the potential to be used as one of the mediums that connect the main pedestrian walkways routes in Kuala Lumpur. It also created a new pedestrian walkway and micromobility vehicle routes network in Kuala Lumpur.

The proposed implementation of CP 3-7.1 is implemented through one (1) initiative as follows:

1. Upgrade Side Lane, Back Lane and Between Building.



Location: LRT Pudu
Back lane with potential to improve pedestrian walkways routes.

CP 3-7.1COORDINATION CONTEXT OF
SDGs AND KLSP2040**SUSTAINABLE DEVELOPMENT GOALS CONTEXT****KLSP2040 CONTEXT****3****GOALS**

Kuala Lumpur Green, Healthy and Vibrant City

SV3**STRATEGIC DIRECTIONS**

Green Network and Urban Heritage

**SV
3.2****ACTIONS**

Connect the City Main Activity Centre

IMPLEMENTATION APPROACH CP 3-7.1

PROJECT



POLICY



PROGRAMME

PLANNING
CONTROL

GUIDELINE

IMPLEMENTATION INITIATIVE 3-7.1A

► UPGRADE SIDE LANE, BACK LANE AND LANE BETWEEN BUILDING

The use of a side lane, back lane and lane between buildings will be an additional path to the main pedestrian walkways network. This path serves as an alternative pathway, protected from sunlight and with minimal motor vehicles involvement even though usually neglected and poorly maintained.

The design of this path must focus on the attraction, safety and comfort of users. KLCH has taken proactive actions to reactivate the side lanes, back lanes and lanes between buildings by lane upgrading through place making with the concept of wall murals or sculptures.

The characteristics of lanes that have the potential to be upgraded include location in active commercial areas, high level of pedestrian use, narrow and low level of natural surveillance.

The KLLP2040 has identified 14 lanes potential with priority in the City Centre for the implementation of this initiative as follows:

1. Lorong Bunus 1 and 2;
2. Lorong Jalan Tuanku Abdul Rahman;
3. Lorong Petaling;
4. Lorong Madras;
5. Lorong Bandar 21;
6. Lorong Jalan Tun Sambanthan;
7. Lorong Vivekananda;
8. Back lane at Jalan Alor;
9. Side lane at Jalan Walter Garnier;
10. Side lane at Changkat Bukit Bintang;
11. Back lane at Jalan Merbau;
12. Side lane at Jalan Kenanga;
13. Side lane or back lane at Jalan Meranti; and
14. Side lane or back lane at Jalan Meranti 2.

BEST PRACTICE

BACK LANE OF JALAN ALOR

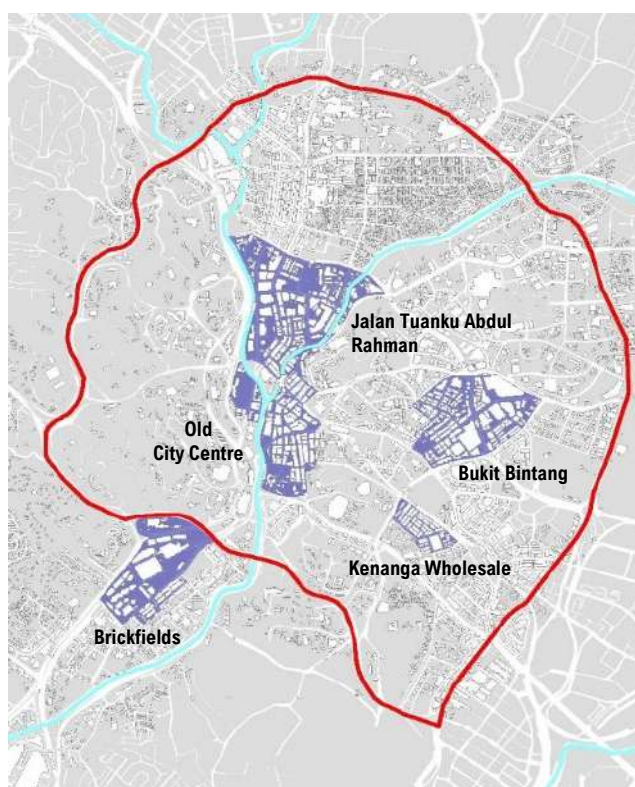
The back lane at Jalan Alor is one of the lane transformation projects implemented by KLCH. Upgrading works carried out include road pavement, lighting, camera surveillance system, drain closure and mural art on the walls of the building have succeeded in activating the lane and increasing the level of usage. Today, Back Lane of Jalan Alor is one of the hotspots for photography.



Location: Lorong Belakang Jalan Alor

Figure 3.7.2:

Potential Improvement Area of Side Lane, Back Lane and Lane Between Building for Pedestrian Walkways and Micromobility Vehicle Routes



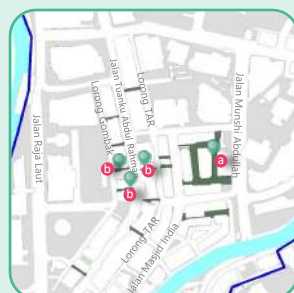
Source : PBRKL 2020

Table 3.7.1:
Proposed Locations of Lane Improvement

1

Jalan Tuanku Abdul Rahman Area

- Lorong Bunus 1 and 2; and
- Lorong Jalan Tuanku Abdul Rahman.



2

Old City Centre Area

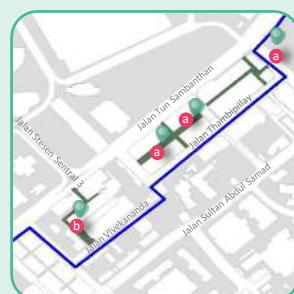
- Lorong Petaling;
- Lorong Madras; and
- Lorong Bandar 21.



3

Brickfields Area

- Lorong Jalan Tun Sambanthan; and
- Lorong Vivekananda.



4

Bukit Bintang Area

- Back lane at Jalan Alor;
- Side lane at Jalan Walter Garnier; and
- Side lane at Jalan Changkat Bukit Bintang.



5

Kenanga Wholesale Area

- Back lane at Jalan Merbau;
- Side lane at Jalan Kenanga;
- Side lane or back lane Meranti; and
- Side lane or back lane Meranti 2.



The necessary actions to support this initiative are as follows:

1. Provide seamless, safe and comfortable pedestrian walkways and micromobility vehicle routes;
2. Ensure continuous maintenance of lane including its surroundings and provision of attractive landscapes as well as street furniture to create a conducive environment;
3. Improve lighting elements and implement safe city elements such as CCTV;
4. Incorporate universal design elements in the provision of facilities to ensure that they are age-friendly and disabled-friendly;
5. Encourage activation of dual façades buildings through the beautification of building walls with mural art; and
6. Reactivate lanes with commercial activities such as café, kiosks and other informal activities such as art exhibitions for artists and street music bands.



IMPLEMENTING KUALA LUMPUR HERITAGE TRAIL

SCENARIO OF CURRENT HERITAGE TRAIL IN KUALA LUMPUR

The Pelan Induk Jejak Warisan (PIJW) integrates areas and buildings of heritage and historical value with pedestrian walkways routes to create a comprehensive heritage trail network.

PIJW considers aspects of heritage and implementation comprehensively including historical, cultural and natural heritage in line with the policy outlined by KLSP2040. The master plan also focuses more broadly on historical heritage resources and cultural heritage through heritage tourism activities, thereby having a positive impact on a sustainable economy.

The preparation of PIJW becomes a reference and a control mechanism in shaping the identity, character and culture in the heritage tourism area. It will enhance the visitor experience through a variety of old building designs, cultural arts, activities and community lifestyles. In addition, this master plan also focuses on the improvement of infrastructure facilities in potential heritage zones.

The implementation of the Kuala Lumpur Heritage Trail needs to take into account current issues such as the provision and maintenance of tourism-supporting facilities, increased access and accessibility, focus on Intangible Heritage, additional cultural activities and other suitable activities to attract visitors to the heritage trail area.

Towards realizing Kuala Lumpur as a city that can implement a comprehensive heritage trail, two (2) Implementation Proposals are formulated under Planning Strategy 3–8, as shown in Figure 3.8.1.

BRIEF INFO

HERITAGE TRAIL ZONE OF KUALA LUMPUR



Kuala Lumpur Heritage Trail Zone

13 Zones



Total of Existing Heritage Trails

8 Trails



Number of historical areas identified related to Kuala Lumpur Heritage Zone

353 Areas

Source: Kuala Lumpur Heritage Trail Master Plan

EXISTING HERITAGE TRAILS

Heritage Trail	Trail Zone	Year Completed
Heritage Trail 1	<ul style="list-style-type: none"> Jejak Merdeka Jejak Daerah Sivik Jejak Pekan Dagangan Timah 	2011-2014
Heritage Trail 2	<ul style="list-style-type: none"> Jejak Pekan Dagangan Timah Jejak Rimba Bandar 	2011-2014
Heritage Trail 3	<ul style="list-style-type: none"> Jejak Pekan Dagangan Timah 	2011-2014
Heritage Trail 5	<ul style="list-style-type: none"> Jejak Pahlawan 	2021
Heritage Trail 6	<ul style="list-style-type: none"> Jejak Rimba Bandar 	2014-2019
Heritage Trail 7	<ul style="list-style-type: none"> Jejak Pekan Dagangan Timah 	2014-2019
Heritage Trail 8	<ul style="list-style-type: none"> Jejak Pekan Dagangan Timah 	2014-2019

Figure 3.8.1:
Implementation Proposals for Planning Strategy 3-8

SP 3-8

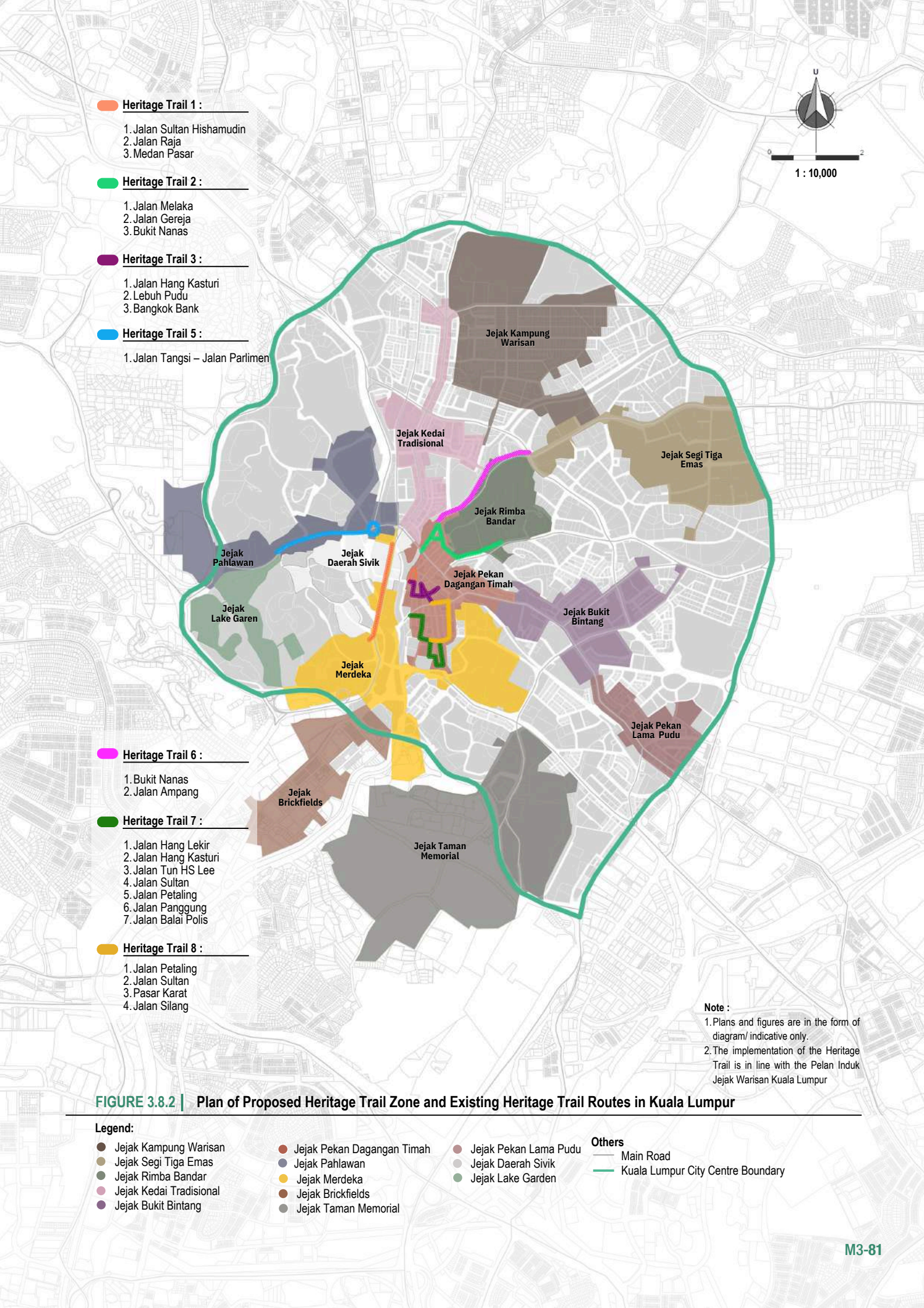
IMPLEMENTING KUALA LUMPUR HERITAGE TRAIL

CP 3-8.1

Strengthen of Kuala Lumpur's Heritage and Cultural Trail

CP 3-8.2

Strengthen Intangible Heritage



CP 3-8.1:

STRENGTHEN OF KUALA LUMPUR'S HERITAGE AND CULTURAL TRAIL

Conservation of heritage buildings is important to make its surroundings a primary node for visitors. The PIJW identifies 13 trail zones in which each trail zone has a primary node that serves as a focus area. There are 66 heritage buildings located within Kuala Lumpur's Heritage Trail Zone.

Heritage sites and buildings in all primary nodes need to be conserved in order to be passed down from one generation to another and able to attract international and local tourists.

The empowerment of heritage and cultural trails also needs to be supported by the expansion of Heritage Trail Zones covering tangible and intangible heritage areas that focus on attractions such as traditional villages, natural landscapes, historical sites, and cultural arts activities.

The proposal for the implementation of CP 3-8.1 is carried out through five (5) initiatives as follows:

1. Strengthen Primary Node Characteristics Of Heritage Trail;
2. Prioritise Heritage Building Conservation Zone;
3. Enhance Potential Of River And Old Buildings In The Heritage Zone;
4. Develop Web-base Heritage Tourism GIS Orientation and Digital Application; and
5. Identify New Heritage Trail Zones.

BRIEF INFO

HERITAGE BUILDINGS IN THE HERITAGE TRAIL ZONE OF KUALA LUMPUR



Number heritage buildings gazetted under the National Heritage Act 2005

National Heritage: 33
Heritage: 44



Number of heritage site/ buildings in the Gazetteing Process by Department of National Heritage

5 sites

CP 3-8.1

COORDINATION CONTEXT OF SDGs AND KLSP2040



SUSTAINABLE DEVELOPMENT GOALS CONTEXT



KLSP2040 CONTEXT

3

GOALS

Kuala Lumpur Green, Healthy and Vibrant City

SV3

STRATEGIC DIRECTIONS

Green Network and Urban Heritage

SV
3.3

ACTIONS

Strengthen and Expand Kuala Lumpur Heritage Trail

IMPLEMENTATION APPROACH CP 3-8.1



PROJECT



POLICY



PROGRAMME



PLANNING
CONTROL

GUIDELINE

IMPLEMENTATION INITIATIVE 3-8.1A

STRENGTHEN PRIMARY NODE CHARACTERISTICS OF HERITAGE TRAIL

Node is a strategic point or location in the city area that is the focal point for the public. Its physical characteristics include serving as a gathering place for people, such as road intersections and functioning as enclosed plaza or square.

The primary nodes in Kuala Lumpur are such as Dataran Merdeka, Taman KLCC and the plaza area in front of the KLCC building, Bangunan Masjid Sultan Abdul Samad (Bangunan Masjid Jamek), Kasturi Walk Pasar Seni, KL Sentral, Lot 10 Bukit Bintang as well as Pudu Sentral.

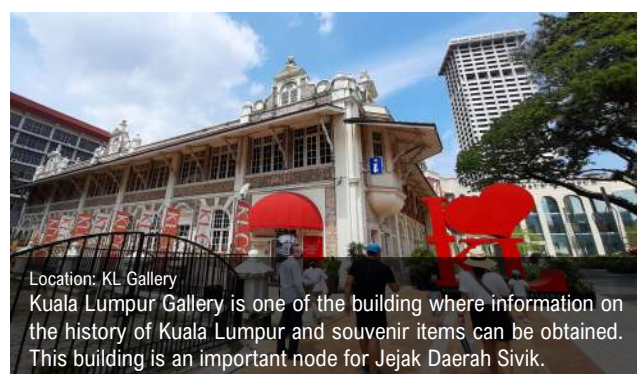
Kuala Lumpur also has small nodes serve as focal point for public and tourists such as Pasar Seni, Pasar Raja Bot (Chow Kit), Pasar Pudu, Dataran KLCH, Plaza Pavilion Bukit Bintang, Masjid Jamek LRT Station, Pasar Seni LRT Station, Hang Tuah LRT Station, square in front of SOGO Complex, Masjid India, Wisma Yakin and Pertama Complex.

Existing node areas are greatly influenced by the character of their surroundings, location, function and importance as well as activities in an area. The surroundings and space that make up a node must be empowered to ensure it remains a node and tourist attraction.

The KLLP2040 has identified the primary nodes that need empowerment as follows:

1. Primary Heritage Zone - Bangunan Parlimen, Bangunan Carcosa and Taman Warisan Tun Abdul Razak;
2. Primary Heritage Zone - Padang Kelab Selangor (Dataran Merdeka), Bangunan Stesyen Keretapi, Masjid Negara dan Stadium Merdeka;
3. Secondary Heritage Zone - Jalan Petaling and Bukit Nanas;
4. Secondary Heritage Zone - Pekan Sungai Besi;
5. Special Character Zone - Jalan Raja Laut and Jalan Sultan Azlan Shah (Jalan Ipoh);
6. Special Character Zone - Jalan Tuanku Abdul Rahman, Jalan Doraisamy and Jalan Dang Wangi;
7. Special Character Zone - Jalan Pudu; and
8. Special Character Zone – Brickfields Area.

Location of the primary nodes of Kuala Lumpur's Heritage Trail Zone as shown in Figure 3.8.3 .





Heritage Building Distribution

1. Bangunan Pejabat Pos Besar (Mahkamah Agung)
2. Bangunan Masjid Sultan Abdul Samad (Bangunan Masjid Jamek)
3. Kuil Sri Maha Mariamman
4. Tokong Sin Sze Si Ya
5. Pasar Seni
6. Bangunan Lama Dewan Bahasa dan Pustaka
7. Bangunan Vivekananda Ashrama
8. Tugu Negara
9. Bangunan Parlimen
10. Istana Negara, Jalan Istana
11. Sekolah Menengah Kebangsaan Victoria
12. Bangunan Sulaiman (Mahkamah Syariah Wilayah Persekutuan)
13. Bangunan Stesyen Keretapi
14. Bangunan Ibu Pejabat Keretapi (KTM)
15. Bangunan Hotel Majestic (Bekas Balai Seni Lukis)
16. Dewan Perhimpunan Cina Kuala Lumpur dan Selangor
17. Stadium Negara
18. Rumah Persekutuan
19. Masjid Negara dan Makam Pahlawan
20. Bangunan Muzium Negara
21. Tapak Tiang Bendera Malaya Dinaikkan Buat Pertama Kali dan Padang Kelab Selangor



Heritage Building Distribution

22. Bangunan MaTiC
23. Institut Penyelidikan Getah Malaysia
24. Bangunan Muzium Telekom
25. Taman Botani Perdana
26. Bangunan Carcosa, Taman Tasik Perdana
27. Istana Tetamu, Taman Tasik Perdana
28. Bangunan Pusat Penyelidikan Perubatan
29. Padang Kelab Selangor (Dataran Merdeka)
30. Bangunan Kelab DiRaja Selangor
31. Bangunan Sultan Abdul Samad (Mahkamah Agung)
32. Bangunan Dewan Bandaraya (Pangung Bandaraya)
33. Bangunan Mahkamah Tinggi
34. Bangunan Bekas JKR Selangor (Muzium Tekstil)
35. Gereja St. Mary
36. Bangunan Sekolah Menengah St. John
37. Stadium Merdeka
38. Bangunan No. 2 Jalan Stonor

Primary Nodes

1. Laman Tuanku Abdul Rahman
2. Countdown Clock
3. Galeri Kuala Lumpur
4. Masjid Negara
5. Tasik Perdana –Terowong Muzium Negara
6. Stesen Monorel Kuala Lumpur Sentral
7. Kelab Sultan Sulaiman
8. Hentian Bas Jalan Ampang
9. Menara Kuala Lumpur
10. Istana Negara Lama
11. Lot 10 Bukit Bintang
12. Pasar Pudu
13. Muzium Kwong Tong

Note :

Plans and figures are in the form of diagram/ indicative only.

FIGURE 3.8.3 | Plan of Kuala Lumpur Heritage Building Distribution in Heritage Trail Zones

Legend :

- | | | |
|---------------------------|------------------------------|-------------------------|
| ● Jejak Kampung Warisan | ● Jejak Pekan Dagangan Timah | ● Jejak Pekan Lama Pudu |
| ● Jejak Segi Tiga Emas | ● Jejak Pahlawan | ● Jejak Daerah Sivik |
| ● Jejak Rimba Bandar | ● Jejak Merdeka | ● Jejak Lake Garden |
| ● Jejak Kedai Tradisional | ● Jejak Brickfields | ● Bangunan Warisan |
| ● Jejak Bukit Bintang | ● Jejak Taman Memorial | |

Others

- Main Road
- Kuala Lumpur City Centre Boundary

BEST PRACTICE

TRAFALGAR SQUARE OF LONDON

The necessary actions to support this initiative are as follows:

1. Improve the conservation of heritage buildings by preserving the character of old buildings;
2. Enhance the image and character through the design of street furniture, materials, colours, lighting, and organising activities that reflect the character as well as support the heritage trail theme;
3. Improve tourism supporting facilities through the provision of street furniture in node areas and strategic locations;
4. Improve accessibility through the provision of pedestrian walkways and micromobility vehicle routes, as well as efficient public transport services;
5. Encourage lighting elements to highlight the building façade and increase the safety of the Heritage Trail as well as old building areas at night;
6. Implement the concepts and elements of a Safe City such as CCTV and security booths to address crime incidents especially in the hidden space between buildings; and
7. Diversify activities of primary nodes that involve the public and intangible heritage such as:
 - a. Cultural and artistic activities, including periodical events activities that can create a special character and identity; and
 - b. Activities that are compatible with and support the Heritage Trail area.



Location: Masjid Jamek, Sultan Abdul Samad, Kuala Lumpur
Illustration of activities and souvenir kiosk facilities in tourist hotspots and primary nodes of the heritage trail.



Source: pinterest.com

Trafalgar Square is a public square in Westminster in the centre of the City of London built in the early 19th century. The site around Trafalgar Square has been an important landmark since the 1200s. Since ancient times this area has served as an important landmark for the city of London. The square has been used as a place for public gatherings and large-scale celebrations that attract millions of tourists from around the world every year.

IMPLEMENTATION INITIATIVE

3-8.1B

PRIORITISE HERITAGE BUILDING CONSERVATION ZONE

The KLLP2040 has identified seven (7) trail zones located within the Kuala Lumpur Heritage Zone to be priority areas for the conservation of heritage buildings in Kuala Lumpur City Centre as shown in Figure 3.8.5;

1. Jejak Kedai Tradisional Zone;
2. Jejak Rimba Bandar Zone;
3. Jejak Merdeka Zone;
4. Jejak Pekan Dagangan Timah Zone;
5. Jejak Daerah Sivik Zone;
6. Jejak Pahlawan Zone; and
7. Jejak Lake Garden Zone.

The selection of heritage building conservation zones takes into account the following aspects:

1. Distribution in the main cluster of historic buildings and heritage status building as shown in Table 3.8.1;
2. An important primary node area in the Heritage Trail Zone and a focal point for the public and tourists in Kuala Lumpur; and
3. Primary Heritage Zones and Secondary Heritage Zones that have high historical significance include heritage buildings and the history of the area as shown in Figure 3.8.4.

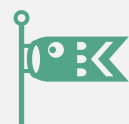
Buildings with heritage status, rows of old shop buildings in the Jejak Kedah Tradisional Zone, Jejak Pekan Dagangan Timah Zone and areas along the River of Life that have heritage significance are also given priority for conservation and beautification.

BRIEF INFO

PRIORITY ZONE OF HERITAGE CONSERVATION



Kuala Lumpur Heritage Trail Zone
13 Zones
38 Heritage Buildings



Heritage Trail Zone in the Kuala Lumpur Heritage Zone
8 Zones
33 Heritage Buildings

Figure 3.8.4:

Kuala Lumpur Heritage Zone

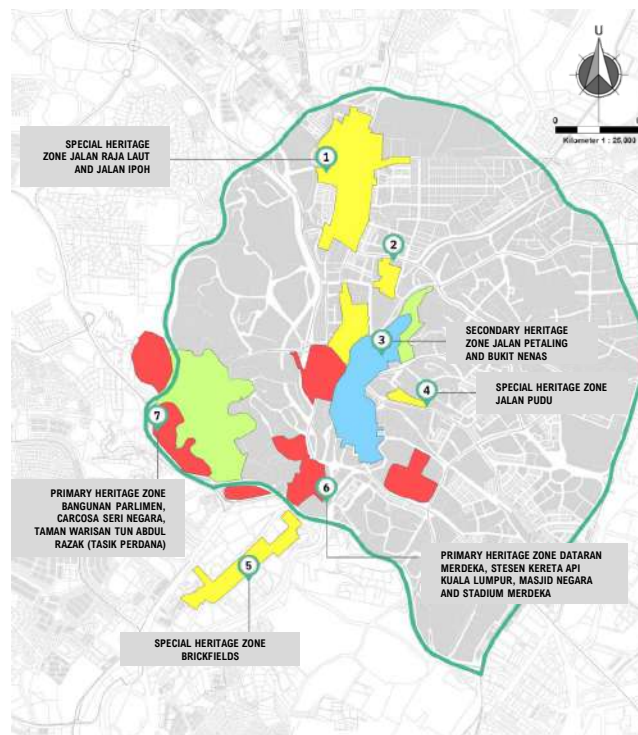


Figure 3.8.5:

KLLP2040 Heritage Trail Zone Priority Area

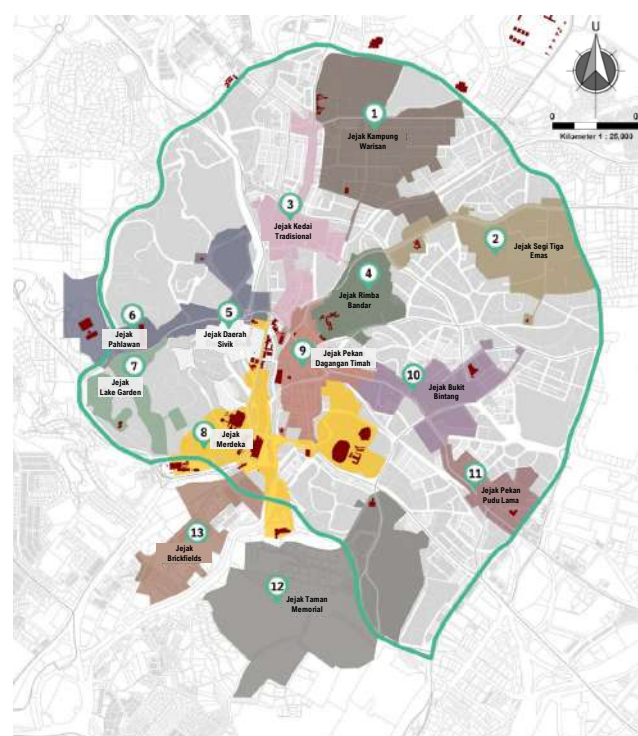


Table 3.8.1:**List of Heritage Buildings in Kuala Lumpur Heritage Trail**

Heritage Trail Zone	List of Heritage Buildings	Gazette Status
Kuala Lumpur Heritage Zone		
1. Jejak Kedai Tradisional	None	
2. Jejak Rimba Bandar	1. Bangunan Sekolah Menengah St. John, Jalan Bukit Nanas 2. Bangunan Muzium Telekom, Jalan Raja Chulan	National Heritage Heritage
3. Jejak Merdeka	3. Istana Negara, Jalan Istana 4. Bangunan Sulaiman (Mahkamah Syariah Wilayah Persekutuan), Jalan Sultan Hishamuddin 5. Bangunan Stesyen Keretapi, Jalan Sultan Hishamuddin 6. Bangunan Ibu Pejabat Keretapi (KTM), Jalan Sultan Hishamuddin 7. Bangunan Hotel Majestic (Bekas Balai Seni Lukis), Jalan Sultan Hishamuddin 8. Dewan Perhimpunan Cina Kuala Lumpur dan Selangor, Jalan Maharajalela 9. Masjid Negara dan Makam Pahlawan, Jalan Perdana 10. Muzium Negara, Jalan Damansara 11. Tapak Tiang Bendera Malaya Dinaikkan Buat Pertama Kali dan Padang Kelab Selangor, Jalan Raja 12. Bangunan Sekolah Menengah Kebangsaan Victoria, Jalan Hang Tuah 13. Stadium Merdeka, Jalan Stadium 14. Rumah Persekutuan, Jalan Sultan Hishamuddin 15. Stadium Negara, Jalan Stadium	National Heritage National Heritage National Heritage National Heritage National Heritage National Heritage National Heritage National Heritage National Heritage National Heritage National Heritage National Heritage National Heritage National Heritage National Heritage
4. Jejak Pekan Dagangan Timah	16. Bangunan Masjid Sultan Abdul Samad (Bangunan Masjid Jamek), Jalan Tun Perak 17. Tokong Sin Sze Si Ya, Jalan Tun H S Lee 18. Pasar Seni, Jalan Hang Kasturi 19. Kuil Sri Maha Mariamman	National Heritage Heritage Heritage Gazetteing Process
5. Jejak Daerah Sivik	20. Bangunan Sultan Abdul Samad (Mahkamah Agong), Blok A, Jalan Raja 21. Bangunan Dewan Bandaraya (Panggung Bandaraya), Jalan Raja 22. Bangunan Pejabat Pos Besar (Mahkamah Agong), Jalan Raja 23. Bangunan Mahkamah Tinggi, Jalan Raja 24. Bangunan Bekas JKR Selangor (Muzium Tekstil), Jalan Sultan Hishamuddin 25. Gereja St. Mary, Jalan Raja 26. Padang Kelab Selangor (Dataran Merdeka) 27. Bangunan Kelab DiRaja Selangor (Kelab Selangor), Jalan Raja	National Heritage National Heritage National Heritage National Heritage National Heritage National Heritage National Heritage National Heritage
6. Jejak Pahlawan	28. Tugu Negara, Jalan Parlimen 29. Bangunan Parlimen, Jalan Parlimen	National Heritage National Heritage
7. Jejak Lake Garden	30. Taman Botani Perdana (Taman Tasik Perdana Kuala Lumpur), Jalan Perdana 31. Bangunan Carcosa, Taman Tasik Perdana 32. Istana Tetamu, Taman Tasik Perdana	National Heritage National Heritage Heritage
Outside Kuala Lumpur Heritage Zone		
8. Jejak Bukit Bintang	None	-
9. Jejak Taman Memorial	33. Bangunan Lama Dewan Bahasa dan Pustaka, Jalan Dewan Bahasa	National Heritage
10. Jejak Brickfields	34. Bangunan Vivekananda Ashrama, Jalan Tun Sambanthan	Heritage
11. Jejak Segi Tiga Emas	35. Bangunan Lama Pusat Pelancongan Malaysia (MaTiC) dan Dewan Tunku Abdul Rahman, Jalan Ampang 36. Institut Penyelidikan Getah Malaysia, Jalan Ampang 37. Bangunan No. 2 Jalan Stonor (Badan Warisan Malaysia)	National Heritage National Heritage Gazetteing Process
12. Jejak Kampung Warisan	38. Bangunan Pusat Penyelidikan Perubatan, Jalan Pahang	Heritage
13. Jejak Pekan Lama Pudu	None	

The necessary actions to support this initiative at the heritage trail zone are as follows:

1. Improve tourism-supporting facilities such as street furniture, identification signs and place markers (entry statement), information boards, and digital explanatory maps along the heritage trail;
2. Diversify activities that involve the public and intangible heritage activities such as place making activities, religious activities, and celebration of multiracial festivals as shown in Table 3.8.2 and informal business activities such as night markets and open bazaars as shown in Table 3.8.3;
3. Encourage new heritage sources and potential to be development as tourist attractions such as historical galleries, mural paintings, nature, old historical buildings, art events, and cultural performances, local or traditional food and open market activities as shown in Tables 3.8.4 to Table 3.8.8.
4. Preserve and conserve heritage buildings taking into account the original history of buildings in the attraction area;
5. Enhance the image and character through the design of landscape design, street furniture, materials, colours, lighting, and organising activities that reflect the character as well as support the heritage trail theme;
6. Improve accessibility through the pedestrian walkways and micromobility vehicle routes as well as efficient public transport services as shown in Table 3.8.9;
7. Encourage lighting elements to highlight the design of building facades and as a safety element on the Heritage Trail and old building areas at night;
8. Implement the concept and elements of a Safe City such as providing CCTV, security booths, and lighting elements;
9. Design pedestrian walkways and micromobility vehicle routes with traffic calming elements especially in areas with a high frequency of pedestrian users as shown in Table 3.8.10; and
10. Ensure the continuous maintenance of the environment and the provision of an attractive landscape.

Table 3.8.2:
Proposed Locations of Religious Activities for Various Races

Proposed Locations or Activities
a. Muslim Religious Activities: Masjid Negara, Masjid Jamek Sultan Abdul Samad, Masjid India and Masjid Kampong Bharu;
b. Buddhist Religious Activities: Kwong Tong Chinese Cemetery and Sin Sze Si Ya Temple; and
c. Hindu Religious Activities: Little India, Brickfields.

Table 3.8.3:
Proposed Locations of Night Market and Open Bazaar Activities

Proposed Locations or Activities
a. Jalan Raja Uda and Raja Bot;
b. Jalan Petaling, Jalan Hang Kasturi and Jalan Panggung;
c. Jalan Tuanku Abdul Rahman; and
d. Jalan Melayu and Jalan Masjid India.

Table 3.8.4:
Proposed Locations of Mini Gallery

Proposed Locations or Activities
a. Independence History Collection Exhibition near Countdown Clock; and
b. The early history exhibition of Kampong Bharu at Padang Kelab Sultan Sulaiman.

Table 3.8.5:
Proposed Location of Old Buildings as Focal Points for Activities and Tourism

Proposed Locations or Activities
a. Bangunan Wisma Yakin, Selangor Mansion and KL Mansion;
b. Bangunan Carcosa and Istana Tetamu; and
c. Bangunan Pejabat Agama Islam Wilayah Persekutuan, Bangunan Jabatan Penerangan Blok D, Bangunan bekas Mahkamah Tinggi Blok C and Bangunan Auditorium Bandaraya.

Table 3.8.6:
Proposed Locations of International Arts and Cultural Performances

Proposed Locations or Activities
a. Auditorium Dewan Bandaraya Kuala Lumpur;
b. Panggung Aniversari, Taman Tasik Perdana; and
c. Bangunan Sultan Abdul Samad.

Table 3.8.7:**Proposed Locations of Local and Traditional Food Attraction**

Proposed Locations or Activities
a. Medan Ikan Bakar at Jalan Bellamy;
b. Street Food at Jalan Petaling and Jalan Panggung;
c. Street Food at Jalan Alor and Changkat Bukit Bintang;
d. Traditional Malay food on Jalan Raja Alang - Raja Muda Musa - Raja Abdullah in Kampong Bharu;
e. Traditional Indian food in the Little India, Brickfields area; and
f. India Muslim food along Jalan Tuanku Abdul Rahman and Jalan Masjid India.

Table 3.8.8:**Proposed Locations of Planned Open Market Activities**

Proposed Locations
a. Jalan Pasar, Pudu; and
b. Pasar Raja Bot.

Table 3.8.9:**Proposed Locations of Visitor Friendly Pedestrian Walkways Routes**

Proposed Locations
a. Jalan Bukit Bintang - Persimpangan Jalan Imbi - Jalan Pudu - Jalan Sultan Ismail;
b. Jalan Pasar, Pudu;
c. Jalan Dr Latif - Lorong Angkut - Jalan Utama Hospital (from Jalan Raja Muda Stadium towards Hospital Kuala Lumpur); and
d. Jalan Gereja - Jalan Ampang to Bukit Nanas.

Table 3.8.10:**Proposed Location of Pedestrian Crossings**

Proposed Locations
a. In front of Kuala Lumpur KTM Station;
b. Jalan Tuanku Abdul Rahman - Jalan Masjid India - Chow Kit - Jalan Dang Wangi;
c. Kampong Bharu - Masjid Jamek Kampong Bharu - Gerbang Kampong Bharu - Kelab Sultan Sulaiman;
d. Jalan Tun Perak - Jalan Benteng - Medan Pasar - Jalan Hang Lekir; and
e. Line from LRT Hang Tuah - LRT Pudu.

BEST PRACTICE**PORTOBELLO MARKET OF LONDON**

Portobello Market is located in the famous Notting Hill area of London and is the location of the most iconic and famous outdoor market area in the world. The variety of daily activities and its multicultural image make this area a must visit destination for tourists to the City of London.

IMPLEMENTATION INITIATIVE 3-8.1C

▶ ENHANCE POTENTIAL OF RIVER AND OLD BUILDINGS IN THE HERITAGE ZONE

Sungai Gombak and Sungai Klang are the two (2) main rivers where the confluence of the rivers meets in which the early history of Kuala Lumpur began.

The buildings located around the area and along the rivers have a variety of architectural patterns and styles that are capable of enhancing the potential and identity of Kuala Lumpur's urban form. The initiative to make the river and historical heritage as the backbone of the formation of Kuala Lumpur's identity is necessary are as follows:

1. Create a sense of place at the river area and its surroundings;
2. Create visual connections as well as pathways between river areas and to adjacent heritage trail sites; and
3. Create the river as a public space that acts as a dominant pedestrian link in the heritage trail area.

River of Life (RoL) development is an important link to the Kuala Lumpur Heritage Trail where Kuala Lumpur's early history began. Activities related to heritage tourism in this area need to be revived and considered as potential for tourists main attraction to Kuala Lumpur.

BRIEF INFO

HERITAGE TRAIL ZONE OF KUALA LUMPUR



Existing Heritage Trail Zones located within the RoL Development

6 Trail Zones

- Jejak Kedai Tradisional
- Jejak Rimba Bandar
- Jejak Daerah Sivik
- Jejak Segi Tiga Emas
- Jejak Merdeka
- Jejak Brickfields

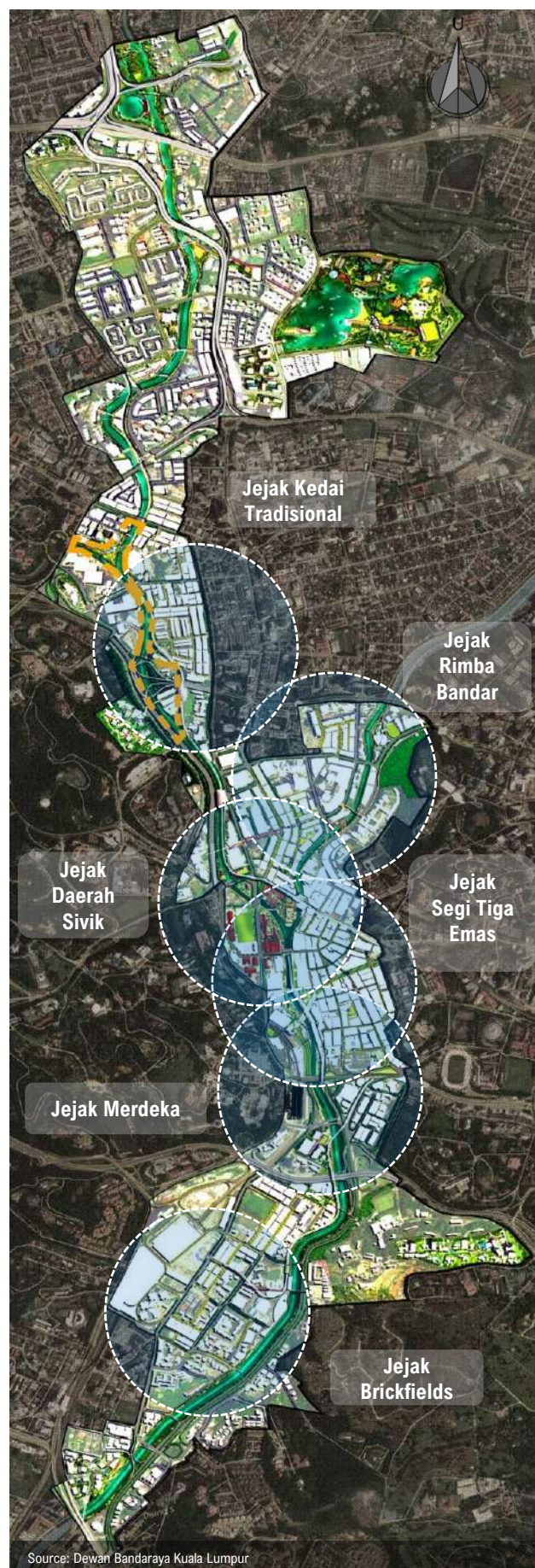


Number of old buildings in this area

146 Old Buildings

Figure 3.8.6:

River of Life (RoL) Development Master Plan



Source: Dewan Bandaraya Kuala Lumpur

The KLLP2040 has identified 146 old buildings along the RoL development as the potential for heritage tourism attractions and most of them are located within the Kuala Lumpur Heritage Zone.

The necessary actions to support this initiative are as follows:

1. Preserve and conserve heritage buildings such as building facades by taking into account the history and appearance of the original form of the building;
2. Encourage various activities to revitalise old buildings and riverside areas such as cultural and artistic activities as well as business activities;
3. Encourage lighting elements to highlight the design of the building façade as well as safety element in old building areas at night;
4. Improve accessibility through pedestrian walkways and micromobility vehicle routes, as well as efficient public transport services;
5. Improve tourism-supporting facilities such as street furniture, identification signs and place markers (entry statement), information boards, and digital information maps along the heritage trail;
6. Enhance image and character through landscape design, street furniture, materials, colour, lighting, and organising activities that reflect the character and support the heritage trail theme; and
7. Control new development height from obstructing views toward heritage buildings.



Location: Around Bangunan Sultan Abdul Samad



Location: Around River Of Life



Location: Masjid Jamek Sultan Abdul Samad
A cluster of heritage buildings along the River of Life development.



Location: Bangunan Sultan Abdul Samad

Heritage buildings along the development of the River of Life must be maintained as main attraction for tourists.

IMPLEMENTATION INITIATIVE 3-8.1D

► DEVELOP HERITAGE TOURISM ORIENTED GIS DATABASE AND DIGITAL APPLICATION

The development of a heritage tourism oriented GIS database is one of the alternatives to strengthen heritage tourism in Kuala Lumpur.

A dedicated website is an important promotional platform for more formal, up-to-date and efficient information sharing as well as a reference platform for the implementation of Kuala Lumpur Heritage Trail. This can be implemented by development of a database heritage tourism oriented GIS database that is aimed at promoting heritage tourism in Kuala Lumpur. This action has been widely implemented in many countries and has attracted millions of tourists worldwide.

Production of a digital application that contains information about the heritage trail also needs to be implemented. Users of this application will get detailed information in terms of location, travel distance, and various other interesting additional information.

Internet surfers will be taken to see each heritage trail area in a fly-through video and get a real picture of heritage tourism and Kuala Lumpur Heritage Trail more closely. The contents of the website should include the following details as follows:

1. Complete information on each Heritage Trail;
2. Schedule of events or annual calendar;
3. Location map and trail;
4. Virtual tour of the Heritage Trail area;
5. Itinerary of activities offered (e-brochure);
6. Communication platform between industry players; and
7. Audio download facility for each storyboard in the Heritage Trail area.

Figure 3.8.7:

GIS Data Heritage Tourism Oriented GIS Database Development Model



BEST PRACTICE

HERITAGE TOURISM ORIENTED GIS DATABASE DEVELOPMENT OF SPAIN



The use of heritage tourism oriented GIS database has helped a lot in promoting tourism in Madrid, Spain.



IMPLEMENTATION INITIATIVE 3-8.1E

► IDENTIFY NEW HERITAGE TRAIL ZONES

Expansion of planning and proposal of Heritage Trail Zones must take into account the potential of the buildings and sites listed in the Jabatan Warisan Negara (JWN) inventory including their importance to Kuala Lumpur's heritage.

The purpose of this zone expansion is as follows:

1. Expanding the potential of existing heritage tourism resources by adding value to existing heritage tourism products;
2. Enhancing economic opportunities based on historical and cultural heritage by identifying economic benefits through community involvement in the heritage tourism sector such as homestay programs, traditional products, and cultural arts performances; and
3. Improving existing tourism infrastructure through the provision of tourism infrastructure such as accessibility and other supporting facilities that can encourage new heritage tourism activities.

The KLLP2040 has identified the proposed new Heritage Trail Zone, an extension to the existing Pelan Induk Jejak Warisan (PIJW) and key landmarks based on Heritage Trail Area evaluation criteria as follows:

1. Proposed Heritage Site Landmarks:
 - a. Sungai Besi Old Airport.
2. Proposed New Heritage Trail:
 - a. Jejak Rimba Warisan Kota (Bukit Persekutuan);
 - b. Sambungan Jejak Kedai Tradisional;
 - c. Jejak Istana Budaya; and
 - d. Jejak Kampung Tradisional Rizab Melayu Gombak.
3. Proposed to connect the a new Heritage Trail network.

Eight (8) specific criteria are considered to determine the appropriate components and elements in the Kuala Lumpur Heritage Trail as shown in Table 3.8.11.

Table 3.8.11:

Heritage Trail Area Evaluation Criteria

SPECIFIC CRITERIA

CRITERIA 1

Reflect the appearance of the original form or culture or the early history of Kuala Lumpur.

CRITERIA 2

Showcase distinctive and achievement of architectural, technology, art and landscape in the context of Kuala Lumpur's history.

CRITERIA 3

Landmark that represents a stage in the history of the growth of Kuala Lumpur.

CRITERIA 4

Relate to important events in the history of Kuala Lumpur or the formation of Malaysia.

CRITERIA 5

Connect with figures, individuals, groups or organizations that have played an important role in the history of the formation of Kuala Lumpur or the country.

CRITERIA 6

Involve traditional activities, art, food, culture, religion, and spirituality that are still preserved and gradually disappearing.

CRITERIA 7

Portray elements of landscape or natural greenery that are special to Kuala Lumpur compared to other areas.

CRITERIA 8

Potential as a focal point of learning and enlightenment such as museums and galleries.



Location : Jejak Warisan Pekan Dagangan Timah Zone




Kuala Lumpur City Hall is very committed to promoting Kuala Lumpur Heritage Trail and developing heritage trail areas in potential areas.

The necessary actions to support this initiative are as follows:

1. Preserve and conserve heritage elements such as traditional houses by taking into account the history and appearance of the original form of the building;
2. Enhance the image and character through landscape design, street furniture, materials, and colors that support the heritage trail theme;
3. Encourage various activities to create a vibrant environment such as accommodation, business, recreation, education, and activities related to culture and art;
4. Ensure harmonious new development around the Heritage Trail Zone to avoid shadowing effects on heritage buildings;
5. Provide tourism supporting facilities such as information centres, street furniture, gateway, identification signs and place markers (entry statement), information boards, and digital information maps;
6. Improve accessibility through pedestrian walkways and micromobility vehicle routes that meet age-friendly and disable-friendly standards, efficient as well as safe;
7. Implement the concept and elements of a Safe City such as providing CCTV, security booths and lighting elements; and
8. Encourage lighting elements to highlight the design of the building façade as well as a safety element.

Table 3.8.12:

Proposed for New Heritage Markers and Trails

<p>1</p> <p>Lapangan Terbang Lama Sungai Besi</p>		<p>4</p> <p>Sambungan Jejak Kedai Tradisional</p> 
<p>2</p> <p>Jejak Kampung Tradisional Rizab Melayu Gombak</p>		<p>5</p> <p>Jejak Rimba Warisan Kota (Bukit Persekutuan)</p> 
<p>3</p> <p>Jejak Istana Budaya</p>		

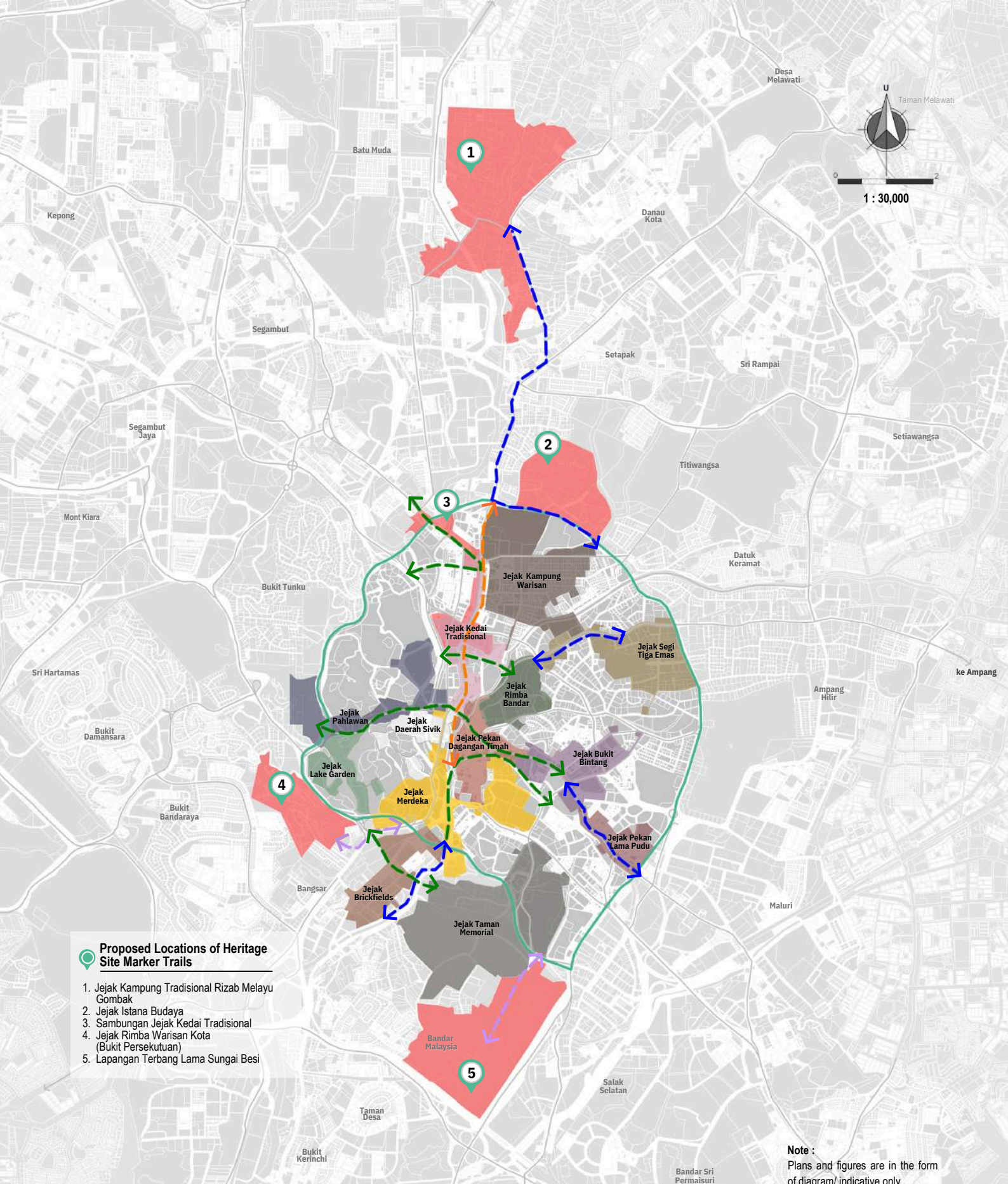


FIGURE 3.8.8 | Plan of The Expansion Kuala Lumpur Heritage Trail Zone

Intangible Heritage can be interpreted as heritage and cultural values such as knowledge and expertise interpreted through oral tradition, customary and cultural values as well as language and literature.

The uniqueness of Malaysia is through the diversity of races and ethnic that practice different ways of life, customs and beliefs which are interesting to preserve. The unique culture is an intangible heritage and can be an attraction for foreign tourists to this country.

Jabatan Warisan Negara (JWN) has prepared a Pelan Pengurusan Konservasi in 2017 to protect the authenticity of all intangible heritage. The Pelan Pengurusan Konservasi has identified 331 intangible heritage such as fashion, food and performing arts including the customs and culture of the Malaysian community. The intangible heritage has been gazetted under the National Heritage Act 2005. This management plan is important to ensure that the country's original heritage can be maintained even if it has been mixed or assimilated with other cultures and places.

Strengthening intangible heritage aims to preserve and secure the identity of the Malaysian community. It also can revive the art and cultural heritage that is increasingly being eroded among the younger generation. Intangible heritage has the potential to attract more foreign tourists to the country to experience local culture and heritage.

The proposal for the implementation of CP 3-8.2 is carried out through one (1) initiative as follows:

1. Strengthen The Potential of Existing Intangible Heritage.

CP 3-8.2

COORDINATION CONTEXT OF
SDGs AND KLSP2040

SUSTAINABLE DEVELOPMENT GOALS CONTEXT



KLSP2040 CONTEXT

3

GOALS

Kuala Lumpur Green, Healthy and Vibrant City

SV3

STRATEGIC DIRECTIONS

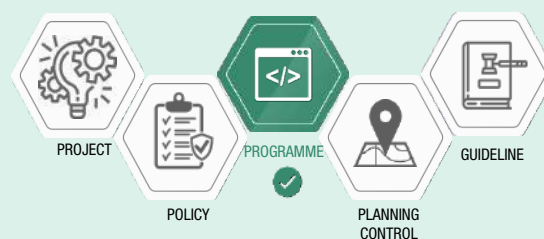
Green Network and Urban Heritage

SV
3.3

ACTIONS

Strengthen and Expand Kuala Lumpur Heritage Trail

IMPLEMENTATION APPROACH CP 3-8.2



STRENGTHEN THE POTENTIAL OF EXISTING INTANGIBLE HERITAGE

Intangible heritage covers various aspects of society's culture and traditions that are less highlighted. Intangible heritage is also always an attraction for tourists and has the potential to contribute towards sustainable development.

Activities that have the potential and ability to attract international and local tourists are such as the celebration of multi ethnic festivals, performing arts, traditional skills, and local food. The arts, culture, customs and traditional skills of various races are intangible heritage privileges that can shape the image and character of local races and communities.

The KLLP2040 has identified five (5) main categories as shown in Figure 3.8.9 to be strengthen as intangible heritage, as follows:

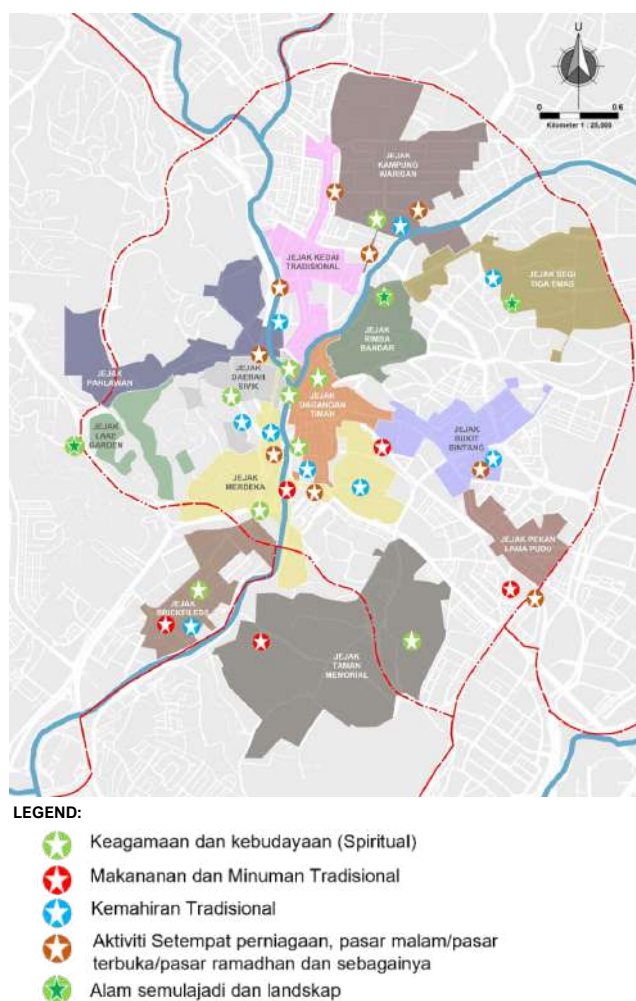
1. Religion and culture;
2. Traditional food and drinks;
3. Traditional skills;
4. Local activities such as business, night market, open market, Ramadhan bazaar and others; and
5. Nature and landscape.

The necessary actions to support this initiative are as follows:

1. Preserve main components of intangible heritage which include religious and cultural activities, traditional food and drinks, traditional skills, local activities and nature as well as landscape;
2. Identify new intangible heritage through research and documentation by collaborating with relevant agencies;
3. Promote intangible heritage as a component of the Heritage Trail through various activities, programmes and heritage tourism packages;
4. Increase awareness on the preservation of intangible heritage through appropriate outreach programmes to educate the public about the importance of national culture and heritage; and
5. Provide tourism-supporting facilities such as information centres, street furniture, gateway, identification signs and place markers (entry statements), information boards, and digital information maps.

Major categories and proposed locations of intangible heritage in the Heritage Trail Zone of Kuala Lumpur are as shown in Table 3.8.13.

Figure 3.8.9:
Distribution of Intangible Heritage



Source: Adapted from Pelan Induk Jejak Warisan (PIJW)



The gotong-royong programme of stirring dodol is a traditional event leading up to Hari Raya Aidilfitri.

Table 3.8.13:
Major Categories and Proposed Locations of Intangible Heritage in the Heritage Trail Zone

Heritage Trail Zone	Main Categories and Suggested Locations of Intangible Heritage	Heritage Trail Zone	Main Categories and Suggested Locations of Intangible Heritage
1. Jejak Kedai Tradisional	<ul style="list-style-type: none"> Religious activities of Muslims and Indian Muslims: Masjid India; Performance of street artists: Jalan Tuanku Abdul Rahman; Arts and crafts: Jalan Tuanku Abdul Rahman and Jalan Masjid India; Night market and street bazaar activities: Jalan Tuanku Abdul Rahman and Jalan Masjid India; and Local traditional food at Jalan Tuanku Abdul Rahman Hawker Centre and Kudu Restaurant at Jalan Tuanku Abdul Rahman. 	5. Jejak Daerah Sivik	<ul style="list-style-type: none"> Culture, arts or theater arts: Auditorium Bandaraya and Panggung Bandaraya; and Cultural and artistic performances at Dataran Merdeka and Jalan Raja.
		6. Jejak Pahlawan	<ul style="list-style-type: none"> Religion and Culture: Auditorium Bandaraya, Panggung Bandaraya and Dataran Merdeka.
		7. Jejak Lake Garden	<ul style="list-style-type: none"> Nature and Landscape: Taman Botani Perdana Religion and Culture: Panggung Anniversari
		8. Jejak Bukit Bintang	<ul style="list-style-type: none"> Local Activities: Jalan Bukit Bintang; and Traditional Food and Drink: Jalan Alor and Changkat Bukit Bintang.
2. Jejak Rimba Bandar	<ul style="list-style-type: none"> Religion and Culture: Presbyterian Church; and Nature and Landscape: Taman Eko Rimba Bukit Nanas 	9. Jejak Taman Memorial	<ul style="list-style-type: none"> Religion and Culture: Kwang Tung Memorial Museum; Local Activities: Traditional Sports; and Traditional Food and Drink: Medan Ikan Bakar Jalan Bellamy
3. Jejak Merdeka	<ul style="list-style-type: none"> Religious activities for Muslims: Masjid Negara; Large-scale and international cultural and artistic performances: Stadium Negara; Historical heritage, culture and customs: Muzium Negara; and Traditional and local food: Nasi Lemak Tanglin, Jalan Cenderasari. 	10. Jejak Brickfields	<ul style="list-style-type: none"> Religion and Culture: Followers of Buddhism and Hinduism: Jalan Berhala, Jalan Scott, Jalan Tun Sambanthan; and Traditional Food and Drinks: Little India (Jalan Tun Sambanthan)
4. Jejak Pekan Dagangan Timah	<ul style="list-style-type: none"> Religion and Culture: Masjid Jamek Sultan Abdul Samad, Sin Sze Ya Temple and Sri Maha Mariammam Temple; Local Activities: Medan Pasar, Jalan Tuanku Abdul Rahman, Jalan Petaling and Jalan Panggung; and Traditional Food and Drinks: Open bazaar activities and local food at Kasturi Walk, Jalan Petaling, Jalan Hang Lekir, Jalan Sultan and Jalan Panggung. 	11. Jejak Segi Tiga Emas	<ul style="list-style-type: none"> Religion and Culture: Malaysia Tourism Information Centre (MaTic) and Petronas Piharmonic Hall.
		12. Jejak Kampung Warisan	<ul style="list-style-type: none"> Traditional Food and Drinks: Masjid Kampong Bharu (lambuk porridge), Jalan Raja Alang, Jalan Raja Abdullah and Jalan Raja Muda Musa; Local Activities: Jalan Raja Uda and Raja Bot Night Market; and Religion and Culture: Masjid Jamek Kampong Bharu and Masjid Pakistan.
		13. Jejak Pekan Lama Pudu	<ul style="list-style-type: none"> Local Activities: Open market at Jalan Pasar Baharu and Jalan Landak; and Traditional Food and Drinks: Sek Yuen Restaurant, Jalan Pudu, Sin Hiap Kee Restaurant in Lengkungan Brunei.

SCENARIO OF CURRENT GREEN GOVERNANCE IN KUALA LUMPUR

Environmentally friendly development or sustainable development is often used in a country's green development process. This is due to increased awareness among society on the importance of a balance between the development process and environmental protection.

Systematic and effective planning must be applied to guarantee a conducive environment. Development without clear goals, ad-hoc and territorial affects the potential of the environment and the use of existing resources. This shortcoming also has a negative impact on the connectivity between urban growth centres which are part of the thrust to build Kuala Lumpur's image and identity.

Strengthening of the main image and character of an area can be achieved through landscape elements. An attractive urban green environment can highlight and improve the image quality of the area's environment. A quality urban green environment is also important and linked to liveable townships and cities.

Cultivating effective governance with best management practices is important as the driving force behind any development to create a sustainable, quality and safe green environment in Kuala Lumpur. Such governance needs to evolve and keep up with the times, the latest policies and guidelines as well as consider the latest technological developments.

Towards realizing Kuala Lumpur as a city that can improve the green governance, two (2) Implementation Proposals are formulated under Planning Strategy 3-9, as shown in Figure 3.9.1.

BRIEF INFO

CHARACTERISTICS OF GOOD URBAN GOVERNANCE

1. Based on religious principles
2. Honesty and sincerity
3. Teamwork
4. Wisdom and vision
5. Stakeholder oriented
6. Responsibility
7. Knowledgeable and good at communicating
8. Responsiveness
9. Equality and inclusiveness
10. Effectiveness and efficiency
11. Compliance with the law
12. Integrity and transparency

Source: National Urbanization Policy 2 (DPN2)

BRIEF INFO

KUALA LUMPUR LOW CARBON SOCIETY BLUEPRINT 2030 (KL LCSBP 2030)

This report targets Kuala Lumpur as a sustainable world-class city by 2030 that emphasises a healthy, creative, knowledgeable and inclusive society.

The relevant action is **Action 10 - Green City Governance** which includes the following:

- 10.1 Creating understanding
- 10.2 Collaboration with communities and non-governmental organizations (NGOs)

Source: Kuala Lumpur Low Carbon Society Blueprint 2030 (KL LCSBP 2030)

Figure 3.9.1:
Implementation Proposals for Planning Strategy 3-9

SP 3-9

STRENGTHENING GREEN GOVERNANCE

CP 3-9.1 Managing Park Systematically

CP 3-9.2 Involving Of Non-government and Private Organisations In The Urban Greening Programme

CP 3-9.1:

MANAGING PARK SYSTEMATICALLY

Awareness is increasing among society on the importance of a balance between the development process and environmental protection. This is a good opportunity to involve all parties in more systematic park management.

Poorly planned development that neglects the aspects of effective park management will create an unattractive and uncondusive environment. Effective park management is also important to create a harmonious and comfortable urban environment.

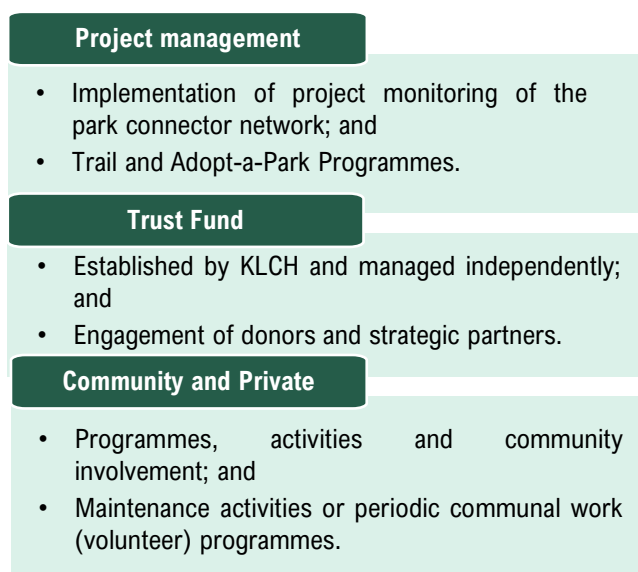
The main things that must be attended to the park management system are management organisation, facilities provided, maintenance, design, security and financial resources.

The proposal for the implementation of CP 3-9.1 is carried out through two (2) initiatives as follows:

1. Establish Trust Fund Allocations and Contributions; and
2. Strengthen Green Municipality Best Management Practices.

Figure 3.9.2:

Public Trust Fund for Parks and Green Areas in the Context of KLSP2040



Source: Adapted from KLSP2040

CP 3-9.1

COORDINATION CONTEXT OF
SDGs AND KLSP2040



SUSTAINABLE DEVELOPMENT GOALS CONTEXT



KLSP2040 CONTEXT

3

GOALS

Kuala Lumpur Green, Healthy and Vibrant City

SV4

STRATEGIC DIRECTIONS

Effective Urban Environment and Urban Design Governance

SV
4.1

ACTIONS

Create Public Trust Fund for Parks and Green Areas

IMPLEMENTATION APPROACH CP 3-9.1



IMPLEMENTATION INITIATIVE 3-9.1A

► ESTABLISH TRUST FUND ALLOCATIONS AND CONTRIBUTIONS

The trust fund established by KLCH is a financial mechanism and approach that allows various parties to work together to achieve the goal of green governance in the city of Kuala Lumpur.

Funds collected will be channelled systematically and integrated to finance and support programmes and projects related to urban green management.

The necessary actions to support this initiative are as follows:

1. Management and maintenance of open spaces and green areas;
2. Implementation of public and local community education activities;
3. Preservation and conservation of the environment and biodiversity; and
4. Innovative solutions by any agency and non-governmental organisation (NGO).

BEST PRACTICE

TRUST FUND OF MySDG

This fund applies a whole-of-nation approach that allows the Malaysian Government and the United Nations to work with the private sector, NGOs, academia, the public and various other parties to realise the achievement of the SDGs and aims to:

1. Bridging the funding gap and facilitating joint initiatives by various stakeholders to translate SDGs aspirations into practical action; and
2. Cultivating and strengthening consultation at various levels and sectors including involvement in decision making.



OUTCOME TARGET

Mobilise SDGs delivery resources through the fund and catalyse other SDGs opportunities



Strengthen collaboration with various stakeholders to promote synergy, collaboration and impact across all 17 SDGs



Achieve SDGs priorities in Malaysia to ensure that no one is left behind

Source: Ministry of Finance Malaysia

IMPLEMENTATION INITIATIVE 3-9.1B

► STRENGTHEN GREEN MUNICIPALITY BEST MANAGEMENT PRACTICES

Best management practice is an approach through an organised structure that promotes high efficiency through enhanced best practice standards and quality control in sustaining urban green management.

The necessary actions to support this initiative are as follows:

1. Implement strategic management through vision and mission as well as action plans of long, medium and short-term;
2. Management of financial funds from the following sources:
 - a. Corporate social responsibility (CSR);
 - b. Smart partnerships: collaboration and consultation; and
 - c. Development charges.
3. Strengthen on aspects of social responsibility through the involvement of the community and non-governmental organisations (volunteers), private parties as well as related agencies.

BEST PRACTICE

ROSA SINENSIS AWARD GOVERNANCE OF PUBLIC PARKS AND GREEN AREAS

Ministry of Housing and Local Government has introduced the Rosa Sinensis Award as a rating initiative for public parks and green areas that are comprehensively planned, developed and managed and that fulfil their development function.



The five (5) star Rosa-Sinensis rating award was received from the 9th Prime Minister of Malaysia for two (2) KLCH public parks, namely Taman Botani Perdana and Taman Tasik Titiwangsa.

CP 3-9.2:

INVOLVING OF NON-GOVERNMENT AND PRIVATE ORGANISATIONS IN THE URBAN GREENING PROGRAMME

Programmes related to urban greening must be enhanced to encourage the participation of federal government agencies, private companies, corporate bodies, non-governmental organisations (NGOs), educational and research institutions as well as the public. This effort is in line with the national agenda to foster the commitment and spirit of maintaining green cover areas among in the community.

Awareness programmes must also be improved because preservation and conservation activities usually receive less attention, cooperation and commitment from public and private agencies. These programmes can also be carried out to increase community understanding and involvement.

Advertising and training programmes can also be used as modules to be applied to the community on the importance of preserving and conserving the green environment around them, especially those who live in urban areas.

The proposal for the implementation of CP 3-9.2 is carried out through three (3) initiatives as follows:

1. Encourage Establishment Of Environmental Teams;
2. Strengthen River Preservation Programme; and
3. Implement Adopt-A-Park Programme.



Location: Kampong Bharu
Efforts to preserve greenery in Kampong Bharu by planting trees along the road.

CP 3-9.2

COORDINATION CONTEXT OF
SDGs AND KLSP2040



SUSTAINABLE DEVELOPMENT GOALS CONTEXT



KLSP2040 CONTEXT

3

GOALS

Kuala Lumpur Green, Healthy and Vibrant City

SV4

STRATEGIC DIRECTIONS

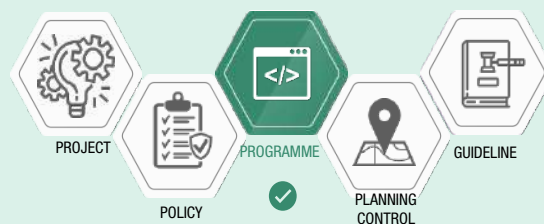
Effective Urban Environment and Urban Design Governance

SV
4.2

ACTIONS

Encourage Public-Private Partnership in Green Area Management

IMPLEMENTATION APPROACH CP 3-9.2



IMPLEMENTATION INITIATIVE 3-9.2A**► ENCOURAGE ESTABLISHMENT OF ENVIRONMENTAL TEAMS**

The level of awareness on the importance of protecting the environment must continue to be applied at all levels of society. All community-based organisations (CBOs) and non-governmental organisations (NGOs) related to environmental conservation are encouraged to hold collectively coordinated activities, programmes and campaigns.

The necessary actions to support this initiative are as follows:

1. Involve various organisations through environmentally themed programmes that suit community groups such as school students, youth and adolescent groups;
2. Promote the CEPA (conservation, education, participation and awareness) programme approach;
3. Create relevant sustainable awards to recognize and encourage the involvement of all; and
4. Form KLCH environmental team to coordinate activities and programmes with the residents of the city and the local community.

IMPLEMENTATION INITIATIVE 3-9.2B**► STRENGTHEN RIVER PRESERVATION PROGRAMME**

The river preservation programme must be improved to ensure that rivers are preserved from pollution. The implementation of this programme can create a sense of shared responsibility among various parties. It can also foster and increase awareness of river conservation towards the preservation of river sustainability.

The necessary actions to support this initiative are as follows:

1. Identify locations and river's neighbourhood communities involved;
2. Encourage participation of other stakeholders such as non-governmental organisations, corporate bodies and educational institutions as strategic partners of the programme; and
3. Design a suitable programme such as adopt-a-river with a focus on beautification activities, cleaning and monitoring from any pollution activities.

IMPLEMENTATION INITIATIVE 3-9.2C**► IMPLEMENT ADOPT-A-PARK PROGRAMME**

The implementation of the adopt-a-park programme can encourage the involvement of the local community and park users to care for, beautify as well as maintain green areas in Kuala Lumpur. It can improve the quality of life, protect and preserve the environment for local communities as well as future populations.

The necessary actions to support this initiative are as follows:

1. Identify suitable park locations to be adopted;
2. Encourage participation of other stakeholders such as non-governmental organisations, corporate bodies and educational institutions as strategic partners of the programme; and
3. Design suitable programmes such as park maintenance and beautification activities.

BEST PRACTICE**COMMUNITY PROGRAMMES OF KLCH**

Cuci@KL Programme - A weekly programme that aims to make Kuala Lumpur a cleaner and more cheerful city.

1 Community Recycling Programme- Gives the city residents the opportunity to bring recycled items to be exchanged for daily necessities.



SUMMARY

GOAL 3: STRENGTHENING ENVIRONMENTAL DEVELOPMENT OF KUALA LUMPUR AS GREEN, HEALTHY AND VIBRANT CITY

Various initiatives and implementation approaches have been proposed so that Goal 3 towards strengthening environmental development of Kuala Lumpur as a Green, Healthy and Vibrant City can be realised.

The planning and implementation of Goal 3 in the KLLP2040 considers the SDGs, proposal of KLSP2040 and other national development policies which are detailed through projects, policies, programmes, planning controls and guidelines.

The proposed strategies, initiatives and implementation approaches emphasise on the biodiversity asset management diversifying functions of green and blue corridors implementation of green density establishment of park connector networks, the implementing Kuala Lumpur heritage trail as well as strengthening urban space and green governance to support economic development and improving the quality of life in Kuala Lumpur.

Table 3.1 shows a summary of the planning strategy and implementation proposal for Goal 3.

Table 3.1:
The Summary of Planning Strategy and Implementation Proposal for Goal 3

Planning Strategy	Implementation Proposal	Implementation Approach				
		Project	Policy	Programme	Planning Control	Guideline
SP 3-1	CP 3-1.1	-	1	1	1	-
	CP 3-1.2	1	-	1	1	1
	CP 3-1.3	-	1	1	-	-
SP 3-2	CP 3-2.1	1	-	-	-	-
	CP 3-2.2	-	-	1	1	1
SP 3-3	CP 3-3.1	1	-	1	-	-
	CP 3-3.2	-	-	-	1	1
SP 3-4	CP 3-4.1	-	-	-	1	-
	CP 3-4.2	1	-	-	-	1
	CP 3-4.3	1	-	1	-	-
SP 3-5	CP 3-5.1	1	-	1	-	-
	CP 3-5.2	1	-	1	-	-
	CP 3-5.3	1	-	-	1	-
SP 3-6	CP 3-6.1	1	-	-	-	1
	CP 3-6.2	1	-	-	-	-
SP 3-7	CP 3-7.1	1	-	1	-	1
SP 3-8	CP 3-8.1	1	-	1	-	-
	CP 3-8.2	-	-	1	-	-
SP 3-9	CP 3-9.1	-	-	1	-	-
	CP 3-9.2	-	-	1	-	-
TOTAL		12	2	13	6	6

04



GOAL 4

STRENGTHENING DEVELOPMENT OF KUALA
LUMPUR AS A CLIMATE-SMART
AND LOW CARBON CITY



STATION 005

GOAL 4

STRENGTHENING DEVELOPMENT OF KUALA LUMPUR AS A CLIMATE-SMART AND LOW CARBON CITY

Efficient management of disaster risk and resource as well as carbon emissions reduction can minimise the effects of climate change and natural disasters. Kuala Lumpur aims to be a Climate-Smart and Low Carbon City that emphasizes efficient planning, development, and urban management, while being resilient to the effects of climate change and disaster risks.

The global temperature has risen by 2 degrees Celsius above pre-industrial levels due to the increase in greenhouse gas (GHG) emissions into the atmosphere. As a result of this significant global temperature rise, it will cause climate change and natural disasters.

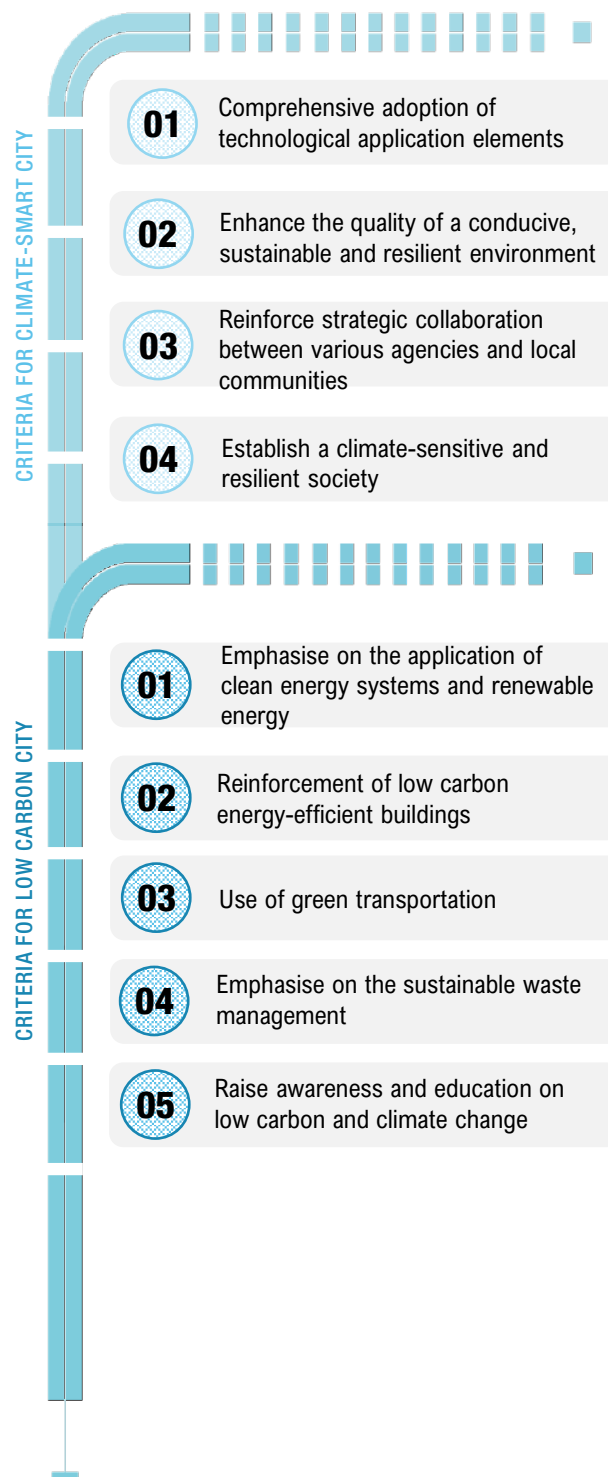
Malaysia's commitment through the 2015 Paris Climate Agreement is to limit the increase in global temperatures to below 2 degrees Celsius, aiming for 1.5 degrees Celsius by 2030. As a responsive and resilient city, Kuala Lumpur needs to combat climate change in line with the commitments agreed.

The Climate-Smart City criteria emphasize the comprehensive adoption of technological applications, enhancement of the quality of a conducive, sustainable and resilient environment, reinforcement of strategic collaboration between various agencies and local communities as well as establishment of a climate-sensitive and resilient society.

The Low Carbon City criteria emphasis the application of clean energy systems and renewable energy, the reinforcement of low carbon energy-efficient buildings, green transportation, sustainable waste management as well as low carbon and climate change education.

Figure 4.1 lists the main criteria that need to be implemented as a focus to strengthen development of Kuala Lumpur as a Climate-Smart and Low Carbon City.

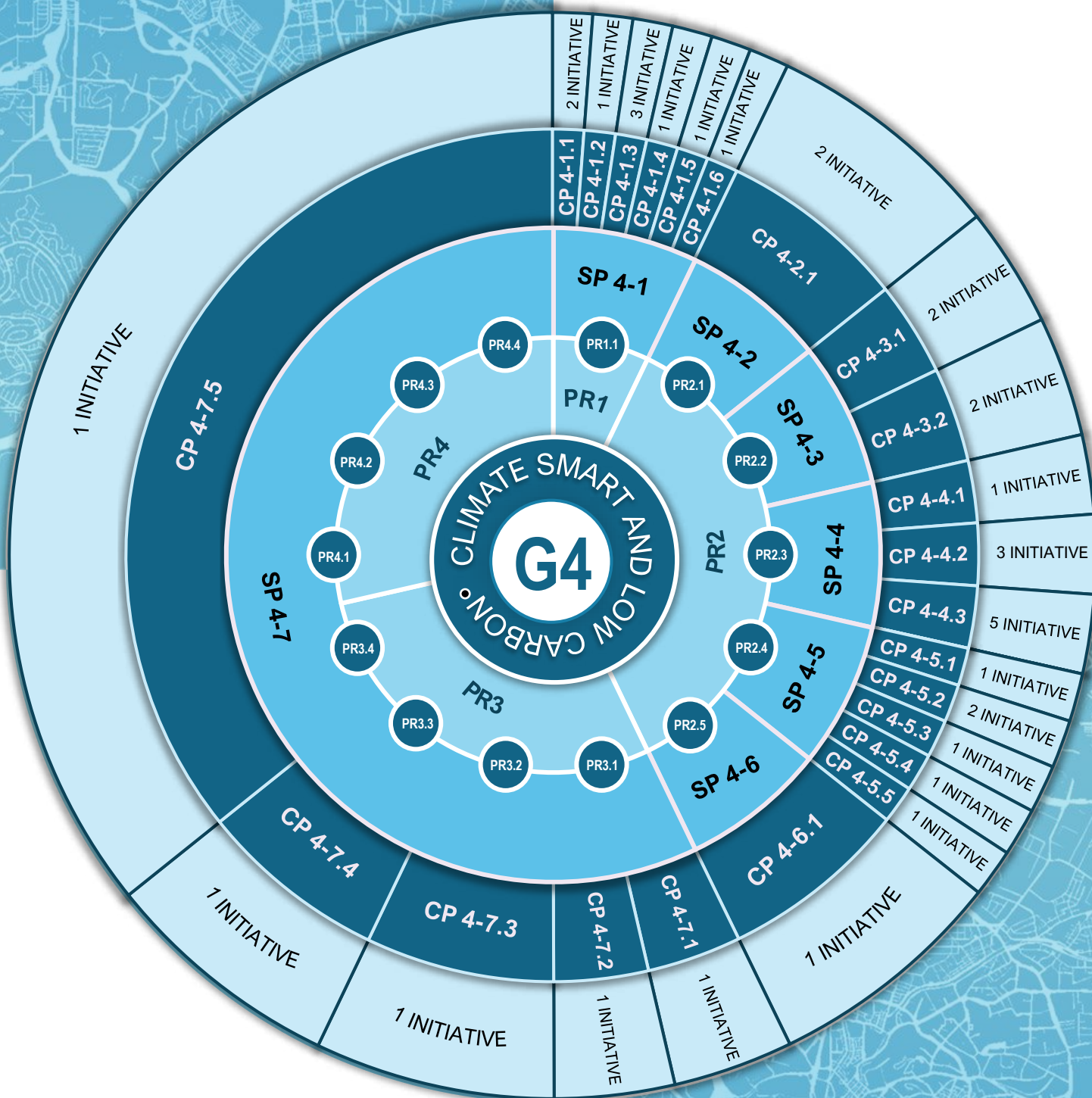
Figure 4.1:
Criteria for Climate-Smart and Low Carbon City



**KLSP2040
4 STRATEGIC DIRECTIONS
14 ACTIONS**

**FIGURE 4.2
SUMMARY OF PLANNING STRATEGY AND
IMPLEMENTATION PROPOSAL**

**GOAL 4:
STRENGTHENING DEVELOPMENT OF KUALA LUMPUR AS A
CLIMATE-SMART AND LOW CARBON CITY**



There are seven (7) Planning Strategies (SP), 23 Implementation Proposals (CP) and 36 Implementation Initiatives (IP) that are formulated in line with KLCP2040 as summarized in Figure 4.2.

**KLLP2040
7 PLANNING STRATEGIES
23 IMPLEMENTATION PROPOSALS**

IMPLEMENTING ADAPTATION AND RESILIENCE ACTION PLAN AGAINST CLIMATE CHANGE AND DISASTER RISK MANAGEMENT PLAN

SCENARIO OF CLIMATE CHANGE AND DISASTER RISK IN KUALA LUMPUR

The level of resilience to climate change and natural disasters in Kuala Lumpur, needs to be continuously improved through various innovative interventions and approaches. The integration of strategies and actions on Disaster Risk Reduction (DRR) and Climate Change Adaptation (CCA) in development planning should be prioritized in line with KLSP2040.

The strategy for the implementation of the Climate Change Adaptation and Resilience Action Plan as well as Disaster Risk Management Plan, aims to address the impacts of climate change. It aligns with the National Policy on Climate Change (NPCC) and the Kuala Lumpur Climate Action Plan 2050 (KLCAP2050). Additionally, This effort is also in line with the Global Policy of Sendai Framework for Disaster Risk Reduction 2015-2030 (SFDRR).

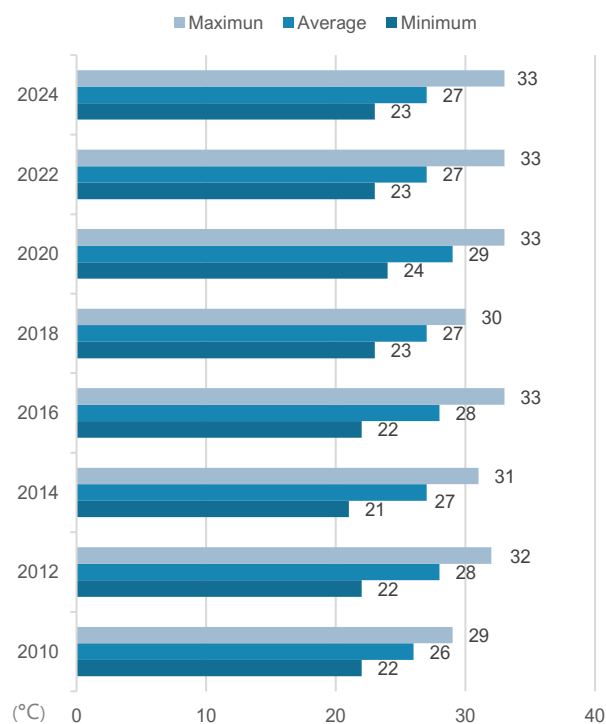
Based on the Kuala Lumpur Qualitative Climate Risk Assessment Kuala Lumpur (2020) and the annual temperature trends in Kuala Lumpur by the Department of Environment, there has been an increase in the average temperature since 2010 as shown in the Figure 4.1.1.

The trend of annual temperature increase is caused by the El Niño phenomenon affecting the country, in addition to the impacts of climate change. A significant rise in built-up area in Kuala Lumpur is also a main contributor to the increase in average temperature from 26 degrees Celsius in 2010 to 29 degrees Celsius in 2020.

Urban surfaces, especially commercial and high-intensity industrial areas consists of building materials such as concrete, bricks, glass and paved surfaces which has the ability to store heat that can increase the minimum temperature of the city.

This situation leads to the occurrence of the urban heat island effect which is closely related to high energy consumption and greenhouse gas (GHG) emissions.

Figure 4.1.1:
Annual Temperature Trends in Kuala Lumpur, 2010-2024



Source: Department of Environment (Air Section), 2024

BRIEF INFO

CLIMATE OF KUALA LUMPUR, 2020



Average Daily Temperature
29°C



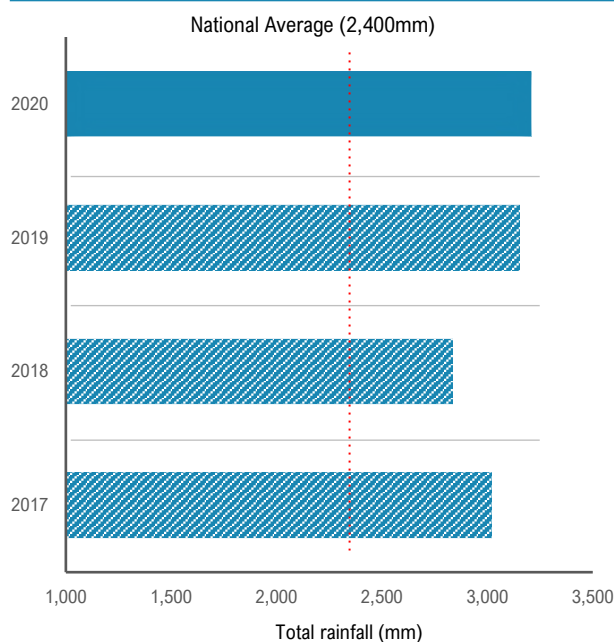
Average Annual Rainfall
3,207 mm

Source: Department of Environment and Department of Irrigation and Drainage, 2021

FLOOD AND LANDSLIDE DISASTERS

The national average annual rainfall is 2,400 millimetres. However, the average annual rainfall in Kuala Lumpur has exceeded the national average from 2017 to 2020 as recorded by the Department of Irrigation and Drainage, as shown in the Figure 4.1.2. The trend of increased rainfall is influenced by the Southwest Monsoon (June to September), the Transitional Monsoon (April to May and October to November) and Northeast Monsoon (November to March).

Figure 4.1.2 :
Rainfall Distribution in Kuala Lumpur, 2017-2020

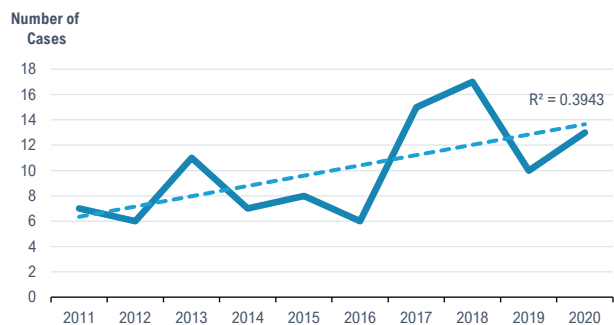


Source: Adapted from the Department of Irrigation and Drainage, 2020
Note: Rainfall records from 16 Network Stations (RHN), DID in Kuala Lumpur

In general, Kuala Lumpur is located at the confluence of Sungai Gombak and Sungai Klang basins. Flood disasters in Kuala Lumpur are concentrated in low-lying areas. The built-up areas around Dataran Merdeka, Pantai Dalam and Ampang Hilir are among the flash flood-prone areas based on KLSP2040.

The flash floods that occur are caused by the intensity of rainfall exceeding the normal levels in saturated build-up areas. In addition, poor maintenance of roadside drainage system inefficient waste management and poor monitoring of construction site activities cause frequent floods as shown in the Figure 4.1.3.

Figure 4.1.3 :
Cases of Floods in Kuala Lumpur, 2011-2020

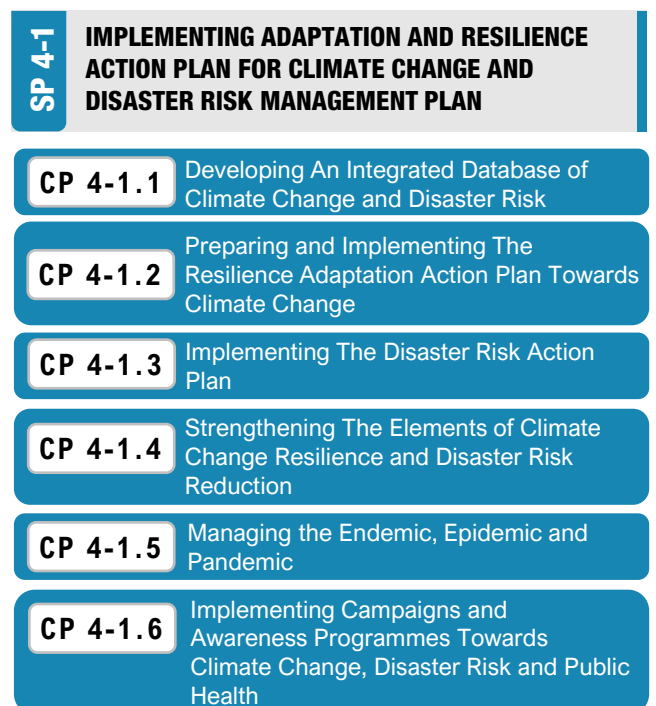


Source: Department of Irrigation and Drainage, 2011-2020

As of 2017, a total of 3,299 slopes have been identified in Kuala Lumpur with 19 percent categorised as very high risk and 34 percent as high risk. Based on data generated by the Kuala Lumpur Slope Information System (KuLSIS), some slopes in hilly areas such as Bukit Tabur, Bukit Kiara and Bukit Lanjan needs continuous monitoring on the level of exposure to landslides risk.

Towards realising Kuala Lumpur as a resilient city in facing climate change and disaster risk, six (6) Implementation Proposals are formulated under Planning Strategy 4-1, as shown in Figure 4.1.1.

Figure 4.1.4:
Implementation Proposals for Planning Strategy 4-1



CP 4-1.1

DEVELOPING AN INTEGRATED DATABASE OF CLIMATE CHANGE AND DISASTER RISK

The Development of an Integrated Climate Change and Disaster Risk Database aims to collect data from various related technical agencies and provide a data sharing platform for the public and stakeholders in Kuala Lumpur.

The developed open database contains the latest information related to climate change, disaster risks, and communities exposed to or affected by the impacts of climate change and disaster risks.

The open data allows the public and stakeholders to access climate trends and current disaster risks as the latest information for disaster preparedness. The information in this database can also be used as a reference for assessing the impacts of climate change and disasters on development planning and future activities.

The proposal for the implementation of CP 4-1.1 is carried out through two (2) initiatives as follows:

1. Integrate an Integrated Database for Climate Change Impacts and Disaster Risks; and
2. Collect Data Related to Communities At Risk From The Effects of Climate Change and Disaster Risk.



Location: Jalan Sultan Azlan Shah

Source: <https://www.facebook.com/JabatanPeneranganWPKL>

Early information related to disaster risks may increase the level of preparedness of local communities to face disasters.

CP 4-1.1

COORDINATION CONTEXT OF SDGs AND KLSP2040



IMPLEMENTATION INITIATIVE 4-1.1A

► INTEGRATE AN INTEGRATED DATABASE FOR CLIMATE CHANGE IMPACTS AND DISASTER RISKS

The establishment of an integrated database is an approach for storing and managing data related to climate change and disaster risks.

The database can be openly accessed, make it easier for the public to get information related to climate change and disaster risks in Kuala Lumpur.

The necessary actions to support this initiative are as follows:

1. Identify integrated databases such as Climate Change Impact Data, Disaster Risk Data and Data on Risky and Vulnerable Societies, as shown in Figure 4.1.5, Table 4.1.1 and Figure 4.1.6;
2. Establish cooperation between KLCH and relevant technical agencies for the purpose of reporting, data collection, and integration to avoid any issues related to the security of information and data;
3. Develop a database that can be integrated with climate change and disaster risk information in Kuala Lumpur;
4. Control the duplication of climate change and disaster risk data between relevant agencies;
5. Reinforce and update climate change and disaster risk data in Kuala Lumpur between KLCH and relevant agencies.
6. Display potential information in the form of a dashboard and to be updated directly by the involved agencies; and
7. Create the database as the main reference source for preparation of Kuala Lumpur Disaster Risk Resilience Action Plan.

Figure 4.1.5:

Proposed Key Components of the Integrated Climate Change and Disaster Risk Database

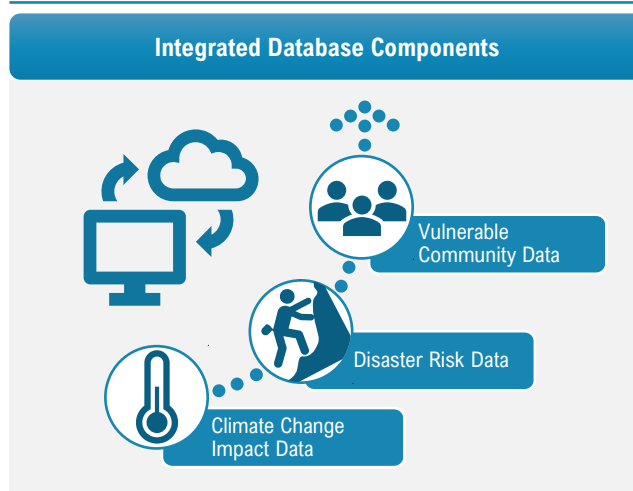


Table 4.1.1:

Proposed Climate Data and Climate Risk Needs

ASPECTS	
Climate	Climate Risk
PROPOSED DATA REQUIREMENTS <ol style="list-style-type: none"> 1. Temperature (average, minimum, and maximum according to annual/monthly) 2. Rainfall Distribution (average minimum and maximum by annual/monthly) 3. Relative Humidity/Absolute Humidity 	<ol style="list-style-type: none"> 1. Changes in land surface temperature 2. The history of disaster events related to climate change <ol style="list-style-type: none"> 1. Extreme heavy rain and storm; 2. Flash Flood; 3. Drought; 4. Heat wave; 5. Sinking/settling soil; and 6. Destruction of forests and land.

BRIEF INFO

DISASTER DEFINITION



A disaster refers to an event that disrupts community activities and national affairs, involving loss of life, property damage, economic losses, and environmental destruction that exceeds the community's ability to handle and requires resource mobilization beyond the existing capacity.



Source: Directive No. 20, National Disaster Management Policy and Mechanism, National Security Council.

Figure 4.1.6:
Components for the Disaster Risk Database



TYPES OF DISASTERS

- Flood
- Typhoon
- Landslide
- Sinkhole
- Biological Disaster (COVID-19)
- Other disasters



LOCATION

- Specific Area
- Lot



HISTORY OF DISASTER EVENTS

- Trend
- Intensity
- Magnitude
- Frequency

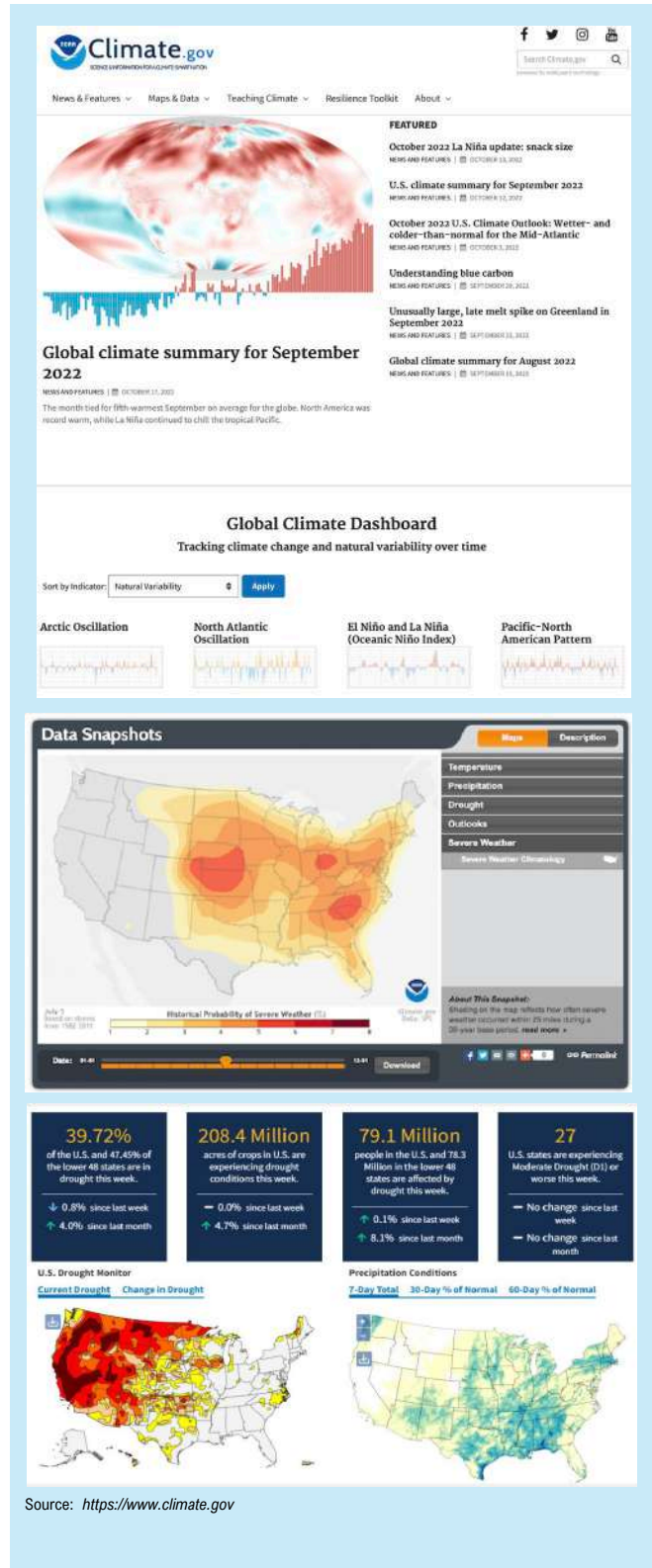


AGENCIES

- Department of Irrigation and Drainage (DID)
- Department of Environment (DOE)
- Department of Meteorology

BEST PRACTICE

EXAMPLE OF DATABASE RELATED TO CLIMATE CHANGE



Source: <https://www.climate.gov>

IMPLEMENTATION INITIATIVE 4-1.1B

► COLLECT DATA RELATED TO COMMUNITIES AT RISK FROM THE EFFECTS OF CLIMATE CHANGE AND DISASTER RISK

The rapid development of Kuala Lumpur with the existence of various physical, economic and social activities has indirectly impacted the lives of the local community.

This urban development has had both positive and negative impacts on some vulnerable groups such as the homeless and B40 community living in high-density areas. These areas are often associated with the risk of flooding or landslides caused by climate change, thus making these groups more exposed to various disaster threats including pandemics.

According to the World Health Organization (WHO), the factors of community vulnerability depend on five (5) factors which are:

1. Demographic;
2. Geographical;
3. Biological or Health Status;
4. Sociopolitical; and
5. Socioeconomic.

The necessary actions to support this initiative are as follows:

1. Identify the risk and vulnerable groups taking into account the factors outlined by the WHO and the Principles of the New Urban Agenda (NUA), 'No One Left Behind'; and
2. Integrate the data of at-risk and vulnerable groups with the implemented database to formulate community strategies that are more resilient to the effects of climate change, various disasters including any pandemic and endemic situations.



Location: Jalan Raja Laut, Kuala Lumpur



Location: City Centre, Kuala Lumpur



Location: City Centre, Kuala Lumpur
Efforts towards empowering local communities.

Table 4.1.2 :

Proposed Data Related to Communities at Risk for Climate Change and Disaster Risk

Agencies	Proposed of Related Data
Department of Social Welfare	People with Disabilities, the Poor, Single Mothers, Children, Elderly
Ministry of Health Malaysia	Chronic Patients
Department of Federal Territories	Poor or Homeless People

CP 4-1.2**PREPARING AND IMPLEMENTING THE
RESILIENCE ADAPTATION ACTION PLAN
TOWARDS CLIMATE CHANGE**

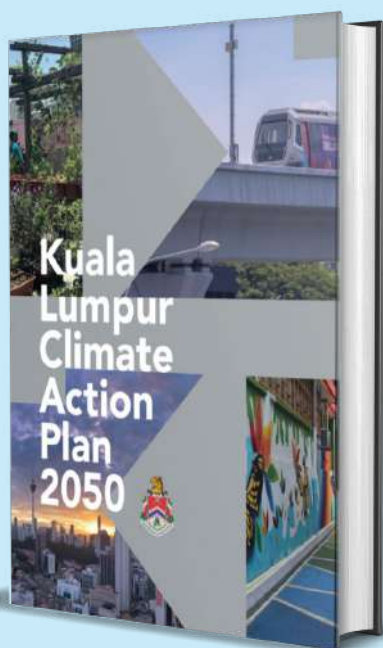
The preparation of this Resilience Adaption Action Plan Against Climate Change is to ensure that climate change aspects are integrated with land use planning and development control. The sources of information from the Integrated Database of Climate Change and Disaster Risk need to be referred during the preparation and implementation of Climate Change Adaption Plan.

The implementation of this proposal has the potential to adapt resilience to climate change in the planning and development process.

This proposal will translate current documents such as the Kuala Lumpur Climate Action Plan 2050 (KLCAP2050), the Kuala Lumpur Low Carbon Society Blueprint 2030 (KL LCSBP2030), and other documents related to Climate Change aspects .

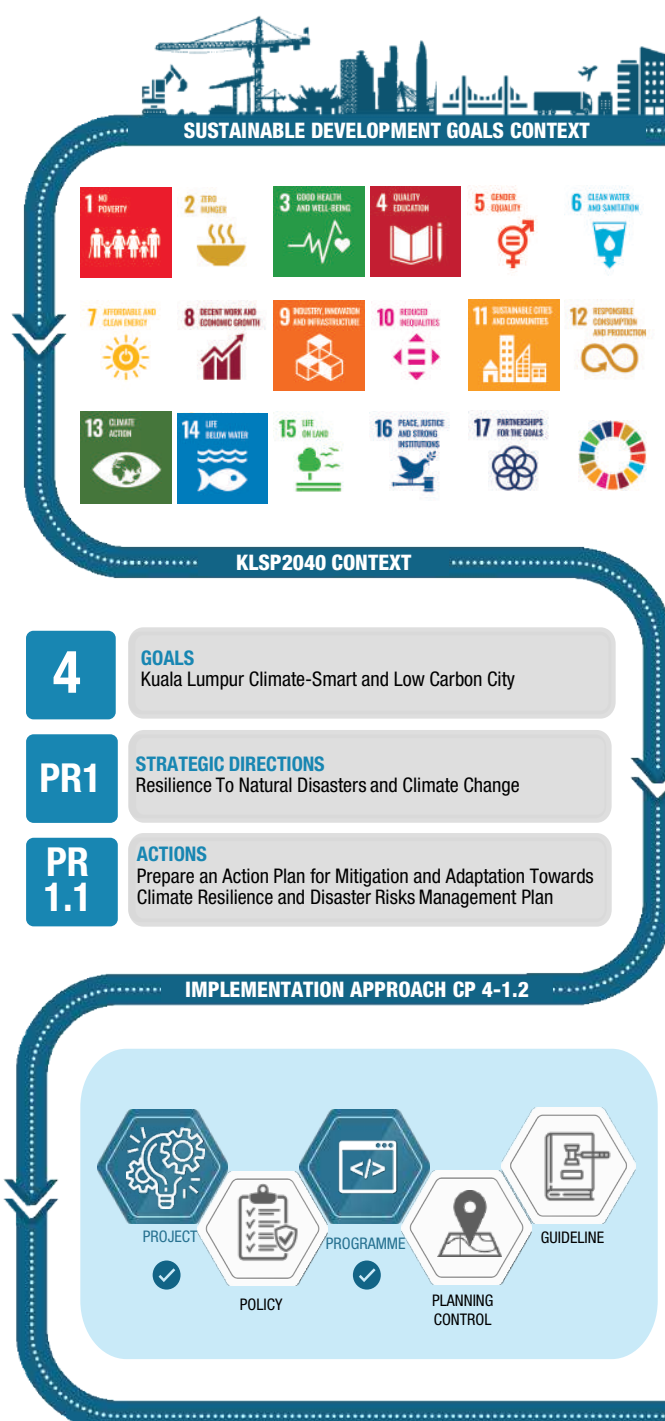
The proposal for the implementation of CP 4-1.2 is carried out through one (1) initiative as follows:

1. Management of Resilience Adaptation Action Plan Towards Climate Change.



Source: Kuala Lumpur Climate Action Plan 2050

Kuala Lumpur Climate Action Plan 2050 (KLCAP2050)

CP 4-1.2COORDINATION CONTEXT OF
SDGs AND KLSP2040

► MANAGEMENT OF RESILIENCE ADAPTATION ACTION PLAN TOWARDS CLIMATE CHANGE

Management of Resilience Adaptation Action Plan towards Climate Change is a necessity to enhance the preparedness of the local population and the resilience of Kuala Lumpur in facing future risks.

The implementation of this management requires commitment and cooperation from various stakeholders including public agencies, industrial players, academicians and local community to obtain an accurate and detailed information.

The necessary actions to support this initiative are as follows:

1. Establish a comprehensive Resilience Adaptation Action Plan Against Climate Change;
2. Conduct an assessment on the effects of climate change to produce mapping of areas based on priority risk as shown in the Table 4.1.3;
3. Implement the Climate Action Adaptation planning process as shown in the Figure 4.1.7 in accordance with climate change risk assessment result; and
4. Improve current infrastructure, design and maintenance for built-up areas in climate change adaptation focus areas.

The KLLP2040 has identified criteria for selecting areas to implement climate change resilience adaptation measures as follows:

1. High-intensity of current or future land use zones and urban activities that require infrastructure improvements to mitigate the impacts of climate change;
2. Low permeable surface area; and
3. Built-up areas with high surface temperature distribution.

There are four (4) areas selected as pioneers for the implementation of resilience adaptation action plan towards climate change, as shown in Table 4.1.4.

Table 4.1.3:
Climate Change Risk Assessment in Kuala Lumpur

Climate Change and Effects
Hot weather <ul style="list-style-type: none"> • Heat wave • Temperature increase
Drought <ul style="list-style-type: none"> • Prolonged drought • Water scarcity • Groundwater depletion • Sinkhole
Floods and storms <ul style="list-style-type: none"> • Frequency of sinkhole occurrence • Impact of the increase in sea level and storms • Landslides caused by heavy rains • Flash flood • Water ponding
Priority of Climate Change Risks
Social <ul style="list-style-type: none"> • Heat-related illnesses • Comfort and quality of life • Increase air pollution • Clean water shortage • Health problem
Environment <ul style="list-style-type: none"> • Weather changes • Increased landslides and erosion
Economic <ul style="list-style-type: none"> • Increased demand for energy and water resources • Traffic congestion • Disruption of economic activities • Damage to buildings and infrastructure • Maintenance cost • Road accident

**Figure 4.1.7:****Climate Action Adaptation Planning Process****STEP 1** Resilience Mapping**STEP 2** Setting Priorities**STEP 3** Formulate an Action Plan**STEP 4** Action Plan Implementation**STEP 5** Evaluate Results**STEP 6** Updating the Action Plan**Table 4.1.4:****Proposed of Focus Areas for Resilience Adaptation Action Plan Towards Climate Change****1**

Kepong Industrial Area

13.84 hectares

**2**

Batu Muda Industrial Area

15.86 hectares

**3**

Jalan Tuanku Abdul Rahman Commercial Area

2.87 hectares

**4**

Kampong Bharu Area

111.70 hectares



CP 4-1.3

PREPARING DISASTER RISK ACTION
IMPLEMENTATION PLAN

The Disaster Risk Action Implementation Plan will specify the suitable strategy for each disaster and location. The proposed strategies will include elements of mitigation and adaptation to enhance preparedness in facing the risk of future disasters. A comprehensive understanding of risk contributing factors as shown in the Figure 4.1.8 is important in preparing the action plan.

The proposal for the implementation of CP 4-1.3 is carried out through three (3) initiatives as follows:

1. Conduct Disaster Risk Resilience Assessments;
2. Strengthen Disaster Risk Management and Reduction in Multi-Disaster Risk Focus Areas; and
3. Implement Build Back Better Concept.

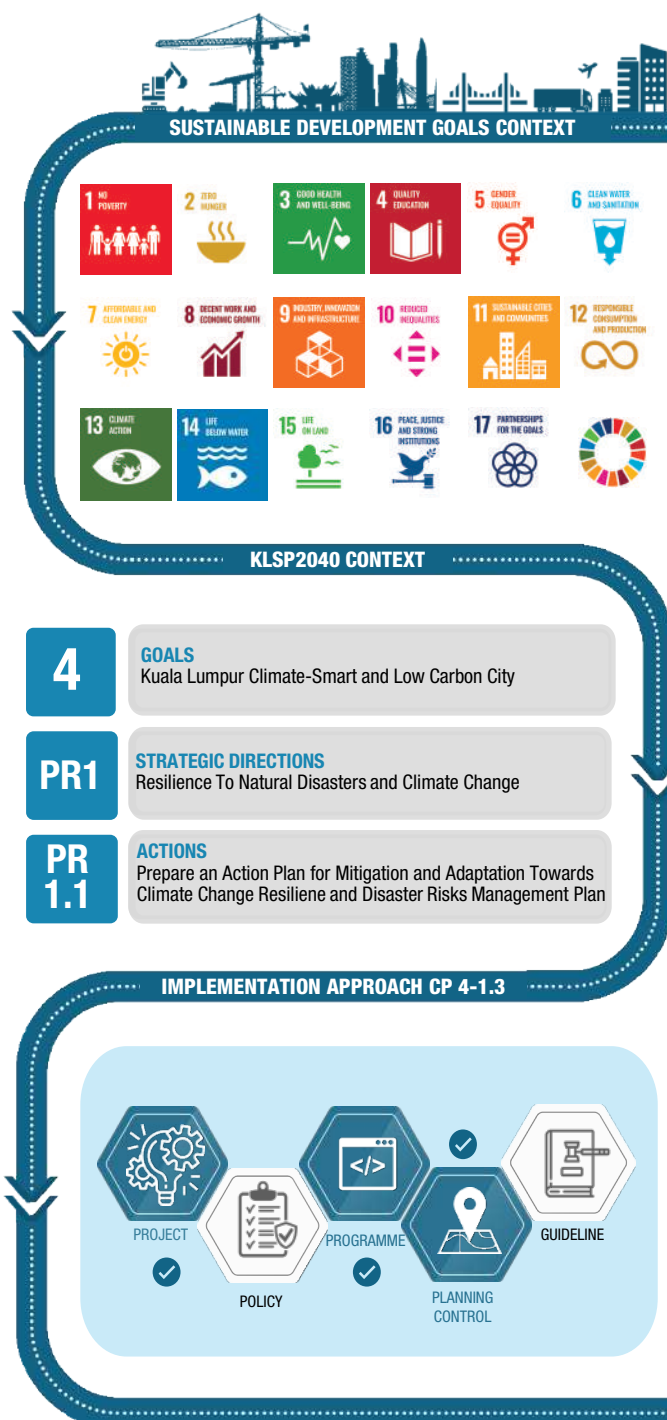
Figure 4.1.8 :
Contributing Factors to Disaster Risk



Source: Global Facility for Disaster Reduction and Recovery (GFDR), 2014



CP 4-1.3

COORDINATION CONTEXT OF
SDGs AND KLSP2040

IMPLEMENTATION INITIATIVE 4-1.3A

► CONDUCT DISASTER RISK RESILIENCE ASSESSMENT

The importance of conducting the disaster risk resilience assessment is in line with four (4) main actions in the Sendai Framework for Disaster Risk Management 2015 - 2030 as shown in the Figure 4.1.9.

The necessary actions to support this initiative are as follows:

1. Conduct a disaster risk resilience assessment that incorporates physical, social, economic, institutional and environmental aspects. The Climate Disaster Resilience Index (CDRI) assessment method as shown in the Figure 4.1.10 is appropriate to be used as it provides a more comprehensive view on the resilience level of the assessed area;
2. Encourage the involvement of communities, departments and agencies directly responsible in management of Kuala Lumpur by assessing the resilience and disaster risk areas; and
3. Conduct the CDRI assessment every three (3) years to monitor and evaluate the effectiveness of current strategies and actions to increase level of disaster risk resilience and impacts of climate change in Kuala Lumpur.

Figure 4.1.9:

Main Actions for Disaster Risk Management (Sendai Framework, 2015-2030)



Figure 4.1.10:

Key Components of the Resilience Assessment: Climate Disaster Resilience Index (CDRI)

PHYSICAL	<ul style="list-style-type: none"> Electricity Water Sewer 	<ul style="list-style-type: none"> Roads Housing 	
SOCIAL	<ul style="list-style-type: none"> Population Health Education 	<ul style="list-style-type: none"> Social Capital Preparedness 	
ECONOMY	<ul style="list-style-type: none"> Income Employment level Assets 	<ul style="list-style-type: none"> Finances and savings City budget 	
ENVIRONMENT	<ul style="list-style-type: none"> Hazard intensity Hazard frequency Land use Ecosystem 	<ul style="list-style-type: none"> services Environmental policy 	
ORGANISATIONS AND INSTITUTIONS	<ul style="list-style-type: none"> Mainstreaming Crisis management Institutions 	<ul style="list-style-type: none"> Collaboration Best governance 	

► STRENGTHEN DISASTER RISK MANAGEMENT AND REDUCTION IN MULTI-DISASTER RISK FOCUS AREAS

Strengthening management and reduction of disaster risk in multi-disaster risk focus area to enhance the level of preparedness for future disasters.

The KLLP2040 has identified two (2) disaster risk reduction measures which are structural and non-structural methods. These actions depend on the type of disaster risks and identified climate change impact as well as the suitable form of infrastructure development to strengthen management and reduction of disaster risk.

Multi-disaster focus areas involve disaster risk areas 1, 2, 3, and 4 and their surroundings. Disaster risk management for these multi-disaster risk focus areas must be prioritized to ensure the area's resilience can be enhanced.

The necessary actions to support the initiative are as shown in the Table 4.1.5 and Table 4.1.6 with focusing on the areas affected by multiple disasters as in Figure 4.1.11.

Table 4.1.5 :

Disaster Risk Management According to Disaster Types and Risk Reduction Actions

Location	Types of Disaster Risk and Climate Change Impact	Risk Reduction Actions	
		Structural	Non-Structural
1. Pusat Bandar Raya 2. Ampang Hilir 3. Sungai Klang 4. Sungai Gombak 5. Sungai Kerayong 6. Sungai Bunus 7. Sungai Keroh 8. Sungai Penchala 9. Sungai Toba	Flood	1. Improve flood mitigation. 2. Improve drainage system.	1. Establish Database development and related information. 2. Develop of an early warning system*. 3. Map the risk area using a GIS system. 4. Monitor of high-risk areas.
1. Bukit Tabur 2. Bukit Wangsa Maju 3. Bukit Dinding 4. Bukit Kiara 5. Bukit Lanjan 6. Bukit Gasing 7. Bukit Sungai Besi 8. Bukit Kerinchi	Landslide	1. Strengthen slope stability. 2. Plant trees and ground cover crops.	5. Implement public awareness campaigns related to disaster risks. 6. Implementation of Flood Mitigation Plan.
1. City Centre 1. Industrial area Batu Muda 2. Industrial area Kepong	Urban heat island Drought and the <i>El Niño</i> phenomenon	1. Plant suitable trees in open areas. 2. Replace impervious surfaces with water-permeable surfaces such as sidewalks, vehicle parking lots. 3. Preserve water bodies as an element.	1. Establish database development and related information. 2. Map the risk area using GIS system. 3. Monitor of high-risk areas. 4. Implement public awareness campaigns related to disaster risks.

*Development of an early warning system that supports the National Flood Warning Forecasting Programme (PRAB), DID. The City of Kuala Lumpur is involved in PRAB Phase 2 (2019-2025).

Table 4.1.6:**Proposed Focus Areas and Multi-Disaster Risk Mitigation Strategies**

Focus Areas	Description/Summary	Mitigation Strategy (Structure)
Risk of Landslide and Flood Disaster 1. Disaster Risk Focus Area 1 (Bukit Tabur); and 2. Disaster Risk Focus Area 2 (Sungai Penchala).	Disaster Risk Focus Areas 1 and 2 involve the risks of landslides and flash floods in Bukit Tabur and Sungai Penchala areas. Disaster risk management involves a structural mitigation strategy as a risk mitigation mechanism as well as risk reduction to the occurrence of disasters in the future.	1. Reinforce slope stability; 2. Plant trees and ground cover plants; 3. Improve flood mitigation; 4. Improve drainage system, 5. Provide bioretention in appropriate places; and 6. Implement concept of MSMA 2.0 (control at source).
Risk of Landslide, El Niño and Drought Disasters 1. Disaster Risk Focus Area 3 (Wangsa Maju – Bukit Dinding).	Disaster Risk Focus Area 3 involves Wangsa Maju - Bukit Dinding area which is exposed to the risk of landslides, <i>El Niño</i> and drought. The proposal involves structural mitigation to reinforce the stability of the slope at Bukit Dinding and application of the Nature-Based Solution (NbS) concept.	1. Reinforce slope with construction of concrete walls; 2. Plant trees and ground cover plants (NbS); 3. Develop an early warning system; 4. Expand the use of bio-swale and green cover (Nature-based solutions-NbS); 5. Preserve and conserve water bodies; and 6. Convert impervious surfaces to permeable surfaces such as sidewalks and vehicle parking lots.
Risk of Flood, El Niño and Drought Disasters 1. Disaster Risk Focus Area 4 (City Centre).	Focus area 4 involves City Centre area which is experiencing a rapid urbanization. The pressure of development in this area has caused high-risk to flash floods, <i>El Niño</i> and drought while also facing the effects of significant climate change.	1. Improve flood mitigation; 2. Improve drainage system; 3. Provide bioretention in appropriate places; 4. Implement concept of MSMA 2.0 (control-at-source); 5. Expand the use of Bio-ecological (BIO-ECODS) and green cover; 6. Convert impervious surfaces to permeable surfaces such as sidewalks and vehicle parking lots; and 7. Preserve and conserve water bodies.



BRIEF INFO

DEFINITION MITIGATION ACTION, Disaster Risk Reduction (DRR)

Structural Mitigation: Physical engineering works such as flood mitigation projects, slope stabilization or reinforcement structures such as embankment construction, flood-proof buildings, retaining walls and others.

Non-Structural Mitigation: Knowledge, regulations, practices, guidelines, mapping, development of early warning applications, training, public awareness enhancement programmes, incentives and education.

Source: UNDRR.
<https://www.undrr.org/terminology/structural-and-non-structural-measures>



Location: Bukit Tunku

The need to increase the mitigation of slope stabilization structures in sloping areas around Kuala Lumpur.

BEST PRACTICE

METHODS OF SLOPE REINFORCEMENT AND STABILISATION

Malaysia



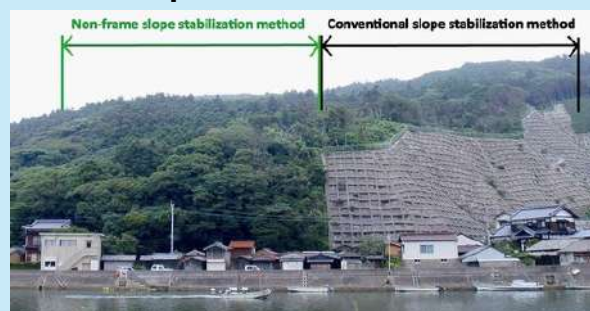
Location: Pengkalan Hulu, Perak
 Methods of Slope Reinforcement and Stabilisation



Location: Bukit Damansara, Kuala Lumpur
 Methods of Slope Reinforcement (Structural Mitigation)

Japan

Non-frame Slope Stabilisation



This technique stabilizes the slope through a combination of natural techniques and structural frame using plants and trees at the slope and the installation of several bolt stones (rod-type of frame) along the identified slope areas.

Source : Nippon Steel & Sumikin Metal Products Co.

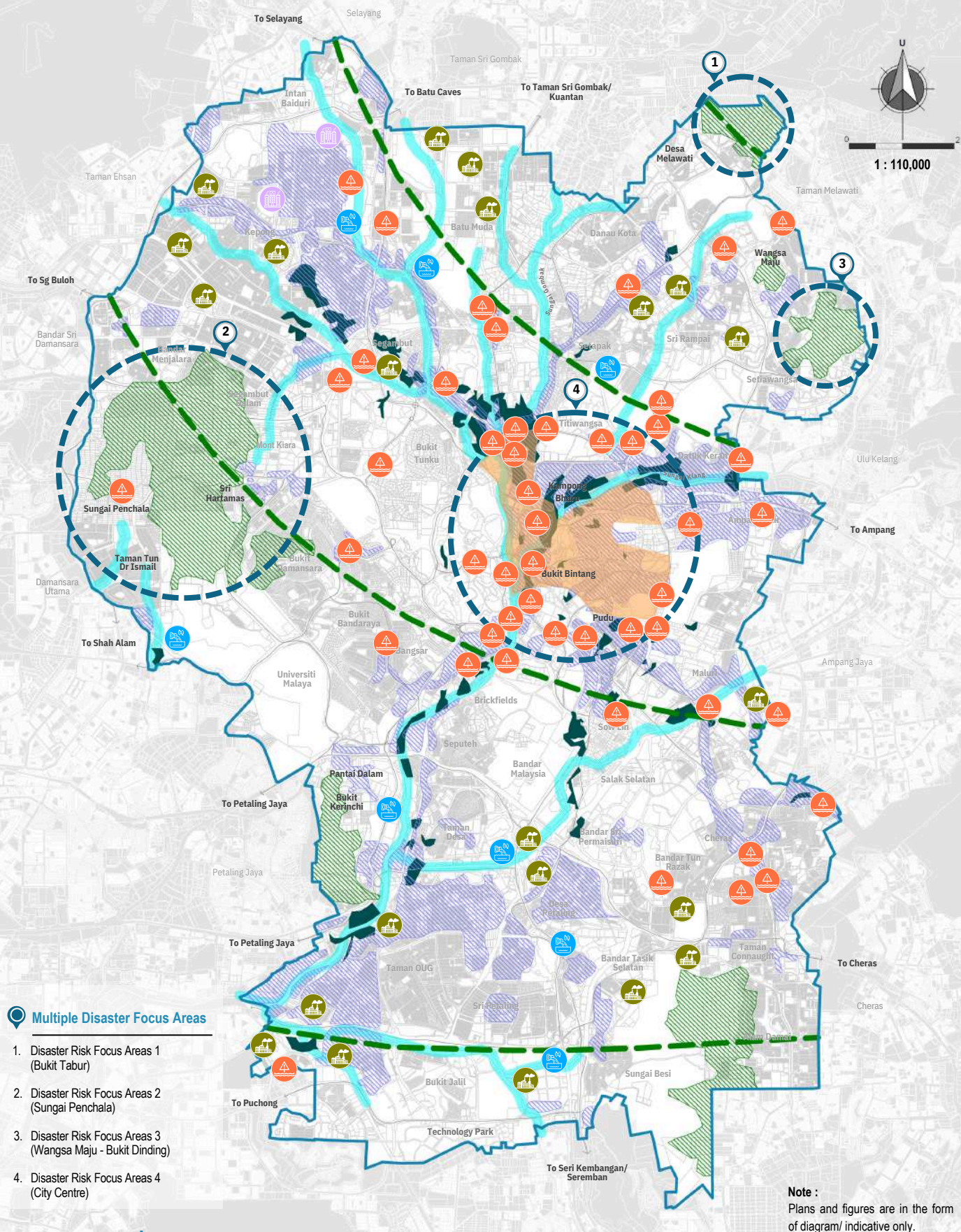


FIGURE 4.1.11 | Multiple Disaster Focus Area Plan

IMPLEMENTATION INITIATIVE 4-1.3C

► IMPLEMENT BUILD BACK BETTER CONCEPT

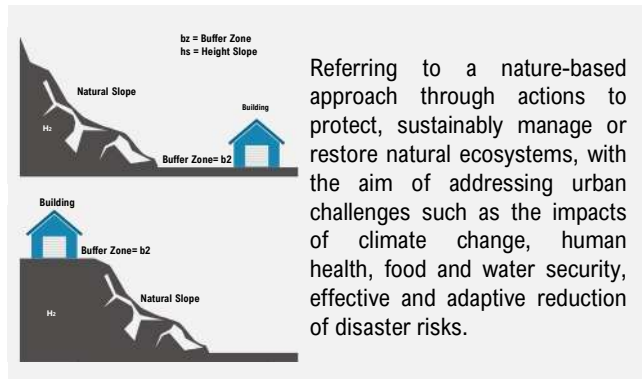
The priority for nature-based development is in line with Kuala Lumpur Low Carbon Society Blueprint 2030 (KL LCSB2050) and Kuala Lumpur Climate Action Plan 2050 (KLCAP2050).

The main requirement is to reinforce development control in Special Area Management Zone (SAM) which includes hilly and sloping areas class 3 and 4 in compliance with the Garis Panduan Perancangan Pembangunan di Kawasan Bukit dan Cerun bagi Wilayah Persekutuan Kuala Lumpur, 2010 (GPWPKL2010).

The necessary actions to support this initiative are as shown in the Table 4.1.7.

BRIEF INFO

CONCEPT OF NATURE-BASED SOLUTION (Nbs)



Source: Guidelines for Planning and Development in Hilly and Slope Areas for the Federal Territory of Kuala Lumpur 2010 (GPWPKL2010).

Table 4.1.7:
Implementation Actions to Build Back Better

Actions	Flood Risk	Landslide Risk
1. Maximise green, open and recreational areas as well as reduce the percentage of impervious surfaces in line with the Kuala Lumpur Low Carbon Society Blueprint 2030 (KL LCSBP 2030);	✓	✓
2. Provide appropriate buffer zones according to the guidelines and conditions set in Garis Panduan Perancangan Pembangunan di Kawasan Bukit dan Cerun bagi Wilayah Persekutuan Kuala Lumpur, 2010 (GPWPKL2010);		✓
3. Comply with the Garis Panduan Perancangan Pembangunan di Kawasan Bukit dan Cerun bagi Wilayah Persekutuan Kuala Lumpur, 2010 (GPWPKL2010);		✓
4. Comply with MSMA 2.0 requirements in controlling peak flow to ensure surface flow rate remains the same before and after development;	✓	
5. Apply flood control systems to reduce level of destruction during floods;	✓	
6. Integrate building design elements in disaster risk areas that considers the need for resilience to disasters and the selection types of material should be corrosion resistant; and	✓	✓
7. Encourage the use of Nature-based Solutions (Nbs), Water Sensitive Urban Design (WSUD), Sponge City and Low Impact Development (LID) concepts to reduce the impact of urban heat island, risk of flash floods, drought and environmental pollution.	✓	✓

BEST PRACTICE

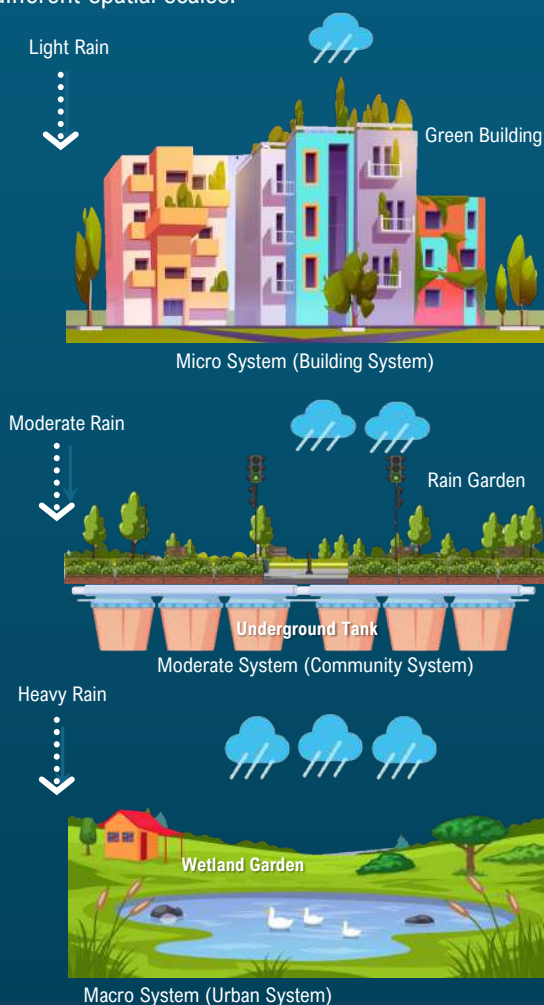
ADAPTATION OF DISASTER RESILIENT ELEMENTS (SPONGE CITY) IN DEVELOPED AREAS

The concept of Sponge City refers to a city or space that is capable to integrate water management into planning and design process of the city to reduce risk of flood disasters and impact of urban heat islands.

This concept is also synonymous with Low Impact Development and the NbS approach that has been successfully implemented in cities in developed countries.

Implementation of the Sponge City concept in China includes all types of low impact development methods and NbS including permeable pavements, green roofs, catchment ponds, rain gardens, green buffer zones and multi-functional green areas.

Illustration of Sponge City Concept Implementation at different spatial scales:



Location : China

Source: <https://www.dw.com/en/china-turns-cities-into-sponges-to-stop-flooding/a-61414704>

Tree planting and landscaping make the roof of the building more attractive.



Location: China

Source: Walsh, A. (2022) China turns cities into sponges to stop flooding
<https://www.dw.com/en/china-turns-cities-into-sponges-to-stop-flooding/a-61414704>

Permeable surfaces allow water to seep into the ground can be implemented as an effort to reduce the risk of disasters such as flooding.



Location: United Kingdom

Source: <https://www.ukgbc.org/ukgbc-work/nature-based-solutions-to-the-climate-emergency-the-benefits-to-business-and-society/>

Development that maximise green, open and recreational areas in the United Kingdom.

CP 4-1.4**STRENGTHENING THE ELEMENTS OF CLIMATE CHANGE RESILIENCE AND DISASTER RISK REDUCTION**

Aspects of climate change adaptation and disaster risk reduction need to be applied in the planning process to enhance the resilience of Kuala Lumpur.

Planning and development control for new developments and redevelopment need to be more sensitive towards the management and reduction of climate change impacts as well as disaster risks.

These improvements can control impact on the environment, especially pollution control during the development and strengthen the resilience element of an area.

The KLLP2040 has identified four (4) main strategies that need to be implemented before development approval is granted as follows:

1. Understand the current risk and history of local disaster events;
2. Consider and evaluate the environmental impacts of each development;
3. Consider at risk communities that are vulnerable to future development proposals; and
4. Adapt measures of climate change impacts and disaster risk reduction in development proposals.

The proposal for the implementation of CP 4-1.4 is carried out through one (1) initiative as follows:

1. Improve the Process of Development Approval.

CP 4-1.4**COORDINATION CONTEXT OF SDGs AND KLSP2040****SUSTAINABLE DEVELOPMENT GOALS CONTEXT****KLSP2040 CONTEXT****4****GOALS**

Kuala Lumpur Climate-Smart and Low Carbon City

PR1**STRATEGIC DIRECTIONS**

Resilience To Natural Disasters and Climate Change

PR 1.1**ACTIONS**

Prepare an Action Plan for Mitigation and Adaptation towards Climate Change Resilience and a Disaster Risks Management Plan

IMPLEMENTATION APPROACH CP 4-1.4

IMPLEMENTATION INITIATIVE 4-1.4A

► IMPROVE THE PROCESS OF DEVELOPMENT APPROVAL

The need to improve the process of development approval by emphasising the impacts of climate change and disaster resilience for new developments is an initial strategy for disaster risk mitigation.

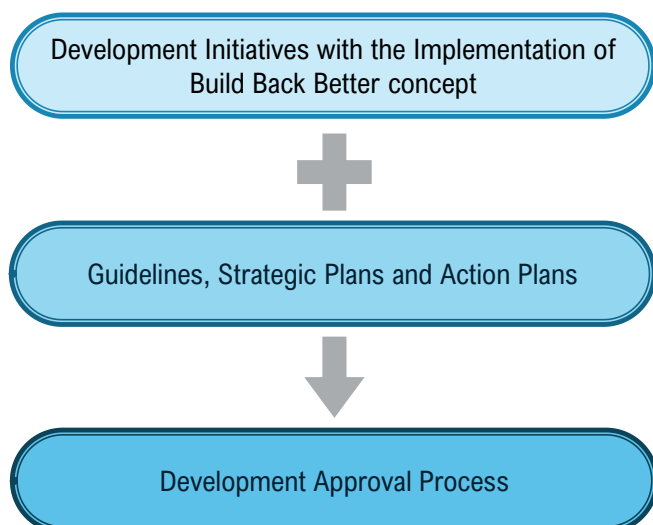
This improvement aims to ensure that information related to climate impact assessment and disaster risks are submitted and detailed out as requirement in the development approval process. It is in line with the implementation of the Build Back Better concept as shown in the Figure 4.1.12.

The necessary actions to support this initiative are as follows:

1. Ensure new developments located within Special Area Management Zone (SAM) development area and at risk of disasters consider the implementation of resilience initiatives against effects of climate change and disaster risk reduction; and
2. Comply with current guidelines and align with strategic and action plans in the development approval process, including Environmental Impact Assessment (EIA) and geotechnical studies.

Figure 4.1.12:

Methods for Improving the Development Approval Process with Build Back Better Concept



BRIEF INFO

SIX (6) MAIN PROCESSES OF OSC 3.0 PLUS

01

Compilation of Technical Information (Non-Mandatory)

02

Consideration of Proposed Development Plans

03

Notification on the Start of Construction Works

04

Notification on Interim Evaluation

05

Final Evaluation and Issuance of CCC Confirmation Letter

06

Depository of CCC

Source: Manual OSC 3.0 Plus: Process and Procedure for the Development and Implementation of One Stop Centre (OSC). First Edition 2019, Malaysia Plan.

Information Checklist for DO in Disaster Risk Areas

1. Development Proposal Report (taking into consideration reports of TIA, SIA, HIA, EIA) Geology and other related documents;
2. EIA Approval Letter (DID);
3. Geological Assessment Report (MGD);
4. Rainwater Runoff Management Report (DID);
5. ESA Committee Approval Letter; and
6. Slope Analysis Plan and Geotechnical Report (PWD).

Source: OSC 3.0 Plus Manual: Process and Procedure for the Development and Implementation of the One Stop Centre (OSC). First Edition 2019, Malaysian Plan

CP 4-1.5

MANAGING THE ENDEMIC, EPIDEMIC, AND PANDEMIC

Pandemic means "worldwide spread of a new disease" that cause drastic changes and affects all aspects of life including economic, social and environmental aspects, such as COVID-19.

The COVID-19 pandemic that has affected the world has changed the way of life in cities. Physical distancing and limited movement have limited the use of spatial spaces, especially in densely populated cities like Kuala Lumpur.

Endemic, epidemic and pandemic are terms that describe the extent to which a disease has spread within a geographic area or population. The distinction between these terms is important to help local authorities and related agencies in formulating more appropriate public health responses.

The proposal for the implementation of CP 4-1.5 is carried out through one (1) initiative as follows:

1. Prepare a Strategic Plan for The Management of Endemic, Epidemic, and Pandemic.

BRIEF INFO

DIFFERENCES BETWEEN ENDEMIC, EPIDEMIC, AND PANDEMIC

ENDEMIC

Inside- region or person

1. The occurrence of diseases or disease-carrying agents that are consistently present in a certain place;
2. This disease is expected to always be present at a stable and low rate; and
3. Example: Dengue in Malaysia.

EPIDEMIC

Among- region or person

1. The occurrence of a disease with the number of cases in a certain place/location exceeding the number of cases at a normal time or exceeding the normal rate; and
2. Examples: Cholera Fever outbreak, Measles outbreak, Nipah virus outbreak in Negeri Sembilan (1999) and Polio outbreak in Sabah (2019).

PANDEMIC

All region or person

1. The occurrence of diseases with the number of cases exceeding the normal rate occurs in many countries and regions around the world and involves large populations;
2. Commonly caused by the spread of a new disease (Novel); and
3. Examples: Pandemic influenza-Spanish Flu (1918 - 1919) and Influenza H1N1 (2009) and Pandemic COVID-19 (2020 - 2022).

CP 4-1.5

COORDINATION CONTEXT OF SDGs AND KLSP2040



SUSTAINABLE DEVELOPMENT GOALS CONTEXT



KLSP2040 CONTEXT

4

GOALS

Kuala Lumpur Climate-Smart and Low Carbon City

PR1

STRATEGIC DIRECTIONS

Resilience To Natural Disasters and Climate Change

PR 1.1

ACTIONS

Prepare Climate Resilient Mitigation and Adaptation Action Plan and Disaster Risks Management Plan

IMPLEMENTATION APPROACH CP 4-1.5



IMPLEMENTATION INITIATIVE 4-1.5A

► PREPARE A STRATEGIC PLAN FOR THE MANAGEMENT OF ENDEMIC, EPIDEMIC AND PANDEMIC

The preparation of a strategic plan for the management of endemic, epidemic and pandemic is necessary to ensure the city community are prepared to face these issue. This strategic plan should encompass physical, social and economic aspects. The necessary actions in supporting this initiative are as shown in Table 4.1.8.

Table 4.1.8:
Aspects and Actions in the Strategic Plan for Endemic, Epidemic, and Pandemic Management

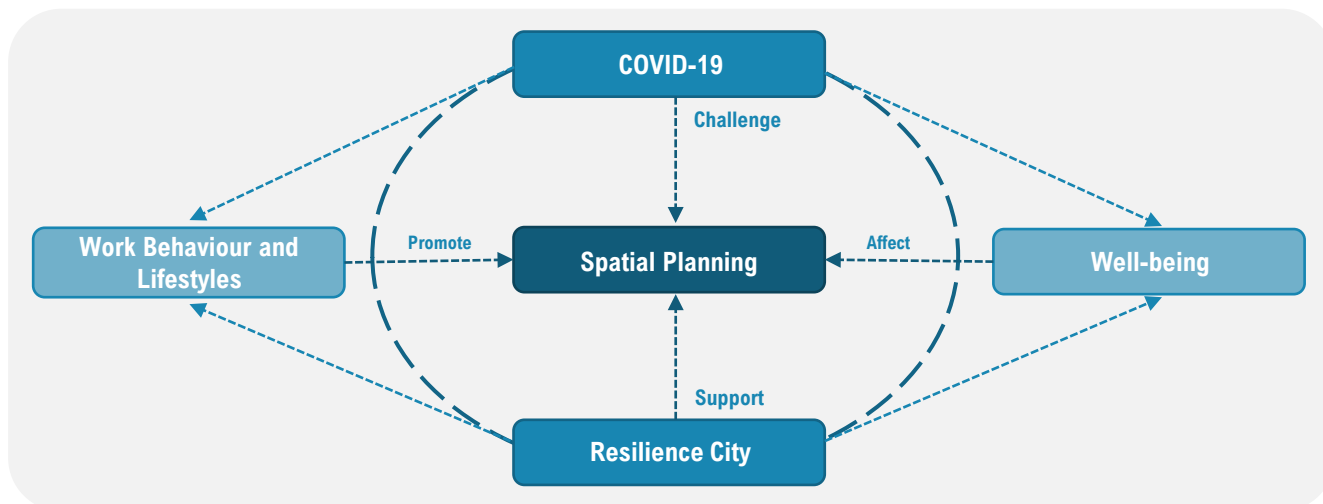
Aspect	Actions
Physical	<ol style="list-style-type: none"> 1. Strengthen existing spaces or buildings into flexible spaces to meet the multi-functional needs during pandemics, epidemics and endemics; 2. Improve digital infrastructure facilities; and 3. Improve the delivery of information whether through social media or public announcements.
Social	<ol style="list-style-type: none"> 1. Enhancing community resilience by organising various awareness programmes; and 2. Promote sustainable practices among the community.
Economic	<ol style="list-style-type: none"> 1. Strengthen the local economy; and 2. Encourage urban farming activities to generate additional household income.



Location: Bukit Damansara Community Hall, Kuala Lumpur
Bukit Damansara Community Hall has the potential to be a temporary evacuation centre and multi-functional public space during a pandemic.

BRIEF INFO

THE RELATIONSHIP BETWEEN SPATIAL PLANNING IN FACING THE PANDEMIC



Source: Song X, Cao M, Zhai K, Gao X, Wu M and Yang T (2021) The Effects of Spatial Planning, Well-Being, and Behavioural Changes During and After the COVID-19 Pandemic. Front. Sustain. Cities 3:686706. doi: 10.3389/frsc.2021.686706

CP 4-1.6

IMPLEMENTING CAMPAIGNS AND AWARENESS PROGRAMMES ON CLIMATE CHANGE, DISASTER RISK, AND PUBLIC HEALTH

These campaigns and awareness programmes are necessary as an effort to ensure the city's community understand matters related to climate change, disaster risks, and public health. In addition, it also helps to raise public awareness on the effect of pollution, climate change, and disaster risks including public health.

An accurate and up-to-date information must be periodically disseminated through the implementation of programmes to ensure the community is well-prepared.

The proposal for the implementation of CP 4-1.6 is carried out through one (1) initiative as follows:

1. Develop Various Campaigns and Awareness Programmes



CP 4-1.6

COORDINATION CONTEXT OF SDGs AND KLSP2040



IMPLEMENTATION INITIATIVE 4-1.6A

► DEVELOP VARIOUS CAMPAIGNS AND AWARENESS PROGRAMMES

The lifestyle of Kuala Lumpur's community can be improved by practising a sustainable lifestyle that contributes to a continuously sustainable environment.

The necessary actions to support this initiative are through campaigns and awareness programmes as follows:

1. Programmes to increase ground cover plants such as:
 - a. Community Urban Farming Programme; and
 - b. Application of Nature-Based Solution (NbS) concept in community activities related to physical development.
2. Awareness programmes related to environmental impact, climate change, disaster risk and biological disaster in the integrated school curriculum;
3. Programmes and simulation exercises on various disasters or emergencies;
4. Information dissemination programmes through various media, including signages; and
5. KL Living Lab programme as a multi-stakeholder collaboration platform (researchers, NGOs, communities, private agencies and technical agencies).

BEST PRACTICE

EXAMPLES OF PROGRAMMES AND AWARENESS CAMPAIGNS

Sayangi Rumahku Programme

Public spaces in PPR areas have the potential to be multi-functional spaces (PPR Seri Cempaka, Pantai Dalam). The activities carried out are part of a the collaboration with private sector and corporate bodies Through Sayangi Rumahku Programme.



Location: PPR Seri Cempaka, Pantai Dalam
Source: Low Yen Yeing/EdgeProp.my

Tree Planting Programme

The Tree Planting Programme in Bandar Tasik Selatan is the result of a collaboration between the Landscape and Recreation Department of KLCH, NGOs and the private sector.



Location: Bandar Tasik Selatan
Source: Ecoknights (2021)
<https://ecoknights.org.my/ecoknights-trees-for-us-program-with-art-of-tree/>

KL Living Lab

The Sungai Bunus Urban Farm serves as a pioneer for the KL Living Lab which is developed through smart collaboration among various parties including of corporate agencies, private sectors, institutions of higher education, residents' associations and volunteers.



Location: Kebun Bandar Sungai Bunus
Urban Farming Programme – Kebun Bandar Sungai Bunus.

EXPANDING APPLICATION OF RENEWABLE ENERGY TECHNOLOGIES

SCENARIO OF APPLICATION OF RENEWAL ENERGY IN KUALA LUMPUR

Renewable energy sources are solar or solar energy, wind energy, water or hydropower, wave energy, biomass fuels and biogas. Renewable energy sources are primarily used to generate electricity.

Renewable energy sources have the potential to be naturally replaced in a short period of time and remain available for continuous use. There are various options for generating low carbon energy that can be effectively applied and implemented, including the conversion of solar photovoltaic, biomass and biogas into renewable energy.

Kuala Lumpur is seen as capable of contributing to the country's renewable energy due to the availability of large rooftop spaces for installation of solar panels and water bodies to be used as solar farms.

The high initial costs of installation and production of solar energy is only taking place during daytime are the main issues to the implementation of renewable energy applications. However, there are several incentives and schemes provided by related agencies to encourage the use of renewable energy in Kuala Lumpur.

Towards realizing Kuala Lumpur as a city that expands the use of renewable energy technology applications, one (1) implementation proposal is formulated under Planning Strategy 4-2, as shown in Figure 4.2.1.

BRIEF INFO

TARGET OF RENEWABLE ENERGY MALAYSIA



25% By 2030

30% By 2040

Source: KLSP2040

Figure 4.2.1:
Implementation Proposal for Planning Strategy 4-2

SP 4-2

EXPANDING APPLICATION OF RENEWABLE ENERGY TECHNOLOGIES

CP 4-2.1 Expanding Solar Power Generation



Location : Universiti Teknologi Malaysia (UTM) Kuala Lumpur
Photovoltaic solar panels at Universiti Teknologi Malaysia (UTM) Kuala Lumpur.

Solar energy is a technology created to harness energy from the sunlight. This solar energy has been widely used over the past few centuries in both of traditional and modern technologies.

Kuala Lumpur has a total of 43 ponds and lakes. However, only six (6) retention ponds, covering an area of 118.51 hectares, have the potential to be developed as Floating Solar Farms site for renewable energy generation.

Solar energy is generated from the radiation of the sunlight and can be harnessed by installing the photovoltaic solar panels. Therefore, the installation programme of solar panels on new and existing buildings is one of the measures to enhance the generation of renewable energy in Kuala Lumpur.

The expansion in the generation and usage of solar as a source of renewable energy will enable the reduction of carbon emissions and be able to curb the negative impacts of greenhouse effects. This proposal also supports the government's aspiration to address global warming issues by reducing the use of fossil-based energy sources such as coal and natural gas.

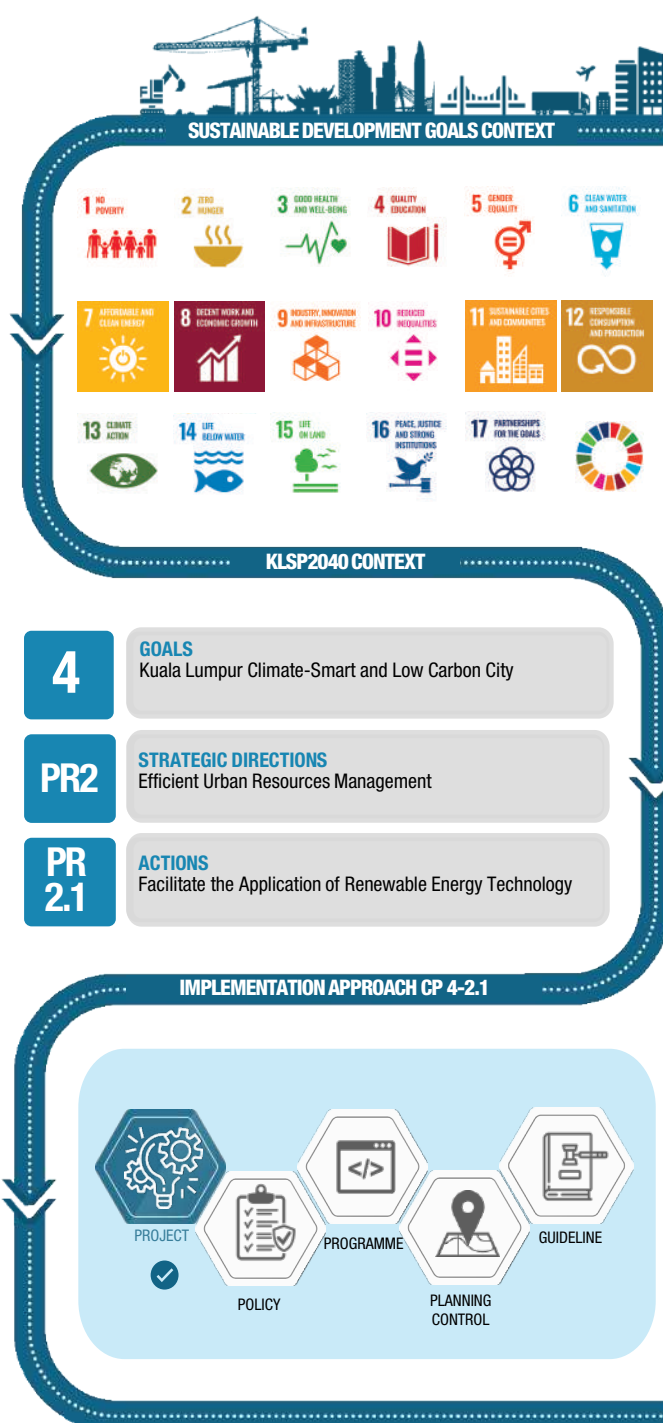
Furthermore, the implementation of the photovoltaic solar panel installation programme on high-rise buildings is encouraged to support solar energy generation.

The proposed implementation of CP 4-2.1 is implemented through two (2) initiatives as follows:

1. Develop Floating Solar Farms at Retention Pond; and
2. Encourage Installation of Photovoltaic Solar Panels on Roofs.

CP 4-2.1

COORDINATION CONTEXT OF SDGs AND KLSP2040



IMPLEMENTATION INITIATIVE 4-2.1A

► DEVELOP FLOATING SOLAR FARMS AT RETENTION POND

Floating Solar Farms are an energy transition effort towards achieving a sustainable development goals. The criteria for selecting retention ponds for Floating Solar Farm project should be detailed, considering the size and suitability of the ponds for use as solar farms.

The necessary actions to support this initiative are as follows:

1. Identify retention ponds with a water body area of more than eight (8) hectares;
2. Ensure there are no elements of raw water storage facilities and that the area is not involved in the Flood Mitigation Plan (RTB); and
3. Suggested only 30 percent of total water bodies are used.

The KLLP2040 has identified six (6) suitable retention ponds that can be developed as Floating Solar Farms, as shown in the Table 4.2.2 subject to more detailed studies.

BRIEF INFO

RENEWAL ENERGY FEED-IN TARIFF (FiT)

Malaysia's Feed-in Tariff (FiT) mechanism obliges Distribution Licensees (DLs) to purchase from Feed-in Approval Holders (FIAHs) the electricity produced from renewable resources (renewable energy) and sets the FiT rate. The DLs will pay for renewable energy connected to the electricity grid for a specific duration. By guaranteeing access to the grid and setting a profitable price per unit of renewable energy, the FiT mechanism would ensure that renewable energy becomes a strong long-term investment for companies and individuals.

Source : Sustainable Energy Development Authority (SEDA)

IMPLEMENTATION INITIATIVE 4-2.1B

► ENCOURAGE INSTALLATION OF PHOTOVOLTAIC SOLAR PANELS ON ROOFS

The installation of Photovoltaic Solar Panels is encouraged to enhance the generation of renewable energy in Kuala Lumpur. It will also assist in reducing pollution and environmentally friendly.







The necessary actions to support this initiative are as follows:

1. Specify building floors areas for the installation of Photovoltaic Solar Panels as shown in the Table 4.2.1;
2. Ensure the installation of panels is not less than 30 percent of the total areas of the roof;
3. Conduct studies to determine appropriate pricing of Feed-in Tariff (FiT) for buildings that install Photovoltaic Solar Panels by relevant agencies;
4. Introduce Flexible Loan Assistance Scheme for installation of Photovoltaic Solar Panels; and
5. Introduce awards and certifications to participants involved in this initiative. This recognition may increase the property values.

Table 4.2.1:
Photovoltaic Solar Panels Installation Promotion Programme

Building (Floor Area)	Programme
Less than 1,000 Square Metres	<ol style="list-style-type: none"> 1. Initial capital assistance incentives for the installation through flexible loan assistance schemes; and 2. Awards and certifications to increase property values.
More than 1,000 Square Metres	<ol style="list-style-type: none"> 1. Installing Photovoltaic Solar Panels at no less than 30 percent of the total area of the roof; and 2. Awards and certifications in order to increase property values.

Table 4.2.2:**List of Potential Ponds and Lakes Proposed as Floating Solar Farm Sites**

1 Kolam Takungan Banjir Sri Utara 8.83 hectares		4 Tasik Metropolitan Kepong 45.54 hectares	
2 Kolam Takungan Banjir Intan Baiduri 16.73 hectares		5 Tasik Ampang Hilir 11.00 hectares	
3 Kolam Takungan Banjir Kampung Bohol 19.80 hectares		6 Tasik Bandar Sri Pemasuri 16.61 hectares	



Location: Tasik Ampang Hilir

Tasik Ampang Hilir is one of the proposed sites for the installation of Floating Solar Farms.

STRENGTHENING ENERGY EFFICIENCY SYSTEMS

SCENARIO OF ENERGY EFFICIENCY SYSTEMS IN KUALA LUMPUR

The energy efficient system aims to reduce the amount of energy required to provide and to complete a product or work in the form of either production or services.

The practice of energy efficient systems will reduce the use of fossil fuels such as petroleum, natural gas and coal, the production of greenhouse gases (GHG) and dependence on power plants.

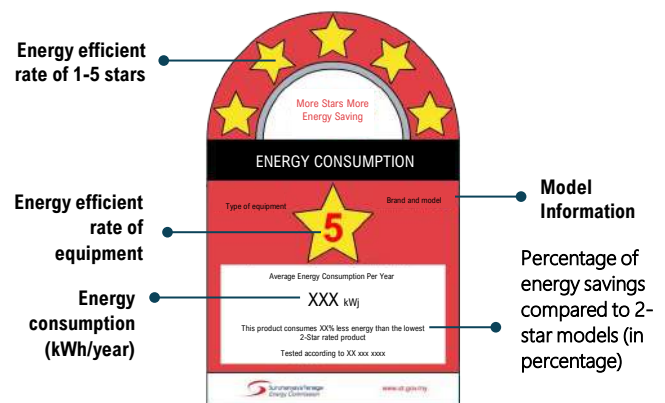
This practice will save operational management costs for a building and assist in the management of a more sustainable energy infrastructure development.

The diverse urban activities and the large floor areas of buildings, especially for commercial and residential purposes, will increase the demand on energies. Therefore, energy-saving strategies should be developed more practical way and to focus on the aspects of building design as well as fostering efforts on self-awareness of energy saving in consumers' daily practices.

The current practice of fostering awareness in relation to energy saving is through the use of energy labels on electrical appliances, as shown in Figure 4.3.1. The energy label represents the energy consumption performance rate of an electrical appliance which assists consumers in making their decision while buying electrical appliance.

Towards realizing Kuala Lumpur as a city that expands the adoption of renewable energy technologies, two (2) Implementation Proposals are formulated under Planning Strategy 4-3, as shown in Figure 4.3.2.

Figure 4.3.1:
Energy Label on Electrical Appliances



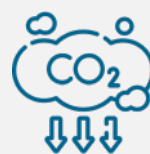
A sticker representing the amount of energy consumption of an electrical appliance.

BRIEF INFO

BUILDING ENERGY INDEX (BEI) MALAYSIA



Average Building Energy Index (BEI)
220-250 kWh/m²/year



Building Energy Index (BEI) Score
Efficient Building
<135 kWh/m²/year

Source: National Building Energy Intensity (BEI) Labelling For Government Buildings

Figure 4.3.2:
Implementation Proposals for Planning Strategy 4-3

SP 4-3

STRENGTHENING ENERGY EFFICIENCY SYSTEMS

CP 4-3.1

Expanding Application of Energy Efficient Building

CP 4-3.2

Integrating District Cooling System and Shared Utility Corridor

EXPANDING APPLICATION OF ENERGY EFFICIENT BUILDING

The energy consumption of buildings affects and contributes to the energy efficiency level of an urban area. The focus of implementing the expansion of energy-efficient buildings should be on existing developments, new developments, and redevelopment in Kuala Lumpur.

The Building Energy Index (BEI) is a measure of the efficiency of the annual energy of a building, calculated based on kilowatt-hours (kWh) per square metre of floor area.

The average energy consumption for most office and commercial buildings in Malaysia ranges from 220 to 250 kWh/m²/year. Based on Malaysia Standard (MS) 1525:2007, the recommended energy consumption for energy efficient buildings is below 135 kWh/m²/year.

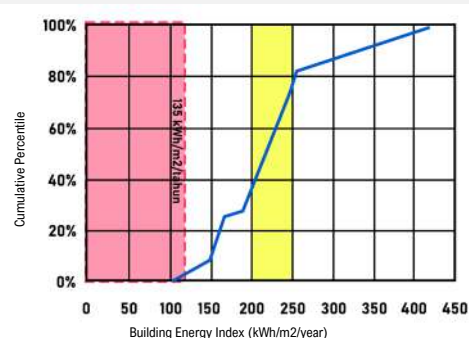
The average energy consumption of residential buildings ranges from 10 to 25 kWh/m²/year. This consumption rate is low and meets the criteria for energy efficient buildings.

The proposed implementation of CP 4-3.1 is implemented through two (2) initiatives as follows:

1. Promote Energy Efficient Buildings; and
2. Implement BEI Labeling for Government Buildings.

BRIEF INFO

BUILDING ENERGY INDEX (BEI) MALAYSIA



Indicators:

- Envelope Area of Energy Efficient Buildings
- Average Energy Consumption for Buildings in Malaysia

Source : Malaysia Green Technology Corporation (MGTC)

CP 4-3.1

COORDINATION CONTEXT OF SDGs AND KLSP2040



IMPLEMENTATION INITIATIVE 4-3.1A

PROMOTE ENERGY EFFICIENT BUILDINGS

Improvements in energy efficiency are generally achieved by using more efficient technologies and production processes, or common methods in reducing energy loss.

In this regard, existing and new buildings are encouraged to apply energy-efficient systems in enhancing resource management efficiency in Kuala Lumpur.

The necessary actions to support this initiative are as follows:

1. Promote the installation of energy-efficient equipment such as Light Emitting Diode (LEDs) or fluorescent lights;
2. Ensure the optimal maintenance and operation, as well as zero waste for every usage of energy elements, water and waste generation;
3. Implement building designs and usage of appropriate materials to reduce energy consumption for a building; and
4. Provide recognition to agencies or individuals who implement various efforts and actions in supporting the implementation of energy efficient building initiatives as shown in Table 4.3.1.

Table 4.3.1:
Incentive and Regulatory Programmes Towards Increasing the Number of Energy Efficient Buildings in Kuala Lumpur

Incentive
1. Awards and publish a list of sustainable and green properties on the KLCH website
2. Acknowledge the preferred building for government activities
3. Facilitate GBI rating

Source: Malaysian Standard (MS) 1575 : 2007

IMPLEMENTATION INITIATIVE 4-3.1B

IMPLEMENT BEI LABELLINGS FOR GOVERNMENT BUILDINGS

The implementation of BEI Labelling is focused on public or government buildings in Kuala Lumpur to serve models and leaders in energy-efficient usage. Subsequently, public or government buildings will be the catalysts and drivers for the overall implementation of energy-efficient buildings in Kuala Lumpur.

The pioneers implementation of this proposal is focus on buildings owned by KLCH and eventually be expanded to public buildings such as universities, schools, police stations, mosques, government offices and others.

The necessary actions to support this initiative are as follows:

1. Identify buildings owned by KLCH and other government buildings that are suitable in adopting energy-efficient systems;
2. Produce lists of requirements and main characteristics towards energy-efficient systems for its implementation at the buildings owned by KLCH and other government buildings; and
3. Ensure that energy consumption is aligned with the rating programme as shown in Table 4.3.2

Table 4.3.2:
Rating Programme of BEI Labelling for Government or Public Buildings

BEI Labelling for Government or and Public Buildings	
Ratings	BEI Range kWh/m ² /year
5-Stars	BEI ≤ 100
4-Stars	100 < BEI ≤ 130
3-Stars	130 < BEI ≤ 160
2-Stars	160 < BEI ≤ 250
1-Stars	> 250

Source: Malaysian Standard (MS) 1575 : 2007

CP 4-3.2**INTEGRATING DISTRICT COOLING SYSTEM AND SHARED UTILITY CORRIDOR**

The District Cooling System (DCS) is an important infrastructure for implementing energy-efficient systems in buildings in Kuala Lumpur. DCS generates a low of chilled water and channel it from the central source to buildings in an area via plumbing system and network. Although, DCS is not a new technology in Malaysia, its usage is still not widely adopted in Kuala Lumpur.

This efficient and integrated DCS is capable to reduce the energy demand and consumption in buildings. It has the potential to be implemented in new development and redevelopment areas.

Provision of the Common Utility Trench (CUT) could also contribute towards the expansion of energy-efficient renewable energy technologies, in addition to the implementation of the DCS.

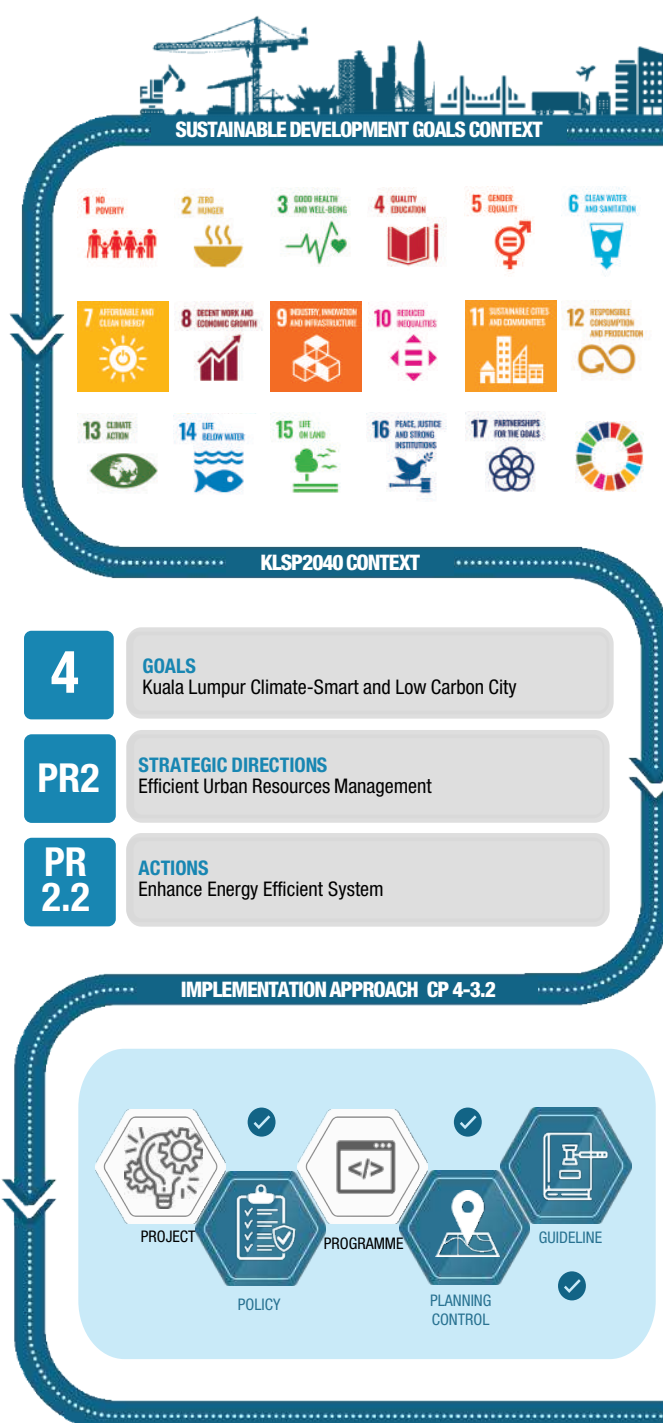
The CUT is a utility cable route facility designed to ensure the installation of cables and utility pipes is carried out systematically and orderly without disrupting the surrounding conditions. The requirements for this CUT are:

1. Facilitate the process of cable installation of utility services;
2. Reduce excavation during utility service cable installation process;
3. Reduce disruption of traffic flow during CUT installation and maintenance process; and
4. Reduce damage to infrastructure and utility facilities such as pedestrian routes and roads.

The provision of CUT can be beautified as open spaces and green areas to help Kuala Lumpur achieve the target of 20 square metres of open space (land) per person.

The proposal for the implementation of CP 4-3.2 will be carried out through two (2) initiatives as follows:

1. Encourage Extensive Implementation of The District Cooling System (DCS); and
2. Provide Corridor For Common Utility Trench (CUT).

CP 4-3.2COORDINATION CONTEXT OF
SDGs AND KLSP2040

IMPLEMENTATION INITIATIVE 4-3.2A

► ENCOURAGE EXTENSIVE IMPLEMENTATION OF THE DISTRICT COOLING SYSTEM (DCS)

DCS can effectively increase energy efficiency, reduce the operating costs of a building, and control excessive carbon emissions.

The implementation of DCS needs to be broadly encouraged and ensured its implementation is part of the planning requirements for a New Development and Redevelopment Scheme. The necessary actions to support this initiative are as shown in Table 4.3.3.

Table 4.3.3:
Minimum Criteria for the Feasibility of District Cooling System in a Development

Criteria	Details
Land Area	> 3 acres
Plot Ratio	> 1:4
Gross Floor Area	> 50,000 sqft

BEST PRACTICE

EXAMPLES OF DISTRICT HEATING AND COOLING SYSTEM OF SHINJUKU, TOKYO



The centre has a cooling capacity of 65,000RT and is one of the largest systems in the world that accommodates over 20 skyscrapers in the Shinjuku area. This system uses natural gas and the latest technologies such as energy regeneration towards sustainable urban environments through reduced energy consumption.

Based on the best operational efficiency concept, two (2) adjacent DHCs (Shinjuku shin-toshin and Nishi-Shinjuku DHC) began sharing operations since 2013 through a new underground pipeline, resulting in a reduction of CO₂ by 3000t per year. The Shinjuku DHC can also supply electricity if there is an outage and its helps to increase the capacity of the power network in the Shinjuku area.

Source: <https://www.hitachiaircon.com/projects/large-scale-installations>

IMPLEMENTATION INITIATIVE 4-3.2B

► PROVIDE CORRIDOR FOR COMMON UTILITY TRENCH (CUT)

Common Utility Trench (CUT) aims to ensure excavation works can be reduced or not required in the future.

The provision of new road networks should be equipped with CUT reserves in accordance with the reserved hierarchy, especially in new development and redevelopment areas, with appropriate development size.

The necessary actions to support this initiative are as shown in Table 4.3.4.

Table 4.3.4:
CUT Reserve Requirements According to Road Hierarchy

Reserved Hierarchy	CUT Reserved Requirements
More than 20 metres (>66 feet)	Three (3) metres and must be provided beside Right Of Way (R.O.W) on the left and right of the road (Dedicated).
Less than 20 metres (<66 feet)	Three (3) metres and shall be provided within Right Of Way (R.O.W) on the left and right of the road (Non-Dedicated).
Rear lanes and side lanes (Reserved <6.1 metres or 20 feet)	Utility corridors can be placed under paved surfaces.
For utility networks that cross arterial roads, collector roads and local roads should be provided with Dedicated Utility Road Crossing (DURC)	DURC need to be provided with a width of 3.5 metres : 1. One (1) DURC per 500 metres for a residential area; and 2. One (1) DURC per 250 metres for industrial and business areas.

IMPLEMENTING INTEGRATED AND SUSTAINABLE SOLID WASTE MANAGEMENT

SCENARIO OF SOLID WASTE MANAGEMENT IN KUALA LUMPUR

The Solid Waste Management and Public Cleansing Act 2007 (Act 672) was enforced on 1 September 2011, in the Federal Territory of Kuala Lumpur. The Act provides the authority for Federal Government to take over solid waste management and public cleansing from KLCH.

The Federal Government through the Ministry of Housing and Local Government (MHLG), established the Solid Waste Management and Public Cleansing Corporation (SWCorp). SWCorp is a government enforcement and regulatory agency responsible for administering and enforcing laws related to solid waste management, public cleansing and other matters related to it.

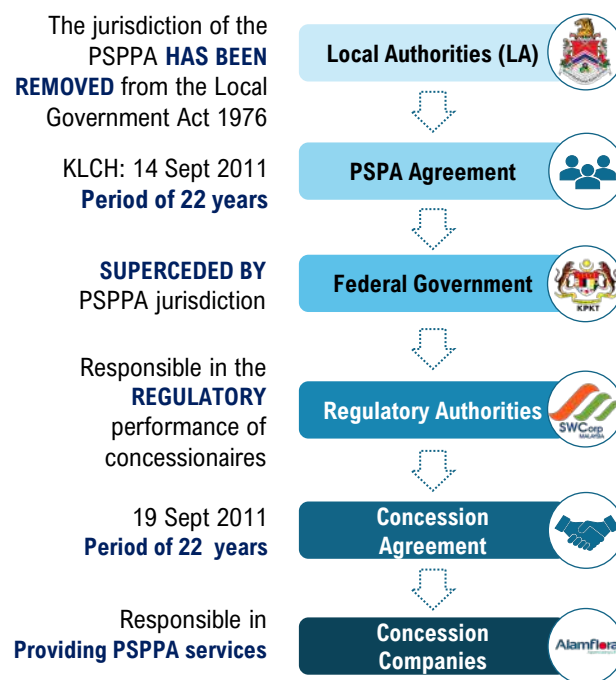
In line with the enforcement of the legislation, segregation of solid waste at source is a regulation that must be complied by all premise owners in Kuala Lumpur. Solid waste segregation is divided into three (3) categories, as follows:

1. Recyclable waste;
2. Organic waste mainly consisting of food waste; and
3. Other wastes not included in the above categories.

The solid waste management and public cleaning model for Kuala Lumpur as shown in Figure 4.4.1.

Systematic solid waste management will develop a circular economy. The application of the circular economy concept, which shifts from the linear economy concept, is indirectly seen as helping recycling activities evolve into a sustainable economy.

Figure 4.4.1:
Target for Recycling and Solid Waste Management



BRIEF INFO

TYPES OF SOLID WASTE



Source : Adopted from Department of National Solid Waste Management (NSWMD)

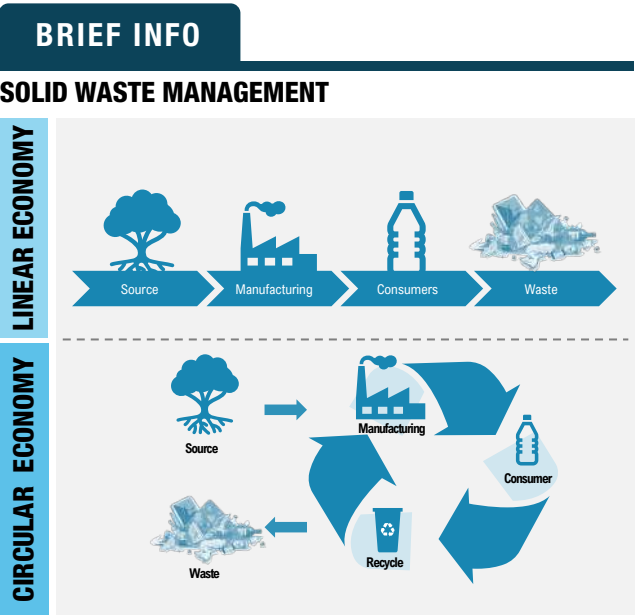
The concept of the linear economy involves the purchase, use and disposal of a material or equipment. Meanwhile, the concept of a circular economy is about using, returning and recreating where solid waste will be recycled. This approach directly helps the recycling sector grow into a sustainable economy and foster a culture of recycling that benefits the society and the environment.

The Department of National Solid Waste Management Department (JPSPN), as the Federal Agency, has taken into consideration the elements of circular economy in the formulation of the National Cleanliness Policy. This is to enhance the initiatives in turning waste as a source of income (waste to money).

Its implementation is also a key direction towards creating a more effective and integrated Solid Waste Management system for the city of Kuala Lumpur by 2040. The solid waste produced can be a source of electricity, production of fertiliser and add value to the economic activities of Kuala Lumpur’s community.

The recycling target and sustainable solid waste management for 2040 as shown in the Figure 4.4.2.

Towards realizing Kuala Lumpur as a City that implements integrated and sustainable solid waste management, three (3) implementation proposals have been formulated under Planning Strategy 4–4, as shown in Figure 4.4.3.



CP 4-4.1**IMPROVING SUSTAINABLE SOLID WASTE MANAGEMENT FACILITIES**

The capability, efficiency and availability of facilities are the important factors in achieving sustainable solid waste management. The existing solid waste facilities for Kuala Lumpur are at Bukit Tagar Sanitary Landfill and Taman Beringin Solid Waste Transfer Station.

The solid waste collected from premises is taken to the Transfer Station in Taman Beringin before being sent to Bukit Tagar Sanitary Landfill. However, this existing transfer station only provides basic services namely compression process and transition to larger transport trucks to be delivered to Bukit Tagar Sanitary Landfill.

Therefore, more effective and integrated solid waste management facilities are required to accommodate the increasing number of solid waste collections in the future.

The development of this new facility is in line with the government's policy to adopt modern and up-to-date technologies in the country's sustainable solid waste management.

This comprehensive development will also support Kuala Lumpur to adopt sustainable solid waste management by 2040.

The proposal for the implementation of CP 4-4.1 is carried out through one (1) initiative as follows:

1. Diversify Functions of Existing Transfer Stations.

CP 4-4.1**COORDINATION CONTEXT OF SDGs AND KLSP2040**

IMPLEMENTATION INITIATIVE 4-4.1A

► DIVERSIFY FUNCTIONS OF EXISTING TRANSFER STATIONS

The planning of the existing transfer stations should be diversified and upgraded by adopting the latest technology in solid waste management. Its implementation will ensure that the functions of the station will become more structured and efficient.

The necessary actions to support this initiative are as follows:

1. Upgrade the transfer station's capacity from 1,700 tons per day to 2,700 tons per day at a new site of 10 hectares (25-acre); and
2. Provide Material Recovery Facility (MRF) which includes the following facilities as follows;
 - a. Segregate recycled solid waste by type of waste from the source that has been separated;
 - b. Segregate recycled materials and organic waste from mixed waste or trash sources;
 - c. Digest anaerobically through Anaerobic Digestion Plant for organic waste disposal; and
 - d. Provide landscaping waste disposal facilities in the form of composting and shredding.

The KLLP2040 has planned the development of solid waste management facilities in Kuala Lumpur as shown in Table 4.4.1.

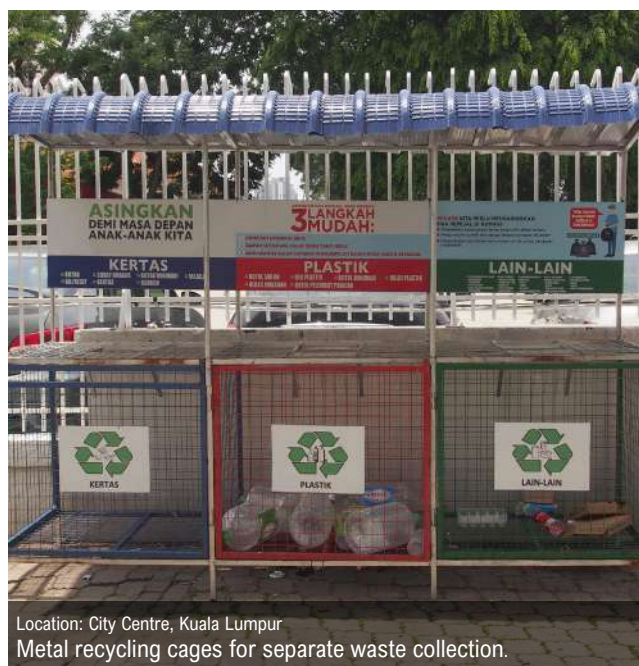
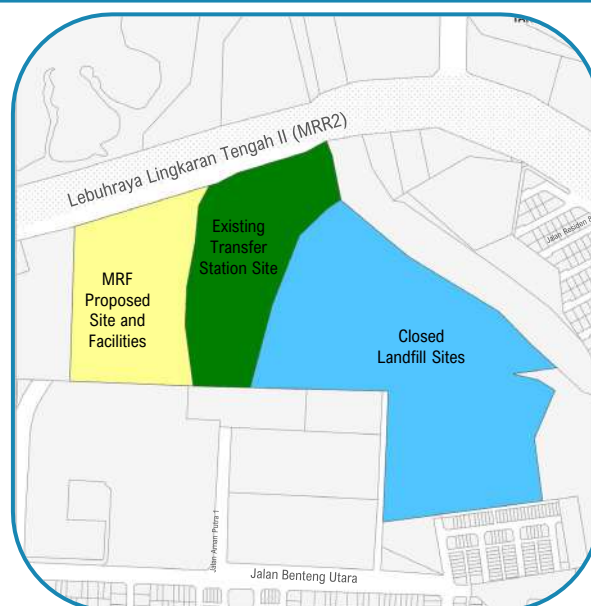
Table 4.4.1:

Planning for Development Solid Waste Management Facility in Kuala Lumpur

Location	Status	Capacity
1. Bukit Tagar Sanitary Landfill, Hulu Selangor, Selangor (Outside Kuala Lumpur).	Permanent	283 hectares (700 acres)
2. Solid Waste Transfer Station, Taman Beringin (Existing site is to be the location of MRF).	To be Upgraded	10 hectares (25 acres) Current Capacity: 1,700 tons per day and New Capacity: 2,700 tons per day
3. Waste to Energy Plant, Rawang, Selangor (Outside Kuala Lumpur).	Committed	1,000 tons per day
4. Proposed Material Recovery Facility (MRF)	New Proposal	To be decided

Figure 4.4.4:

Plan to Upgrade and Diversify the Functions of Existing Transfer Station



Location: City Centre, Kuala Lumpur
Metal recycling cages for separate waste collection.

CP 4-4.2

EMPOWERING ROLES OF COMMUNITIES
AND STAKEHOLDERS IN RECYCLE
PRACTICES

Recycling is a practice that can turn waste into a valuable resource. Apart from that, it can also reduce the consumption of natural materials, generate financial resources and provide social benefits to the local community.

Recycling is also capable of preventing pollution that has an impact to public health. It is also a determinant of a better future to avoid persistent pollution that could impact the lives of future generations.

This practice also promotes a circular economy in the recycling industry in general and solid waste management in particular.

The practice and pattern of solid waste generation are expected to continue increase over time. Therefore, integrated cooperation from all parties is important for the success of programmes and awareness campaigns on recycling practices among the community.

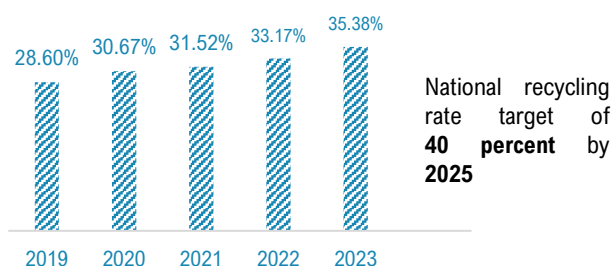
All parties, including the community, government agencies, private sectors, non-governmental organizations (NGOs) and stakeholders need to collaborate in enhancing this practice.

The proposal for the implementation of CP 4-4.2 is carried out through three (3) initiatives as follows:

1. Promote Provision of Community Recycling Centres;
2. Improve Implementation of Programmes, Campaigns And Promotions; and
3. Establish Strategic Collaboration With Stakeholders.

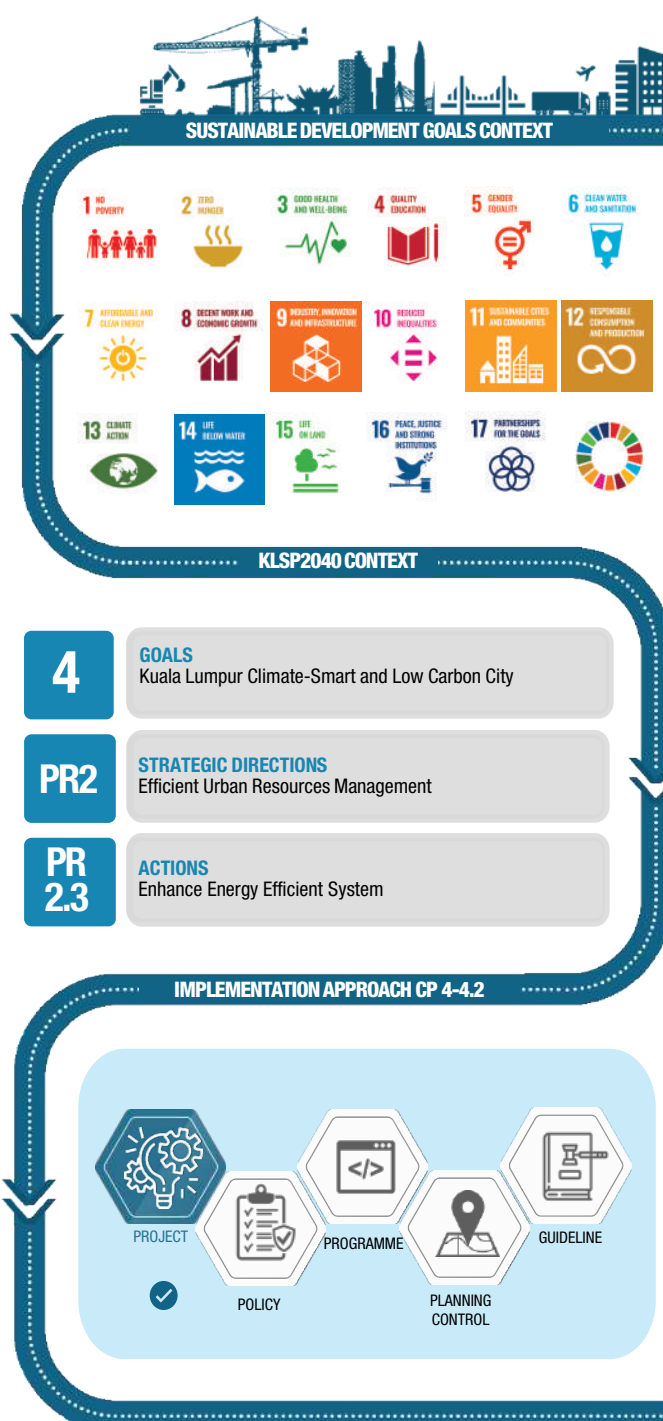
BRIEF INFO

RECYCLING RATE IN MALAYSIA



Source: Adapted from Solid Waste Management and Public Cleansing Corporation (SWCorp)

CP 4-4.2

COORDINATION CONTEXT OF
SDGs AND KLSP2040

IMPLEMENTATION INITIATIVE 4-4.2A

PROMOTE PROVISION OF COMMUNITY RECYCLING CENTRES

Community recycling centres provide good access for the public to drop off recyclable items near to their residential areas. Indirectly, it also improve community involvement in sustainable solid waste management and recycling activities.

The KLLP2040 has identified potential areas for the provision of community recycling centres as follow:

1. Residential Area
 - a. Public Housing (PA); and
 - b. Program Perumahan Rakyat (PPR).
2. Community Activity Centres
 - a. Multi-purpose Halls; and
 - b. Community Centres.
3. Commercial Centres or Shopping Centres
 - a. Supermarkets; and
 - b. Shopping Centres.
4. Religious Centres.

BEST PRACTICE

WASTE MANAGEMENT AND RECYCLING OF GERMANY



There are six (6) different bins provided in Germany used to distinguish waste and garbage.

Germany is among the countries that have been successful in waste management and recycling. Through the introduction of a recycling schemes, Germany has successfully reduced its waste by 1 million tons each year. Germany recycles 70 percent of the waste produced, making the highest in the world.

Source: <https://earth.org/waste-management-germany/>

IMPLEMENTATION INITIATIVE 4-4.2B

IMPROVE IMPLEMENTATION OF PROGRAMMES, CAMPAIGNS AND PROMOTIONS

The implementation of programmes, campaigns and promotions will promote local community involvement as well as providing exposure on recycling practices. This implementation is an effort serves to create awareness, exposure, education and culture of recycling practices.

The necessary actions to support this initiative are as follows:

1. Encourage the participation of other stakeholders such as non-governmental organisations, corporate bodies and educational institutions as strategic partners of the programme;
2. Implement the 1 Community 1 Recycling (1C1R) programme and zero-waste communities in residential areas especially Public Housing (PA) and Program Perumahan Rakyat (PPR);
3. Establish a KLCH environmental team to coordinate activities and programmes with the city's residents and the local communities;
4. Conduct recycling awareness and education activities among the local community, through online or physically;
5. Optimise the use of social media platforms such as website, Facebook, Instagram, X and others to participate in promoting recycling related programmes and promotions in Kuala Lumpur;
6. Create display concepts for KLCH's billboards and social media platforms to attract various community groups. The content is in the form of images or videos, that consider the recycling programmes implemented among the local communities;
7. Provide content in the form of information, complaints, and recommendations related to the needs of recycling practices;
8. Increase access on social media by creating hashtags. The hashtags should focus on the role and contributions of the community in enhancing recycling practices and a zero-waste improve recycling; and
9. Recognise stakeholders, community groups, companies, or individuals who undertake various efforts and initiatives in supporting recycling practices.

IMPLEMENTATION INITIATIVE 4-4.2C

► ESTABLISH STRATEGIC COLLABORATION WITH STAKEHOLDERS

Strategic collaboration with stakeholders is an effort to instill recycling practices in local communities and to forge a future free from waste.

The necessary actions to support this initiative are as follows:

1. Encourage participation of stakeholders such as non-governmental organisations, corporate bodies and educational institutions as strategic partners of the programme;
2. Establish collaboration with the Federal Territory of Kuala Lumpur Education Department to foster awareness of recycling practices through co-curricular activities at the preschool or kindergarten, primary school, secondary school and higher education institutions;
3. Enhance the 5R adoption school programme with KLCH; and
4. Establish cooperation with local communities such as *Majlis Perwakilan Penduduk* residents' association and *Rukun Tetangga* (RT) through recycling programmes and 5R.



Location : Public Housing Scheme Sri Kota

Signing Memorandum of Understanding (MOU) between KLCH and non-governmental organisations as strategic partners in the recycling programme.



Location: Menara Tabung Haji Lobby

Source: <https://www.tabunghaji.gov.my/ms/berita/tue-12042018-1200/program-kitar-semula-di-pejabat-th-dengan-kerjasama-dewan-bandaraya-kuala>

Recycling Programme involves collaboration between Tabung Haji, the Department of Health and Environment, and KLCH, with the theme "Together, we maintain the cleanliness of the office for the comfort of daily tasks".



Location: Public Housing Scheme Sri Kota

1 Community 1 Recycling Programme is a collaborative programme between KLCH and Berjaya Enviroparks Sdn Bhd (BEP).

CP 4-4.3**STRENGTHENING SMART AND HIGH TECHNOLOGY SOLID WASTE MANAGEMENT**

Solid waste management includes organic waste and construction waste, managed through smart technology to prioritize environmental and public welfare. Organic waste is part of household solid waste, that consists of food waste. Construction waste is waste generated from activities such as building construction, renovation, demolition, land excavation, site clearing, road construction, and repair of damaged buildings.

Sustainable organic waste disposal is in line with the National Solid Waste Management Policy, which emphasizes comprehensive, cost-effective, sustainable solid waste management and public health protection. Whereas construction waste is not emphasized for recycling and is disposed of in bulk using space on the construction site, which in turn makes construction management inefficient. In relation to that, a construction solid waste management plan and sustainable construction methods need to be identified towards sustainable construction waste management.

Smart solid waste management is defined as the use of digital technology and the Internet of Things (IoT). The enhancement and modernization of solid waste collection infrastructure aligns with the promotion of such technologies use. It is also in line with the aspiration to transform Kuala Lumpur into a Smart City.

The implementation of smart solid waste management will centrally manage and record all important data such as the number of complaints, collection and transportation information, the amount of solid waste disposed and others. Solid waste management will be more systematic, allowing for detailed analysis and studies to be conducted in improving the quality of service in the future.

The proposal for the implementation of CP 4-4.3 is carried out through five (5) initiatives as follows:

1. Implement Smart And High-tech Solid Waste Management System;
2. Provide Organic Waste Disposal Facilities At Source;
3. Develop Database For Organic Waste Generation At Source;
4. Encourage Implementation of IBS System; and
5. Strengthen Implementation of Construction Waste Management Guidelines.

CP 4-4.3COORDINATION CONTEXT OF
SDGs AND KLSP2040

IMPLEMENTATION INITIATIVE 4-4.3A

► IMPLEMENT SMART AND HIGH-TECH SOLID WASTE MANAGEMENT SYSTEM

Smart and high-tech and smart solid waste management systems need to be implemented to enable more systematic management and capable of reducing negative impacts on the local community as well as the environment. This management system needs to be supported with Internet of Things (IoT) applications.

All solid waste management assets such as trash bins, collection trucks, transfer stations, landfills, and others, can be digitally connected and integrated into a unified information network.

The necessary actions to support this initiative are as follows:

1. Develop smart applications and sustainable solid waste management systems as shown in Figure 4.4.5;
2. Expand the use of smart bins equipped with ultrasonic sensors capable of detecting and transmitting information on collection status, waste quantity and location in real-time basis;
3. Equip the compactor trucks with the Auto Vehicle Locating System (AVLS);
4. Establish Centralised Command Centre (CCC) as a control and monitoring hub for real-time solid waste collection operations as well as the movement of compactor trucks;
5. Integrate smart bins location and the routes of compactor trucks through Radio Frequency Identification Device (RFiD);
6. Encourage the use of waste disposal methods at source through Automated Pneumatic Waste Collection Disposal System, a technology that manages solid waste at the source through underground pipe network infrastructure; and
7. Recognise stakeholders, community groups, companies, or individuals who undertake various efforts and measures in supporting the implementation of smart and high technology solid waste management systems as shown in Table 4.4.2.

Figure 4.4.5:
Smart Solid Waste Management System Proposal



Table 4.4.2:
Proposed Incentives to Encourage the Implementation of Smart and High-Tech Solid Waste Management Systems

Proposed Incentives to Promote Automatic Pneumatic Waste Collection System Application
1. Awards and publish the list of sustainable and green properties on the KLCH website
2. Recognise the preferred site for government activities
3. Facilitate GBI rating

Source: Malaysian Standard (MS) 1575 : 2007

IMPLEMENTATION INITIATIVE 4-4.3B

► PROVIDE ORGANIC WASTE DISPOSAL FACILITIES AT SOURCE

Organic waste disposal should be well managed through the provision of disposal facilities at the source of waste generation site. The degradation process of organic food waste disposed of at landfills is the main source of methane gas production. The methane gas is one of the greenhouse gases (GHG) that can damage to the ozone layer and contribute to global warming.

Anaerobic digestion is a process of degrading organic material in a closed space by microorganisms in the absence of oxygen. The result of this degradation process, the energy stored in the organic material is converted into combustible biogas and organic fertilizer.

The KLLP2040 identifies areas or sources that generate high amounts of organic waste as a result of the activities of a particular individual or specific groups. The provision of this facility should be implemented as to ensure a clean environment and not detrimental to the environment including public health. Facilities of organic waste disposal at source potentially to be implemented at wholesale markets, public markets and hawker centres.

The necessary actions to support this initiative are as follows:

1. Identify suitable wholesale markets, public markets and hawker centres for implementation of centralised organic waste disposal facilities;
2. Provide Anaerobic Digestive (A.D) facilities or composting machines according to the appropriate scale; and
3. Ensure the provided facilities comply with the Malaysian Smart City Indicator Standard (MS ISO 37122:2019).

BRIEF INFO

SEPERATION OF INORGANIC WASTE AT SOURCE

- 1 The separation of waste generated at the source according to the waste composition such as:



- 2 The purpose for separation of Solid Waste are:

- Avoid disposal of recyclable materials
- Reduce amount of solid waste sent to landfill
- Reduce national budget for solid waste disposal process

This separation is based on regulations under the Solid Waste Management and Public Cleansing Act 2007 (Act 672) enforced in the Federal Territory of Kuala Lumpur and Putrajaya, Pahang, Johor, Melaka, Negeri Sembilan, Perlis and Kedah since 1 June 2016.



Source: Alam Flora Sdn Bhd

IMPLEMENTATION INITIATIVE 4-4.3C

► DEVELOP DATABASE FOR ORGANIC WASTE GENERATION AT SOURCE

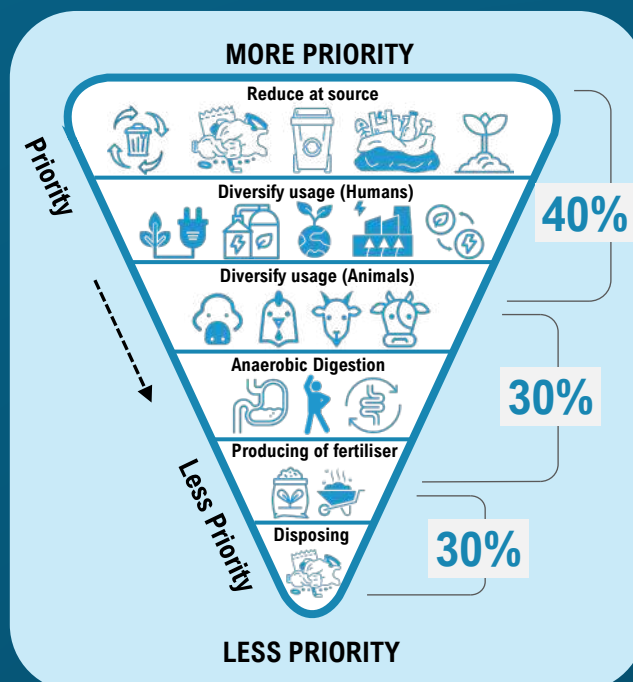
The development of an integrated database is a method for storing and managing data related to the generation of organic waste at source. This database will facilitate the planning and management of organic waste more systematically in the future.

The necessary actions to support this initiative are as follows:

1. Identify main components of an integrated database for organic waste generation;
2. Develop an integrated database for the management of organic waste generation at source;
3. Identify and record data on the amount and types of organic waste generated by day, month or year, existing waste storage locations, existing food waste collectors, delivery locations and others; and
4. Strengthen and update organic waste management data at source of waste generation location for reference and future planning.

BRIEF INFO

HIERARCHY OF ORGANIC WASTE MANAGEMENT BEST PRACTICES



Source: Solid Waste and Public Cleansing Management Corporation (SWCorp) 2014 till 2020

BRIEF INFO

TYPES OF RECYCLEABLE CONSTRUCTION SOLID WASTE



Source: Solid Waste and Public Cleansing Management Corporation (SWCorp)

IMPLEMENTATION INITIATIVE 4-4.3D

► ENCOURAGE IMPLEMENTATION OF IBS SYSTEM

Industrial Building System (IBS) is a prefabricated construction technique or building construction method in ensuring the sustainability of the construction sector. The IBS system provides buildings components either in a factory or on-site. Subsequently, the components are transferred and installed at the construction site with minimal labor consumption and thus reducing construction activities.

The use of IBS is able to improve the quality and productivity of construction sector as well as reducing generation of construction waste at the site which typically produces physical waste such as brick fragments, excess concrete, cut metal, wood, plastic packaging waste, cardboard packaging, PVC pipes, and others.

The IBS is also capable of promotes green technology in the construction sector, reduces carbon emissions, cost-effective, and reduces waste during construction.

The necessary actions to support this initiative are as follows:

1. Implement IBS Score which is a systematic and structured calculation method in identifying the usage level of IBS components in a building project;
2. Determine appropriate score level according to the implementation stage to meet the criteria for IBS application. The KLLP2040 suggests that a score exceeding 70 percent serves as a benchmark in efforts to enhance the use of IBS in construction sector; and
3. Ensure usage of IBS is controlled through planning control mechanism during the application of Development Order (DO) especially for new developments.

IMPLEMENTATION INITIATIVE 4-4.3E

► STRENGTHEN IMPLEMENTATION OF CONSTRUCTION WASTE MANAGEMENT GUIDELINES

The implementation of this guideline should be reinforced to ensure stakeholders involved will assist in implementing a good and efficient construction solid waste management system.

The stakeholders involved in construction solid waste management include developers, engineers, consultants, architects, urban planners, construction and demolition contractors, collection service contractors and government agencies.

The necessary actions to support this initiative are as follows:

1. Adopt Solid Waste Management Guidelines for new and existing developments;
2. Provide construction solid waste management facilities and services at the construction site;
3. Prepare Construction Solid Waste Management Planning (PPSB) documents; and
4. Ensure implementation of these guidelines is controlled through the planning control mechanism during the application of Development Order (DO) especially for new developments.



The implementation of guidelines needs to be strengthened to ensure a good construction solid waste management system.

IMPROVING EFFICIENCY OF WATER AND SEWERAGE MANAGEMENT

SCENARIO OF WATER AND SEWERAGE MANAGEMENT EFFICIENCY IN KUALA LUMPUR

Efficient and sustainable management of water supply and sewerage services is essential to cope with growing demand for water, global issues involving climate change, urbanisation and ongoing economic development.

New urban development areas and growth of economic activities have increased the demand for treated water and the need for more effective sewage treatment systems. The efficiency and reliability of a clean water supply systems and wastewater treatment are key components in the management of a city.

The water services industry in urbanised areas continues to face issues related to demand, wastage and high non-revenue water rates, as well as pollution of raw water sources.

The need for more environmentally friendly and sustainable sewage or waste disposal methods has become more challenging with rapid urbanisation.

Enhancing the accessibility of premises to the Regional Sewage Treatment Plants (RSTP) is the main strategy towards an effective and integrated sewerage system for Kuala Lumpur.

This planning strategy includes upgrading existing RSTPs to meet future demand and widening main sewer pipeline network. This is to extend the accessibility of centralised or connected sewerage system in Kuala Lumpur. Water supply and sewerage services complement the water cycle process and are closely interrelated.

Towards realizing Kuala Lumpur as a city capable of efficiently and sustainably managing water, five (5) Implementation Proposal are formulated under Planning Strategy 4–5, as shown in Figure 4.5.1.

BRIEF INFO

SCENARIO OF EXISTING WATER USAGE AND FUTURE TARGET



Source: Ministry of Environment and Water

Year 2023

219 liters/capita/daily



Source : Target Ministry of Environment and Water

Target for Year 2025

180 liters/capita/daily



Source : Targets of the United Nations (UN)

Target for Year 2040

165 liters/capita/daily

Figure 4.5.1:
Implementation of Proposals for Planning Strategy 4-5

SP 4-5

IMPROVING EFFICIENCY OF WATER AND SEWERAGE MANAGEMENT

CP 4-5.1

Improving Availability of Non-potable Water Supply Resources

CP 4-5.2

Enhancing Elements of Water Saving

CP 4-5.3

Developing Project Off River Storage Facility (ORS)

CP 4-5.4

Integrating Supply From Langat 2 Water Treatment Plant (WTP) and Upgrade Existing Water Treatment Plant

CP 4-5.5

Upgrading Regional Sewage Treatment Plant (RSTP)

CP 4-5.1

IMPROVING AVAILABILITY OF NON-POTABLE WATER SUPPLY RESOURCES

The availability and the usage of water in urban areas are referred to two (2) categories, namely treated water and untreated water.

Treated water refers to clean and safe drinking water supplied by water treatment plants after undergoing a systematic and regulated treatment process.

Untreated water is unsafe for drinking, not from domestic supply sources, and has not undergone proper treatment process. Untreated water can be utilised for outdoor cleaning, watering, irrigation and other activities that do not involve cleaning or food-related use.

Segregation of resources, infrastructure and usage of water category is the foundation for efficient and sustainable water management in Kuala Lumpur.

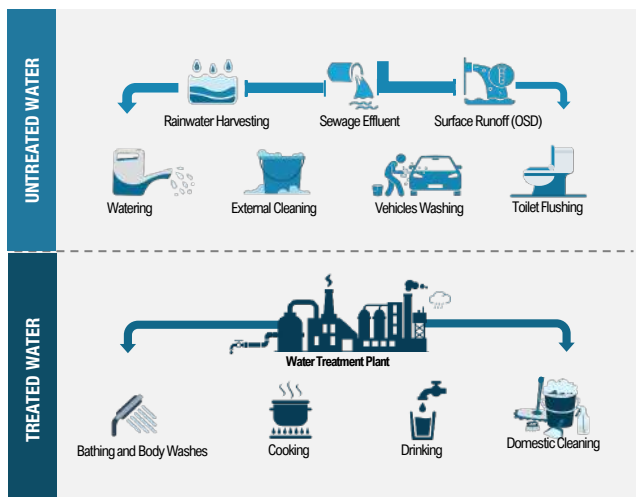
The main strategy towards enhancing the efficiency of sustainable water management is to strengthen the availability of untreated water resources and expand its usage to reduce pressure on the demand of treated water.

The proposal for the implementation of CP 4-5.1 is carried out through one (1) initiative as follows:

1. Strengthen Availability of Untreated Water Supply Sources.

BRIEF INFO

FUTURE USAGE OF WATER



CP 4-5.1

COORDINATION CONTEXT OF SDGs AND KLSP2040



IMPLEMENTATION INITIATIVE 4-5.1A

► STRENGTHEN AVAILABILITY OF UNTREATED WATER SUPPLY SOURCES

Untreated water supply sources include wastewater, surface runoff, and rainwater harvesting or On-Site Detention (OSD) facilities.

These untreated water sources need to be explored in order to enhance the availability of untreated water in Kuala Lumpur.

It is a measure towards mitigating the risk of the city's citizens lacking water supply, especially during the hot season. Exploring these water sources will lead to more efficient and sustainable water management.

The necessary actions to support this initiative are as shown in Table 4.5.1.

Table 4.5.1:

Measures to Strengthen the Availability of Untreated Water Supply Sources in Kuala Lumpur

Untreated Water Resource	Actions	Details
Sewage Wastewater	Implement Wastewater Recycling Programme	Usage of eight (8) Regional Sewage Treatment Plant (RSTP) facilities as sources of untreated water as follows: <ol style="list-style-type: none"> RSTP Pantai; RSTP Lower Kerayong; RSTP Bunus; RSTP Sri Hartamas; RSTP Sungai Besi; RSTP Bandar Tun Razak; RSTP TTDI/ Damansara; and RSTP Batu.
Surface Runoff Water	Provide surface runoff water collection and storage facilities	<ol style="list-style-type: none"> Install underground storage facilities for surface runoff water collection process as a source of untreated water in particular to the following locations: <ol style="list-style-type: none"> Open area; Public area; and Non-water-permeable areas such as roads, vehicle parking lots and concrete squares. Determine the required size of retention ponds, whether community or regional of a development.
Rainwater Harvesting or On-Site Detention	Build and maintain Rainwater Harvesting System (SPAH) and On-Site Detention (OSD)	<ol style="list-style-type: none"> Dual-plumbing system is an internal plumbing system of a building that has two (2) sources and flows, namely untreated water (SPAH and OSD) and treated water; The segregation of these sources and flows can help conserve treated water in user's daily activities; and The treated water is only used for bathing and body washing, cooking, drinking and indoor cleaning.

CP 4-5.2**ENHANCING ELEMENTS OF
WATER SAVING**

Water is a vital necessity for life and supports the growth of development. The increase in human population, business activities and industrial sector expansion contributes to a high rate of water consumption. Therefore, the need to be prudent in water consumption is crucial in ensuring the availability of adequate future water supply in Kuala Lumpur.

Most of the water used by Malaysians are mainly use for cleaning, bathing, washing, cooking, drinking, laundry, irrigation, and others. If this excessive use of water can be reduced, it can help to save:

1. Cost and energy for clean water treatment process;
2. Cost of providing water supply support facilities such as water tanks, booster pumps and pipe networks infrastructure; and
3. Cost of environmental preservation, such as conservation of catchment areas as well as minimising the need for dam construction.

Water conservation will also enhance the quality of life for urban residents and reduce the burden of water bill for consumers.

The proposal for the implementation of CP 4-5.2 will be carried out through two (2) initiatives as follows:

1. Encourage Use of Water Saving Systems and Equipment For Buildings; and
2. Promote Culture And Practices of Water Saving.

BRIEF INFO**WATER SAVING MEASURES****CP 4-5.2****COORDINATION CONTEXT OF
SDGs AND KLSP2040**

IMPLEMENTATION INITIATIVE 4-5.2A**► ENCOURAGE USE OF WATER SAVING SYSTEMS AND EQUIPMENT FOR BUILDINGS**

The use of water-saving systems and equipment for buildings is a physical measure to reduce water consumption especially in the domestic sector.

Buildings in Kuala Lumpur need to be equipped with the necessary systems and equipment towards achieving the goal of water savings.

The necessary actions to support this initiative are as follows:

1. Equip buildings with the installation of Water Saving Devices (WSD); and
2. Implement installation of Dual-Plumbing for new buildings.

Details of the proposed measures and implementation mechanisms to encourage the use of water-saving systems and equipment for buildings are as shown in Table 4.5.2.

IMPLEMENTATION INITIATIVE 4-5.2B**► PROMOTE CULTURE AND PRACTICES OF WATER SAVING**

Campaigns and promotions to foster a water saving way of life and culture are proactive efforts and steps towards building a community with high water-saving awareness.

The necessary actions to support this initiative are as follows:

1. Encourage participation of other stakeholders such as non-governmental organisations, corporate bodies, and educational institutions as strategic partners of the programme;
2. Organise continuous water saving programmes, events and campaigns;
3. Cultivate awareness of water-saving practices through co-curricular activities at the preschool or kindergarten, primary school, secondary school, and higher education levels;
4. Make World Water Day as a platform for organising activities towards fostering awareness of water saving among city citizen; and
5. Optimise use of social media platforms such as website, Facebook, Instagram, X, and others in displaying water saving information.

Table 4.5.2:

Proposed Promoting the Use of Water Saving Systems and Equipment for Buildings

Actions	Implementation Mechanism
<p>1. Equip Buildings With Water Saving Device (WSD) Installation</p> <p>The reduction and control of water flow through WSD installation are as follows:</p> <ol style="list-style-type: none"> a. Toilet fittings with a "dual flush" system that allows for a "half flush" (3 litres) and "full flush" (6 litres); b. Installation of a low-flow aerator; c. Low-flow showerheads; d. Automatic Nozzle Shut Off; e. Water saving washing machine; and f. Water saving dishwashing machine <p>2. Implement Dual-Plumbing Installation for New Buildings</p> <p>The use of dual-plumbing with segregation of sources piping systems, and the use of untreated water as well as treated water can enhance water saving consumption at source.</p>	<ol style="list-style-type: none"> 1. Green Building Index (GBI) rating support for buildings equipped with water management efficiency features including rainwater harvesting, water recycling and water saving equipment; 2. Certification and listing of sustainable and green buildings on the KLCH Sustainable and Green Building website; and 3. Recognition and listing as a preferred buildings for national and international seminar and conference activities

CP 4-5.3

DEVELOPING PROJECT OFF-RIVER STORAGE FACILITY (ORS)

The Off-River Storage Facility (ORS) project aims to stabilise river flow and enhance the management of raw water resources.

The main concept for the proposed ORS project is to integrate water retention ponds and the existing river network in Kuala Lumpur.

The construction of ORS provides an alternative for raw water pumping stations by halting the abstraction of water from the rivers in the event of pollution. This is because the raw water source will shift to ORS, and allow the water treatment plants to continue operating.

Pollution prevention measures is to prevent dirt, debris, oil, harmful metals and others to ensure water sources reach a certain standard for use.

The proposal for the implementation of CP 4-5.3 is carried out through one (1) initiative as follows:

1. Identify Construction Location For Off-River Storage Facility (ORS).



CP 4-5.3

COORDINATION CONTEXT OF
SDGs AND KLSP2040



IMPLEMENTATION INITIATIVE 4-5.3A

► IDENTIFY CONSTRUCTION LOCATION FOR OFF-RIVER STORAGE FACILITY (ORS)

Planning for the construction of water reservoirs along riverbanks is one of the best efforts in overcoming water supply issues for city citizens if the raw water source is contaminated.

The necessary actions to support this initiative are as follows:

1. Identify ponds and rivers that have connectivity;
2. Ensure that ponds have an area of more than 10 hectares (24 acres);
3. Ensure that the main river has a large catchment area; and
4. Integrate with Flood Mitigation Plan (RTB).

BEST PRACTICE

EXAMPLE OF RIVER RESERVOIR IN GLEN CANYON, UNITED STATES



Location : Lake Powell, United States of America
Source: <https://www.usbr.gov/uc/rm/crsp/gc/>

Lake Powell is a reservoir river that stores water to enhance the management of raw water resources more effectively.

Lake Powell is the second-largest reservoir in the United States, stretching over 186 miles long that formed by the waters of Colorado River behind the Glen Canyon Dam.

Lake Powell provides long-term water storage that allows the states located within the Upper Basin of Colorado River such as Wyoming, Colorado, New Mexico, and Utah to use it.

Table 4.5.3:

Proposed Construction Location for Off-River Storage Facility (ORS)

1. Project Name: ORS Project Sungai Jinjang and Sungai Batu
2. Location Involved:
 - a. Kolam Nanyang, Sungai Jinjang;
 - b. Kolam Wahyu, Sungai Jinjang;
 - c. Kolam Kampung Delima, Sungai Jinjang; and
 - d. Kolam Batu, Sungai Batu.



Acreage:
112.25 hectares (278 acres)

1. Project Name: ORS Project Sungai Kerayong
2. Location Involved: Tasik Sri Permaisuri, Sungai Kerayong



Acreage:
16.61 hectares (41 acres)

1. Project Name: ORS Project Sungai Gombak
2. Location Involved: Tasik Titiwangsa, Sungai Gombak



Acreage:
15.31 hectares (37 acres)

1. Project Name: ORS Project Sungai Kuyoh
2. Location Involved: Kolam Kampung Bohol, Sungai Kuyoh



Acreage:
19.80 hectares (48 acres)

CP 4-5.4**INTEGRATING SUPPLY FROM LANGAT 2 WATER TREATMENT PLANT (WTP) AND UPGRADING EXISTING WATER TREATMENT PLANT**

Kuala Lumpur has two (2) Water Treatment Plants (WTPs) namely Bukit Nanas WTP and Wangsa Maju WTP. Upgrading of WTP is required due to the growing needs for domestic water demand.

The suitable upgrading programme of WTP is in line with efforts to explore new water sources, namely the Off-River Storage Facility (ORS) and groundwater.

The planning of the Langat 2 WTP, with a capacity of 2,260 Million Litres per day (MLD), bring benefits and potential for Kuala Lumpur to upgrade the capacity of existing WTP. The Langat 2 WTP developed by Pengurusan Aset Air Berhad (PAAB) is expected to be fully completed by the end of 2023 and capable of supplying clean water to Kuala Lumpur and Selangor.

These three WTPs will be the main facilities of Kuala Lumpur's clean water supply system by 2040.

The proposal for the implementation of CP 4-5.4 is carried out through one (1) initiative as follows:

1. Upgrade Capacity of Water Treatment Plant (WTP) Kuala Lumpur.

**CP 4-5.4**

COORDINATION CONTEXT OF SDGs AND KLSP2040

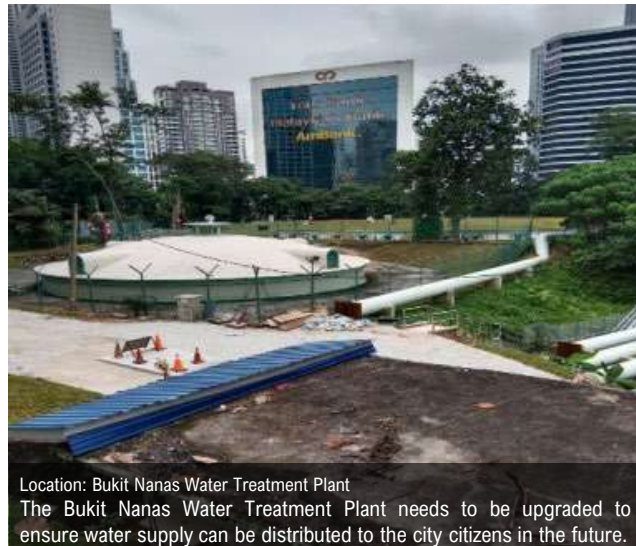


IMPLEMENTATION INITIATIVE 4-5.4A

► UPGRADE CAPACITY OF WATER TREATMENT PLANT (WTP) KUALA LUMPUR

Efforts to enhance and strengthen the capacity and availability of clean and treated water in Kuala Lumpur include planning of Project Off-River Storage Facility (ORS), integration of Langat 2 WTP and upgrading of water treatment plants to expand and increase water supply in Kuala Lumpur.

The need for upgrading of existing WTP capacity is necessary by using efficient technology to ensure sustainable water supply. The necessary actions to support this initiative are as shown in Table 4.5.4.



Location: Bukit Nanas Water Treatment Plant
The Bukit Nanas Water Treatment Plant needs to be upgraded to ensure water supply can be distributed to the city citizens in the future.

Table 4.5.4:
Proposed Upgrading of Kuala Lumpur Water Treatment Plant

WTP Upgrading Programme		
WTP	Bukit Nanas Water Treatment Plant	Wangsa Maju Water Treatment Plant
Plan		
Current of Capacity	145 MLD	45 MLD
Capacity 2040	250 MLD	100 MLD
Components Upgrade	<ol style="list-style-type: none"> 1. Mechanical Equipment; 2. Pumping ability; 3. New raw water pipes; and 4. Improvement of treatment facilities. 	

CP 4-5.5

UPGRADING REGIONAL SEWAGE TREATMENT PLANT (RSTP)

Sewerage services are a process to collect, deliver, and treat wastewater, as well as maintain sewerage systems and septic tanks. The services are divided into two (2) types which are the direct sewerage system connected to the public sewage treatment plant (centralised or connected) and the individual septic tanks.

A centralised sewerage system or also known as a connected system serves to collect and treat sewage from waste generated by certain catchment ponds. It is a system that includes a network of sewage pipes from several sources in an area, and subsequently treated at a centralised sewage treatment plant.

The centralised or connected sewerage system is an important infrastructure for any area, to ensure the well-being of the residents, livability and environmental sustainability.

This proposal focuses on enhancing the accessibility of premises to the centralised sewerage system by expanding and upgrading the capacity of existing centralised sewage treatment plants to meet future demand.

The proposal for the implementation of CP 4-5.5 is carried out through one (1) initiative as follows:

1. Upgrade and Rationalise Regional Sewage Treatment Plant (RSTP)



Location: Pantai Regional Centralised Sewage Plant (RSTP) , Kuala Lumpur
The Pantai Regional Centralised Sewage Plant (RSTP) is the largest RSTP in Kuala Lumpur.

CP 4-5.5

COORDINATION CONTEXT OF SDGs AND KLSP2040



IMPLEMENTATION INITIATIVE 4-5.5A

► UPGRADE AND RATIONALISE REGIONAL SEWAGE TREATMENT PLANT (RSTP)

The programme to upgrade and rationalise the services of the Regional Sewage Treatment Plant (RSTP) aimed at ensuring a more cost-effective maintenance and efficient service management.

The necessary actions to support this initiative are as follows:

1. Plan an efficient and sustainable use of infrastructure and technology in each upgrading and rationalisation project of RSTP services;
2. Increase productivity and efficiency of premises accessibility to the RSTP system; and
3. Strengthen control and monitoring framework of RSTP services.

KLLP2040 has identified eight (8) existing RSTPs that have the potential to be upgraded as shown in the Table 4.5.5.

BEST PRACTICE

RATIONALISATION PROGRAMME OF LANGAT RSTP

The Langat Regional Sewage Treatment Plant (RSTP) has successfully rationalised 164 small sewage plants to 105 kilometres of sewage pipes and 920,000 P.E. treatment capacity.

The RSTP Langat is built on 7.3-hectare of land and uses the expertise of Japan Deep Aeration Method, which is able to reduce carbon impact during the Step-Feed Multi-Stage De-Nitrification Process.



Table 4.5.5:
Proposed of Upgrading of Regional Sewage Treatment Plant (RSTP)

Regional Sewage Plant (RSTP)	Year of Implementation	Catchment Area	Capacity (P.E)	
			Current	New
Pantai	2025 (Phase 1) 2030 (Phase 2)	1. Robson Height; 2. Taman Seputeh; 3. Taman Duta; 4. Kampong Bharu; 5. Pusat Bandar; and 6. Taman Halimaton.	1,800,000	2,700,000
Bunus	2025	1. Ampang Hilir; 2. Kampung Datuk Keramat; 3. Taman U-Thant; 4. Kawasan Perumahan Jalan Air Bersih; and 5. Entire Bunus Catchment Area	1,120,000	1,500,000
TTDI/ Damansara	2020	-	200,000	400,000

Figure 4.5.5:

Proposed of Upgrading of Regional Sewage Treatment Plant (RSTP) (Continued)

Regional Sewage Plant (RSTP)	Year of Implementation	Catchment Area	Capacity (P.E)	
			Current	New
Bandar Tun Razak	2020	1. Taman Midah; and 2. Taman Connaught.	100,000	200,000
Lower Kerayong	2020	1. Salak Selatan; 2. Bukit Petaling; 3. Kampung Kerayong; 4. Kampung Baru Salak Selatan; and 5. Kuchai Entrepreneurs Park.	220,000	400,000
Sri Hartamas	2020	1. Kampung Segambut Dalam; 2. Kampung Palimbayan; and 3. Mont Kiara.	153,000	250,000
Sungai Besi	2025 (Phase 1)	1. Kem Tentera Sungai Besi; and 2. Pekan Sungai Besi.	100,000	150,000
Batu	-	1. Kampung Batu Muda; 2. Selayang Baru; 3. Jinjang Utara; 4. Taman Seri Segambut; 5. Jinjang Selatan Tambahan; 6. Kem Batu Kentonmen; 7. Kampung Changkat; 8. Sentul; 9. Kepong; and 10. Batu Caves.	-	1,000,000
Supply (Total New Capacity)				6,600,00 P.E
Demand (Projection 2040)		Commercial :2,309,367 Residential: 2,524,000 Industrial: 371,910		4,935,277 P.E

Source: Indah Water Konsortium (IWK), 2023

ENHANCING SUSTAINABLE DRAINAGE SYSTEMS

SCENARIO OF DRAINAGE SYSTEM IN KUALA LUMPUR

The drainage system in urban areas has transformed from a traditional method that were only serves to control flooding to a more integrated design covering elements of flood control, landscaping, urban beautification, recreation and public facilities.

A sustainable urban drainage system (SUDS) are a concept of a long-term drainage system that consider natural factors and human activities. The approach used involves preserving natural flow, infiltration or penetration of water into the soil, removal or filtration of waste products and removal of pollutants by plant layers.

The frequency of flash floods in Kuala Lumpur due to global climate change, is a major social issue that will affect the livability of the city in the future..

Towards realizing Kuala Lumpur as a city that practices a sustainable drainage system, one (1) Implementation Proposal is formulated under Planning Strategy 4–6, as shown in Figure 4.6.1.



Location: Taman Tasik Permaisuri

Taman Tasik Permaisuri is an example of sustainable drainage system in Kuala Lumpur.

BRIEF INFO

SUCCESS AND ACHIEVEMENT OF SUSTAINABLE URBAN DRAINAGE CONCEPT

Success and Achievement of Sustainable Urban Drainage System Concept

Controlling flood and pollution

Enhancing biodiversity

Reducing urban heat and carbon emissions

Increasing the availability of Non-Potable water resources

Expanding public areas, recreation and Green

Improving urban livability

Source: Urban Storm Water Management Manual (MSMA)

Figure 4.6.1:
Implementation of Proposal for Planning Strategy 4-6

SP 4-6

ENHANCING SUSTAINABLE DRAINAGE SYSTEMS

CP 4-6.1

Adopting Eco-friendly Approach in Drainage System

CP 4-6.1

ADOPTING ECO-FRIENDLY APPROACH IN DRAINAGE SYSTEM

The occurrence of flooding in Kuala Lumpur is becoming increasingly alarming, hence a more effective and efficient drainage system approach is needed. Flooding occurs when heavy rainfall increases surface runoff, and causing drainage systems or a river basins to be unable to function as water catchment areas. Drainage systems that are not poorly maintained also a key cause of flooding.

The eco-friendly drainage system aims to reduce the incidence of flooding and curb water pollution. The main focus of this drainage system is on the management of surface runoff for environmental sustainability and improvement in quality of life.

The adoption of eco-friendly drainage systems is required in dense areas where surface runoff is high and critical. This drainage system also includes control approach at source.

The proposal for the implementation of CP 4-6.1 is carried out through one (1) initiative as follows:

1. Adapt Sponge City Concept Drainage System.



Location: Taman Rasah Utama , Seremban
Best practices of eco-friendly drainage systems with the implementation of dry retention pond.

CP 4-6.1

COORDINATION CONTEXT OF SDGs AND KLSP2040



IMPLEMENTATION INITIATIVE 4-6.1A

► ADAPT SPONGE CITY CONCEPT DRAINAGE SYSTEM

The concept of a sponge city is an effective approach to creating a sustainable urban drainage system. Sponge City is a large-scale method of storing and utilising rainwater that supports the reduction of flood risks and increases the amount of reusable water. It also can reduce the risk of water pollution, heat island effect, and enhances the availability of recreational and green areas including biological diversity.

The necessary actions to support this initiative are as follows:

1. Strengthen Urban Storm Water Management Manual (MSMA) through specific standards, parameters, and design criteria on development in city centre;
2. Improve the storage capacity of drainage system and retention ponds, such as the construction of underground ponds for redevelopment and new developments, as well as Flood Mitigation Plan (RTB);
3. Usage of artificial wetlands and natural retention ponds;
4. Plan the continuity of green and blue networks with appropriate width and set back through zone of riverside corridor, lake and pond;
5. Design a permeable drainage system, which uses infiltration through vegetation to prevent surface runoff pollution;
6. Encourage the implementation of green roofs on buildings, especially in the city centre;
7. Adopt water conservation and reuse in buildings, such as rainwater harvesting for daily use;
8. Establish a monitoring and maintenance mechanisms for all MSMA-built facilities in Kuala Lumpur to make them more effective and systematic; and
9. Implement specific initiatives for upgrading the drainage system in Kuala Lumpur as shown in the Table 4.6.1.



Location: Kolam Tebatan Banjir Kampung Bohol

Kolam Kampung Bohol is one of the potential retention ponds or water bodies that could serve as lakeside zone.



Location: Sungai Gombak

Riverside Zone at Sungai Gombak can be developed as a continuation of the green and blue corridors in Kuala Lumpur.



Location: Taman Botani Perdana

Taman Tasik Perdana has the potential to serve as a flood retention pond with capacity of 22.64 cubic metres for the Sungai Bras-Bras catchment area.

Table 4.6.1:**List of Drainage System Upgrade in Kuala Lumpur**







	Area	Specific Initiatives
1	Sungai Belankong	 <ol style="list-style-type: none"> 1. Deepen Sungai Belankong to accommodate the capacity of runoff and rainwater in the future; and 2. Upgrade Sungai Belankong from earth drain to concrete U-Drain.
2	Sungai Kemuning (upstream)	 <ol style="list-style-type: none"> 1. Redesign and upgrade Sungai Kemuning to a concrete drainage system (upstream); and 2. Upgrade part of Sungai Kemuning to concrete drain (L-Shape) starting from Taman Koperasi Polis to Sentul Pasar.
3	Sungai Kemuning (downstream)	 <ol style="list-style-type: none"> 1. Redesign and upgrade Sungai Kemuning to a concrete drainage system (downstream).
4	Sungai Jinjang	 <ol style="list-style-type: none"> 1. Upgrade part of Sungai Jinjang downstream to concrete drain (L-Shape) ; and 2. Set a buffer area for the main riverside corridor with a minimum distance of 10 metres from the riverbank to development lot boundary.
5	Sungai Untut	 <ol style="list-style-type: none"> 1. Upgrade of Sungai Untut starting from Batu Muda until the confluence of Sungai Gombak.
6	Sungai Toba	 <ol style="list-style-type: none"> 1. Upgrade most of the stretch of the Sungai Toba through widening the Concrete drain (L-Shape) ; and 2. Set a buffer area for the main riverside corridor with a minimum distance of 10 metres from the riverbank to development lot boundary.

Table 4.6.1:
List of Drainage System Upgrading in Kuala Lumpur (continue)







	Area	Specific Initiatives
7	<p>Sungai Kayu Ara</p> 	<ol style="list-style-type: none"> 1. Upgrade part of Sungai Kayu Ara starting from the SPRINT highway along Jalan Penchala Hilir to concrete U-Drain; and 2. Set a buffer area for the main riverside corridor with a minimum distance of 10 metres from the riverbank to development lot boundary.
8	<p>Monsoon Drain (Kementah)</p> 	<ol style="list-style-type: none"> 1. Upgrade monsoon drain from Kampung Pandan to Bandar Malaysia (RMAF Sungai Besi) until the confluence of Sungai Kerayong.
9	<p>Monsoon Drain (Jalan Ampang)</p> 	<ol style="list-style-type: none"> 1. Upgrade monsoon drain at Jalan Ampang.
10	<p>Monsoon Drain (Jalan Tun Razak and Jalan U-Thant)</p> 	<ol style="list-style-type: none"> 1. Enlarge monsoon drains along Jalan Tun Razak and U-Thant.
11	<p>Drains on the highway</p> 	<ol style="list-style-type: none"> 1. Upgrade monsoon drains along the following highways: <ol style="list-style-type: none"> a. Tuanku Abdul Halim Highway; and b. Sultan Iskandar Highway to Tasik Perdana
12	<p>Monsoon Drain (Jalan Bellamy – Jalan Syed Putra)</p> 	<ol style="list-style-type: none"> 1. Upgrade and enlarge the monsoon drain between Jalan Bellamy and Jalan Syed Putra.

Table 4.6.1:

List of Drainage System Upgrading in Kuala Lumpur (continue)













	Area	Specific Initiatives
<p>13</p> <p>Monsoon Drain (Jalan Kampung Pandan dan Jalan Travis)</p>		<ol style="list-style-type: none"> 1. Upgrade monsoon drains at Jalan Kampung Pandan and Jalan Travis; and 2. Enlarge monsoon drains along the following roads: <ol style="list-style-type: none"> a. The main drain at Royal Selangor Club; and b. Jalan 1/76, Desa Pandan.
<p>14</p> <p>Monsoon Drain (Taman Maluri)</p>		<ol style="list-style-type: none"> 1. Upgrade monsoon drain at Taman Maluri.
<p>15</p> <p>Sungai Bras-Bras</p>		<ol style="list-style-type: none"> 1. Upgrade Sungai Bras-Bras (downstream).
<p>16</p> <p>Sungai Anak Air Batu</p>		<ol style="list-style-type: none"> 1. Upgrade Sungai Anak Air Batu starting from the Universiti of Malaya (UM) retention ponds to the UM entrance.
<p>17</p> <p>Sungai Batu</p>		<ol style="list-style-type: none"> 1. Set a buffer area for the main riverside corridor with a minimum distance of 10 metres from the riverbank to development lot boundary.
<p>18</p> <p>Sungai Klang</p>		<ol style="list-style-type: none"> 1. Set a buffer area for the main riverside corridor with a minimum distance of 10 metres from the riverbank to development lot boundary.

Table 4.6.1:
List of Drainage System Upgrading in Kuala Lumpur (continue)

	Kawasan	Specific Initiatives
19	<p>Sungai Penchala</p> 	<ol style="list-style-type: none"> 1. Set a buffer area for the main riverside corridor with a minimum distance of 10 metres from the riverbank to development lot boundary.
20	<p>Sungai Midah</p> 	<ol style="list-style-type: none"> 1. Set a buffer area for the main riverside corridor with a minimum distance of 10 metres from the riverbank to development lot boundary. 2. Improve Drainage capacity for implementation of Flood Mitigation (RTB).
21	<p>Sungai Keroh</p> 	<ol style="list-style-type: none"> 1. Set a buffer area for the main riverside corridor with a minimum distance of 10 metres from the riverbank to development lot boundary.
22	<p>Sungai Bohol</p> 	<ol style="list-style-type: none"> 1. Set a buffer area for the main riverside corridor with a minimum distance of 10 metres from the riverbank to development lot boundary.
23	<p>Sungai Kuyoh</p> 	<ol style="list-style-type: none"> 1. Set a buffer area for the main riverside corridor with a minimum distance of 10 metres from the riverbank to development lot boundary. 2. Improve Drainage capacity for implementation of Flood Mitigation (RTB).
24	<p>Sungai Bunus</p> 	<ol style="list-style-type: none"> 1. Set a buffer area for the main riverside corridor with a minimum distance of 10 metres from the riverbank to development lot boundary.

Source: Master Plan for the Kuala Lumpur City Drainage and Stormwater Management System

PROMOTING LOW CARBON DEVELOPMENT

SCENARIO OF LOW CARBON DEVELOPMENT IN KUALA LUMPUR

Climate change leads to the occurrence of extreme weather phenomena such as heavy rainfall thunderstorms, and heatwaves. The frequency and intensity of these extreme weather events are expected to increase in the future and become a threat to the growth of Kuala Lumpur.

Kuala Lumpur needs to address climate change by reducing carbon emissions to improve economic growth, living environments, and social well-being.

The Kuala Lumpur Low Carbon Society Blueprint 2030 (KL LCSBP 2030) aims to reduce the carbon emission intensity of per Gross Domestic Product (GDP) by 70 percent by 2030. The plan also intends to make Kuala Lumpur a Carbon Neutral City by 2050, in line with the Kuala Lumpur Climate Action Plan 2050 (KLCAP2050).

KLSP2040 targets a higher reduction in carbon emission intensity by GDP, which is 85 percent compared to 70 percent target of KL LCSBP 2030. Kuala Lumpur needs to take proactive measures to mitigate the carbon emissions from buildings, transportation, waste, carbon sinks, and communities, as main contributors of carbon emissions.

Towards realizing Kuala Lumpur as a city with low carbon development, five (5) Implementation Proposals are formulated under Planning Strategy 4-7, as shown in Figure 4.7.1.

BRIEF INFO

NATIONAL COMMITMENT OF CARBON EMISSION REDUCTION 2030

-45%



Malaysia announced a commitment to reduce carbon emission intensity based on GDP up to 45 percent by 2030 at COP21, Paris (2015)

KUALA LUMPUR COMMITMENT FOR 2030, 2040, AND 2050

Targets of carbon emission intensity reduction by GDP

-70%

Year 2030

Low Carbon

Kuala Lumpur
Low Carbon
Society Blueprint
2030

-85%

Year 2040

Towards Carbon Neutral

Kuala Lumpur
Structure Plan
2040

-93%

Year 2050

Carbon Neutral

Kuala Lumpur
Climate Action Plan
2050

Figure 4.7.1:
Implementation of Proposals for Planning Strategy 4-7

SP 4-7

PROMOTING LOW CARBON DEVELOPMENT

CP 4-7.1 Encouraging Low Carbon Green Building

CP 4-7.2 Increasing Facilities For Electric and Hybrid Vehicles

CP 4-7.3 Implementing Low Carbon Pilot Zone

CP 4-7.4 Developing Low Carbon, Clean and Green Industry

CP 4-7.5 Empowering Community Towards Low Carbon Practices

ENCOURAGING LOW CARBON GREEN BUILDING

Low carbon green buildings are 40 to 50 percent more energy-efficient than conventional buildings. It brings benefit in terms of saving in utility bills, reduced building operating costs, and higher profitability. For instance, the rental rates and growth of low carbon green office buildings is higher compared to conventional office buildings. Low carbon green building is able to improve health and comfort of occupants or users of the building.

Low carbon green buildings have higher asset value and market demand. It also provides low implications for the environment and able to assist companies in promoting the environmentally friendly image in the market apart from the benefit of energy efficient.

The implementation of this low carbon green buildings is able to attract both domestic and foreign investors, especially multinational companies. The proposal to encourage the development of low carbon green buildings is important for Kuala Lumpur to achieve the goal of becoming a Carbon Neutral City in 2050.

The proposal for the implementation of CP 4-7.1 is carried out through one (1) initiative as follows:

1. Increase And Implement Low carbon Green Buildings Characteristics

BRIEF INFO

ECONOMIC BENEFIT OF LOW CARBON GREEN BUILDING

Rental Rate of Green Building (Office)
(In comparison with conventional building)

Additional RM0.50 to RM2.25
square foot

Rental Growth Green Building (Office)

Additional RM0.50 to RM1.00
square foot

Source: Department of Valuation and Property Services, 2014

CP 4-7.1

COORDINATION CONTEXT OF
SDGs AND KLSP2040



SUSTAINABLE DEVELOPMENT GOALS CONTEXT



KLSP2040 CONTEXT

4

GOALS

Kuala Lumpur Climate-Smart and Low Carbon City

PR3

STRATEGIC DIRECTIONS

Efficiency In Carbon Emission Reduction

PR
3.1

ACTIONS

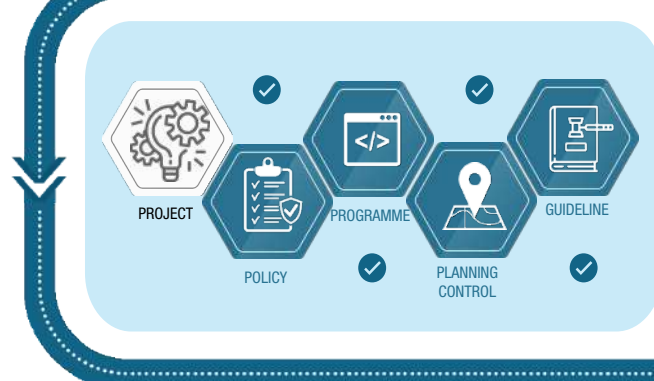
Encourage the Development of Low Carbon Building

PR
4.1

ACTIONS

Promote the use of Smart Home Technology

IMPLEMENTATION APPROACH CP 4-7.1



IMPLEMENTATION INITIATIVE 4-7.1A

► INCREASE AND IMPLEMENT LOW CARBON GREEN BUILDINGS CHARACTERISTICS

The number of low carbon green buildings can be increased through green building rating of existing and new buildings. The main features of low carbon green buildings are the necessary actions to involve energy and water efficiency, green mobility, and sustainable waste management. The use of these key features can be implemented in both existing and new buildings.

port this initiative are as follows:

1. Diversify the methods of recognition approach and green building rating tool and not limited to Green Building Index (GBI), MyCREST (CIDB-JKR), GreenRE (REHDA), Sustainable Energy Low Carbon Building Assessment (SEDA) and Low Carbon Cities Framework (MGTC);
2. Impose requirements for all new developments or retrofit that has the potential of being low carbon green building features, especially government institutional buildings and commercial buildings with a total gross floor area of more than 1,000 square metres to obtain a green building certification;
3. Initiate low carbon green building pilot zone in City Centre and other potential growth centres; and
4. Encourage owners or occupants of low carbon green buildings in Kuala Lumpur to register and submit building data to inventory systems, including the centralized building reporting systems such as Building Energy Data Online Monitoring System (BEDOS)* for the purpose of continuous monitoring of buildings performance.

*Note: Building Energy Data Online Monitoring System (BEDOS) is an official building database system provided by Malaysia's Sustainable Energy Development Authority (SEDA) to make it easy for building owners and occupants to report building data and help local governments collect and monitor building data in the area under their administration.



Location: Menara Exchange 106 (TRX)

Source: <https://www.shutterstock.com/g/fahmiabubakar>

Menara Exchange 106 (TRX) is an example of building with low carbon green building accreditation



The main features of a low carbon green building are stated in Table 4.7.1.

Table 4.7.1:
Main Features of Low Carbon Green Buildings

Aspect	Key Features of Low Carbon Green Building	Example of Application
Energy	Efficient Building Envelope performance 1. Overall Thermal Transfer Value (OTTV); 2. Roof Thermal Transfer Value, (RTTV); and 3. Visible Light Transmittance, (VLT).	Use of building materials with low thermal transmittance (U-value) and an appropriate window-to-wall ratio, as well as sun shading devices, to reduce heat from the solar radiation.
	Energy Efficient Air Conditioning System	Upgrade conventional air conditioning systems to energy-efficient systems such as district cooling systems.
	Passive Design	Ensure the configuration, layout and orientation of the building considers local climate conditions such as sun and wind.
	Energy Efficient Lighting	Utilise energy-efficient lighting such as Light Emitting Diode (LED) and Compact Fluorescent Lamps (CFL).
	Renewable Energy	Install photovoltaic panels to generate solar energy.
	Energy Management System	Monitor energy consumption through building energy audits to improve building energy performance.
Water	Green Cover	Provide roof garden and vertical green on the building.
	Water Efficiency	Install of rainwater harvesting systems for rainwater to be collected and reused in buildings.
Mobility	Active Mobility	Provide connected and friendly for pedestrian and micromobility vehicle routes.
	Electric Vehicle Facility or Hybrid	Provide vehicle parking space and charging facilities for electric or hybrid vehicles.
Waste	Recycling System	Provide recycling bins to facilitate waste separation and waste recycling.

CP 4-7.2**INCREASING FACILITIES FOR ELECTRIC AND HYBRID VEHICLES**

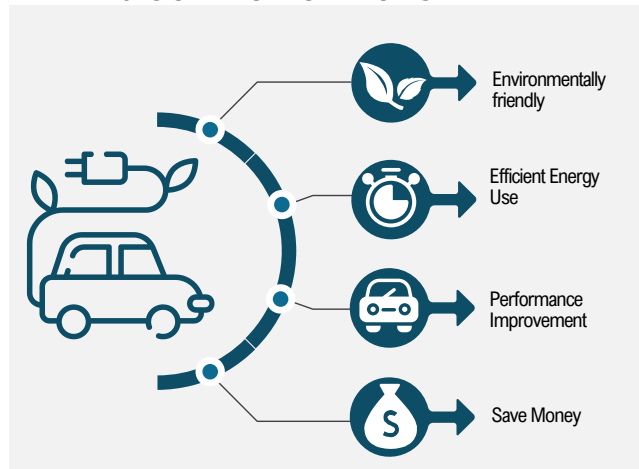
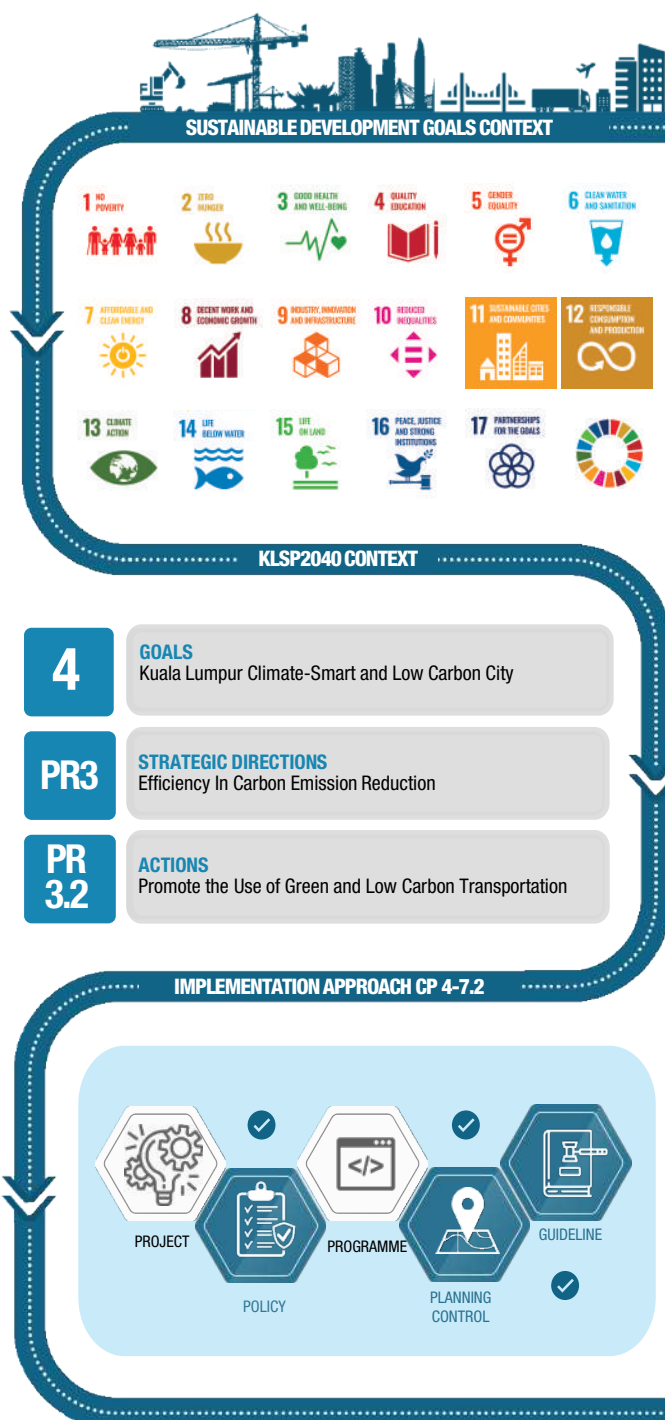
Private vehicles and public transportation which use electricity as an alternative fuel are encouraged to reduce carbon emissions. Supporting facilities, such as electric vehicle charging facilities need to be provided to increase the use of electric vehicles.

The demand for local and international car production has shifted with the incentive in usage of electric vehicles and hybrid under the National Automotive Policy 2020 and the National Electric Mobility Blueprint and Low Carbon Mobility Blueprint 2021-2030. The implementation of these policies will boost the production and usage of electric vehicles or hybrid in Kuala Lumpur.

Supporting facilities for electric vehicles and hybrid, such as electric vehicle charging facilities, are still limited and mainly concentrated in major shopping centres only. The expansion of charging facilities is important to facilitate and encourage the use of green vehicles, as well as support the growth electric vehicle or hybrid in 2040.

The proposal for the implementation of CP 4-7.2 is carried out through one (1) initiative as follows:

1. Enhance Electric Vehicle Supporting Facilities.

BRIEF INFO**ADVANTAGES OF ELECTRIC VEHICLES****CP 4-7.2**COORDINATION CONTEXT OF
SDGs AND KLSP2040

IMPLEMENTATION INITIATIVE 4-7.2A

► ENHANCE ELECTRIC VEHICLE SUPPORTING FACILITIES

Encourage the use of electric vehicles requires supportive facilities such as electric vehicle charging facilities and dedicated vehicle parking spaces.

The necessary actions to support this initiative are as follows:

1. Provide guidelines for electric vehicle parking equipped with electric vehicle charging facilities for every new development, especially high-rise commercial and residential developments;
2. Encourage provision of charging facilities for electric vehicles, as follows:
 - a. Commercial buildings such as supermarkets, shopping centres and tourist accommodations;
 - b. TPZ and TIZ areas to facilitate the use of green and low carbon public transport modes such as electric and hybrid buses; and
 - c. Major community facility areas such as public parks, stadiums, sports complexes, rest and relaxation stops (R&R) along highways.
3. Introduce special parking spaces with payment incentives and priority vehicle parking spaces near the entrance for owners of electric and hybrid vehicles; and
4. Conduct public awareness campaigns such as Drive Electric Week or Drive Electric Earth Day to share the information and benefits about electric vehicles.

BEST PRACTICE

PLANNING GUIDE OF VEHICLE PARKING SPACE

Planning guide for the vehicle parking space provision with electric vehicle charging facilities in Global Major Cities.

Parking Standards (Electric Vehicle Charging Requirements)	Ratio
<i>California, United States¹</i>	100 : 2
<i>London, United Kingdom²</i>	100 : 40
<i>Vancouver Metropolitan, Canada³</i>	100 : 20

Note:

1. City of California
2. Greater London Authority
3. City of Vancouver



Source : <https://www.shutterstock.com/image-photo/kuala-lumpur-malaysia-21-may-2018-1095978992>

The use of electric vehicle charging facilities in shopping centres in Kuala Lumpur.

IMPLEMENTING LOW CARBON PILOT ZONE

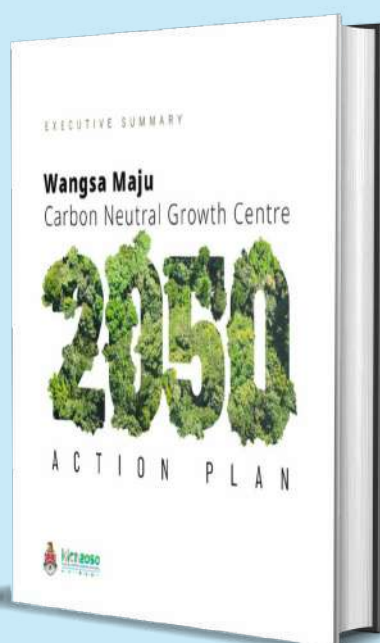
An effective implementation of Low Carbon City development needs to be initiated in areas that have been identified as potential Low Carbon Pilot Zones and serve as a guide for implementation in Kuala Lumpur.

The KLLP2040 has identified four (4) locations as Low Carbon Pilot Zones. The criteria for determining the low carbon pilot zones will consider aspects such as the hierarchy of urban growth centre, location suitability, development concept and feasibility of low carbon activities.

The implementation of this Low Carbon Pilot Zone would also encourage the involvement of the local community in Kuala Lumpur towards cultivating a low carbon lifestyle, and achieving a Carbon Neutral City by 2050.

The proposal for the implementation of CP 4-7.3 is carried out through one (1) initiative as follows:

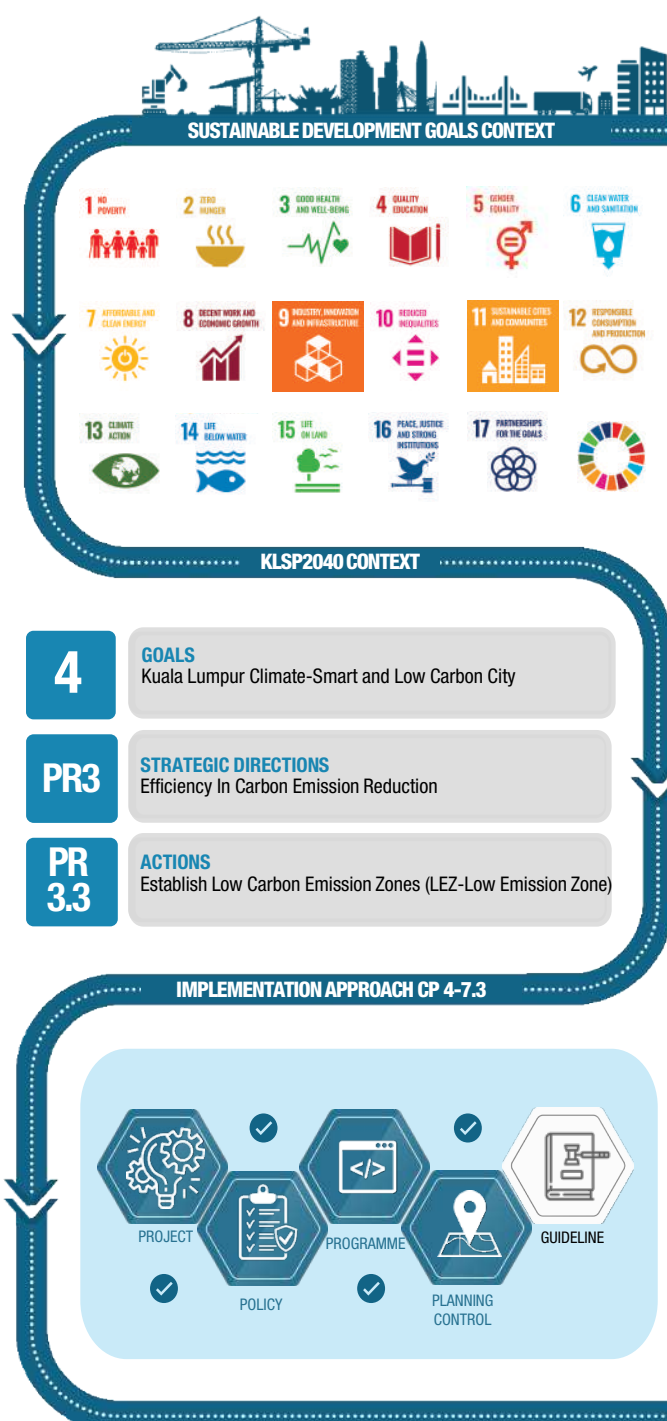
1. Implement Low Carbon Pilot Zone



The Wangsa Maju Carbon Neutral Growth Center is an initiative for the implementation of the Low Carbon Pioneer Zone in Kuala Lumpur.

CP 4-7.3

COORDINATION CONTEXT OF
SDGs AND KLSP2040



IMPLEMENTATION INITIATIVE 4-7.3A

► IMPLEMENT LOW CARBON PILOT ZONE

The KLLP2040 has identified four (4) potential sites for the Low Carbon Pilot Zone programme, namely the City Centre, Wangsa Maju, Kepong and Bukit Jalil areas.

The selection of locations is based on the functionality of the location as a City Centre and District Growth Centre that supports the needs of residents or users as well as surrounding activities as shown in Table 4.7.2. The necessary actions to support this initiative are as follows:

Table 4.7.2:
List of Proposed Low Carbon Pilot Zone of Kuala Lumpur

Location	Development Concept	General Initiative
City Centre	Smart City	<ol style="list-style-type: none"> 1. Apply Internet of Things (IoT) and Artificial Intelligence (AI) technologies in urban services such as lighting, traffic management, environmental cleanliness, and world-class safety; 2. Encourage communities to use smart building energy systems that are capable of real-time monitoring and control optimal energy use based on the consumption patterns of each equipment; and 3. Provide Kuala Lumpur city data and information sharing platform to facilitate communication between stakeholders, communities, agencies and investors with KLCH.
Wangsa Maju	Carbon Neutral Growth Centre	<ol style="list-style-type: none"> 1. Promote the use of microgrid energy systems powered by renewable energy; 2. Increase local community participation in community gardening and urban farming activities; 3. Provide sufficient, comfortable, and connected facilities for pedestrian and micromobility vehicles, and energy-efficient shuttle buses with transit stations to support movement and travel of the local community; 4. Empower recycling programmes and activities in each neighborhood centre; and 5. Plant more trees for shades and greenery.
Kepong	Ecological and Biodiversity City	<ol style="list-style-type: none"> 1. Maintain and enhancing the connection between open spaces and main water bodies in Kepong. This will form a wide and interconnected network of parks for recreation, biodiversity, and carbon absorption purposes. (The proposed areas are Taman Tasik Metropolitan Kepong, Kolam Intan Baiduri, Kolam Sri Utara, Kolam Nanyang, Kolam Taman Wahyu, Tasik Kampung Batu and Taman Tasik Metropolitan Batu); and 2. Grow and diversify more tree species to enhance green cover. <p>Note: The proposed area is also potentially connected to the Taman Botani FRIM and Hutan Simpan Kekal Lagong, Selangor</p>
Bukit Jalil	Sustainable Sport Hub	<ol style="list-style-type: none"> 1. Ensure application of energy-efficient systems in sports complexes and sport facilities such as LED lights and video boards; 2. Introduce an incentive scheme offering ticket discounts for visitors who use public transportation to the Bukit Jalil Sports Complex; 3. Improve public transportation and facilities for electric vehicle users; and 4. Encourage the installation of rainwater harvesting systems for the maintenance of field, landscaping, and other facilities.

CP 4-7.4

DEVELOPING LOW CARBON, CLEAN, AND GREEN INDUSTRY

The usage of green technology and industrial building with the concept of 'Green and Smart Building' should be encouraged to create a low carbon and green industry in Kuala Lumpur.

The use of resource and energy through the application of the 'Waste to Energy' concept, especially for manufacturing industry clusters, needs to be optimised. This concept is based on principles of a circular economy that promotes the use and generation of renewable energy. This approach encourage the reuse of industrial waste to generate energy sources hence reducing the level of waste production.

The development of low carbon, clean, and green industry need to be planned comprehensively to achieve Kuala Lumpur's goal of becoming a Carbon Neutral City by 2050.

The proposal for the implementation of CP 4-7.4 is carried out through one (1) initiative as follows:

1. Encourage Existing and New Low carbon, Clean, And Green Industries

BEST PRACTICE

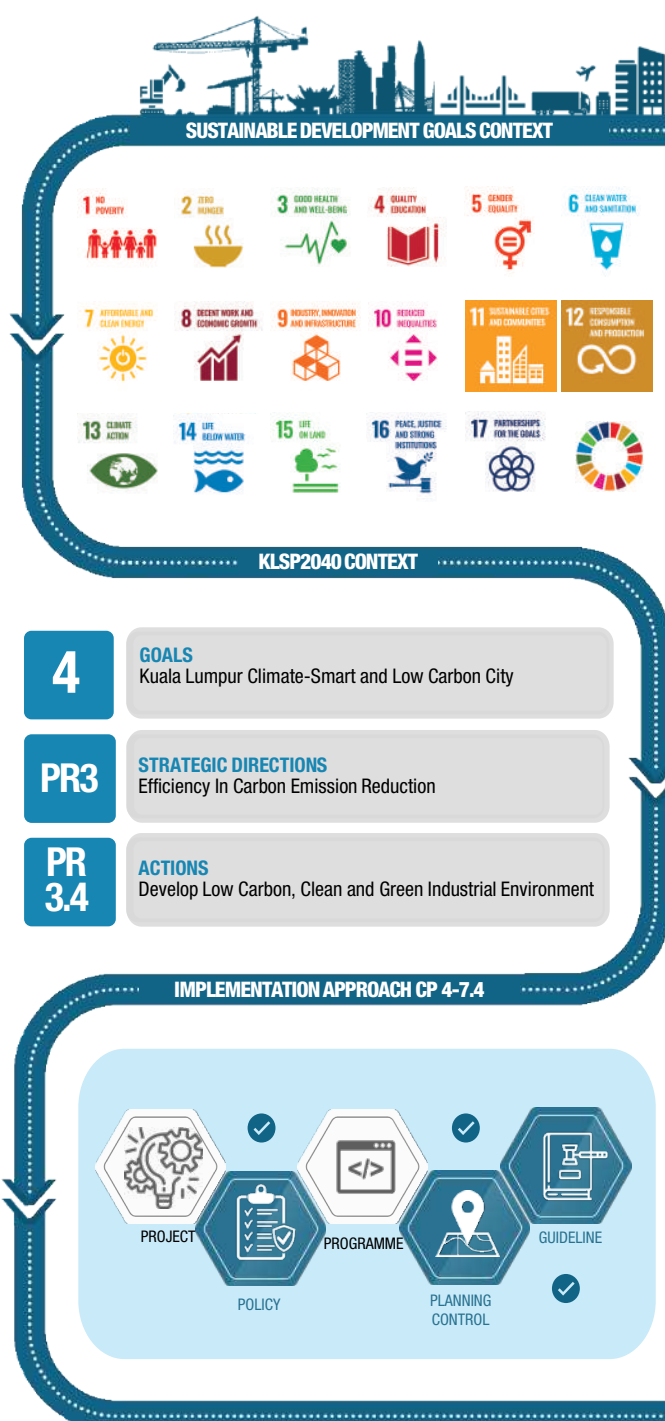
EXAMPLE OF LOW CARBON INDUSTRY IN CZECH REPUBLIC, EUROPE



A view of technology park area and industrial factories that use low carbon industries.

CP 4-7.4

COORDINATION CONTEXT OF SDGs AND KLSP2040



IMPLEMENTATION INITIATIVE 4-7.4A

► ENCOURAGE EXISTING AND NEW LOW CARBON, CLEAN, AND GREEN INDUSTRIES

Existing and new industrial activities need to shift to the low carbon, clean, and green concept. Its industrial operation needs to focus on the use of green technology and improve energy efficiency to manufacture cleaner outcomes.

The KLLP2040 has identified areas for implementation of low carbon industries in Land Use Zone of Industrial (IP), Land Use Zone of Mixed Industrial Development (MXI) and Land Use Zone of Technology Park (TP). Industrial activities that are permissible to operate in the selected areas, such as in villages need to take the same approach.

The steps to support this initiative can be achieved by considering the main characteristics of low carbon green buildings and several specific low carbon, clean, and green industries initiatives that have been identified as efforts to improve energy efficiency and the manufacturing of cleaner products as shown in Table 4.7.3.

The necessary actions to support this initiative are as follows:

Table 4.7.3:

Specific Initiatives to Enhance Energy Efficiency and Cleaner Production for Existing and New Industries in Kuala Lumpur

Specific Initiatives for Low Carbon, Clean, and Green Industries
Green Product
<ol style="list-style-type: none"> 1. Design environmentally friendly products to reduce unnecessary product packaging; 2. Limit the use of non-recyclable packaging; and 3. Ensure products receive Green Product Certification such as MyHijau, introduced by the Malaysian Green Technology and Climate Change Corporation (MGTC) Malaysia to manufacture products that meet internationally recognised environmental and ecological standards.
Sustainable Energy
<ol style="list-style-type: none"> 1. Use of smart lighting systems, such as automatic light controls, to dim lights when lighting is no longer needed; 2. Use of energy efficient manufacturing equipment, such as electric motors, pumps, boilers, and furnaces); and 3. Use of photovoltaic and solar thermal systems to save energy consumption.
Water Efficiency
<ol style="list-style-type: none"> 1. Reuse of rainwater and treated wastewater for industrial activities, manufacturing processes, workshops, and machinery cleaning.
Green Mobility
<ol style="list-style-type: none"> 1. Encourage staff to use public transport services (bus and rail); and 2. Transition to greener hybrid modes of freight transportation.
Sustainable Waste Management
<ol style="list-style-type: none"> 1. Practice waste reduction and waste recycling at source on a scheduled and periodic basis; 2. Apply the concept of a circular economy concept to promote the recycling of waste materials throughout the material chain; and 3. Promote the energy recovery such as electricity, heat, biogas, or biodiesel from waste.

CP 4-7.5**EMPOWERING COMMUNITY TOWARDS LOW CARBON PRACTICES**

Empowering the community towards low carbon practices is important and should be fostered and encouraged through the provision of infrastructure facilities that support awareness programmes and enhance low carbon behaviour in the society.

Low carbon practices refer to a sustainable lifestyles that makes possible a reduction in the carbon footprint. Examples of low carbon practices include energy conservation, recycling practices, shifting to a minimalist lifestyle, and selecting low carbon modes of transportation such as walking, cycling, and using public transport.

Enhancing community facilities to promote the involvement and participation of the public in low carbon programmes, as well as low carbon education campaigns is important for Kuala Lumpur to create a low carbon society and achieve the goal of a Carbon Neutral City by 2050.

The proposal for the implementation of CP 4-7.5 is carried out through one (1) initiative as follows:

1. Improve Community Facilities and Awareness of Low Carbon



Location : Taman Tasik Danau Kota

Low carbon community programme can foster sustainable practices and lifestyles.

CP 4-7.5

COORDINATION CONTEXT OF SDGs AND KLSP2040

**SUSTAINABLE DEVELOPMENT GOALS CONTEXT****KLSP2040 CONTEXT****4****GOALS**

Kuala Lumpur Climate-Smart and Low Carbon City

PR4**STRATEGIC DIRECTION**

Low Carbon Community Development

PR 4.2**ACTIONS**

Establish Low Carbon Community

PR 4.3**ACTIONS**

Provide Community-Based Low Carbon Facilities

PR 4.4**ACTIONS**

Intensify Low Carbon Awareness and Education Programmes at Community Level

IMPLEMENTATION APPROACH CP 4-7.5

PROJECT



POLICY



PROGRAMME



GUIDELINE

PLANNING

CONTROL

IMPLEMENTATION INITIATIVE 4-7.5A

► IMPROVE COMMUNITY FACILITIES AND AWARENESS OF LOW CARBON

Facilities and public awareness of low carbon practices need to be improved, to support low carbon practices such as composting and recycling programmes, as well as low carbon education campaigns and campaigns for the use of photovoltaic panel systems.

The KLLP2040 has identified facilities and measures to intensify low carbon practices. The selection of these facilities considers the function of the facilities as a focus area for residents or users. The facilities that have been identified are community centres, public halls, public markets and hawker centres as shown in the Table 4.7.4.

The necessary actions to support this initiative are as follows:



Table 4.7.4:

Measures that Could Improve the Facilities to Encourage the Involvement of the Public In Low Carbon Community Activities and Programme in Kuala Lumpur

Community Programme and Public Hall	Community Centre	Public Hall	Public Market	Hawker Centre
1. Implement and strengthen the awareness programme on low carbon practices in the community;	✓	✓	✓	✓
2. Establish a low carbon neighbourhood association;	✓	✓		
3. Develop new climate projects for children and youth;	✓	✓		
4. Provide conducive and sufficient facilities;	✓	✓	✓	✓
5. Establish local community-based recycling centres;	✓		✓	
6. Provide facilities for the collection of organic waste or used food to support composting activities for producing fertiliser and recycling of cooking oil;			✓	✓
7. Plant shade trees as an effort to increase local greenery; and	✓	✓	✓	✓
8. Review rental rates for facilities after the low carbon community programme has been carried out.			✓	✓

SUMMARY

GOAL 4 : STRENGTHENING ON THE DEVELOPMENT OF KUALA LUMPUR AS A SMART CLIMATE AND LOW CARBON CITY

Various initiatives and implementation approaches have been proposed to achieve Goal 4 within the context of KLLP2040. The planning and execution will be carried out through projects, policies, programmes, planning controls, and guidelines.

The implementation proposal also considers the SDGs, KLSP2040 and other national development policies in leading Kuala Lumpur towards strengthening its development as a Smart Climate and Low Carbon City.

The initiatives and implementation approaches emphasis climate change, which has physical, social, and economic implications, for creating a sustainable and resilient environment against the effects of climate change and disaster risks.

Table 4.1 shows a summary of the planning strategy and implementation proposal for Goal 4.

Table 4.1:
The Summary of Planning Strategy and Implementation Proposal of Goal 4

Planning Strategy	Implementation Proposal	Implementation Approach				
		Project	Policy	Programme	Planning Control	Guideline
SP 4-1	CP 4-1.1	1	-	1	-	-
	CP 4-1.2	1	-	1	-	-
	CP 4-1.3	1	-	1	1	-
	CP 4-1.4	1	-	1	-	1
	CP 4-1.5	1	-	1	-	-
	CP 4-1.6	1	-	1	-	-
SP 4-2	CP 4-2.1	1	-	-	-	-
SP 4-3	CP 4-3.1	-	1	-	-	-
	CP 4-3.2	-	1	-	1	1
SP 4-4	CP 4-4.1	1	-	-	-	-
	CP 4-4.2	1	-	-	-	-
	CP 4-4.3	-	-	1	-	-
SP 4-5	CP 4-5.1	-	1	1	1	1
	CP 4-5.2	-	1	1	-	-
	CP 4-5.3	1	-	-	-	-
	CP 4-5.4	1	-	-	-	-
	CP 4-5.5	1	-	-	-	-
SP 4-6	CP 4-6.1	1	-	-	-	-
SP 4-7	CP 4-7.1	-	1	1	1	1
	CP 4-7.2	-	1	-	1	1
	CP 4-7.3	1	1	1	1	-
	CP 4-7.4	-	1	-	1	1
	CP 4-7.5	1	-	1	-	-
TOTAL		15	8	12	7	6

05



GOAL 5

FOCUSING DEVELOPMENT OF
KUALA LUMPUR AS AN EFFICIENT ENVIRONMENTAL-
FRIENDLY MOBILITY CITY



GOAL 5

FOCUSING DEVELOPMENT OF KUALA LUMPUR AS AN EFFICIENT AND ENVIRONMENTAL-FRIENDLY MOBILITY CITY

Transportation system is an important sector to ensure the sustainability and to support development in Kuala Lumpur. This goal will include the planning of a comprehensive, integrated and connected transport system as an effort to ensure an efficient and sustainable level of mobility in Kuala Lumpur.

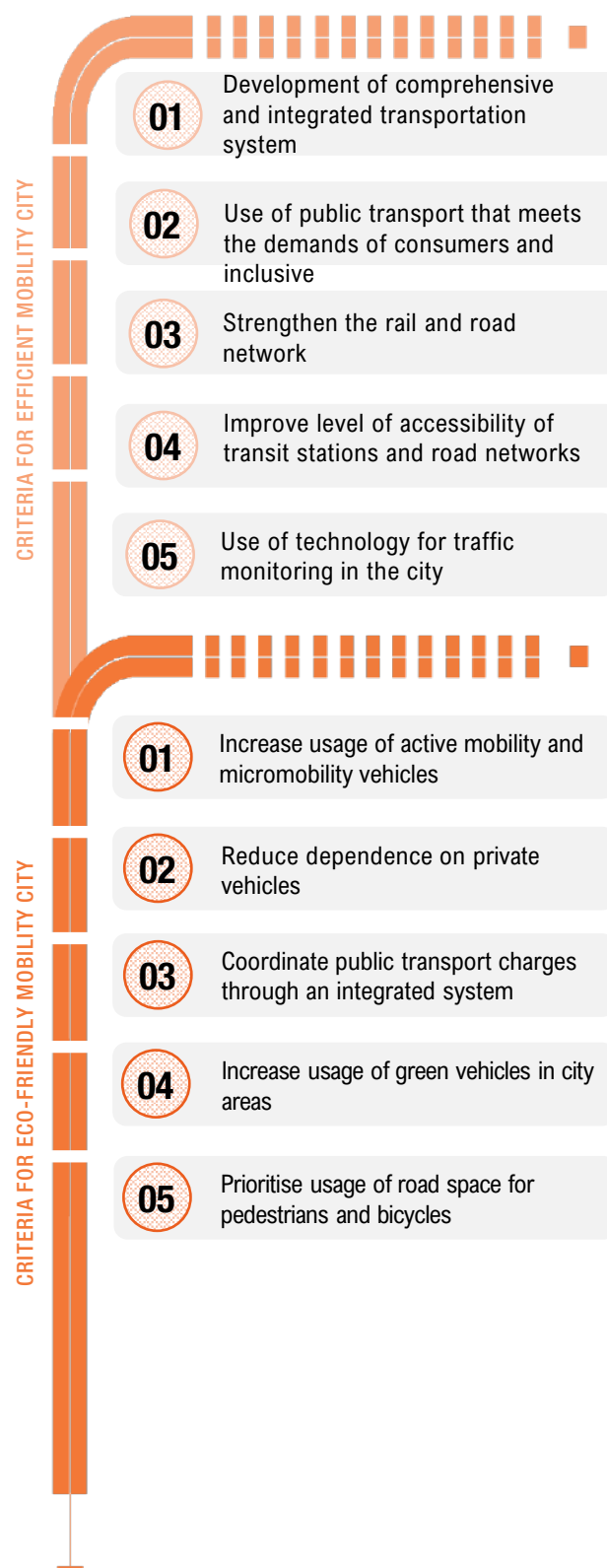
An efficient and environmental-friendly mobility should include various modes of transportation such as public transport, private vehicles and active mobility. The availability of various modes of transportation will increase the level of accessibility in Kuala Lumpur.

The criteria for a mobility efficient city emphasise the development of a comprehensive and integrated transportation system, use of public transport that meets the demands of consumers and is inclusive, strengthening the rail and road network, improvement in the level of accessibility of transit stations and road networks as well as the use of technology for traffic monitoring in the city.

The criteria for an eco-friendly mobility city emphasise increased usage of active mobility and micromobility vehicles, reduced dependence on private vehicles, coordinating public transport charges through an integrated system, increased usage of green vehicles in city areas and prioritising usage of road space for pedestrians and bicycles.

Figure 5.1 lists the main criteria that need to be implemented as a focus to empower the development of Kuala Lumpur as an Efficient and Eco-friendly Mobility City.

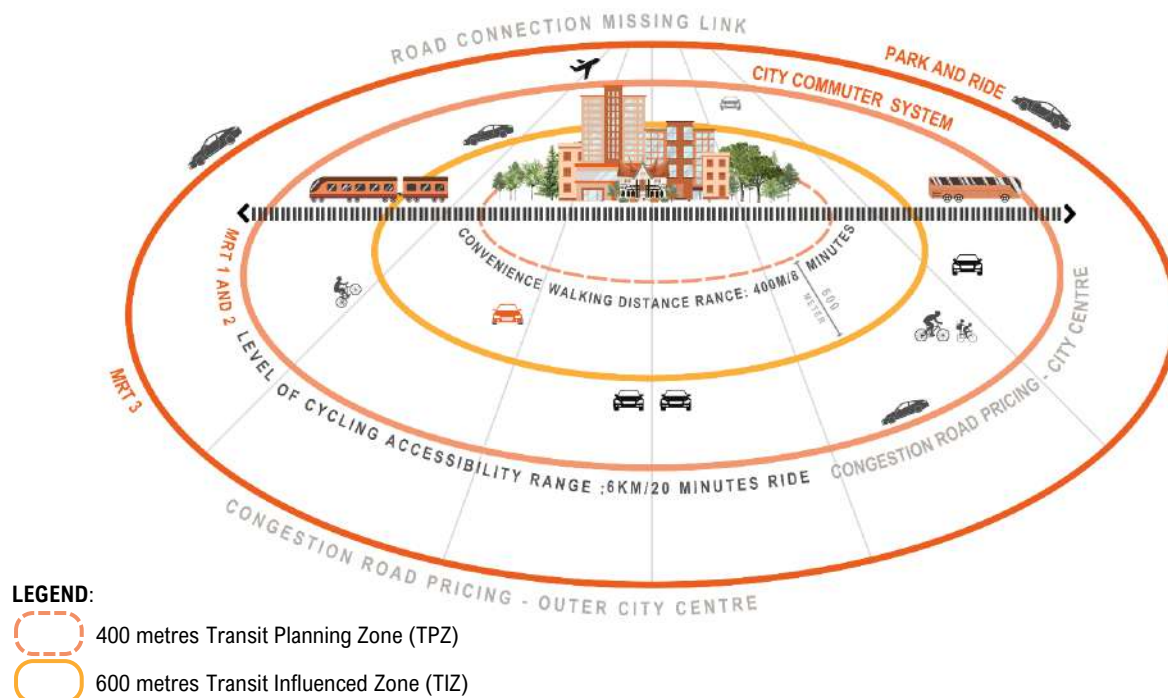
Figure 5.1:
Criteria for Efficient Environmental-friendly Mobility City



PUBLIC TRANSPORT AND PRIVATE VEHICLES MODAL SPLIT IN KUALA LUMPUR IN 2040

Figure 5.2:

Scenario of Transport Modal Split in Kuala Lumpur by 2040



The use of public transport should be increased as an important effort to achieve the target of public transport modal split of 60 percent in 2030 and 70 percent by 2040.

The achievement of public transport modal split target depends on the expansion of rail transport planning, bus services and continuity of first and last mile network. The provision of supporting facilities and infrastructure such as pedestrian and micromobility vehicle routes is in line with the direction of achieving an active mobility mode in Kuala Lumpur.

The KLLP2040 aims to minimise movement of private vehicles in Kuala Lumpur by 2040. Figure 5.2 shows the proposed future transportation modal split scenario in Kuala Lumpur by 2040.

Modal split of 60:40 by 2030 as targeted by KLSP2040 will be the planning basis of KLLP2040. The KLLP2040 takes into account the proposal and feasibility of the programs set out in the PITKL study. A more inclusive strategy must be implemented with an emphasis on encouraging the usage of public transportation before 2030.

BRIEF INFO

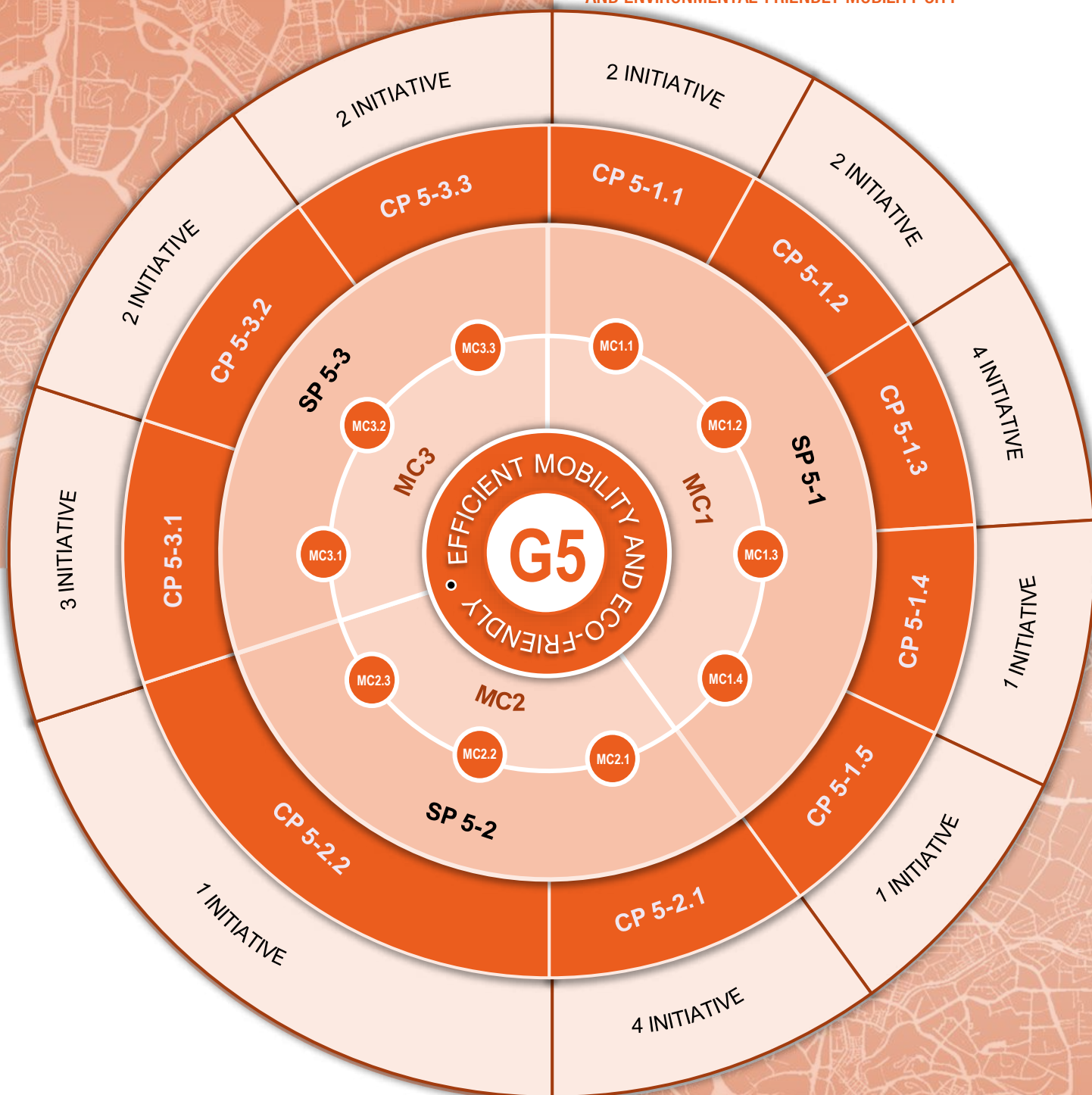
TARGET OF PUBLIC TRANSPORT AND PRIVATE VEHICLES MODAL SPLIT



KLSP2040
3 STRATEGIC DIRECTIONS
10 ACTIONS

FIGURE 5.3
SUMMARY OF PLANNING
STRATEGY AND
IMPLEMENTATION PROPOSAL

GOAL 5:
FOCUSING DEVELOPMENT OF KUALA LUMPUR AS EFFICIENT
AND ENVIRONMENTAL-FRIENDLY MOBILITY CITY



There are three (3) Planning Strategies (SP), 10 Implementation Proposals (CP) and 22 Implementation Initiatives (IP) that are formulated in line with KLSP2040 as summarized in Figure 5.3.

KLLP2040
3 PLANNING STRATEGIES
10 IMPLEMENTATION PROPOSALS

PROVIDING PUBLIC TRANSPORTATION NETWORK WITH PROVISION OF MULTIPLE TRANSIT OPTIONS

SCENARIO OF PUBLIC TRANSPORT IN KUALA LUMPUR

The public transport sector has a role in creating sustainable development and promoting an inclusive urban environment from the aspect of accessibility.

The increase in vehicle ownership contributes to the increase of vehicles on the road. The modal split of public transport modes with private vehicles is around 20:80 in 2020 and is targeted to increase to 70:30 by 2040. The use of private vehicles contributes to the problem of congestion and inefficient modal split.

The provision of a public transport network with various transit options encourages the community to shift daily travel pattern from using private vehicles to public transport.

This planning strategy focuses on promoting efficient and active mobility, increasing the public transportation modal split and reducing the use of private vehicles. KLCH together with responsible agencies needs to mobilise effective and integrated efforts to increase the public transport modal split in Kuala Lumpur.

Toward realizing Kuala Lumpur as a city capable of providing a public transport network with provision of multiple transit options, five (5) Implementation Proposals are formulated under Planning Strategy 5-1, as shown in Figure 5.1.1.

BRIEF INFO

EXISTING URBAN RAIL NETWORK OF KUALA LUMPUR

156 kilometers until MRT2

The length of the rail lines in Kuala Lumpur

103 Stations until MRT2

The number of rail stations in Kuala Lumpur

266,436,703 passengers

Number of passengers recorded in 2019

Source: Adapted from Prasarana, 2019

Figure 5.1.1:
Implementation Proposals for Planning Strategy 5-1

SP 5-1

PROVIDING PUBLIC TRANSPORTATION NETWORK WITH THE PROVISION OF MULTIPLE TRANSIT OPTIONS

CP 5-1.1

Strengthening of Transport Infrastructure and Expansion of City Public Rail Network

CP 5-1.2

Developing a City Commuter System in City Centre

CP 5-1.3

Prioritising Development of Public Bus Services

CP 5-1.4

Providing Pick-up Points of Taxi and E-hailing Services

CP 5-1.5

Developing Technology In Intelligent Transport System

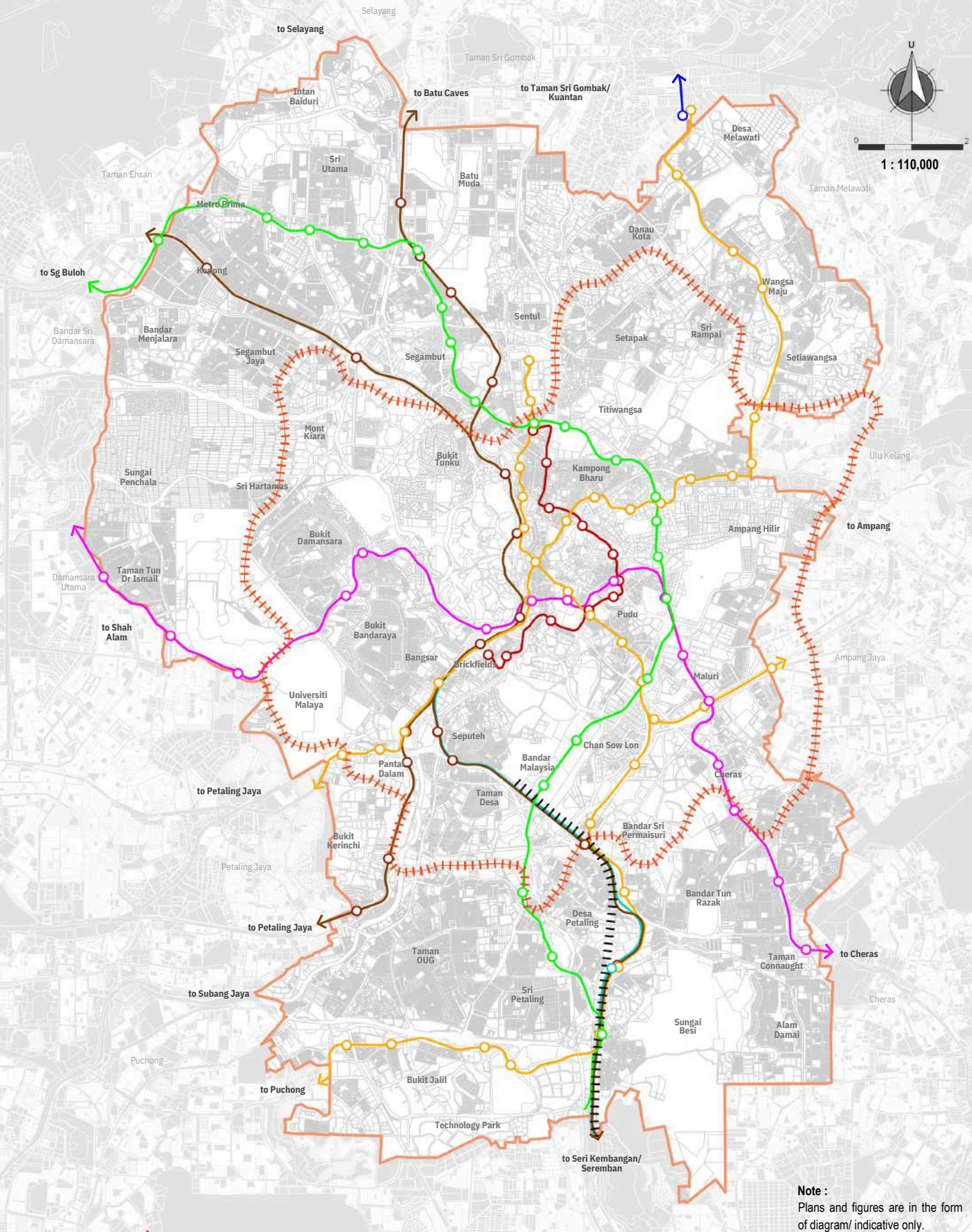










FIGURE 5.1.2 | Plan of Existing and Proposed Future Rail Networks

Legend :


Proposed

-  MRT Line 3 Corridor and Station (In Planning)
-  Propose High Speed Rail Corridor
*Subject to Amendment

Existing

-  MRT Line and Station
-  Monorail Line and Station
-  KTM Commuter Line and Station
-  MRT Line 2 and Station
-  LRT Line and Station
-  ECRL Line and Station
-  ERL Line and Station

Other

-  Kuala Lumpur Boundary

Note :
Plans and figures are in the form of diagram/ indicative only.

CP 5-1.1:**STRENGTHENING OF TRANSPORT
INFRASTRUCTURE AND EXPANSION OF
CITY PUBLIC RAIL NETWORK**

The KLLP2040 identify five (5) city rail services system in Kuala Lumpur. Total length of existing rail line in Kuala Lumpur is 156 kilometres with 103 transit stations. The coverage of the existing rail station includes KTM Commuter, LRT, Monorail, ERL and MRT lines is 18 percent of the total area of Kuala Lumpur.

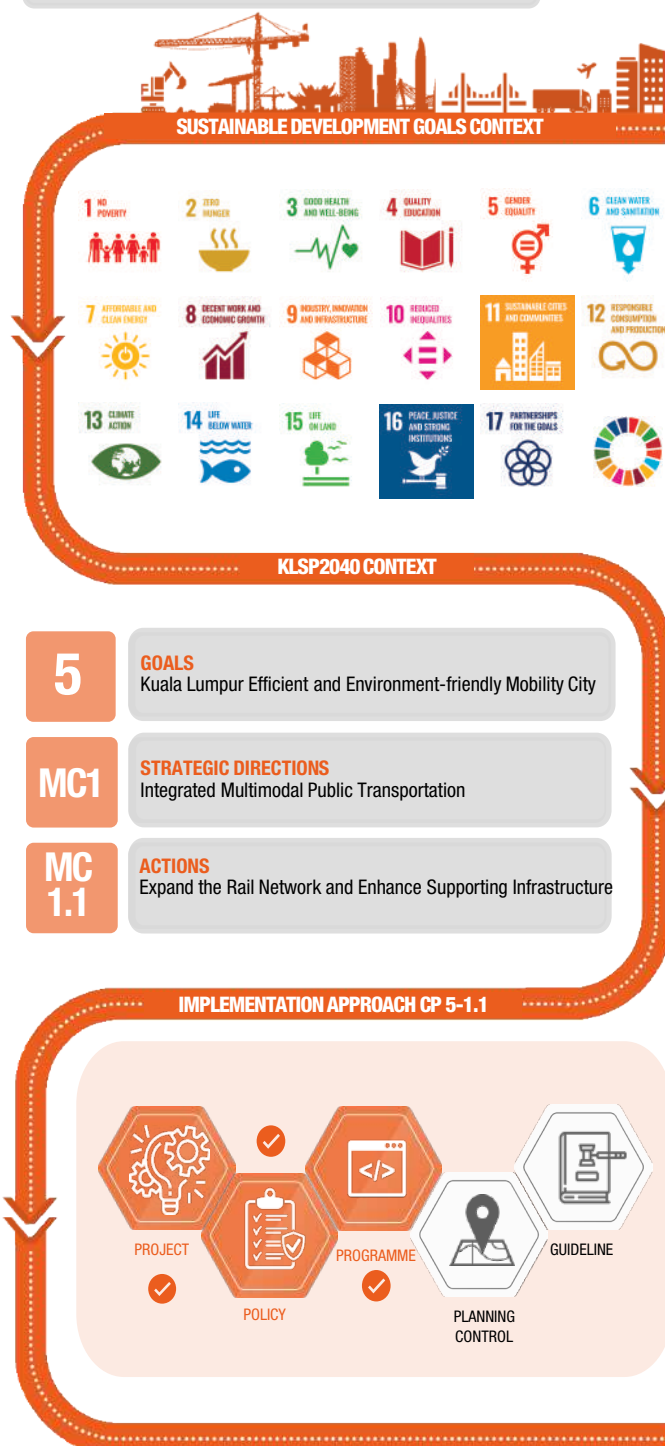
Kuala Lumpur's future rail network coverage will be increased with new proposed lines of the MRT 3 and HSR. Strengthening of infrastructure needs to be enhanced for transit system to be more efficient and integrated in the future.

The proposed implementation of CP 5-1.1 is implemented through two (2) initiatives as follows:

1. Implement Comprehensive Rail System in Kuala Lumpur; and
2. Strengthen Supporting Infrastructure at Transit Stations.



Location: Coach MRT 2
Source : <https://www.shutterstock.com/g/SyariffHidayatullah>
City dwellers using MRT service in Kuala Lumpur.

CP 5 - 1.1COORDINATION CONTEXT OF
SDGs AND KLSP2040



Location: MRT Putrajaya Line
Source : <https://www.shutterstock.com/g/abdulrazaklatif>
MRT service in Kuala Lumpur.

IMPLEMENTATION INITIATIVE 5-1.1A

► IMPLEMENT COMPREHENSIVE RAIL SYSTEM IN KUALA LUMPUR

An integrated and efficient rail network system need to be implemented to ensure comprehensive public transport service in Kuala Lumpur.

The necessary actions to support this initiative are as follows:

1. Ensure the service of LRT, MRT Sungai Buloh – Kajang (SBK) (MRT), MRT Sungai Buloh – Serdang – Putrajaya (SSP) (MRT2), Monorail and Commuter provide comfortable, quality and optimal services;
2. Implement the proposed 51 kilometres MRT Circle Line (MRT3) to complete Kuala Lumpur rail transport system which is expected to pass through areas such as Bukit Kiara, Mont Kiara, Titiwangsa, Setapak and Salak Selatan;
3. Implement the proposed project of 350 kilometres Kuala Lumpur - Johor Bahru High Speed Railway (HSR) with an estimate of 90 minutes travel time; and
4. Increase accessibility of East Coast Rail Link (ECRL) and LRT Shah Alam (LRT3) to Kuala Lumpur.

BRIEF INFO

PROPOSED NEW RAIL NETWORK IN KUALA LUMPUR



MRT Circle Line (MRT3)

- 51 kilometres approximate distance of the rail line in Kuala Lumpur
- 32 number of stations in Kuala Lumpur



Kuala Lumpur – Johor Bahru High Speed Rail (HSR)

- 8 kilometres approximate distance of the rail line in Kuala Lumpur
- 1 number of station in Kuala Lumpur

Source: <https://www.mymrt.com.my/projects/mrt3-circle-line/>

IMPLEMENTATION INITIATIVE 5-1.1B

► STRENGTHEN SUPPORTING INFRASTRUCTURE AT TRANSIT STATIONS

An efficient city rail service need to be strengthened by provision of supporting infrastructure at transit stations.

The necessary actions to support this initiative are as follows:

1. Provide a comfortable, safe, continuous path and protection for pedestrians within a 400 metres and micromobility vehicles routes within 800 metres of each transit station;
2. Provide park and ride facilities at transit stations with integrated public transport ticketing system;
3. Provide parking facilities for micromobility vehicles especially bicycle at each transit station;
4. Provide basic facilities such as changing rooms, bathrooms and storage areas for users of mobility vehicles who utilise rail services;
5. Create a special lane for bicycles and micromobility vehicles to enter the station; and
6. Ensure provision of facilities that meet age and disable-friendly requirements.

BEST PRACTICE

WOODLANDS MRT STATION OF SINGAPORE

The planning of facilities at transit stations contributes to the smoothness of the journey for users, especially micromobility vehicles. Examples of facilities planned at MRT stations in Singapore include:

1. Covered pedestrian routes;
2. Pedestrian overpass; and
3. Bicycle parking.



Provision of elevated bicycle parking facilities are available at almost every MRT station in Singapore to increase the use of micromobility vehicles and public transport.



Provision of bicycle parking spaces near the Ang Mo Kio subway. Passenger will cycle from home and park their bikes at the subway station for their journey to the next destinations.

**DEVELOPING CITY COMMUTER SYSTEM
IN CITY CENTRE**

The city commuter is one of the public transportation for short distances that operates within the City Centre. It is also an alternative that supports the provision of a more complete and comprehensive transit coverage. City commuter can also reduce traffic congestion during peak hours, reduce parking demand and support the growth of business, financial and urban tourism activities.

City commuter refers to public transport that operates and shares the flow of road within City Centre. It has dedicated routes separately for the transport of private vehicles, pedestrian and micromobility vehicle routes.

The proposal for an urban commuter service system is one of mechanisms that has the potential to be introduced in the city center as an implementation of a smart people mover system such as trams and buses. This proposal can facilitate access and improve the level of accessibility in City Center.

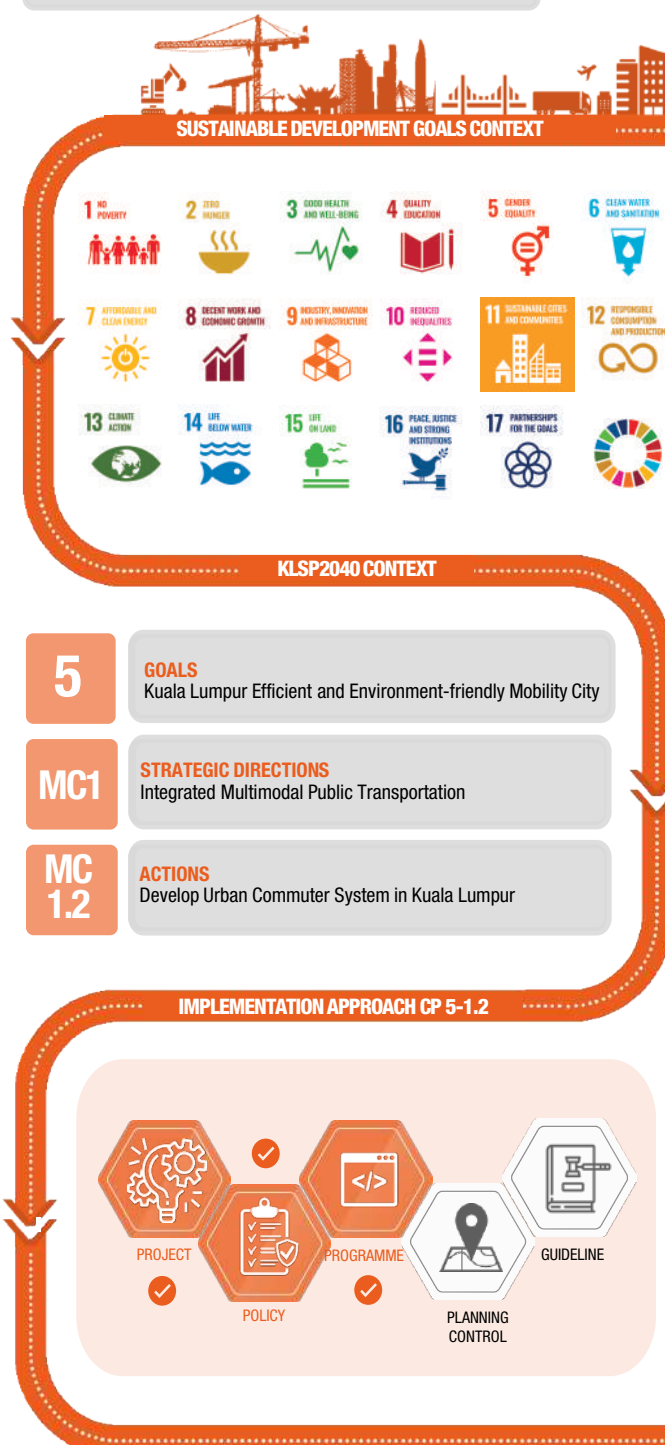
The proposal for the implementation of CP5-1.2 is carried out through two (2) initiatives as follows:

1. Develop Tram Services System in the City Centre; and
2. Provide Bus Rapid Transit (BRT) Service Corridor.

BEST PRACTICE**AUTOMATED RAPID TRANSIT OF NETHERLANDS**

Location: Amsterdam, the Netherlands

The use of the Automated Rapid Transit (ART) system as public transport in the Netherland.

CP 5-1.2**COORDINATION CONTEXT OF
SDGs AND KLSP2040**

IMPLEMENTATION INITIATIVE 5-1.2A

► DEVELOP TRAM SERVICE SYSTEM IN THE CITY CENTRE

The modes of public transport in the future need to be diversified and expanded comprehensively and efficiently. This is in line with population growth, increased travel demand and technological advancement development of the public transport system. It requires an efficient, flexible and easily accessible mode of transportation that has a high coverage area in the City Centre.

The KLLP2040 proposes a tram system because it optimises space and contributes toward a more efficient transport system. The implementation of this proposal need to be studied in detail from the aspect of site suitability and feasibility.

The proposed tram route is estimated to be 29 kilometres long and it is divided into four (4) zones as shown in Figure 5.1.3 as follows:

1. **Zone 1** : KLCC and Bukit Bintang area;
2. **Zone 2** : Dataran Merdeka, Jalan Petaling and Taman Botani Perdana;
3. **Zone 3** : Jalan Tuanku Abdul Rahman, Masjid Jamek, Sultan Abdul Samad and Kampong Bharu; and
4. **Zone 4** : KLCC and Bandar Malaysia.

BRIEF INFO

CRITERIA FOR THE IMPLEMENTATION OF THE URBAN COMMUTER SERVICE SYSTEM:

Aspect	Details
Minimum Road Width	<ol style="list-style-type: none"> Two (2) routes direction = 20 metres to 25 metres, (minimum) One (1) route direction = 10 meters to 15 metres (minimum)
Route Track Type	Middle alignment (Two routes direction)
Type of Stop Location	Stop on the platform on the left or right side of the track
Distance between Two Stops	200 metres to 800 metres
Length of vehicle	<ol style="list-style-type: none"> Simple: 8-18 metres Articulated: 18 - 30 metres Multi-articulated: 25-45 metres
Width of vehicle	2.20 to 2.65 metres (normal track gauge)
Height of vehicle	3.00 metres to 4.00 metres
Route Track Width	Minimum 1.00 metres to 1.50 metres
Tram System Speed Level	<ol style="list-style-type: none"> Minimum = 12-15 kilometres per hour Average = 16-19 kilometres per hour Maximum = 20-30 kilometres per hour

Source: <https://yarratrams.com.au/>

BEST PRACTICE

TRAM SYSTEM OF MELBOURNE, AUSTRALIA

In 2017, the City of Melbourne has a tram network of 250 kilometres double tracks and with a total of 24 routes. The city of Melbourne also has a total of 1,763 tram stops supported by 493 tram units. The tram transport system is the second most used public transport, with 206 million user trips recorded in 2017.

Details of the Melbourne Tram System

Agency	: Public Transport Victoria
Network	: 24 route
Owner	: VicTrack (since 1999)
Depot	: 8 depots
Track length	: 250 kilometres
Track Width	: Between 4 feet and 5 feet



Location: Melbourne, Australia
Source: <https://www.en.wikipedia.org>

Overseas tram services such as in Melbourne, Australia.

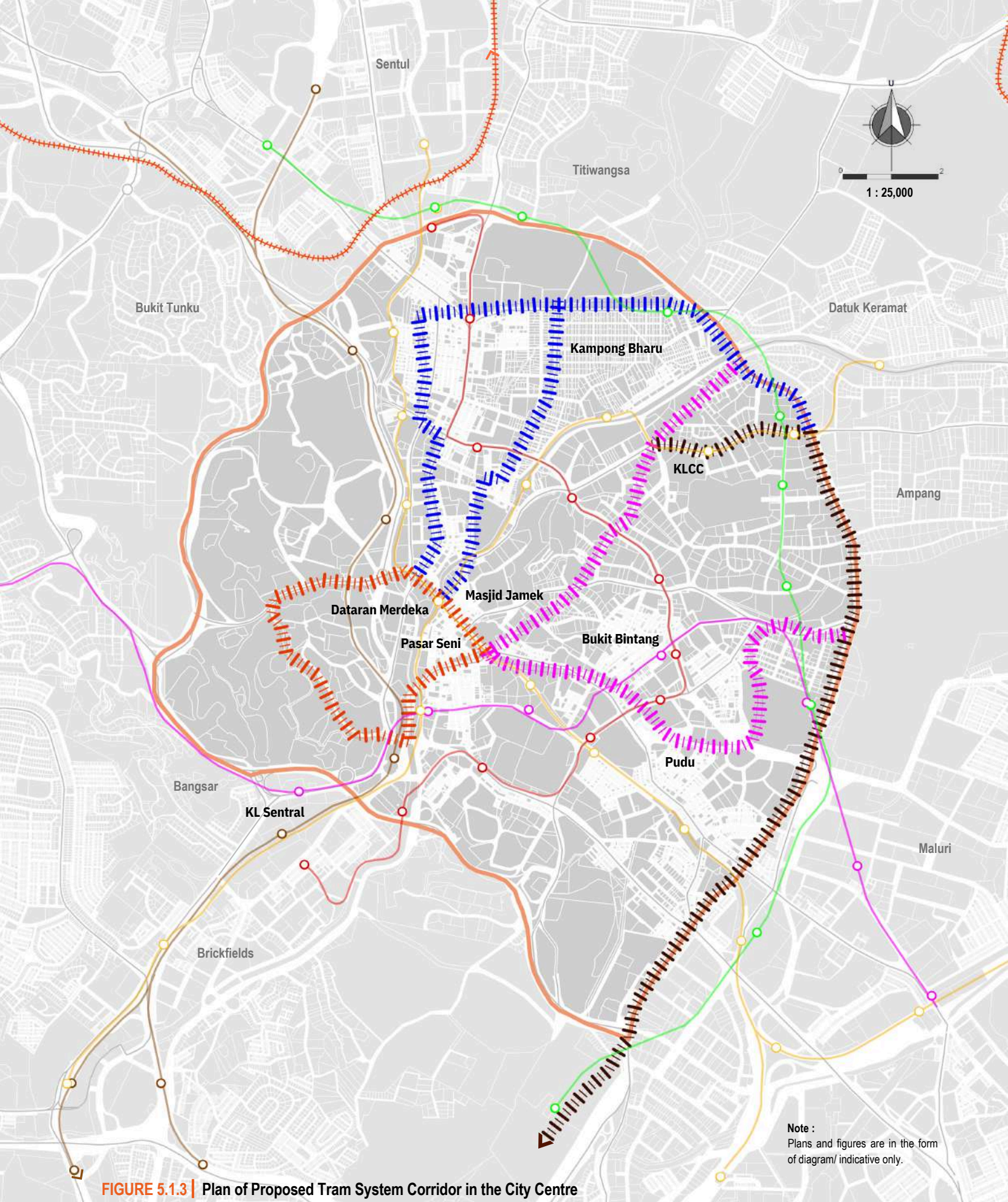


FIGURE 5.1.3 | Plan of Proposed Tram System Corridor in the City Centre

Legend :
Proposed

- Zone 1: KLCC and Kawasan Bukit Bintang
- Zone 2: Dataran Merdeka, Jalan Petaling, and Taman Botani Perdana;
- Zone 3: Jalan Tunku Abdul Rahman, Masjid Jamek, Jalan Sultan Abdul Samad and Kampong Bharu; and
- Zone 4: KLCC and Bandar Malaysia

Existing

- MRT Line and Station
- Monorail Line and Station
- KTM Commuter Line and Station
- MRT 2 Line and Station
- LRT Line and Station

Others

- Main Road
- Kuala Lumpur City Centre Boundary
- MRT Line 3 Corridor and Station (In Planning)

Note :
Plans and figures are in the form of diagram/ indicative only.

IMPLEMENTATION INITIATIVE 5-1.2B

► PROVIDE BUS RAPID TRANSIT (BRT) SERVICE CORRIDOR

Bus Rapid Transit (BRT) is a bus service corridor that provides high-capacity services on strategic routes such as Taman Melawati to City Centre. The implementation of the BRT is considered as an intra-city express service that will:

1. Support several corridors to the City Centre and public transport circular routes that connect main district centres;
2. Support the future rail network and providing additional services and facilities to the area; and
3. Provide an opportunity for passengers to travel between residential and work areas without going through the City Centre.

The necessary actions to support this initiative are as follows:

1. Determine the Right of Way (ROW) in detail for provision of bus transit lines, BRT stops and station design by the responsible agency;
2. Provide dedicated routes in suitable areas to ensure smooth bus movement and meet the scheduled travel time;
3. Provide a traffic management system where bus movement is given priority at traffic light intersections; and
4. Ensure the provision of facilities that meet needs of age and disabled-friendly groups.

The KLLP2040 proposes six (6) BRT service corridors that have the potential to be developed as shown in Table 5.1.1.

Table 5.1.1:
Kuala Lumpur BRT Service Corridor

BRT Corridor
1. Ampang – Kepong;
2. Taman Melawati – City Centre Kuala Lumpur;
3. Ampang – City Centre Kuala Lumpur;
4. Puchong – City Centre Kuala Lumpur;
5. Kerinchi – Alam Damai Kuala Lumpur; and
6. Klang – City Centre Kuala Lumpur.

BEST PRACTICE

BRT SERVICES, SINGAPORE

SBS Transit is a leading bus and rail operator multi-mode public transport. It also operates a 42 kilometres underground line with 34 stations in Singapore.



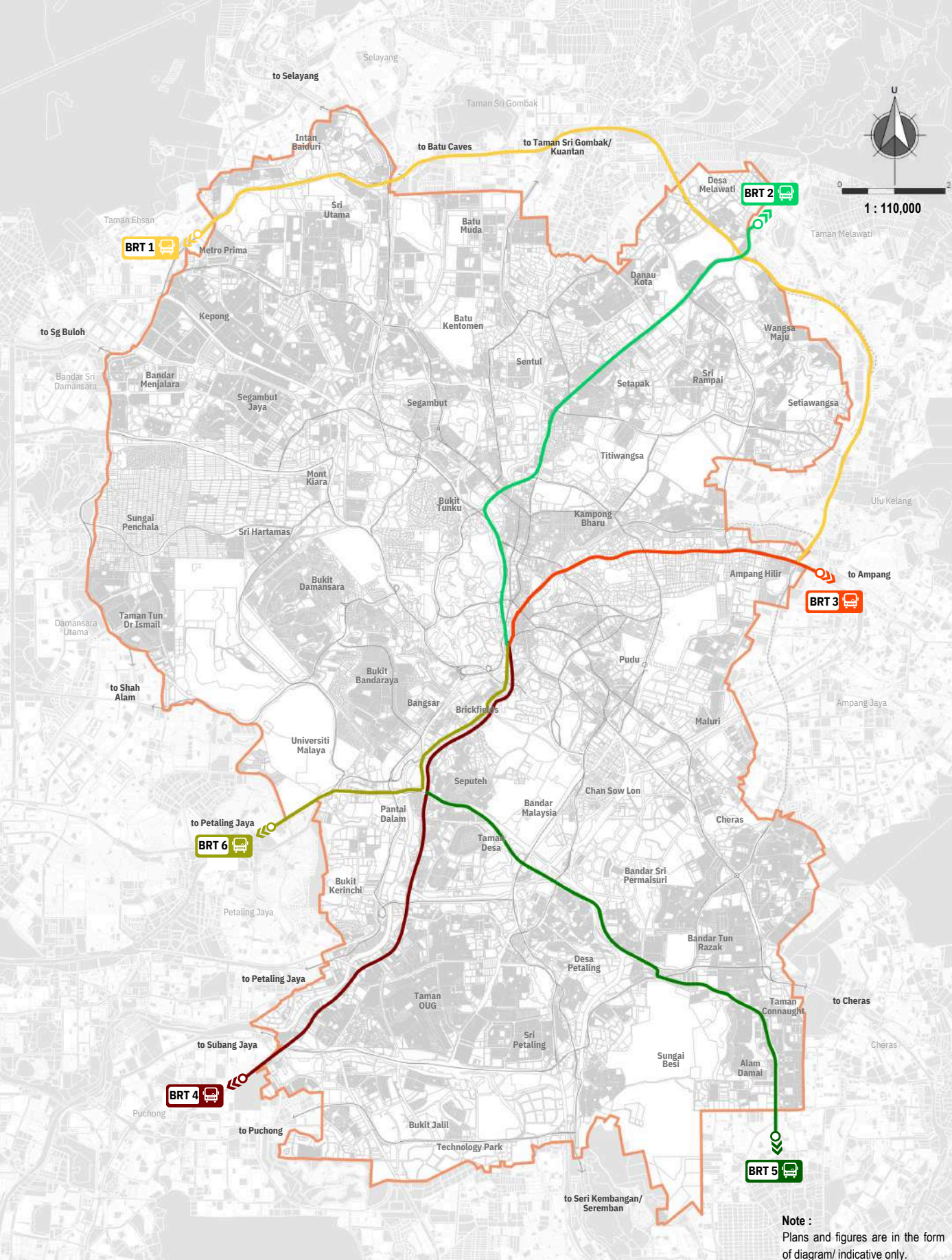


FIGURE 5.1.4 | Plan of Proposed BRT Service Corridor

CP 5-1.3:**PRIORITISING DEVELOPMENT OF PUBLIC BUS SERVICES**

Bus services are one of modes of public transport will expected to remain as main public transport especially in Kuala Lumpur and neighbourhoods in the future. There are several initiatives in order to improve the public transport network in Kuala Lumpur such as Bus Express Transit (BET), feeder bus and GoKL.

An efficient and comprehensive bus service will improve accessibility as well as attract users to switch modes of transport from private to public vehicles. Demand Responsive Transit (DRT) is one of the innovative approaches that can be applied to support and complement the public transportation system in Kuala Lumpur, especially in areas that cannot be accessed by buses.

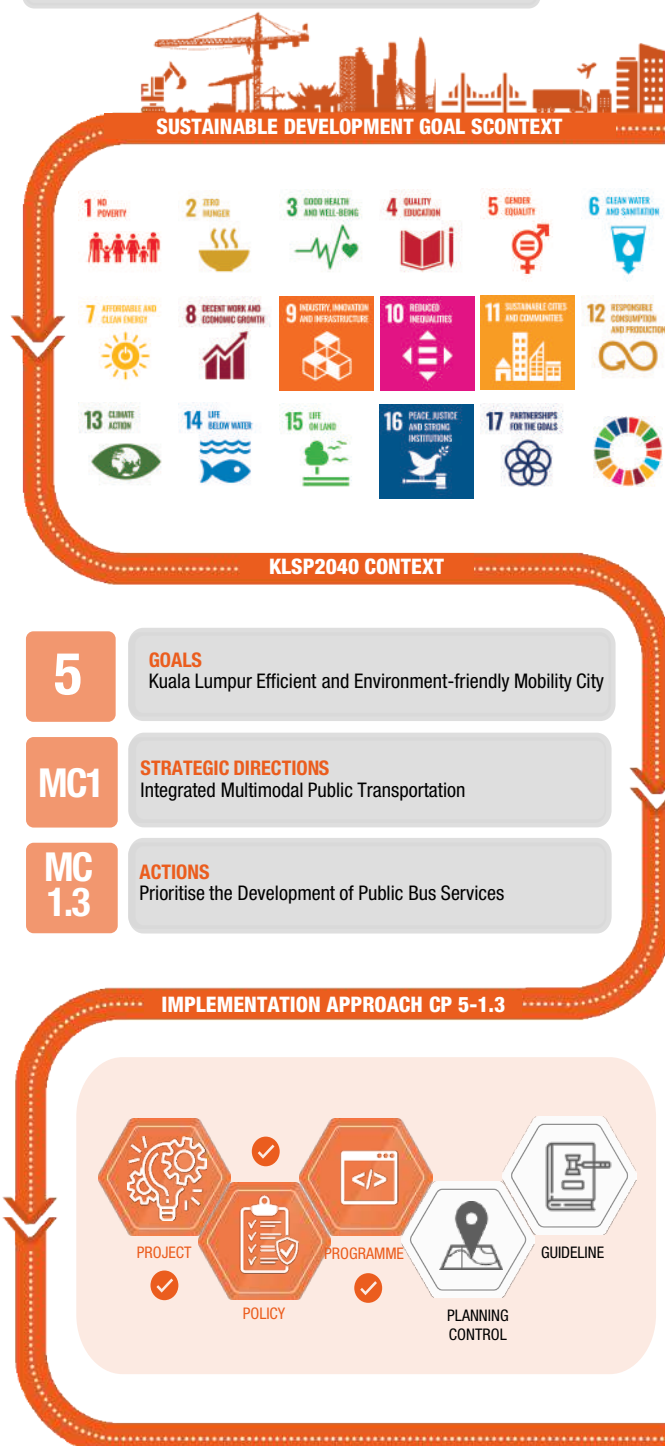
Planning and management needs to be integrated between public bus transport operators and rail services to ensure high level of accessibility in Kuala Lumpur.

The proposal for the implementation of CP 5-1.3 is carried out through four (4) initiatives as follows:

1. Provide Bus Expressway Transit (BET) Services;
2. Improve Bus Transportation System In Neighbourhood Areas;
3. Empower GoKL Bus Services; and
4. Implement Dedicated Lane for Buses and Taxis in Kuala Lumpur.



Location: MRT Feeder Bus Depot - Sg. Buloh
Source: <https://www.shutterstock.com/g/ESB+Professional>
Provision of feeder bus for MRT passengers.

CP 5-1.3COORDINATION CONTEXT OF
SDGs AND KLSP2040

IMPLEMENTATION INITIATIVE 5-1.3A

► PROVIDE BUS EXPRESSWAY TRANSIT (BET) SERVICES

Bus Expressway Transit (BET) is a bus service that makes use of highway routes and connected from bus station to intercity bus station. It also will reduce traveling time and able to plan more regularly.

Pasar Seni Bus Station is the main hub in implementation of BET services that will be connected to other modes of public transport such as MRT, LRT, taxis and buses.

The KLLP2040 has identified nine (9) BET corridors that have the potential to be implemented in Kuala Lumpur as shown in Table 5.1.2.


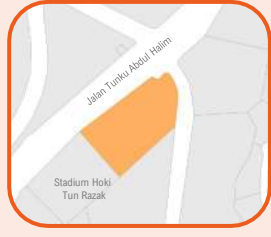

The necessary actions to support this initiative are as follows:

1. Provision of new stop areas outside the City Centre to reduce the entry of buses into the city centre and contribute to the reduction of traffic congestion during peak hours;
2. Integrated supporting facilities such as real time arrival at bus stops and having interactive information displays for any announcements such as bus delays or route changes;
3. Identify three (3) potential stations to be BET bus stops as shown in Table 5.1.3:
 - a. Terminal Bersepadu Selatan;
 - b. Hentian Duta; and
 - c. Terminal Bersepadu Gombak.
4. Apply latest technology in operation of BET buses such as an integrated ticket purchase system, online ticket billing, bus tracker, use of smartphone applications and others.

Table 5.1.2:
Proposed BET Route

BET Route	
1	BET 1 – Kota Damansara – Pasar Seni route (via Penchala Link Expressway);
2	BET 2 – Bandar Sungai Long - Pasar Seni route (via Cheras to Kajang Highway);
3	BET 3 – Subang Mewah – Pasar Seni route (via Federal Highway);
4	BET 4 – Taman Sri Muda – Pasar Seni route (via Federal Highway);
5	BET 5 – Bandar Tasik Puteri – Medan Pasar route (via Kuala Lumpur to Kuala Selangor Expressway (LATAR));
6	BET 6 – Bukit Beruntung – Pasar Seni route (via North to South Highway);
7	BET 7 – Sri Nilam – Munshi Abdullah route (via Ampang to Kuala Lumpur Elevated Expressway);
8	BET 8 – Semenyih Sentral – Pasar Seni route (via Cheras to Kajang Highway); and
9	BET 9 – Rawang – Pasar Seni route (via Jalan Rawang to Jalan Kuching)

Table 5.1.3:
Proposed BET Bus Stop Station in Kuala Lumpur

1	Terminal Bersepadu Selatan 13.54 hectares	
2	Hentian Duta 1.34 hectares	
3	Terminal Bersepadu Gombak* 4.71 hectares	

*Note: The station's location is outside Kuala Lumpur, but the station's catchment area also meets the needs of residents in Kuala Lumpur.

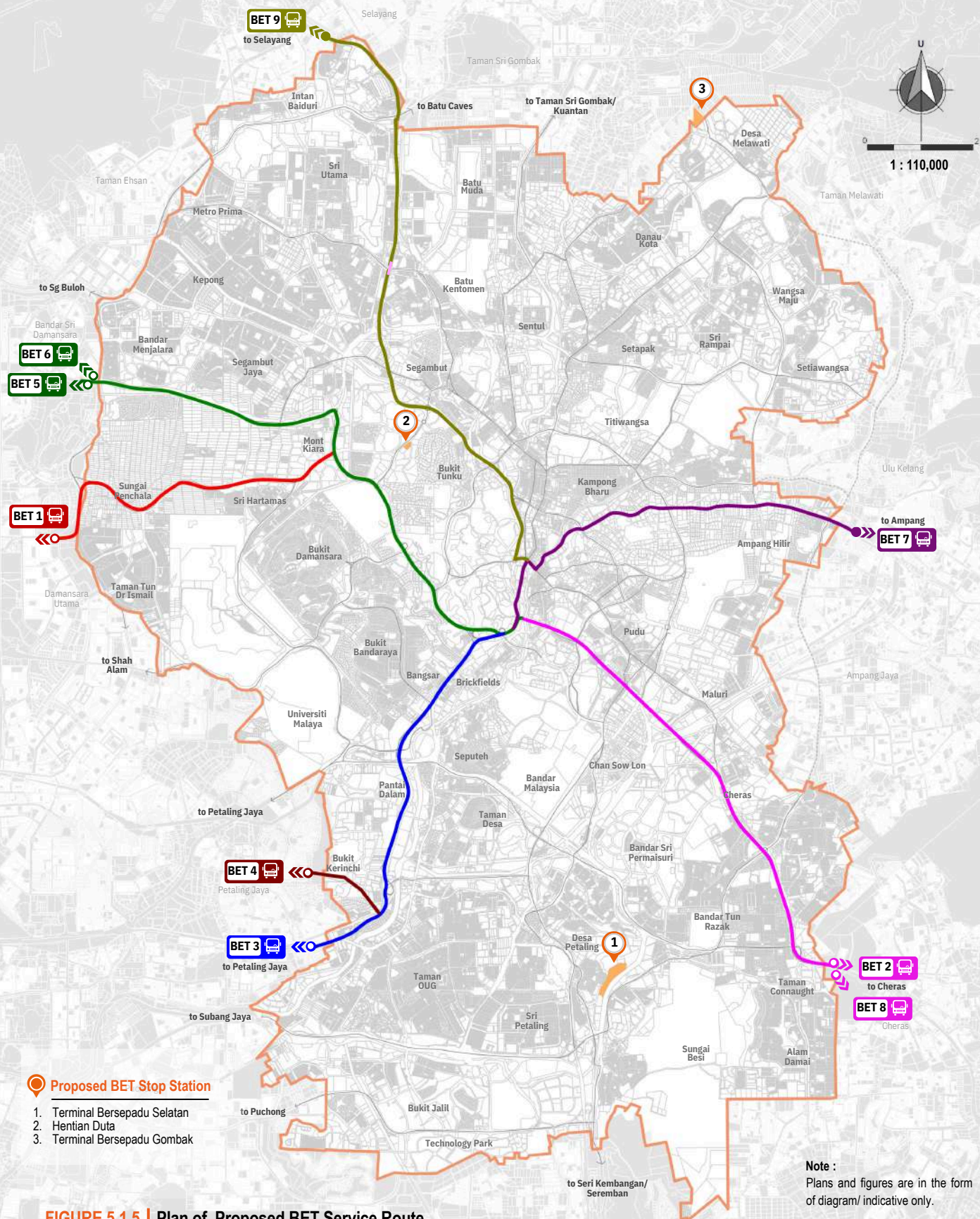


FIGURE 5.1.5 | Plan of Proposed BET Service Route

Legend :

Proposed BET Routes

- BET 1** – Kota Damansara – Pasar Seni route (via Penchala Link Expressway)
- BET 2** – Bandar Sungai Long – Pasar Seni route (via Cheras to Kajang Highway)
- BET 3** – Subang Mewah – Pasar Seni route (via Federal Highway)
- BET 4** – Taman Sri Muda – Pasar Seni route (via Federal Highway)
- BET 5** – Bandar Tasik Puteri – Medan Pasar route (via Kuala Lumpur to Kuala Selangor Expressway (LATAR))

- BET 6** – Bukit Beruntung – Pasar Seni route (via North to South Highway)
- BET 7** – Sri Nilam – Munshi Abdullah route (via Ampang to Kuala Lumpur Elevated Expressway)
- BET 8** – Semenyih Sentral – Pasar Seni route (via Cheras to Kajang Highway)
- BET 9** – Rawang Route – Pasar Seni route (via Jalan Rawang to Jalan Kuching)

Existing

- Potential Station to Be BET Bus Stop

Others

- Main Road
- Kuala Lumpur Boundary

IMPLEMENTATION INITIATIVE 5-1.3B

► IMPROVE BUS TRANSPORTATION SYSTEM IN NEIGHBOURHOOD AREAS

Kuala Lumpur has several feeder bus operators that provide services to residential, industrial and commercial areas such as Rapid Bus, MRT, GoKL and other public buses. It also provides one-stop bus services as well as feeder bus services to LRT, Monorail and MRT stations.

The necessary actions to support this initiative are as follows:

1. Prepare an integrated public bus transport master plan in collaboration with relevant agencies to improve the quality of bus services;
2. Ensure frequency and duration of bus service operation is extended for areas with high demand;
3. Coordinate bus and rail movement times to make it easier for users to plan their travel;
4. Ensure effectiveness of first and last mile planning such as pedestrian and micromobility vehicle routes to bus stops in neighbourhood area;
5. Ensure that there is no overlap of bus routes in the neighbourhood in order to provide optimal service access;
6. Usage of latest technology applications such as internet access (Wi-Fi) at bus stop, smartphone applications, real time arrival display and bus tracker;
7. Provide complete infrastructure for active mobility at every bus stop;
8. Conduct promotions to increase the usage of feeder bus and public transport;
9. Usage of high-tech buses such as electric buses to reduce carbon emissions; and
10. Ensure the provision of facilities that meet needs of age and disabled-friendly groups.



Location : Kuala Lumpur City Centre

Source : <https://www.shutterstock.com/g/ahmadyani70>

Provision of feeder bus services based on the Electric Vehicle (EV) concept to support the green city initiative.

IMPLEMENTATION INITIATIVE

5-1.3C

► EMPOWER GoKL BUS SERVICES

GoKL bus services have been implemented in Kuala Lumpur since 2012 to increase public transport usage and reduce traffic congestion in Kuala Lumpur. GoKL bus services are easily accessible, have good connectivity, are safe, comfortable and are provided free of charge to users.

GoKL bus services operate 15 routes until December 2024 and can be expanded to potential areas in Kuala Lumpur. These services should not overlap with other public transport services such as feeder bus and rail systems.

The planning criteria necessary to support this initiative are as follows:

1. Connect residential area with transit stations;
2. Encourage users to switch mode of transport (modal shift) for travel to or from the workplace from private vehicle to public transport;
3. Focus services on high-density residential areas; and
4. Prioritise low-cost housing area, public housing and affordable housing.

The necessary actions to support this initiative are as follows:

1. Introduce usage of smart technology in the implementation of GoKL bus services such as real time arrival and bus tracking;
2. Usage of high-tech buses such as electric buses to reduce carbon emissions;
3. Encourage users to bring micromobility vehicles onto the bus subject to suitability;
4. Provide dedicated spaces in buses that give priority to women;
5. Ensure the provision of facilities that meet needs of age and disabled-friendly groups;
6. Impose fare charges on non-citizens; and
7. Expand the route to potential areas to increase the use of public transport, such as:
 - a. Area of Sungai Penchala;
 - b. Area of Segambut;
 - c. Area of Kepong; and
 - d. Area of Cheras.

BRIEF INFO

GoKL BUS SERVICE

At the initial implementation stage of GoKL Bus services, it was operated by Land Public Transport Agency (APAD) but after APAD was disbanded, GoKL Bus is now operated by Kuala Lumpur City Hall (KLCH).

Operation Hours

1. Monday to Friday: 6.00am until 11.00pm.
2. Saturday, Sunday and Public Holiday: 7.00am until 11.00pm

Bus Frequency

1. Monday to Friday : Peak Hour (7.00am – 10.00am and 4.00pm – 8.00pm) : Every 5 minute
2. Saturday, Sunday dan Public Holiday : Every 10 minute

Source: Adapted from <https://www.majadual.com/ms/bas-gokl-city-bus/>



Location: Jalan Tuanku Abdul Rahman, Kuala Lumpur

Provision of GoKL Bus Service as a feeder bus for city dwellers.

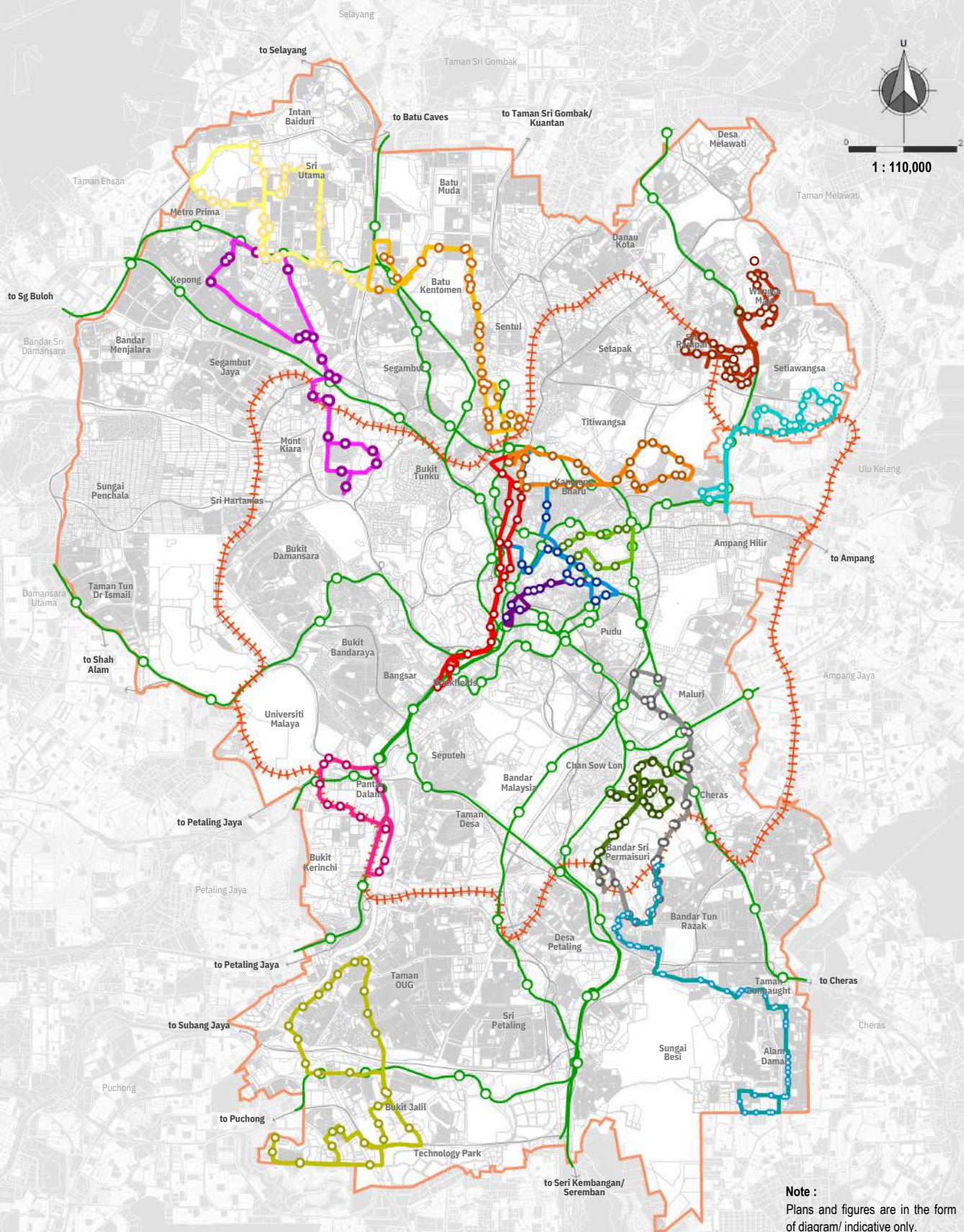


FIGURE 5.1.6 | Plan of GoKL Service Route

IMPLEMENTATION INITIATIVE 5-1.3D

► IMPLEMENT DEDICATED LANE FOR BUSES AND TAXIS IN KUALA LUMPUR

Dedicated bus and taxi lanes are used on main routes with frequent services every 10 minutes at peak hours or traffic congestion which may affect bus travel and arrival times.

Provision of bus and taxi lanes makes use of using existing roads that have been converted from shared lanes to dedicated lanes.

The necessary actions to support this initiative are as follows:

1. Provide detailed guidelines for bus and taxi priority routes;
2. Provide dedicated lanes for buses and taxis considering the needs of micromobility vehicle routes with a minimum width of 3.3 metres;
3. Priority to traffic signals for dedicated lanes for bus and taxi to reduce travel delays;
4. Usage of dark grey paint to dedicated lanes for bus and taxi;
5. Implement continuous enforcement and monitor by authorities;
6. Provide bus and taxi stops that are high-tech, smart and low-carbon; and
7. Ensure interconnected bus and taxi routes.

The KLLP2040 has identified six (6) potential roads for the implementation of dedicated lanes for buses and taxis after considering the suitability of existing roads, as shown in Table 5.1.4.

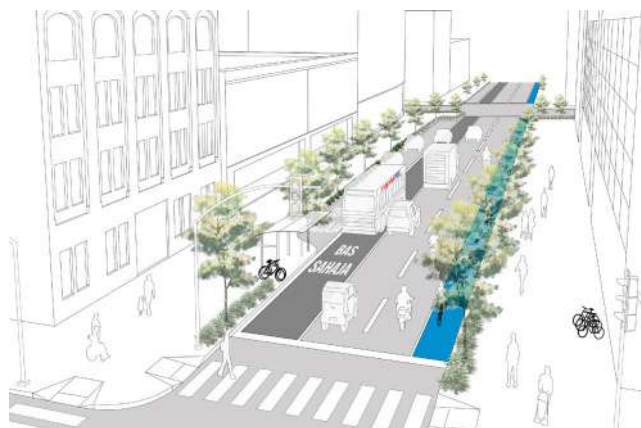


Illustration of provision of dedicated lanes for bus and taxi as well as decorated with soft landscape in Kuala Lumpur.



Illustration of the provision of dedicated lanes for bus and taxi in Kuala Lumpur.

Note: Subject to relevant guidelines or technical agency requirements.

Table 5.1.4:
Proposed implementation of dedicated lanes for bus and taxi

Dedicated Lane for Bus and Taxi	
1.	Jalan Klang Lama
2.	Jalan Ampang
3.	Jalan Loke Yew
4.	Jalan Kinabalu
5.	Jalan Raja Laut
6.	Jalan Ipoh

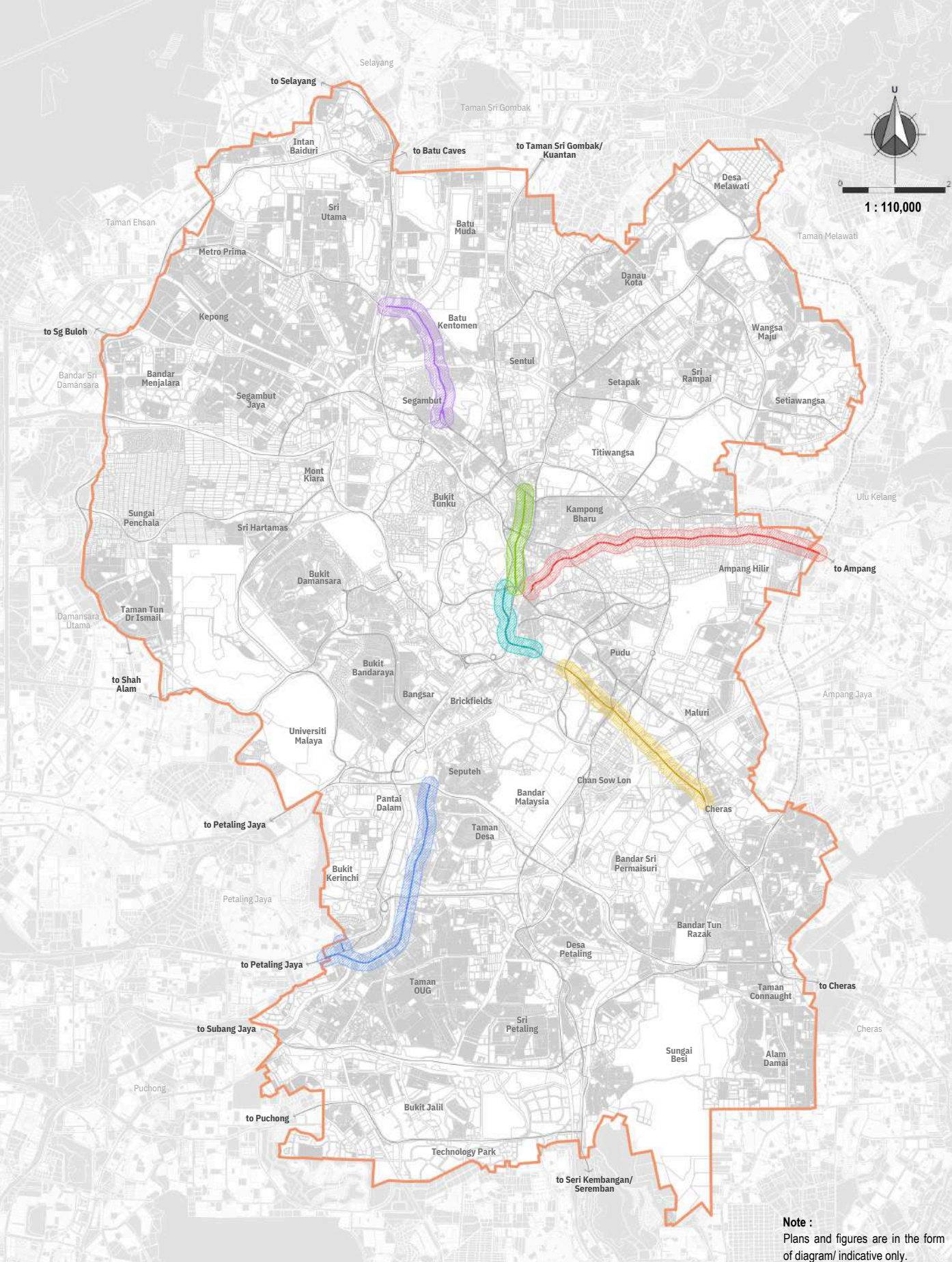


FIGURE 5.1.7 | Plan of Proposed Dedicated Lane for Bus and Taxi in Kuala Lumpur

Legend :

- Jalan Klang Lama
- Jalan Ampang
- Jalan Loke Yew
- Jalan Kinabalu
- Jalan Raja Laut
- Jalan Ipoh

Others

- Main Road
- Kuala Lumpur Boundary

CP 5-1.4:

PROVIDING PICK-UP POINTS OF TAXI AND E-HAILING SERVICES

Taxi and e-hailing services are alternative transport for passenger services, delivery of goods or food. There are 46 e-hailing operators approved to operate under the Land Public Transport Agency (APAD) in Malaysia such as Grab, Mycar, EzCab and others. This service can facilitate passengers during off-peak hours especially in areas where access to rail and bus services is limited or outside the service area. It also completes the user's first and last mile continuity.

Pick up point is a place to pick up and drop off passengers, as well as to deliver goods or food to an area. Its provision is important because it can facilitate the use of taxi and e-hailing services.

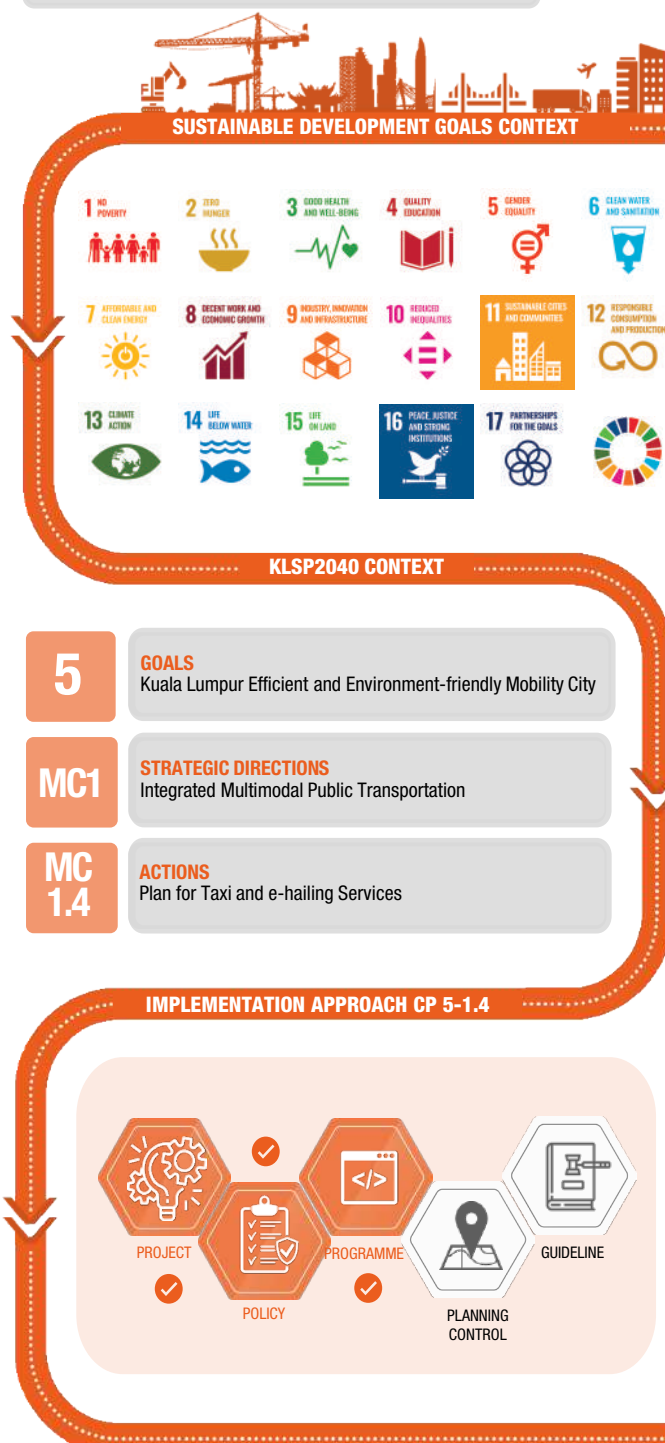
The proposal for the implementation of CP5-1.4 is carried out through one (1) initiative as follows:

1. Increase Taxi and e-hailing Services.



CP 5-1.4

COORDINATION CONTEXT OF
SDGs AND KLSP2040



IMPLEMENTATION INITIATIVE 5-1.4A

► INCREASE TAXI AND E-HAILING SERVICES

Taxi and e-hailing services will give users another choice of public transport modes in Kuala Lumpur in addition to rail and bus services.

The collaboration between KLCH and related agencies is crucial ensure the level and coverage of taxi and e-hailing services are efficient, of quality and comfortable.

The necessary actions to support this initiative are as follows:

1. Ensure vehicles and taxi stand facilities are safe, comfortable as well as age and disabled-friendly;
2. Provide waiting areas for taxi and e-hailing vehicles in tourist hotspots, shopping complexes, hospitals and transit stations;
3. Restructure the location and space for taxi stand in the City Centre to reduce traffic congestion during peak hours;
4. Ensure every building that attracts crowds, such as shopping malls and public buildings, provides a pick-up point;
5. Ensure only e-hailing vehicles with special sticker are only allowed to drop off and pick up passengers at taxi stands located in the dedicated bus lane to assure high accessibility to users and e-hailing drivers;
6. Allow only taxi and e-hailing vehicles that are less than ten (10) years to operate; and
7. Allow taxi and e-hailing services to operate in dedicated bus lanes provided there are passengers in the vehicle and have a special sticker for the service.

BRIEF INFO

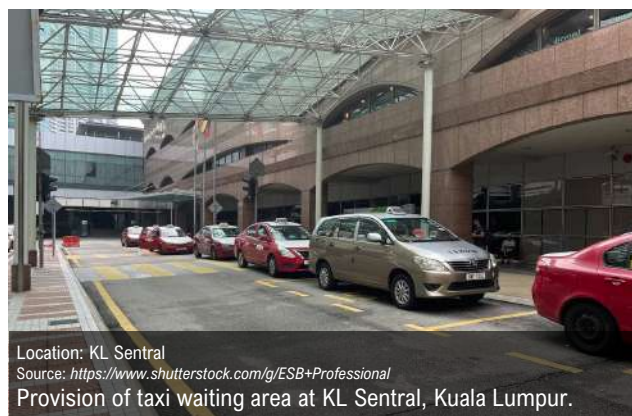
SERVICE OF GRAB E-HAILING

Grab is the largest e-hailing operating company in Southeast Asia. Currently, Grab has a total of 2.7 million registered drivers throughout Southeast Asia. In 2020, the Land Public Transport Agency (APAD) has allowed 46 e-hailing companies to operate legally in Malaysia.

Terms and Conditions of e-hailing Service :

License and Registration	<ol style="list-style-type: none"> 1. Malaysian Citizen; 2. Age not less than 21 years; 3. Not blacklisted by PDRM, JPJ and APAD; 4. Possess Public Service Vehicle License; 5. Register Electronic Vehicle Permit (EVP) from APAD; and 6. Possess Drivers Electronic Cards from APAD.
Vehicle	<ol style="list-style-type: none"> 1. Provision of vehicle seating capacity between four (4) and 11; 2. Mandatory vehicle inspection for vehicles aged three (3) years old and above; and 3. Usage of a vehicle that is no more than ten (10) years old.

Source: <https://www.grab.com/my/about/>



Location: KL Sentral

Source: <https://www.shutterstock.com/g/ESB+Professional>

Provision of taxi waiting area at KL Sentral, Kuala Lumpur.

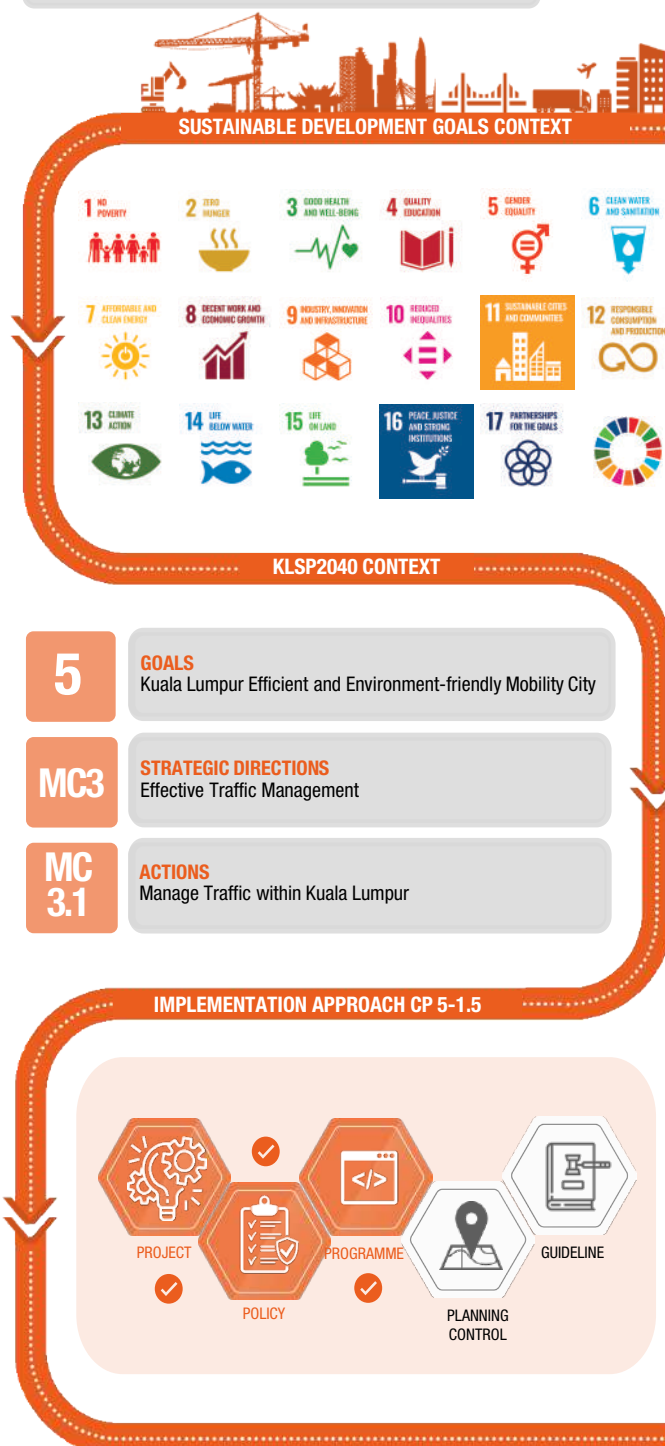
CP 5-1.5:**DEVELOPING TECHNOLOGY IN
INTELLIGENT TRANSPORT SYSTEM**

Technology plays an important role and it needs to be applied to all modes including public transport services to optimise its users. Intelligent Transport System (ITS) is an application which improves quality of service, monitors, manages and efficiency of transport system.

ITS greatly depends on its data collection and findings of analysis. The built-up system with collected data will be analysed to control, manage and plan the urban transportation systems.

The implementation plan for CP 5-1.5 is carried out through one (1) initiative as follows:

1. Develop Intelligent Transport System (ITS).

**CP 5-1.5**COORDINATION CONTEXT OF
SDGs AND KLSP2040

► DEVELOP INTELLIGENT TRANSPORT SYSTEMS (ITS)

Intelligent Transport Systems (ITS) are advanced applications that provide innovative services related to different modes of transport and traffic management.

ITS allows users to get better information and to use a safer, more coordinated and smarter transport network.

ITS applications can be used in the management and coordination of urban transport system as follows:

1. Expand real-time parking management;
2. Expand road speed enforcement (AES);
3. Expand implementation of Radio-Frequency Identification (RFID);
4. Integrate ITS with smartphone applications such as Moovit and Pulse; and
5. Apply Intelligent Dynamic Traffic Light Sequence

The necessary actions to support this initiative are as follows:

1. Develop a big data centre to collect data related to transportation infrastructure and traffic system in Kuala Lumpur;
2. Integrate existing systems such as the GoKL and Smart Selangor through shared data system for users to plan trips; and
3. Promote periodic information in the use of ITS application for users to know more about its functions.

BEST PRACTICE

NATIONAL TRAFFIC CONTROL CENTRE OF SCOTLAND

Glasgow City of Scotland has implemented intelligent transport system to provides regular information for daily public buses commuters about time, seat availability, current location of the bus, time taken to reach a particular destination, location of the next bus and number of passenger in the bus.

Transport Scotland plays an important role in achieving the Scottish government's goal to become a developed country in the transport sector through the following approaches:

1. Provision of CCTV;
2. Variable Message Signs (VMS); and
3. Traffic Control and Information System.

There are six (6) main strategies for the development of ITS in Scotland as follows:

1. Asset Management and Operations Services;
2. Traffic and Travel Quality Information;
3. Sustainability and Environment;
4. Smart Mobility;
5. Economics, Communications and Logistics; and
6. Data, Innovation and Collaboration.



Source: <https://its-uk.org.uk/>

The situation in a traffic control centre of Glasgow City, Scotland.

ENCOURAGING ACTIVE MOBILITY MODE WITH IMPROVED ACCESSIBILITY AND SAFETY

SCENARIO OF ACTIVE MOBILITY MODE IN KUALA LUMPUR

Transport planning needs to integrate active mobility, such as pedestrian and micromobility vehicle routes with public transport services. Active mobility is a choice of movement mode involving short distances and is able to reduce the dependence of use on motor vehicles as well as contribute towards sustainable environment.

According to the Kuala Lumpur Pedestrian and Cycling Masterplan 2019 to 2028, only 18 percent of residents in Kuala Lumpur choose to walk or cycle and 82 percent of residents choose not to walk or cycle to work or school.

Kuala Lumpur needs to encourage the use of active mobility mode because it provides various benefits in terms of physical and mental health as well as reduce greenhouse gas (GHG) emissions.

Towards realizing Kuala Lumpur as a city capable of encouraging active mobility mode with improved accessibility and safety, two (2) Implementation Proposals are formulated under Planning Strategy 5-2, as shown in Figure 5.2.1



Location: Lebuhr Pasar, Dataran Merdeka

Upgrading and adding space for active micromobility mode is expected to help reduce dependency on the use of motor vehicles.

WHAT IS MICROMOBILITY?

According to Act 333 (Amendment) 2020 the definition of micromobility vehicles means vehicles that are propelled by electrical means, an internal-combustion engine or human power and having a maximum speed of 50 kilometre per hour



Station-based bike share
(Including e-bikes)



Dockless bike share
(Including e-bikes)



Scooter share

Figure 5.2.1:
Implementation Proposals for Planning Strategy 5-2

SP 5-2

ENCOURAGING ACTIVE MOBILITY MODE WITH IMPROVED ACCESSIBILITY AND SAFETY

CP 5-2.1

Developing Safe, Seamless And Accessible Pedestrian And Micromobility Vehicle Routes

CP 5-2.2

Promoting Pedestrian and Use of Micromobility Vehicle Routes

CP 5-2.1:**DEVELOPING SAFE, SEAMLESS AND ACCESSIBLE PEDESTRIAN AND MICROMOBILITY VEHICLE ROUTES**

The integration of the public transport system with pedestrian and micromobility vehicle routes at transit stations needs to be improved and upgraded especially at focal areas such as Cheras, Seputeh, Segambut, Titiwangsa and Pantai Dalam.

Bicycle rack facilities are provided at selected transit stations through the Bike and Ride Program by MyRapid to encourage users to bring their bicycles along.

More proactive efforts are required to ensure that all stations are equipped with bicycle rack facilities as a convenience for pedestrian and micromobility vehicle routes users are required. Provision of the facilities is in line with the Kuala Lumpur Pedestrian and Cycling Masterplan 2019 to 2028 and to achieve the modal split of 70 percent public transport in Kuala Lumpur.

Bike-sharing system (BSS) is a transportation model that uses smart application with a specific fee for the use of bicycles. Its implementation is suitable in many areas such as City Centers, commercial centers, recreational areas, and tourist hotspots.

This system is introduced to increase flexibility in the public transportation system. It is also expected to provide a positive and cost-effectiveness perception in improving the first and last mile aspects between modes of transportation.

The proposal for the implementation of CP 5-2.1 will be carried out through four (4) initiatives as follows:

1. Provide Networks of Pedestrian and Micromobility Vehicles Routes;
2. Provide Infrastructure for Pedestrian and Micromobility Vehicles Routes;
3. Provide Pedestrian Routes Priority Zone in the City Centre; and
4. Provide Bike-Sharing System (BSS) Services and Facilities in Kuala Lumpur.

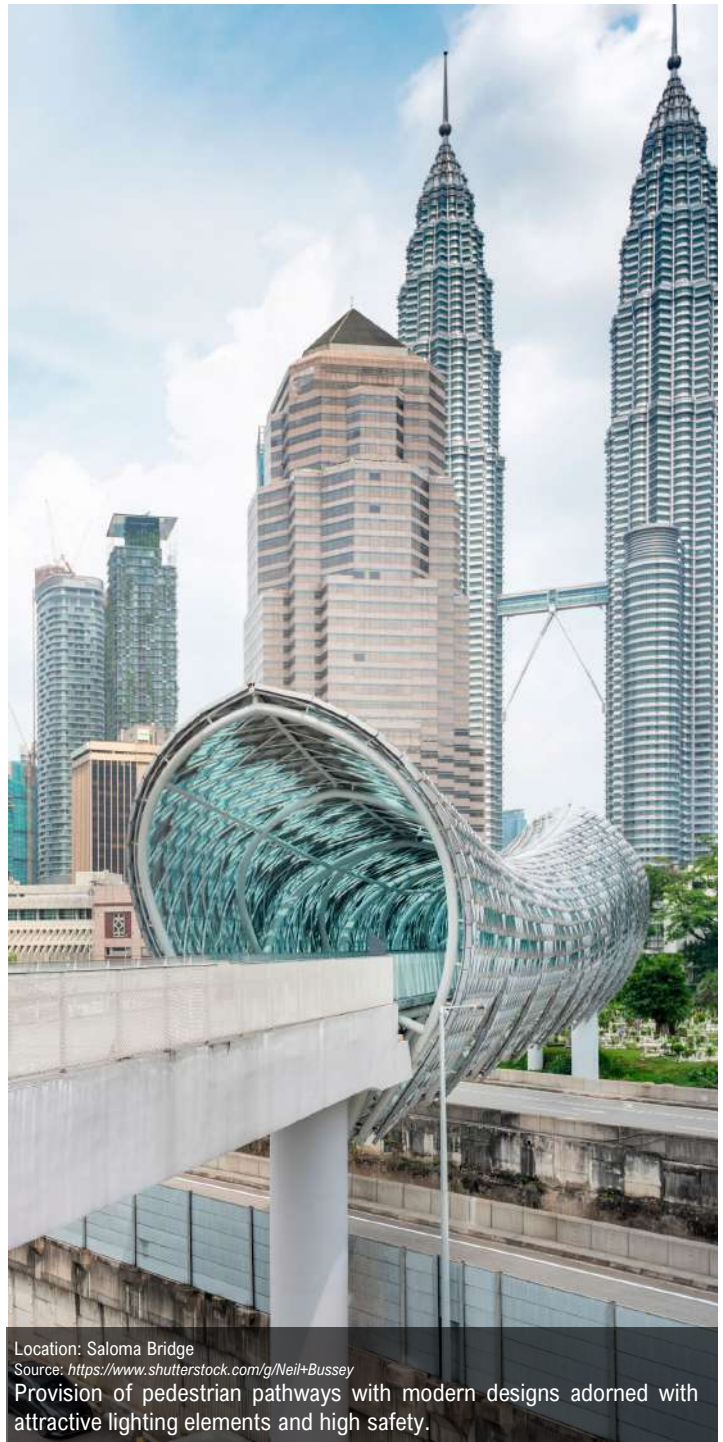
CP 5-2.1COORDINATION CONTEXT OF
SDGs AND KLSP2040

► PROVIDE NETWORKS OF PEDESTRIAN AND MICROMOBILITY VEHICLES ROUTES

The provision of networks for pedestrian and micromobility vehicle routes requires safe, seamless, and accessible planning. This provision requires collaboration between agencies and stakeholders to focus on areas with high rates of pedestrian as well as micromobility vehicles, such as school areas, hospital areas, shopping centers, and transit stations.

The necessary actions to support this initiative are as follows:

1. Identify optimal pedestrian route by considering the geometric design of the road that is suitable and comfortable to use;
2. Provide map of pedestrian routes in Kuala Lumpur;
3. Provide the design of pedestrian and micromobility vehicle routes network in focal areas with consideration on the safety for uninterrupted movement of users;
4. Ensure developer to integrate pedestrians with existing or new developments;
5. Provide adequate lighting on all pedestrian and micromobility vehicle routes;
6. Use latest technology in the planning and provision of pedestrian and micromobility vehicle routes network ; and
7. Ensure the provision of supportive facilities that are user-friendly, especially for the elderly and disabled.



Location: Saloma Bridge

Source: <https://www.shutterstock.com/g/Neil+Bussey>

Provision of pedestrian pathways with modern designs adorned with attractive lighting elements and high safety.

IMPLEMENTATION INITIATIVE 5-2.1B

► PROVIDE INFRASTRUCTURE FOR PEDESTRIAN AND MICROMOBILITY VEHICLE ROUTES

Provision of infrastructure for pedestrian and micromobility vehicle routes should be prioritised in focal areas such as transit stations. Planning for this infrastructure is appropriate within 400 metres to 800 metres from the transit station.

The KLPP2040 proposed provision of infrastructure for pedestrian and micromobility vehicle routes as shown in Figure 5.2.3.

The necessary actions to support this initiative are as follows:

1. Provide a comfortable, safe and continuous pedestrian routes within 400 metres and micromobility vehicle routes within 800 metres of each transit station;
2. Provide separate pedestrian and micromobility vehicle routes network with motorised vehicle paths on utility or landscape reserves as shown in Figure 5.2.2 and Table 5.2.1;
3. Consider facilities such as directional signage as well as dividers to separate motorised vehicles from pedestrian and micromobility vehicle routes;
4. Enforce the prohibition of motorcycles on pedestrian and micromobility vehicle routes network to avoid the risk of accidents; and
5. Introduce related acts or legal provisions in giving permission for the use of pedestrian and micromobility vehicle routes in Kuala Lumpur.

Table 5.2.1:
Requirement of Pedestrian and Micromobility Vehicle Routes

Area	Route Design (Marker, Path Painted in Blue/Green Color)	Special Routes (Poles or Road Reflector or Rubber Hump)	Path Width	Buffer zone	Stop Zones At Intersections
Commercial and Industry Centre (all street categories)	✓	✓ (Poles or Rubber Hump)	Min. 1.2 m Proposed: 1.5 m	Min. 0.8 m	✓
Residential Area (Arterial Road)	✓	✓ (Poles or Road Reflector or Rubber Hump)	Min. 1.2 m Proposed: 1.5 m	Min. 0.8 m	✓
Residential Area (Collectors Road)	✓	✓ (Poles or Road Reflector)	Min. 1.2 m Proposed: 1.5 m	-	-
Residential Area (Local Streets - > 4 units per acre)	✓	(Road Reflector)	Min. 1.2 m Proposed: 1.5 m	-	-

Source: Adapted from Pedestrian and Cycling Masterplan 2019 to 2028

Figure 5.2.2:
Cross Sections for Pedestrian and Micromobility Vehicle Routes

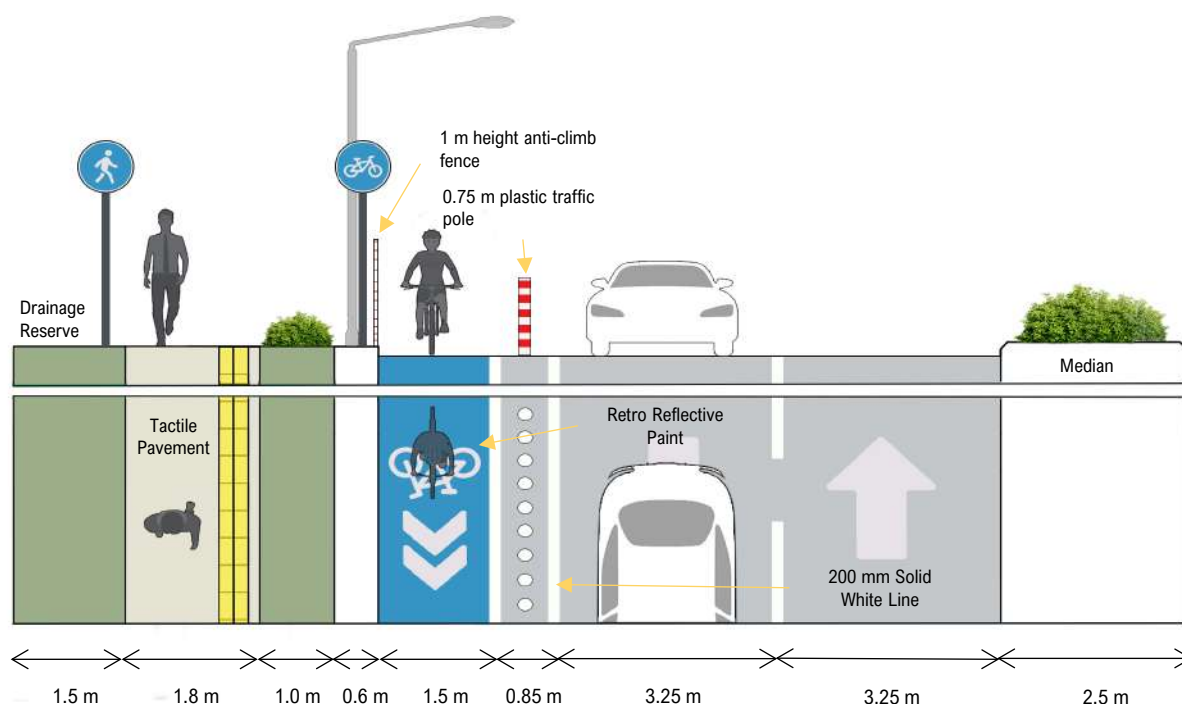
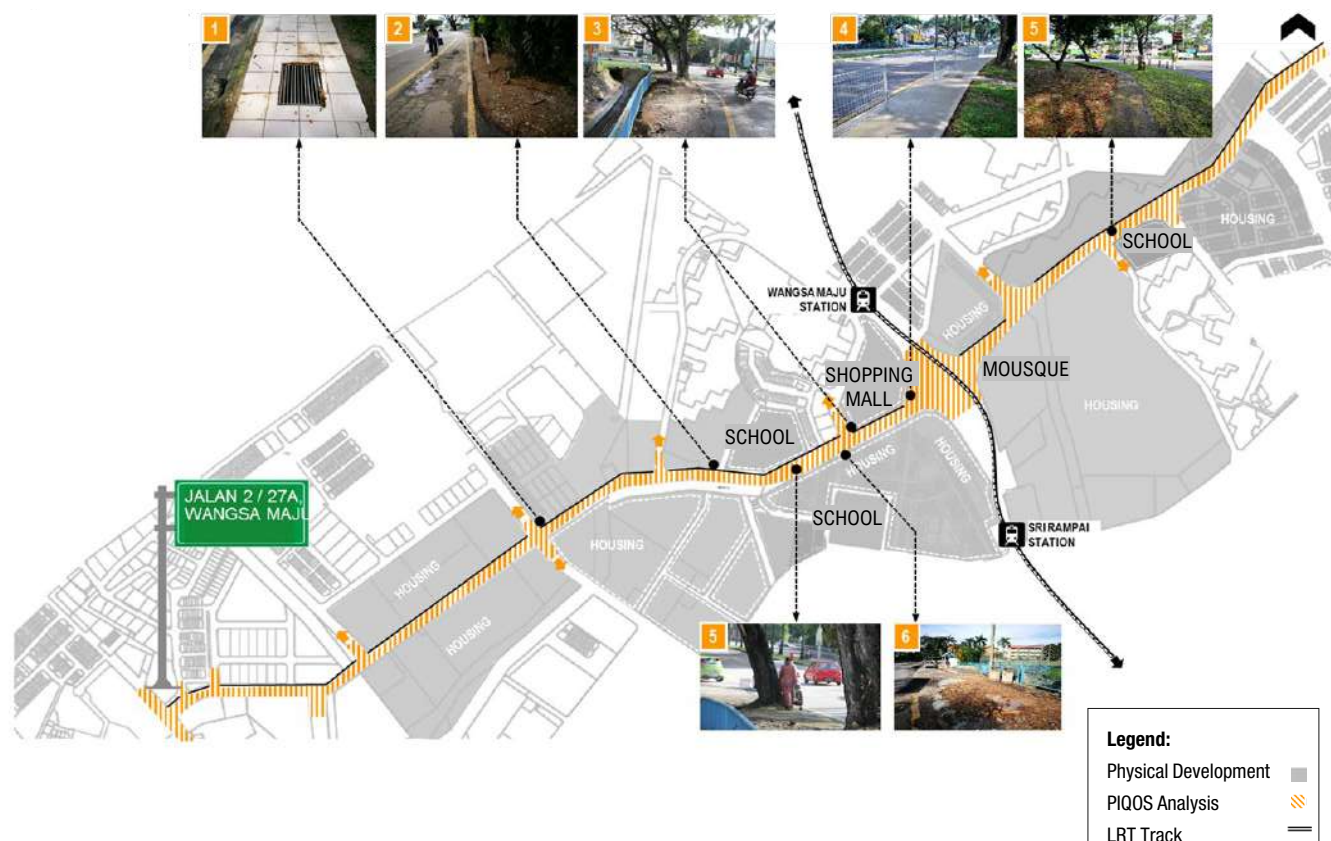


Figure 5.2.3:
Quick-Win Project Proposals for Facilities and Community Area Infrastructure in Wangsa Maju



IMPLEMENTATION INITIATIVE 5-2.1C

► PROVIDE PEDESTRIAN ROUTES PRIORITY ZONE IN THE CITY CENTRE

A pedestrian routes has been established at several strategic locations in the City Centre, nevertheless, it still needs to be improved in order to connect focal areas and encourage optimal use in the City Centre.

The construction of Pintasan Saloma connecting Kampong Bharu and KLCC is a good example of provision of a pedestrian walkway that connects two (2) focal points. Bukit Bintang elevated road to KLCC is also another example of a good connectivity network towards promoting the use of pedestrian walkway in City Centre.

Pedestrian walkways help to create a vibrant and attractive environment especially in focal areas such as commercial zones and employment centres. There are various methods applied in several countries to create full or partial pedestrian priority zones. The provision of pedestrian priority zones needs to consider current activities and physical readiness of roads.

The necessary actions to support this initiative are as follows:

1. Convert Jalan Tuanku Abdul Rahman into a pedestrian priority zone with the potential to be completely closed to vehicles;
2. Identify potential pedestrian priority zones with temporary closure from vehicles such as Jalan Bukit Bintang and Jalan Masjid India;
3. Design seamless, comfortable, barrier-free and user-friendly pedestrian walkways;
4. Provide a width of the pedestrian routes that is able to accommodate the high capacity of pedestrians;
5. Ensure the pedestrian routes is located along the main activity area with supporting infrastructure facilities such as directional signboard;
6. Encourage more controlled street vending activities in the form of kiosks in pedestrian areas;
7. Provide adequate lighting to ensure the safety and comfort of pedestrians; and
8. Revitalise pedestrian area through interesting design elements in street furniture and landscaping to allow users to enjoy pocket parks, public art areas and street entertainment.



Location: Sunway Putra Mall

Provision of pedestrian crossings and overpasses is one of the efforts to encourage pedestrianisation in Kuala Lumpur.

IMPLEMENTATION INITIATIVE 5-2.1D

► PROVIDE BIKE-SHARING SYSTEM (BSS) SERVICES AND FACILITIES IN KUALA LUMPUR

Bike-Sharing System (BSS) facility is a step action to promote an efficient and flexible micro transport transit system. The provision of this service should be focused in City Centre area and extended throughout Kuala Lumpur.

The necessary actions to support this initiative are as follows:

1. Promote the provision of Bike-Sharing System (BSS) facilities as many as ten (10) to 16 stations per square kilometres;
2. Encourage the provision of Bike-Sharing System (BSS) facilities based on a ratio of ten (10) to 30 bicycles per 1,000 residents;
3. Consider the quality of the bike with the appropriate level of durability, comfort, attractiveness, and practicality; and
4. Develop a user-friendly application for the use purpose of using the Automated Locking System (ALS) and Advanced Tracking System (ATS) that can improve the safety features of bicycles.

The KLLP2040 has identified ten (10) potential locations for the implementation of BSS facilities in Kuala Lumpur as shown in Figure 5.2.4 as follows:

1. Bandar Wawasan;
2. Menara The Exchange 106 (TRX);
3. Menara Merdeka 118;
4. Bandar Malaysia;
5. KLCC;
6. Masjid Jamek;
7. Bukit Bintang;
8. KL Sentral;
9. Pasar Seni; and
10. Dataran Merdeka.

BEST PRACTICE

CITY BIKES OF STOCKHOLM, SWEDEN

City	Stockholm
Country	Sweden
Implementation Year	June 2007
Stakeholders	Clear Channel City of Stockholm
Goal	<ol style="list-style-type: none"> 1. Improve the status of cycling lifestyle; and 2. Promote the use of bicycles for short distances travel.
Details	<ol style="list-style-type: none"> 1. Implement this project via public-private partnership; 2. Encourage the use of bicycles for a maximum period of three (3) hours starting from 6.00 am until 10.00 pm; and 3. Provide a ticket system such as seasonal cards or daily cards for a period of three (3) days.

Source: <https://viewstockholm.com/rent-bike-stockholm/>



Location: Stockholm, Sweden

Source: <https://www.shutterstock.com/g/EQRay>

Provision of a practical and comfortable Bike-sharing System (BSS) for the populations of Stockholm City.

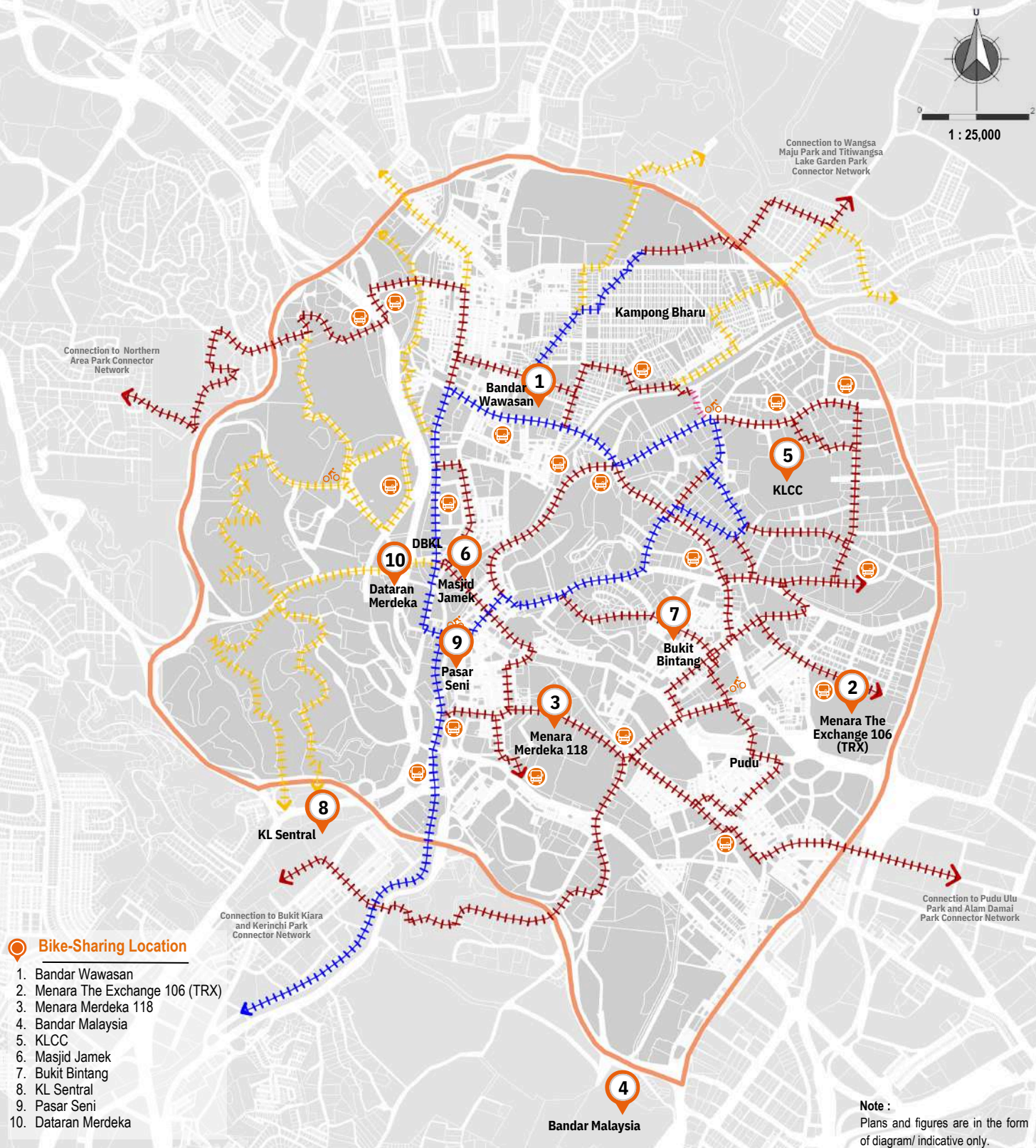


FIGURE 5.2.4 | Plan of Proposed Network and Location of Bike-Sharing System (BSS) Locations in City Centre

Bike-Sharing System (BSS) Network in City Centre

- Route 1 [4.9 km]**
Jalan Dato Onn - Jalan Sultan Salahuddin - Jalan Tun Ismail - Jalan Tunku - Jalan Tun Ismail - Jalan Putra - Jalan Raja Laut
- Route 2 [2.2 km]**
Jalan Raja Laut - Jalan Sri Amar - Jalan Dewan Sultan Ismail - Jalan Raja Abdullah - Jalan Raja Muda Musa - Jalan Hassan Salleh - Saloma Bridge - Jalan Saloma - Jalan Ampang
- Route 3 [4.4 km]**
Jalan Ampang - Jalan 1/68B - Jalan Binjai - Persiaran KLCC - Jalan Stonor - Jalan Conlay - Jalan Kia Peng - Jalan Pinang - Jalan P. Ramlee - Jalan Perak
- Route 4 [2.4 km]**
Jalan Sultan Ismail - Jalan Ampang - Jalan Gereja - Jalan Raja Chulan
- Route 5 [1.1 km]**
Bukit Bintang St - Changkat Bukit Bintang - Jalan Ceylon - Persiaran Raja Chulan - Jalan Raja Chulan

- Route 6 [7.3 km]**
Jalan Sultan Ismail - Jalan Raja Chulan - Bukit Bintang St - Jalan Gading - Jalan Utara - Jalan Barat - Jalan Harley - Jalan Kampung Pandan - Jalan Imbi - Jalan Khoo Teik Ee - Lorong Walter Granier - Jalan Walter Granier - Jalan Sultan Ismail - Jalan Bulan 1 - Jalan 1/77b - Jalan Changkat Thambi Dollah - Jalan Brunei - Jalan Pudu - Jalan Merlimau
- Route 7 [0.9 km]**
Bukit Bintang St - Jalan Pudu - Jalan Tun Perak
- Route 8 [1.4 km]**
Jalan Merlimau - Lorong Meranti - Jalan Hang Jebat - Jalan Sultan
- Route 9 [2.8 km]**
Jalan Tun Perak - Jalan Pudu - Jalan Sultan - Lorong Petaling - Jalan Stadium - Jalan Sultan Mohamed - Lebuhraya Pasar Besar - Jalan Hang Kasturi - Jalan Tun Sambathan
- Route 10 [4.9 km]**
Jalan Dato Onn - Jalan Sultan Salahuddin - Jalan Tun Ismail - Jalan Tunku - Jalan Tun Ismail - Jalan Putra - Jalan Raja Laut

[total Distance: 34.5 km]

Legend:

- Proposed System Locations
- City Centre Area
- Main Road
- Kuala Lumpur Boundary
- Bus Stop
- Cycling Route
- Main Cycling Route
- Existing Cycling Route
- Secondary Cycling Route

CP 5-2.2:

PROMOTING PEDESTRIAN AND USE OF MICROMOBILITY VEHICLE ROUTES

Promoting public awareness promotion is very important to encourage pedestrian and the use of micromobility vehicle routes in Kuala Lumpur.

This promotion can be implemented through various methods such as social media, pamphlets, digital exhibitions and open campaigns. It also targets to all age groups especially youth and children.

This implementation can be achieved through collaboration between of KLCH with related agencies such as government, private, non-governmental organisations (NGOs) and local residents.

The proposal for the implementation of CP 5-2.2 is carried out through one (1) initiative as follows:

1. Implement Awareness Promotion for Walking and Micromobility Vehicle Routes Activities.

BEST PRACTICE

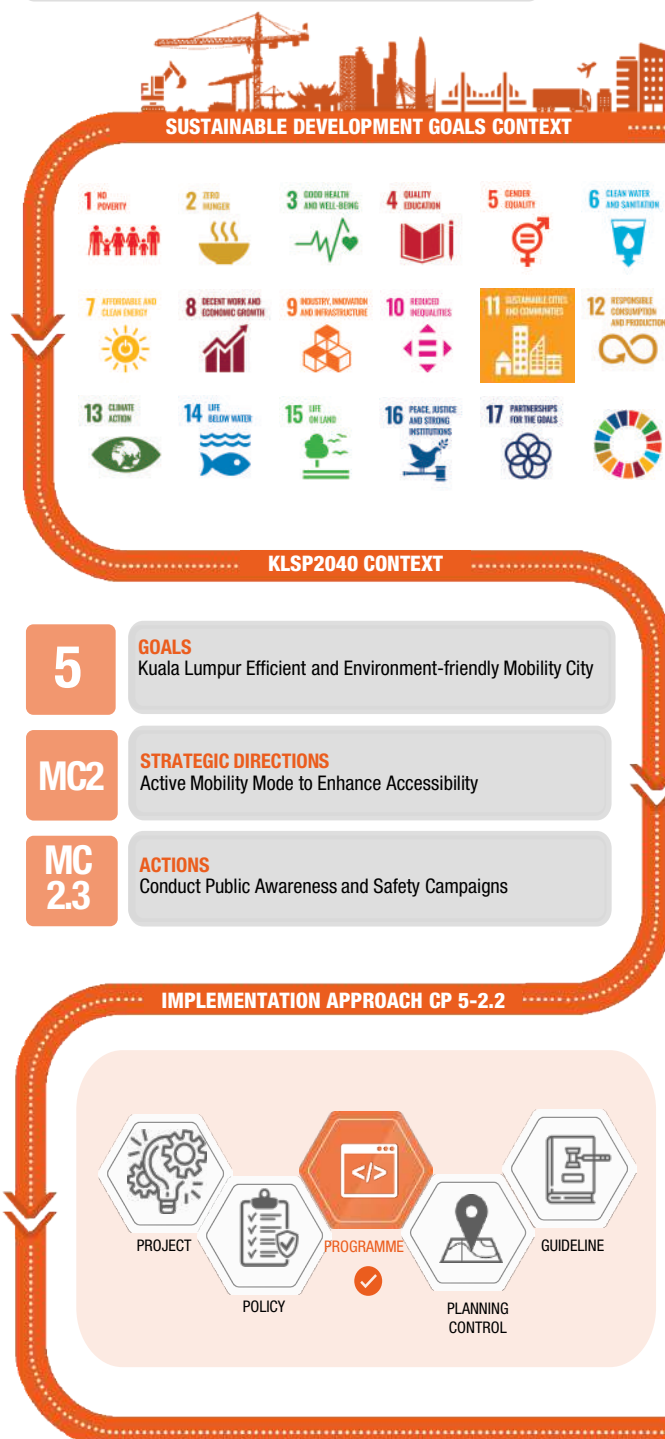
PROGRAM OF AWARENESS AND SAFETY



Location: Jalan Raja Laut, Kuala Lumpur
Safety campaign program about the use of pedestrian and the use of micromobility vehicle routes.

CP 5-2.2

COORDINATION CONTEXT OF SDGs AND KLSP2040



IMPLEMENTATION INITIATIVE 5-2.2A

► IMPLEMENT AWARENESS PROMOTION FOR WALKING AND MICROMOBILITY VEHICLE ROUTES ACTIVITIES

The public needs to understand the efforts and initiatives related to pedestrian and micromobility vehicle routes especially cycling as being implemented by the government.

The necessary actions to support this initiative are as follows:

1. Enforce existing rules to protect the rights and safety of pedestrians and micromobility vehicle users especially cyclists;
2. Provide incentives for pedestrians and micromobility vehicle users especially cyclists;
3. Promote Kuala Lumpur as a primary city for pedestrians and micromobility vehicles especially bicycle;
4. Organise Road Safety Campaign;
5. Conduct awareness programme such as safe routes to schools and neighbourhoods together with educational institutions;
6. Increase publicity digitally through social media and digital display; and
7. Conduct design audits on the construction of pedestrian walkways and micromobility vehicle routes especially cycling.

BRIEF INFO

AWARENESS PROMOTION BY KLCH

Regular and frequent promotions need to be carried out on various platforms such as physical and virtual campaigns.

KLCH is always actively promoting awareness to encourage the use of pedestrian and micromobility vehicle route.



Source: <https://klcarfreemorning.my/>

KLCH is also actively promoting a healthy lifestyle for city residents through the KL Car Free Morning programs. The programs are one of the green city initiatives by closing part of the main road in Kuala Lumpur for all level of society to cycle, walk, run and carry out other sports and health activities.



Kuala Lumpur's car-free morning programme is actively implemented by KLCH.

Source: <https://klcarfreemorning.my/>

SCENARIO OF TRAFFIC MANAGEMENT IN KUALA LUMPUR

In 2020, the modal split of vehicles in Kuala Lumpur by the Malaysian Ministry of Transport showed only 20 percent used public transport and 80 percent still used private vehicles.

This data indicates a high level of dependence among the residents of Kuala Lumpur on the use of private vehicles. It also puts pressure on the existing road capacity and creates problems of traffic congestion and delays, air and noise pollution, as well as increased costs of road construction and management.

The KLLP2040 ensures that urban traffic management and effective road network planning are given attention. The focus is on the proposal to complete the road network that is not connected (missing link) in Kuala Lumpur.

Toward realizing Kuala Lumpur as a city capable of managing traffic effectively, three (3) Implementation Proposals are formulated under Planning Strategy 5-3, as shown in Figure 5.3.1.

Figure 5.3.1:
Implementation Proposals for Planning Strategy 5-3

SP 5-3

MANAGING TRAFFIC EFFECTIVELY

CP 5-3.1 Managing Traffic In Kuala Lumpur

CP 5-3.2 Planning and Managing Of Vehicle Parking Space

CP 5-3.3 Providing Roads Connector To Complete The Road Network

BRIEF INFO

VEHICLE TRIP GENERATIONS AND ATTRACTION OF KUALA LUMPUR

Morning Peak Hours

195,874 PCU per hour

Generation

249,466 PCU per hour

Attraction

Evening Peak Hours

235,883 PCU per hour

Generation

186,129 PCU per hour

Attraction

Source: Adapted from the Kuala Lumpur Traffic Master Plan 2040

Traffic congestion in Kuala Lumpur needs to be overcome through a more comprehensive traffic management, integrated with the development of public transport that is user-friendly, efficient and easily accessible. The diversity of integrated public transport modes will be able to influence the shift of dependence on private vehicles to the target of 70 percent public transport by 2040.

Solution to the problem is not only focused on the development of road infrastructure. An innovative approach through traffic management initiatives using the latest technology needs to be improved to monitor vehicle movement and congested locations more efficiently.

Implementation of Road User Charging (RUC), peak hours and heavy vehicle management are among the traffic management mechanisms in Kuala Lumpur, especially the City Centre.

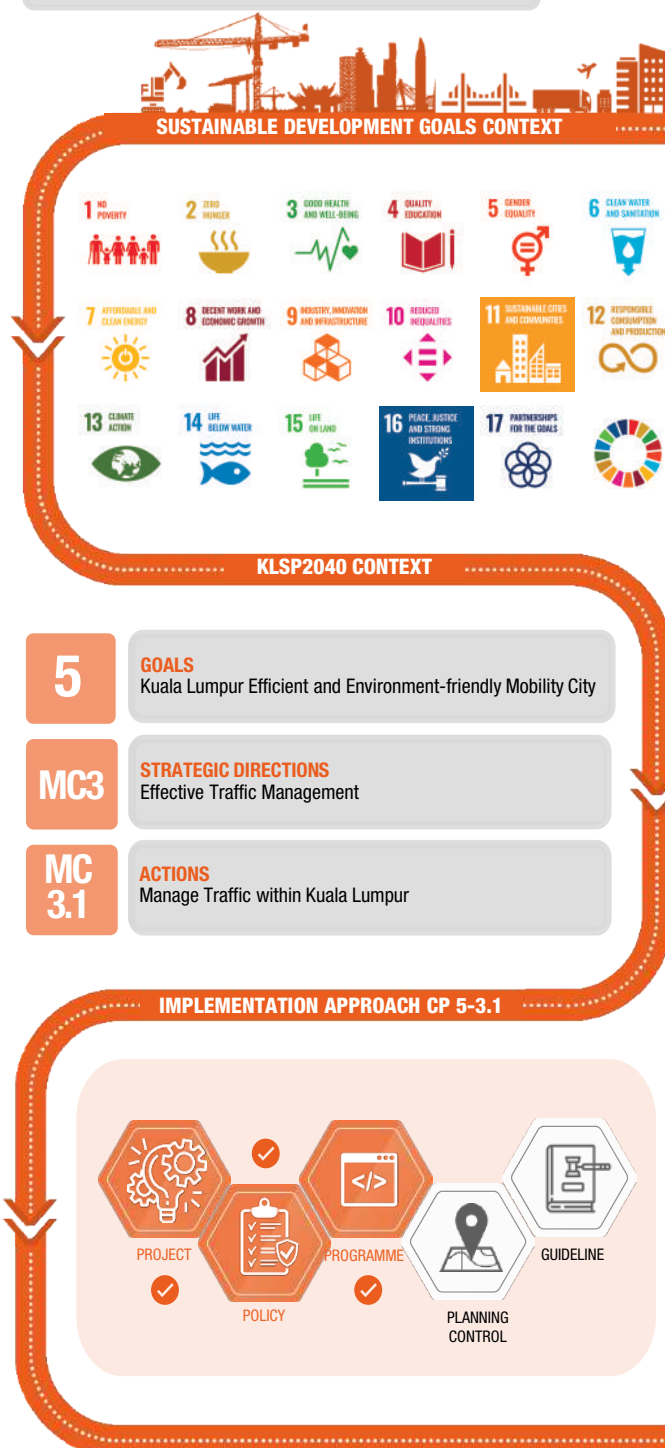
Implementation of the mechanism is based on following criteria:

1. Main entrance to the City Centre;
2. Roads that experience traffic congestion during peak hours such as Persiaran KLCC, Jalan Tuanku Abdul Rahman and Jalan P. Ramlee;
3. Streets that are complete with the provision of a comprehensive pedestrian and micromobility vehicle routes; and
4. High level of public transport accessibility.

The proposal for the implementation of CP 5-3.1 will be carried out through three (3) initiatives as follows:

1. Implement Road User Charging (RUC) Scheme at The City Centre Entrance;
2. Manage Traffic During Peak Hours; and
3. Control The Entry Time of Heavy Vehicles In City Centre

CP 5-3.1

COORDINATION CONTEXT OF
SDGs AND KLSP2040

IMPLEMENTATION INITIATIVE **5-3.1A**

► IMPLEMENT ROAD USER CHARGING (RUC) SCHEME AT THE CITY CENTRE ENTRANCE

The implementation of the road user charging (RUC) mechanism aims to reduce high traffic congestion by controlling the entry of private vehicles into the City Centre. It is also able to improve the quality of environment through reduction of carbon emissions in Kuala Lumpur.

The necessary actions to support this initiative are as follows:

1. Increase level of service, coverage area and continuity of public transport routes which are also supported by active mobility infrastructure;
2. Provide park and ride facilities at transit stations located at the suitable Kuala Lumpur border;
3. Revise calculation rate of parking provision requirements within RUC's proposed development area; and
4. Increase public awareness on the benefits of using public transportation through education programmes and best practices.

Implementation of the RUC should also take into account the charge rate that is subject to the travel time, vehicle type, location and other aspects. Implementation charges for residents living within the RUC area should be considered.

Implementation of the RUC mechanism are as follows:

1. Carry out a detailed study on the implementation of RUC involving methods, socio-economic impact, legal and administrative aspects;
2. Ensure that the implementation of RUC is done after taking into account the effectiveness of comprehensive public transport system in the future;
3. Priorities its implementation in stages in City Centre; and
4. Coordinate RUC scheme collection for the purpose of upgrading public transport system, parking, park and ride as well as other city management purposes.

The KLLP2040 has identified potential roads for implementation of RUC as shown in Figure 5.3.2 as follows:

1. Persiaran KLCC;
2. Jalan Tuanku Abdul Rahman;
3. Jalan P.Ramlee;
4. Jalan Pinang;
5. Jalan Yap Kwan Seng;
6. Jalan Raja Chulan;
7. Jalan Sultan Ismail;
8. Jalan Ampang;
9. Jalan Kia Peng;
10. Jalan Bukit Bintang;
11. Jalan Nagasari;
12. Changkat Bukit Bintang;
13. Jalan Imbi; and
14. Jalan Tun Sambanthan.

BEST PRACTICE

IMPLEMENTATION OF RUC'S ABROAD

This system has been implemented in several large cities known for congestion problems such as London, Stockholm and Singapore:

1. London

- Introduced in 2003 and 25 percent of reduction in traffic;

2. Stockholm

- Introduced in 2006 and 20 percent reduction in traffic; and

3. Singapore

- Introduced in 2009 and 13 percent reduction in traffic.

Source: <https://www.theiet.org/media/1667/road-user.pdf>

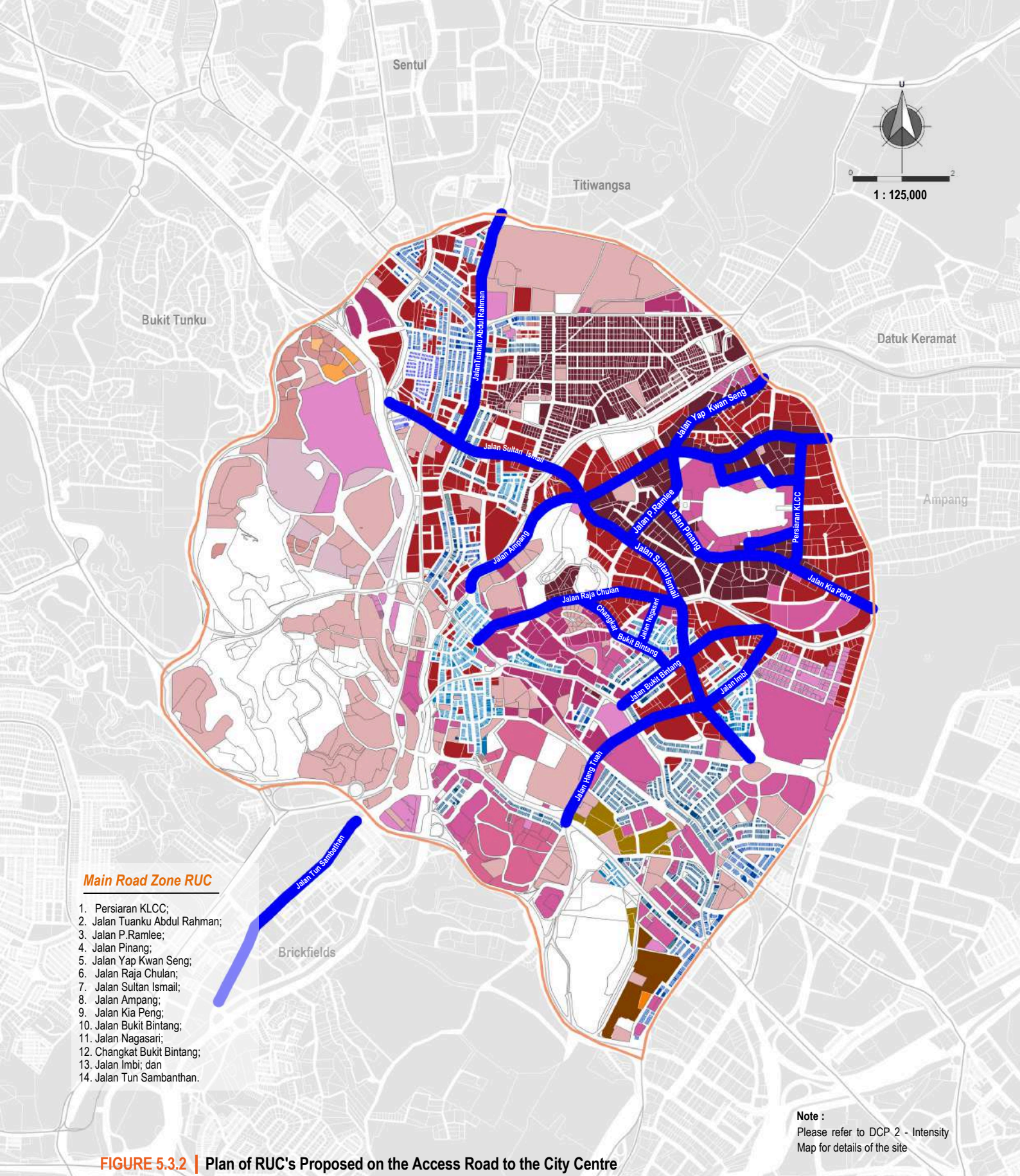


FIGURE 5.3.2 | Plan of RUC's Proposed on the Access Road to the City Centre

Legend :

Residential Plot Ratio

- NP 1:2.5
- NP 1:3
- NP 1:3.5
- NP 1:4
- NP 1:5

Non-Residential Plot Ratio

- NP 1:2
- NP 1:3
- NP 1:4
- NP 1:5
- NP 1:6
- NP 1:7
- NP 1:8
- NP 1:10

Height Control Commercial Terrace

- 4 Floors
- 5 Floors
- 6 Floors
- 7 Floors
- 10 Floors
- 14 Floors

Height Control Landed Housing

- 3 Floors

Others

- Main Road
- Kuala Lumpur Boundary
- RUC Zone

IMPLEMENTATION INITIATIVE

5-3.1B

► MANAGE TRAFFIC DURING PEAK HOURS

Traffic management at peak hours is important in controlling traffic flow in Kuala Lumpur.

The necessary actions to support this initiative are as follows:

1. Expand the Tidal-Flow System in congested roads such as Jalan Ampang and Jalan Bangsar especially during peak hours from 6.30 am to 9.30 am and 4.30 pm to 7.30 pm;
2. Implement flexible working hours to ensure employees can plan their trips to avoid congestion on the roads and public transport;
3. Encourage Work From Home (WFH) to reduce the journeys to work especially in the City Centre; and
4. Encourage employers to provide incentives to public transport users.

IMPLEMENTATION INITIATIVE

5-3.1C

► CONTROL THE ENTRY TIME OF HEAVY VEHICLES IN CITY CENTRE

Controlling the entry of heavy vehicles to City Centre is important for maintaining an exclusive, clean and vibrant image.

The necessary actions to support this initiative are as follows:

1. Tighten and enforce entry time controls for heavy vehicles entering Kuala Lumpur from 6.30 am to 9.30 am and 4.30 pm to 7.30 pm (excluding Saturdays, Sundays and Public Holidays);
2. Monitor the issuance of Heavy Vehicle Movement Permit for tow truck category (BDM>7500 kilograms), container trucks and mobile cranes as well as cement mixer trucks within the City Centre area;
3. Ensure the placement of the "No Entry Zone" during peak hours especially on the main route going towards to City Centre;
4. Allow unloading activities outside of peak hours from 10.00 am to 4.00 pm and 8.00 pm to 6.00 am;
5. Ensure continuous enforcement; and
6. Encourage use of technology to control the entry of heavy vehicles into the City Centre.



Location : One Fullerton, Singapore

Electric Road Pricing (ERP) is a congestion charge reduction system as a method of traffic management during peak hours in Singapore

PLANNING AND MANAGING OF VEHICLE PARKING SPACE

Kuala Lumpur is estimated to have 88,500 spaces for vehicle parking (TLK) along on-street parking and 304,064 for TLK off-street parking. This TLK demand will continue to increase if it is not carefully planned and managed. The management of TLK supply and distribution needs to be coordinated so as to increase and consequently the use of public transport can be improved to reduce traffic congestion.

City Centre and urban renewal areas need to focus on the planning and management of TLK more carefully especially in TPZ and TIZ areas. The provision of Centralised TLK needs to be planned in integrated with perfect pedestrian and micromobility vehicle routes facilities and connected to transit stations. This provision will entice the interest of users and encourage road users to change from riding their own vehicles to public transport.

Focus of TLK management for the development of offices and commerce in City Centre needs to be implemented innovatively through joint partnerships for residential development.

The proposal for the implementation of CP 5-3.2 will be carried out through two (2) initiatives as follows:

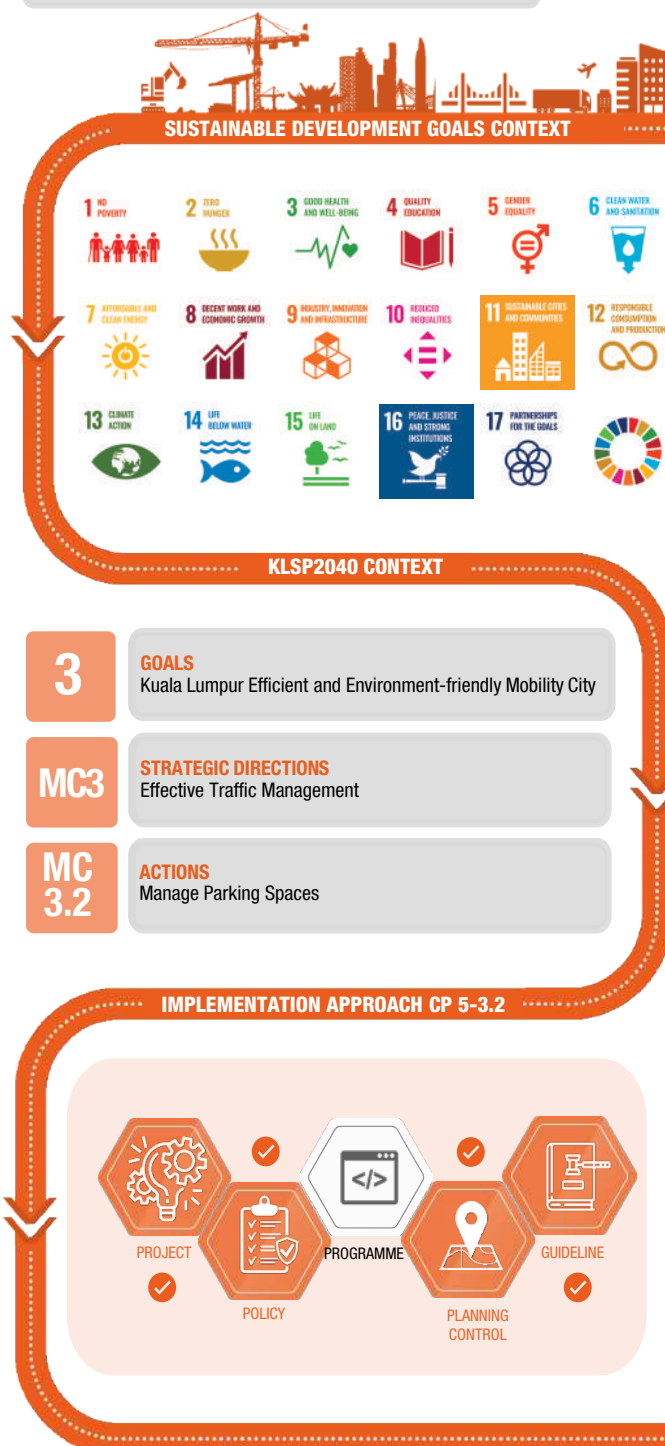
1. Reorganise Vehicle Parking Space; and
2. Improve of Park and Ride Facilities.



Location : One Fullerton, Singapore

A multi-storey and integrated car park developed by KLCH for the convenience of Taman Tasik Metropolitan Kepong users.

CP 5-3.2 | COORDINATION CONTEXT OF SDGs AND KLSP2040



IMPLEMENTATION INITIATIVE 5-3.2A

► REORGANISE VEHICLE PARKING SPACE

The provision of TLK spaces in Kuala Lumpur need to be adjusted according to the suitable use of the spaces. The coordination of TLK space to the use of active mobility routes or the use of Kuala Lumpur's public transport corridor can optimise the use of the space.

TLK on the road especially in areas covered by an extensive public transport system should be reduced.

The necessary actions to support this initiative are as follows:

1. Identify and plan new parking sharing mechanisms for housing developments with commercial developments such as offices;
2. Integrate TLK payment with public transport especially around TPZ and TIZ as well as focal areas;
3. Reduce TLK along on-street parking especially in City Centers, Primary Trade Centers and other employment focus areas. The space should be used for pedestrian and micromobility vehicle routes;
4. Ban any vacant land that has not yet been developed from being used as an open TLK;
5. Limit the TLK of heavy vehicles in City Centre;
6. Identify tourist focus areas for the provision of tourist bus parking;
7. Provide high-powered motor TLK in appropriate areas;
8. Re-examine TLK fee charges and propose an increase in TLK charges by ten (10) percent every year to control the entry of vehicles in the City Centre in line with Kuala Lumpur Traffic Master Plan 2040 (PITKL);
9. Revise Kuala Lumpur's TLK policy periodically every five (5) years especially the charge and rate of TLK preparation; and
10. Give priority to the provision of TLK for women, disabled drivers and families.

IMPLEMENTATION INITIATIVE 5-3.2B

► IMPROVE OF PARK AND RIDE FACILITIES

Park and ride facilities allow road users to use private vehicles for part of their journey. Road users can park their vehicles and continue their journey using the transit mode. This facility provides some flexibility to users and reduce the use of private vehicles in Kuala Lumpur as shown in Figure 5.3.3.

The necessary actions to support this initiative are as follows:

1. Upgrade open TLK to multi-level TLK to ensure the increasing number of parking is capable to meet the needs of users;
2. Upgrade better and more innovative parking such as mechanical TLK;
3. Provide new park and ride facilities at potential MRT2 and MRT3 transit stations especially outside the City Centre;
4. Integrate TLK facility information with a digital display system at the entrance and main road of Kuala Lumpur to facilitate users to get parking bays immediately;
5. Develop a smart application regarding TLK reservations to facilitate travel planning to City Centre;
6. Provide complete supporting facilities to park and ride users such as women's TLK spaces, disabled TLK spaces, electrical vehicle charging station facilities as well as safe and comfortable pedestrian and micromobility vehicle routes to transit stations;
7. Integrate the park and ride fee charging system along with the use of public transport; and
8. Provide incentives or offers that can attract interest in the use of park and ride facilities as well as public transport such as MY50 provided by Prasarana.

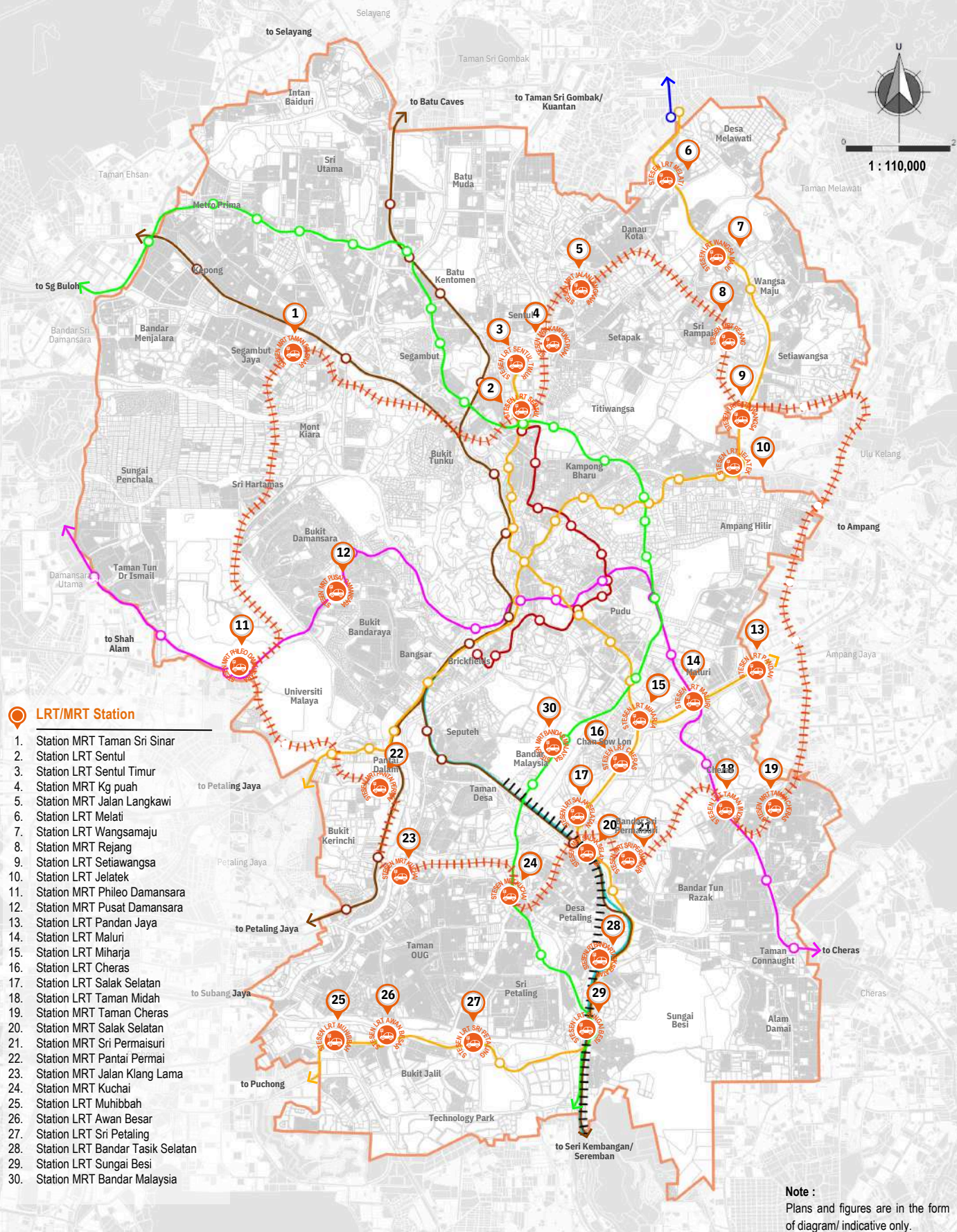


FIGURE 5.3.3 | Plan of Proposed Strengthening of Kuala Lumpur Park and Ride

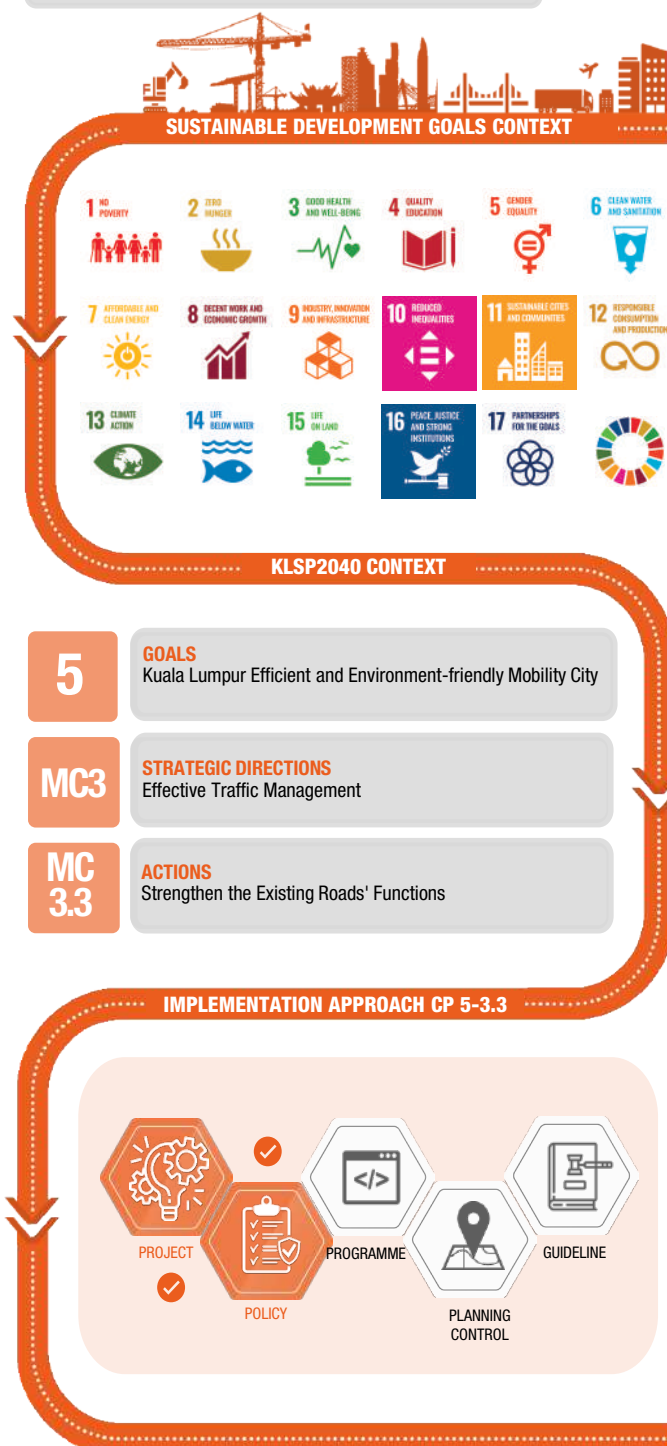
CP 5-3.3:**PROVIDING ROADS CONNECTOR TO COMPLETE THE ROAD NETWORK**

The practice of building more highways or roads in Kuala Lumpur will contribute to the increase in the use of private vehicles which in turn will be a factor in the increasing the level of road congestion and maintenance costs in the future. This practice is a short-term solution that results in the deterioration of air quality and affects the society's well-being.

Kuala Lumpur's future planning should be towards completing the continuity of the highway network and the network between major roads. The focus of strengthening existing roads includes completing the missing link. This planning also aims to ensure that each lot can be connected especially area outside the City Centre and to disperse traffic more effectively in the areas involved.

The proposal for the implementation of CP 5-3.3 is carried out through two (2) initiatives as follows:

1. Connect Network Between Highways in Kuala Lumpur; and
2. Complete Main Road Network.

CP 5-3.3COORDINATION CONTEXT OF
SDGs AND KLSP2040

IMPLEMENTATION INITIATIVE 5-3.3A

► CONNECT NETWORK BETWEEN HIGHWAYS IN KUALA LUMPUR

Kuala Lumpur has 17 highway networks to accommodate current and future traffic volumes. Based on the number of these highway networks, Kuala Lumpur no longer needs the construction of new highways except to connect missing links to facilitate the movement of vehicles, especially in the City Centre.

The highway development proposal to complete the existing highway connection is as shown in Table 5.3.1.



Table 5.3.1:
Proposed Highway Connection in Kuala Lumpur

Highway	Details
1. Kuala Lumpur Northern Dispersal Expressway (KL-NODE)	The proposed Kuala Lumpur North Dispersal Expressway (KL-NODE) forms the northern part and completes the Kuala Lumpur Outer Ring Road (KLORR). The orbital road network for the Greater KL area is complete when there is a KL-NODE proposal. This proposal allows non-City traffic to bypass the City Centre.
2. Duta - Ulu Klang Expressway Phase 2A (DUKE 2A)	<p>The proposed DUKE 2A alignment completes the intermedial ring road that crosses MRR1. The proposed alignment of the DUKE 2A highway is divided into 2 sections, as follow:</p> <p>a) Lebuhraya Laluan Istana – Kiara Expressway (LIKE)</p> <p>b) DUKE 2A – Kg. Bharu Link</p> <p>This Istana link will connect the existing DUKE highway to the SPE highway on Jalan Sg. Besi via the reserve of Jalan Sultan Abdul Halim (Jalan Duta), Jalan Damansara, and Jalan Istana.</p> <p>Kg. Bharu link will connect the existing DUKE highway to the AKLEH highway via the Kuching Road and Tun Razak Road reserves. Kg. Bharu Link will also connect DUKE 2 to the AKLEH highway.</p>
3. New Pantai Expressway Phase 2 (NPE2)	The NPE2 highway proposal is suggested for the extension from the existing NPE highway to the DUKE 2A Istana Link highway on Jalan Damansara through the existing NPE highway reserve, the Federal Highway, and Jalan Syed Putra. The connection to DUKE 2A, if it cannot be implemented as planned, should be connected to the BESRAYA Eastern Extension (BEE) to ensure traffic dispersal is a highway-to-highway connection.
4. Extension of DUKE 2A – Kg. Bharu Link to AKLEH	The new highway route begins from DUKE 2A Kg. Bharu Link through the Jalan Tun Razak reserve towards AKLEH in the east.

Soure: Adapted from Pelan Induk Trafik Kuala Lumpur 2040

IMPLEMENTATION INITIATIVE

5-3.3B

► COMPLETE MAIN ROAD NETWORK

The Kuala Lumpur Traffic Master Plan 2040 (PITKL2040) proposes 57 main roads, consisting of 47 proposals for the construction of new main roads, including slip roads, and ten (10) proposals to upgrade existing main roads. Beside that, KLLP2040 has identified two (2) propose connected road as shown in Table 5.3.2. This proposal is expected to strengthen the road network in Kuala Lumpur and disperse traffic congestion from current and future development projects.



Table 5.3.2:

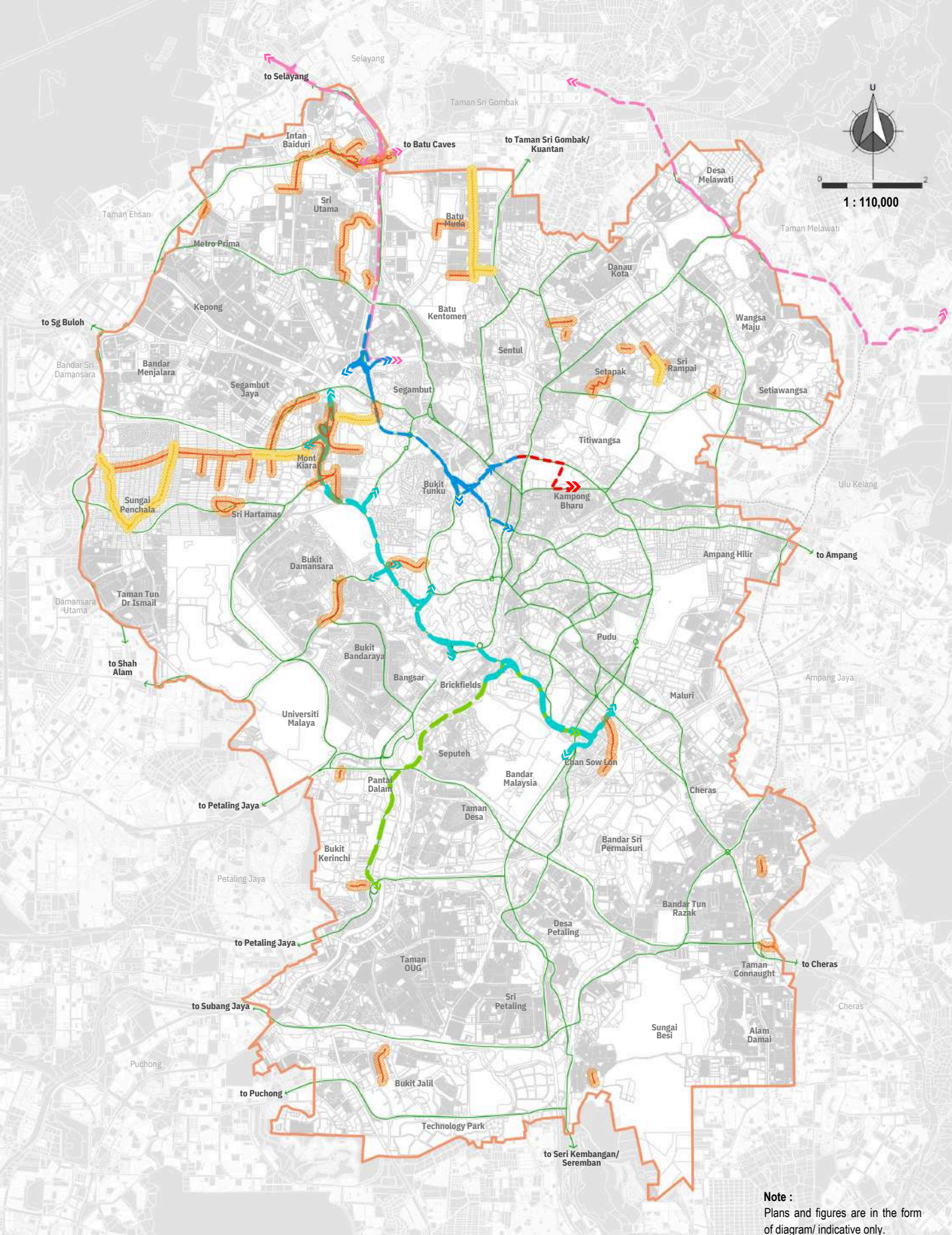
Proposal of New and Upgraded Main Roads

New Road		New Slip Road	Road Upgrading
1.	Road connecting Jalan Metro Perdana Barat ke Jalan Besar Kepong	1. Slip Road from MRR2 into Jalan 1/2B	1. Widening of Jalan Sentul Pasar
2.	Road connecting Jalan Benteng Utara ke Jalan 15/34C	2. Slip road from MRR2 into Jalan 1/2B	2. Widening of Jalan 5/51F
3.	Road connecting Jalan Benteng Utara ke MRR2 (towards ke Batu Caves)	3. Slip road from Jalan 1/2B into MRR2 (towards Bulatan Batu Caves)	3. Widening of Jalan Dutamas 2
4.	Road connecting Jalan 6/3A ke Jalan 1/28 (next to Tasik Sri Murni)	4. Slip road from Jalan Kampung Selayang Lama into MRR2	4. Widening of Jalan Segambut Dalam (dari persimpangan Jalan 6/38J) ke Jalan Kiara 4 (Mont Kiara International School)
5.	Road connecting Jalan Sibü to Jalan Kepong	5. Slip road from MRR2 exit to Jalan Kampung Selayang Lama	5. Widening of Jalan Duta Kiara
6.	Road connecting Jalan Sibü to Jalan Kepong Lama	6. Slip road from MRR2 keluar/ masuk ke/ dari Jalan Residen	6. Widening of Jalan Hj Hamzah
7.	Road connecting Jalan 6/21C to Jalan 1/18D	7. Slip road dari Jalan Seri Utara keluar ke MRR2 (ke arah Kepong)	7. Widening of Jalan Palimbayan
8.	Road connecting Jalan Sentul Pasar to Jalan 1/12D	8. Slip road dari jejambat Bulatan Batu Caves (2 nd tier) ke Jalan Seri Utara	8. Widening of Jalan Sri Penchala
9.	Road connecting Jalan Langkawi to Jalan Gombak	9. Slip road dari Lebuhraya DUKE masuk dan keluar ke Jalan 26/26	9. Widening of Jalan Semarak Api 4
10.	Road connecting Jalan 2/50C to Jalan Semarak Api 3	10. Slip road dari Jalan Kuching Masuk ke Jalan Dutamas 2 (menghala Persiaran Dutamas)	
11.	Road connecting Jalan Perusahaan Ringan to Jalan 1/23C	11. Slip road dari Lebuhraya DUKE (utara) keluar ke Jalan Sultan Hj Ahmad Shah	

Table 5.3.2:
Proposal of New and Upgraded Main Roads (Continued)

New Road	New Slip Road
12. Road connecting Jalan 1/23C to Jalan 5/51F	12. Slip road from Jalan Sultan Hj Ahmad Shah exit to DUKE Expressway (North)
13. Road connecting Jalan Rejang to Jalan 2/54B	13. Slip road from DUKE Expressway (South) exit to Jalan Sultan Hj Ahmad Shah
14. Road connecting Jalan Ayer Madu to Jalan Tiara Titiwangsa	14. Slip road from Jalan Sultan Hj Ahmad Shah into NKVE Expressway (west barat)
15. Road connecting Jalan Tiara Titiwangsa - DUKE	15. Slip road from Jalan Kiara 7 into Lebuhraya Penchala Link
16. Road connecting Jalan Tiara Titiwangsa 3 to Road Connecting from Jalan Tiara Titiwangsa to Lebuhraya DUKE (No. 25)	16. Slip road from Lebuhraya Penchala Link exit to Jalan Kiara 7
17. Road connecting Persiaran Dutamas to Jalan Sri Hartamas 1	17. Slip road from Jalan Kerinchi Kiri into SPE Expressway
18. Road connecting Jalan Hj Hamzah to Jalan Duta Kiara	18. Slip road from Lebuhraya SPE exit to Jalan Kerinchi Kiri 2
19. Road connecting Jalan Palimbayan to Jalan Hj Hamzah	19. Slip road from Lebuhraya Salak/Jalan Cheras intersection to Jalan Cheras Hartamas
20. Road connecting Jalan Hj Hamzah (No 35) to Jalan Kiara 5	
21. Road connecting Jalan Hj Hamzah (No 35) to Jalan Kiara 7	
22. Road connecting Jalan Hj Hamzah (No 35) to Serene Mont Kiara	
23. Road connecting Jalan Penchala Indah to Jalan Palimbayan	
24. Flyover above Damansara Link (SPRINT) from Jalan Maarof intersection to Semantan intersection (In front of Menara Zurich)	
25. Road connecting Jalan Semantan to Jalan Bukit Tunku	
26. Road connecting Jalan Pantai Dalam to Jalan Pantai Sentral 3	
27. Road connecting Jalan 4/155 to Jalan 13/155C	
28. Road connecting Lorong Jintan 2 to Persiaran Desa Aman 2	
29. Road U-turn at MRR2 (Batu Caves Roundabout) from Kepong to Kepong	
30. Road U-turn at MRR2 (Batu Caves Roundabout) from Gombak to Gombak	
31. Road connecting Jalan 2/146 ke existing road that connect to MRR2 (Sungai Besi)	
32. Road connecting Jalan Tasik Selatan 2 to Jalan Sungai Besi	
33. Road connecting Jalan Gembira to Lebuhraya BESRAYA	
34. Jalan 1/89C Off Jalan Chan Sow Lin with Jalan 1/89D that includes road connecting Jalan Dua, Jalan Tiga, Jalan Empat, Jalan Lima dan Jalan Enam.	
35. Jambatan Lake Field	

Source: Adapted from Pelan Induk Trafik Kuala Lumpur 2040



Note :
Plans and figures are in the form of diagram/ indicative only.

FIGURE 5.3.4 | Plan of Proposed Road Connector for Highway and Main Road Network in Kuala Lumpur

Legend :

- | | | |
|--|---|--|
| <p>➤ Kuala Lumpur Northern Dispersal Expressway (KL-NODE)</p> <p>➤ Duta Ulu Klang Expressway 2A (DUKE 2A) (Kampung Bharu Link)</p> <p>➤ Laluan Istana - Kiara Expressway (LIKE)</p> <p>➤ New Pantai Expressway Phase 2 (NPE2)</p> <p>➤ Duta - Ulu Klang Expressway 2 (DUKE 2) (AKLEH Link)</p> | <p>— Proposed Main Road</p> <p>— Proposed Upgrading Main Road</p> | <p>Others</p> <p>— Main Road</p> <p>— Kuala Lumpur Boundary</p> |
|--|---|--|

SUMMARY

GOAL 5: FOCUSING ON THE DEVELOPMENT OF KUALA LUMPUR AS EFFICIENT ENVIRONMENTAL- FRIENDLY MOBILITY CITY

Various initiatives and implementation approaches have been proposed for Goal 5 towards focusing the development of Kuala Lumpur as an Efficient and Environmental-friendly Mobility City can be realised.

The planning and implementation of Goal 5 in the KLLP2040 considers the SDGs, proposal of KLSP2040 and other national development policies which are detailed through projects, policies, programs, planning controls and guidelines.

The proposed strategies, initiatives and implementation approaches emphasis on providing public transportation network with provision of multiple transit options, encouraging active mobility mode with improved accessibility and safety as well as managing traffic effectively.

Table 5.1 shows a summary of the planning strategy and implementation proposal for Goal 5.

Table 5.1:

The Summary of Planning Strategy and Implementation Implementation Proposal of Goal 5

Planning Strategy	Implementation Proposal	Implementation Approach				
		Project	Policy	Programme	Planning Control	Guideline
SP 5-1	CP 5-1.1	1	1	1	-	-
	CP 5-1.2	1	1	1	-	-
	CP 5-1.3	1	1	1	-	-
	CP 5-1.4	1	1	1	-	-
	CP 5-1.5	1	1	1	-	-
SP 5-2	CP 5-2.1	1	1	1	-	1
	CP 5-2.2	-	-	1	-	-
SP 5-3	CP 5-3.1	1	1	1	-	-
	CP 5-3.2	1	1	-	1	1
	CP 5-3.3	1	1	-	-	-
JUMLAH KESELURUHAN		9	9	8	1	2

06



GOAL 6

EMPOWERING DEVELOPMENT OF
KUALA LUMPUR AS AN INTEGRATED
AND SUSTAINABLE CITY



GOAL 6

EMPOWERING DEVELOPMENT OF KUALA LUMPUR AS AN INTEGRATED AND SUSTAINABLE CITY

Kuala Lumpur Development Plan focuses on empowering land management, sustainable development and integrated development planning. This aligns with the need to address the continuous development pressures as well as taking into account the limited land availability in Kuala Lumpur.

The importance of integrated and sustainable development is to achieve the well-being of the population which is expected to increase to 2.35 million people by 2040. This stipulation is important to ensure that the economic performance of Kuala Lumpur remains robust and competitive on a global level.

The empowerment of sustainable development is also aimed at increasing Kuala Lumpur's preparedness against climate change and extreme weather that result in natural disasters.

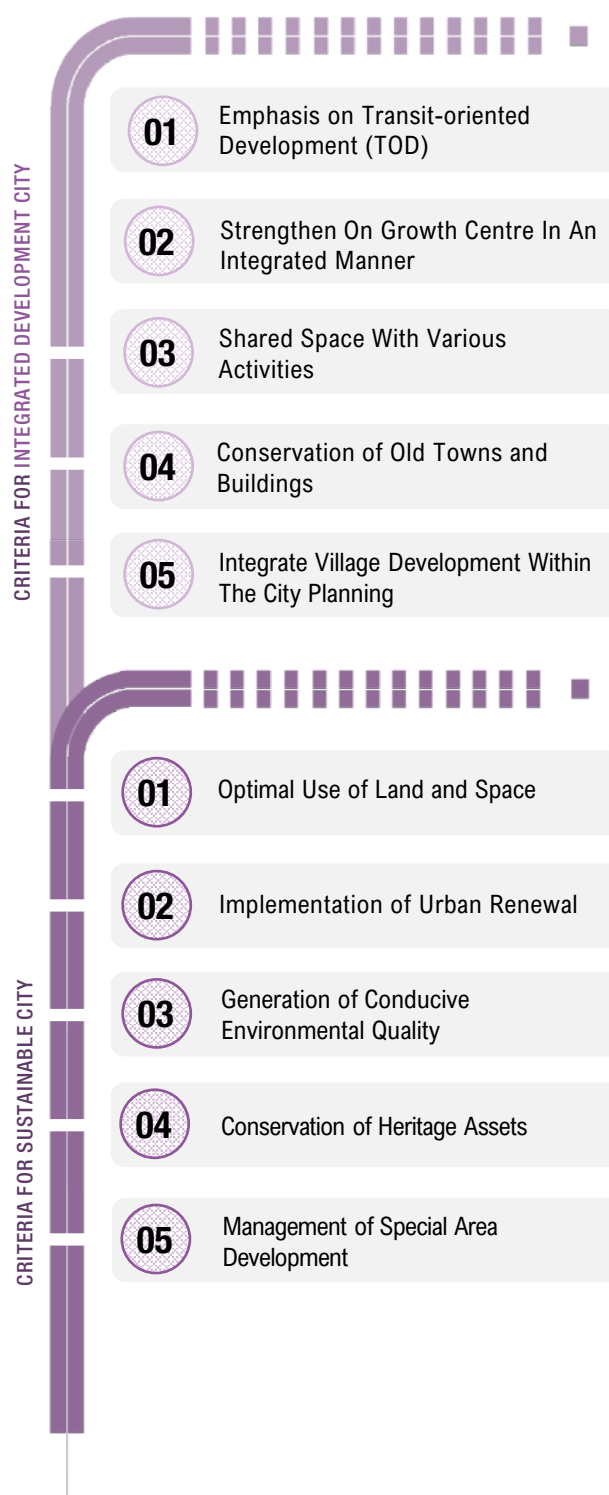
The strategy for land use and spatial management in Kuala Lumpur towards 2040 involves the provision of a clear framework for integrated and sustainable land use development.

The criteria for an Integrated City Development emphasise a focus on Transit-oriented Development (TOD), strengthening of growth centres in an integrated manner, sharing of spaces with various activities, conservation of old towns and buildings as well as integrating village development within the city planning.

The criteria for a Sustainable City emphasise optimal use of land and space, implementation of urban renewal, generation of conducive environmental quality, conservation of heritage assets and management of special area development.

Figure 6.1 lists the main criteria that need to be implemented as a focus to empower the development of Kuala Lumpur as an Integrated and Sustainable City.

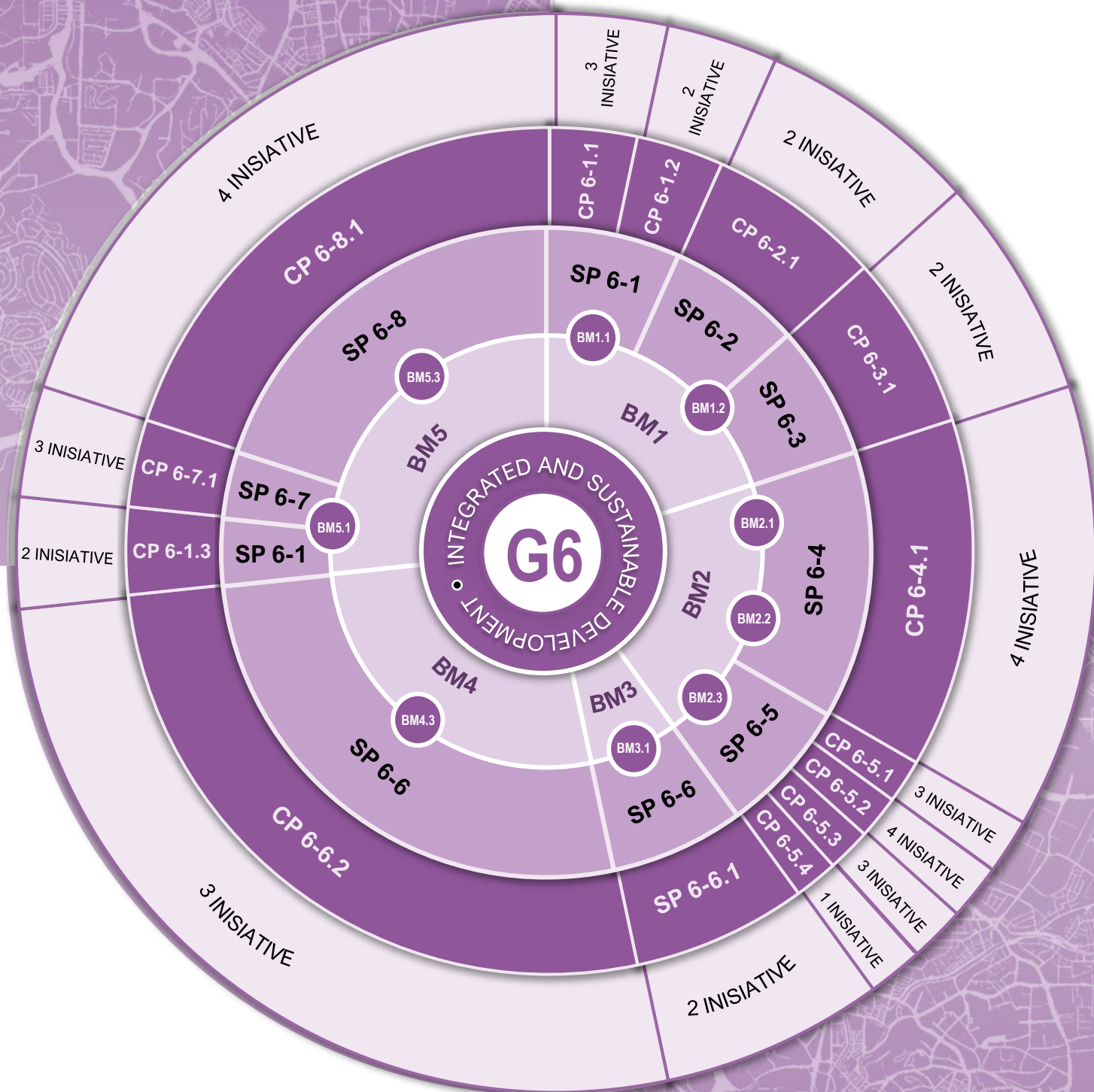
Figure 6.1:
Criteria for Integrated and Sustainable City



KLSP2040
5 STRATEGIC DIRECTIONS
15 ACTIONS

Figure 6.2
SUMMARY OF PLANNING STRATEGY
AND IMPLEMENTATION PROPOSAL

GOAL 6:
 EMPOWERING DEVELOPMENT OF KUALA LUMPUR
 AS AN INTEGRATED AND SUSTAINABLE CITY



There are eight (8) Planning Strategies (SP), 14 Implementation Proposals (CP) and 38 Implementation Initiatives (IP) that are formulated in line with KLSP2040 as summarized in Figure 6.2.

KLLP2040
8 PLANNING STRATEGIES
14 IMPLEMENTATION PROPOSALS

PLANNING AND COORDINATING LAND DEVELOPMENT EFFECTIVELY

SCENARIO OF LAND DEVELOPMENT IN KUALA LUMPUR

Land development in Kuala Lumpur is rapidly progressing and being implemented as infill development or redevelopment. The focus areas of development are in the City Centre and growth centres such as Bandar Tasik Selatan, Sentul, Pavillion Bukit Jalil, Sri Hartamas and Pusat Bandar Damansara.

In 2024, the percentage of built-up area in Kuala Lumpur was 80.22 percent while the non-built-up area was 19.78 percent.

This built-up areas are expected to continue increasing based on 2023 committed land use development trend, especially residential that comprised 61.65 percent and commercial 24.45 percent. Industrial land uses are also experiencing pressure from land use conversion to commercial and mixed development such as Chan Sow Lin Industrial Area.

Land development planning and coordination must be carried out effectively to ensure optimal land use, promote shared of space with a diverse activities and be able to create conducive environmental quality.

BRIEF INFO

LAND USE CATEGORY BY 2024



1. Residential
2. Commercial
3. Industry
4. Mixed Development
5. Institution
6. Community Facilities
7. Infrastructure and Utility
8. Transportation
9. Cemetery

Built-Up (80.22%)



1. Forest
2. Water Bodies
3. Open Space
4. Vacant Land

Non-Built-Up (19.78%)



1. Undeveloped Land

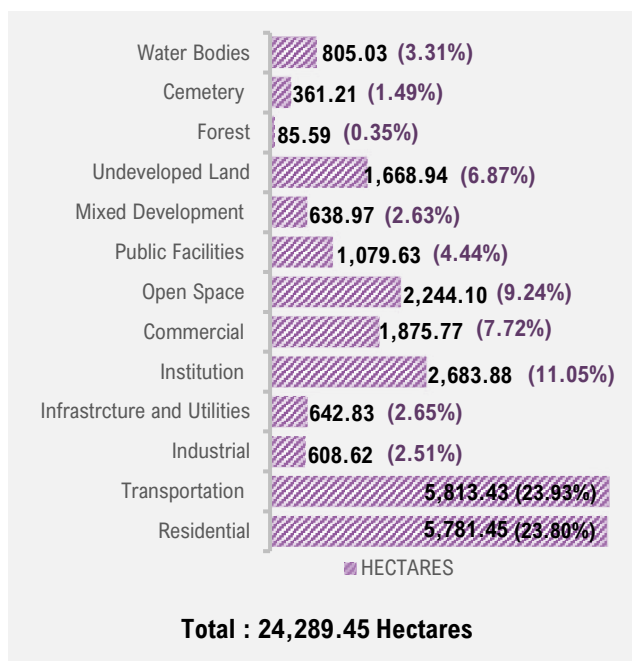
Land Use Potential (6.87%)

Source : KLLP2040

Note: Area until June 2024

BRIEF INFO

CURRENT LAND USE IN KUALA LUMPUR 2024



Source : KLLP2040

Note: Area until June 2024

TOTAL DEVELOPMENT COMMITTEE KUALA LUMPUR 2000 - 2023

Land Use Category	Total Development Committed until 2023	Percentage (%)
1. Residential	2,444	61.65
2. Commercial	969	24.45
3. Industry	24	0.61
4. Mixed Development	183	4.62
5. Institution and Public Facilities	131	3.30
6. Open Space and Recreational	213	5.37
TOTAL	3,964	100.00

Source : KLLP2040

Main factors that have contributed to the rapid development and change in land use patterns in Kuala Lumpur are as follows:

1. Planning policies that encourage comprehensive development through infill or redevelopment;
2. Function of Kuala Lumpur as the country's economic activities hub in attracting real estate investment; and
3. Expansion of the rail network and services such as MRT Sungai Buloh – Kajang (SBK) Line (MRT) and MRT Sungai Buloh – Serdang – Putrajaya (SBSP) Line (MRT2) influences the development of land use.

Rapid land use development is also one of the contributing factors to traffic congestion in Kuala Lumpur. Based on the Pelan Induk Trafik Kuala Lumpur, it was estimated about 40 percent of the road network operated at or exceed capacity during the morning and evening peak hours in 2020. This development trend also leads to a continuous increase in land prices in Kuala Lumpur.

In 2024, there were 1,668.94 hectares of undeveloped land in Kuala Lumpur. These lands were the areas with the potential to accommodate new development and required planning as well as appropriate development intensity.

This land use planning needs to be reviewed to ensure more economical land utilisation and has added value in the real estate market. Comprehensive land use planning needs to consider local populations in terms of providing adequate housing, open space and community facilities.

The KLLP2040 will empower Kuala Lumpur's growth potential with integrated and sustainable land planning and development.

Towards realising Kuala Lumpur as a city with more productive and effective space utilisation, three (3) Implementation Proposals are formulated under Planning Strategy 6–1, as shown in Figure 6.1.1.

Figure 6.1.1:
Implementation Proposals of Planning Strategy 6-1



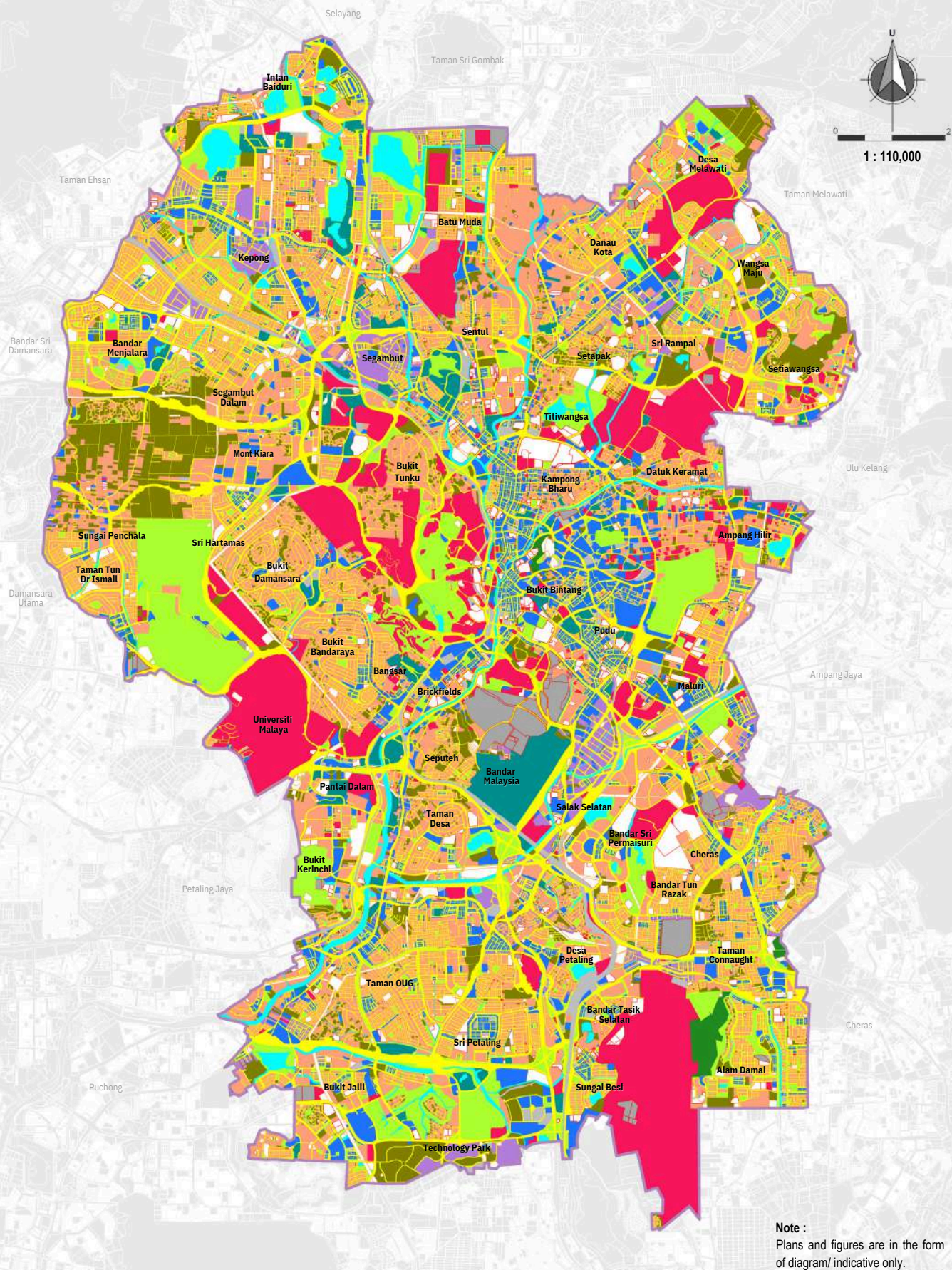


FIGURE 6.1.2 | Plan of Current Land Use 2024

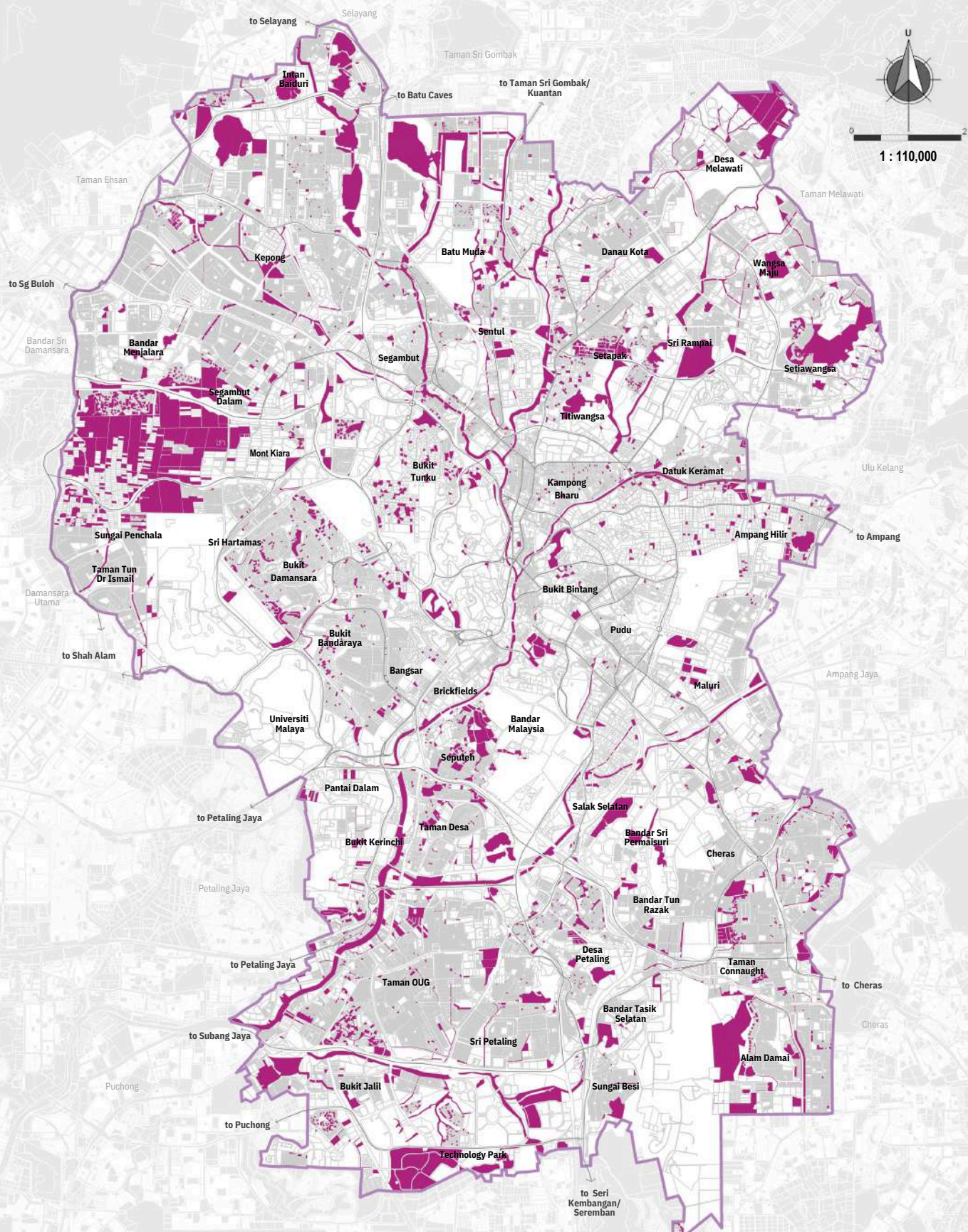


FIGURE 6.1.3 | Plan of Build-up and Non Build-up Distribution By 2024

Legend:

- Built-up
- Non-Built-up

Others

- Main Road
- Kuala Lumpur Boundary

CP 6-1.1:**STRENGTHENING LAND USE ZONES AND DEVELOPMENT INTENSITY**

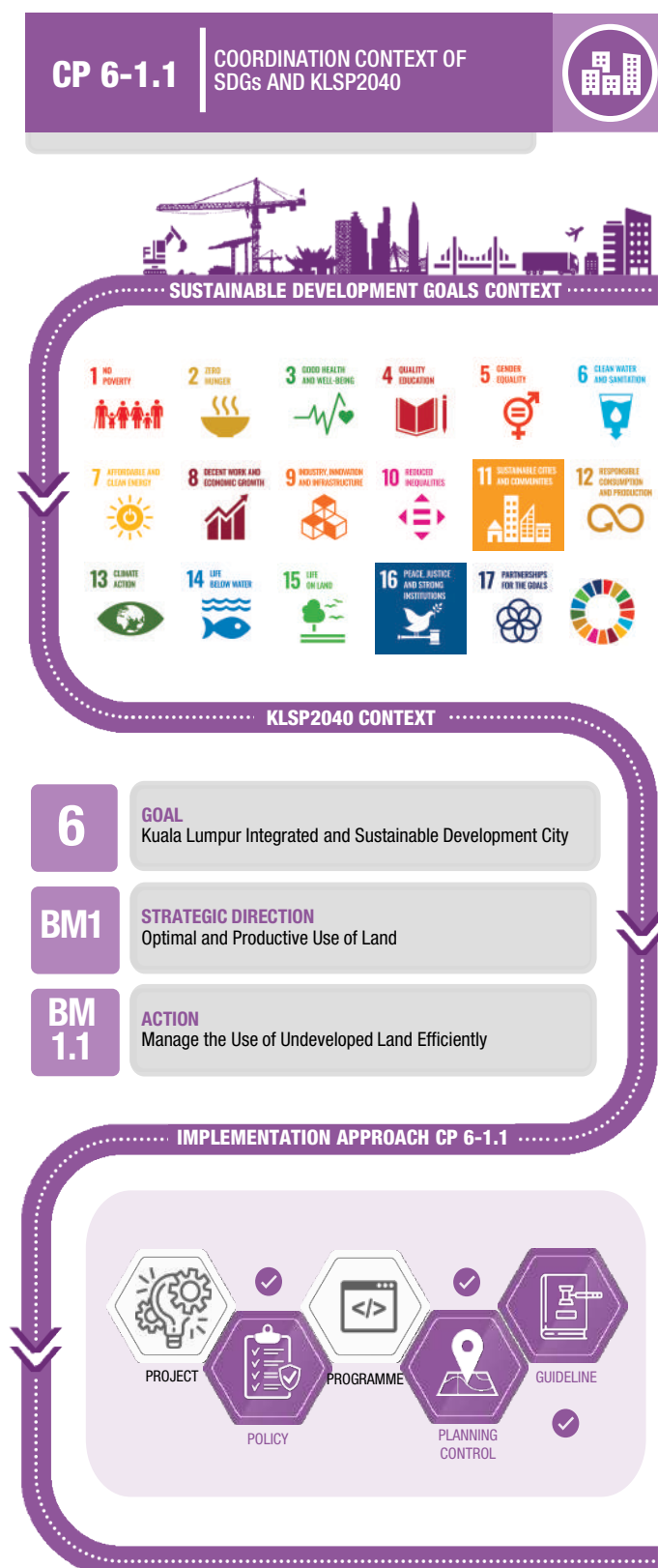
The KLLP2040 is a land use and intensity planning plan in Kuala Lumpur until 2040. This plan serves as a guide to the activities and economic growth of Kuala Lumpur by taking into account the environmental capabilities and community needs as follows:

1. Integrate land use and public transport;
2. Achieve innovative and productive economic growth;
3. Develop World-Class Livable City equipped with high-quality residential environment;
4. Provide comprehensive community facilities in a high-quality urban environment;
5. Improve traffic management that affecting land use patterns and travelling demand;
6. Protect natural environment and open space;
7. Regenerate dilapidated areas;
8. Plan for infrastructure or utility sites that have been allocated for development purposes must still maintain the current functions of the infrastructure or utility; and
9. Plan for open spaces or green areas and community facilities that have been allocated for development purposes must contribute to the provision of open spaces or community facilities for public use, subject to the appropriate percentage.

The KLLP2040 establish land use zones and development intensity infrastructure capacity, locations and its implementation is subject to market demand conditions as well as the feasibility of development projects.

The proposal for the implementation of CP 6-1.1 is carried out through three (3) initiatives as follows:

1. Improve Classification of Main Land Use;
2. Standardised Determination of Development Intensity; and
3. Strengthen the Planning Control Layer.

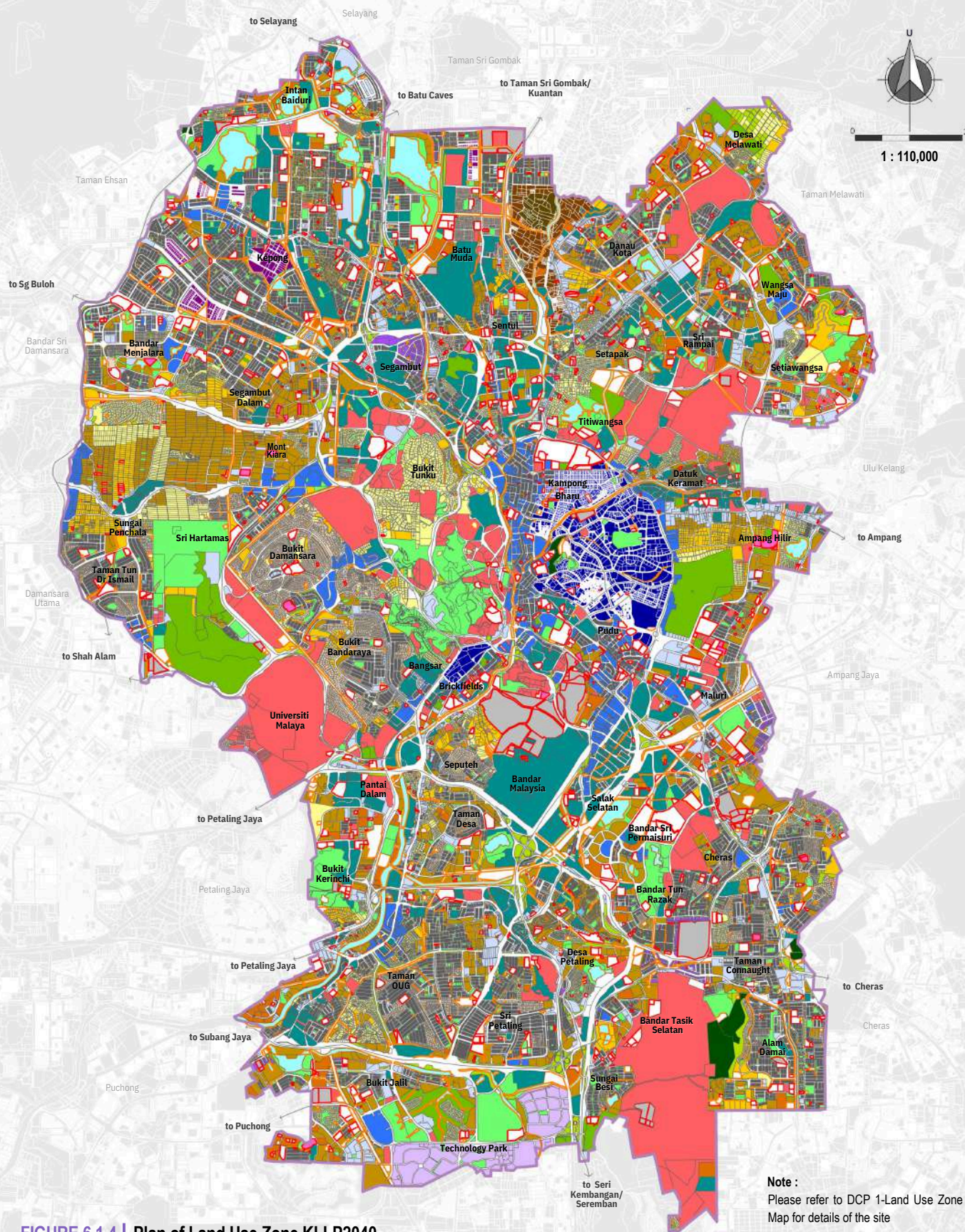


KLLP2040 defines the extent of land use zones as in Table 6.1.1. This determination is in accordance with the following matters:

1. Comply with new government policies from time to time;
2. Encourage development through redevelopment initiatives, affordable housing development, lot mergers and development in transit planning zones (TPZ);
3. Re-plan potential lots, especially those located in front of main roads;
4. Changes in real estate market demand from various social groups such as Double Income No Kids (DINK), Young Urban Professionals (Yuppies) and others;
5. Changes in current trends and development pressure of surrounding areas;
6. Improve infrastructure and public transport system that are more comprehensive and accommodating to the needs of future development; and
7. Rezoned land use based on land express conditions, current activities and changes of base map.

Table 6.1.1: Land Use Zone of KLLP2040 (Hectares)

No.	Main Land Use	Land Use Zone	KLLP2040	
			Area (Hectares)	Percent (%)
1.	Commercial	City Centre Commercial (CCC)	447.48	1.84
		Major Commercial (MC)	673.61	2.77
		Commercial (C)	1,066.49	4.39
		Local Commercial (LC)	51.98	0.21
2.	Mixed Development	Mixed Development(MX)	1,869.97	7.69
3.	Industrial	Industry (IP)	118.11	0.49
		Mixed Industry (MXI)	95.29	0.39
		Technology Park (TP)	211.97	0.87
4.	Institutional	Institution (INT)	2,270.98	9.35
5.	Residential	Residential 1 (R1)	1,330.41	5.48
		Residential 2 (R2)	696.43	2.87
		Residential 3 (R3)	1,924.51	7.92
		Residential 4 (R4)	353.53	1.46
		Established Residential (EH)	2,081.74	8.57
		Traditional Village 1 (TV1)	41.23	0.17
		Traditional Village 2 (TV2)	131.52	0.54
6.	Open Space	Public Open Area 1 (OS1)	1,430.58	5.89
		Public Open Area 2 (OS2)	386.03	1.59
		Private Open Area (OS3)	591.38	2.43
		Forest Reserve (FR)	84.62	0.35
7.	Community Facilities	Public Facilities (PF1)	1,048.45	4.32
		Private Facilities (PF2)	46.50	0.19
8.	Cemetery and Mortuary Management	Cemetery and Mortuary Management (CE)	360.11	1.48
9.	Infrastructure and Utilities	Infrastructure and Utilities (IU)	1,406.52	5.80
10.	Transportation	Transportation (TR)	5,569.03	22.93
TOTAL			24,289.45	100.00



IMPLEMENTATION INITIATIVE 6-1.1A

► IMPROVE CLASSIFICATION OF MAIN LAND USE

The basic principle of land use zones is to be multi-purpose in order to reduce vehicle movement, encourage compact city and TOD concepts as well as maintain energy-efficient and low-carbon buildings.

The KLLP2040 has established the KLCP2020 main land use classification into ten (10) main land use categories and 25 land use zones as shown in Table 6.1.2. The streamlining of this main land use category is to detail the classification of land use zones more clearly by taking into account the needs of current land use development trends in Kuala Lumpur.

The detailed definition for each main land use category are as per Volume 1: Part 1 Development Control, KLLP2040.



Table 6.1.2: Details Classification of Ten (10) Main Land Use

MAIN LAND USE CLASSIFICATIONS
1. COMMERCIAL <p>The category of commercial land use refers to shops or commercial spaces that serve as financial centres, premier trade, service, main employment and major commercial centres. The KLLP2040 has categorised commercial areas into four (4) land use zones as follows:</p> <ol style="list-style-type: none"> 1. City Centre Commercial (CCC); 2. Major Commercial (MC); 3. Commercial (C); and 4. Local Commercial (LC); <p>The criteria for determining commercial land use zones are based on the hierarchy of growth centers, the re-planning strategy of an area, and current development trends.</p>
2. RESIDENTIAL <p>The category of residential land use refers to landed residential with single ownership such as detached houses, semi-detached houses, terraced houses, landed strata, multi-storey strata, town houses, multi-storey dwellings, affordable housing, public housing as well as traditional villages. The KLLP2040 has categorised residential areas into seven (7) land use zones as follows:</p> <ol style="list-style-type: none"> 1. Residential 1 (R1); 2. Residential 2 (R2); 3. Residential 3 (R3); 4. Residential 4 (R4); 5. Traditional Village 1 (TV1); 6. Traditional Village 2 (TV2); and 7. Established Residential (EH). <p>The criteria for residential land use zone are determined based on the size of the site, typology, compatibility with the surrounding area, development trends and infrastructure capacity of the area.</p>

Table 6.1.2: Detailed Classification of Ten (10) Main Land Uses (continued)

MAIN LAND USE CLASSIFICATIONS
3. MIXED DEVELOPMENT <p>The category of mixed development land use refers to a land use zone that allows the mixing of commercial components to support the basic use of residences in a development. The residing component, which includes residential units, quarters, and serviced apartments, shall not be less than 60 percent of the total gross floor area.</p> <p>KLLP2040 has redefined the Land Use Zone of Mixed Development (MX) for commercial and residential activities only.</p> <p>The criteria for the Land Use Zone of Mixed Development (MX) are determined based on the increase in added value in an area, the promotion of flexible development, and the dynamics and trends of current development.</p>
4. INDUSTRY <p>The category of industrial land use refers to land use zones for manufacturing, production, services and research, trade (not more than 50 percent), high-tech industries in research and development (R&D) based support activities and related activities. The KLLP2040 has categorised industrial areas into three (3) land use zones as follows:</p> <ol style="list-style-type: none"> 1. Industry (IP); 2. Mixed Industry (MXI); and 3. Technology Park (TP). <p>Criteria for the designation of industrial land use zones based on location suitability, trends, and changes in industrial activities.</p>
5. INSTITUTION <p>The category of institution land use refers to land use zones designated for the uses of cultural and civic activities as well as government and semi-government facilities in accordance with any requirement by the government as well as subject to planning suitability including socioeconomic benefits and usually owned or facilitated by the government, statutory bodies or non-governmental bodies.</p> <p>The criteria for Land Use Zone of Institutional (INT) are determined based on the needs of agencies as well as to preserve public interest subject to the suitability of the land use zoning plan.</p> <p>These changes provide added value to institutional development sites and Federal Government policy changes to optimise the use of federal owned land or reserves.</p>
6. COMMUNITY FACILITIES <p>The category of community facilities land use refers to the land use zone designated for educational, religious, health, safety and emergency well-being facilities for the general public or local community as well as for other supporting activities (as ancillary uses) that require such facilities. These community facilities can be owned and operated by the government or statutory bodies or private sector such as provision of community facilities in the development scheme's layout plan. The KLLP2040 has categorised community facilities owned, controlled and managed by public agencies or private sectors into two (2) land use zones as follows:</p> <ol style="list-style-type: none"> 1. Public Facilities (PF1); and 2. Private Facilities (PF2). <p>The criteria for community facility land use zone are determined based on population catchment needs, the carrying capacity of an area and coordination of the land ownership status.</p>

Table 6.1.2: Detailed Classification of Ten (10) Main Land Use Categories (continued)

MAIN LAND USE CLASSIFICATIONS
7. CEMETERY AND MORTUARY MANAGEMENT
<p>The category of cemetery and mortuary management land use refers to the land use zone designated for the management of Muslim and non-Muslim burials. The cemetery area includes Muslim, Chinese, Hindu, Christian and other cemeteries.</p> <p>The KLLP2040 has classifies cemeteries as a main land use category.</p> <p>The criteria for Land Use Zones of Cemetery and Mortuary Management (CE) are determined based on the needs of the population catchment and land availability.</p>
8. INFRASTRUCTURE AND UTILITIES
<p>The category of infrastructure and utilities land use refers to the land use and building intended for the provision of infrastructure and utilities such as water supply, energy supply (electricity, gas, cooling systems and others), sewerage, telecommunications, drainage (irrigations, rivers, lakes, detention pond), solid waste disposal and other relative infrastructure and utilities.</p> <p>The KLLP2040 has classifies infrastructure and utilities as a main land use category.</p> <p>The criteria for Land Use Zones of Infrastructure and Utility (IU) are determined based on the needs and carrying capacity of an area, the needs of agencies and to support the main land use zone.</p>
9. OPEN SPACE
<p>The category of open space land use refers to open areas for recreational and natural activities. The KLLP2040 categorizes open space into four (4) land use zones as follows:</p> <ol style="list-style-type: none">1. Public Open Space 1 (OS1);2. Public Open Space 2 (OS2);3. Private Open Space (OS3); and4. Forest Reserve (FR). <p>OS1 is designated as an open area for activities such as recreation, play, sports, or cultural activities. Meanwhile, OS2 is an open area for various purposes such as natural recreational activities, buffer zones, suitable traffic islands or roundabouts, linear green areas, and excess development areas converted into green spaces. Meanwhile, OS3 is an open area that is privately managed with restricted access.</p> <p>KLLP2040 also proposes the category of Public Open Space within Private Development Scheme (OS4), which is a multi-purpose public open space located on a podium and accessible to the public, not just limited to the local community. Public Open Space within Private Development Scheme (OS4) is not shown as a display in the land use zoning plan and is not counted in the area of the land use zone for open spaces. However, OS4 also contributes to the provision of open space requirements.</p>
10. TRANSPORTATION
<p>The category of transportation land use refers to the land use zone designated for the provision of transportation facilities including public transportation terminals, public transportation stations, Park and Ride facilities, parking facilities transportation depots, road reserves, rail lines and other related facilities permissible to support the transportation infrastructure system and services.</p> <p>The KLLP2040 has classifies transport as a main land use category.</p> <p>The criteria for the Land Use Zone of Transport (TR) are determined based on changes in government policy, user needs and support for the main land use.</p>

► STANDARDISED DETERMINATION OF DEVELOPMENT INTENSITY

Controlling the intensity of development in Kuala Lumpur is important to achieve an integrated and sustainable environment. The intensity of development needs to be controlled to ensure that the development is planned according to suitability of the site, surrounding area and availability of infrastructure as well as social facilities.

The KLLP2040 has streamlines the intensity control into two (2) forms of control as follows:

1. Plot ratios for all main land uses except infrastructure, transportation, open space, and cemeteries; and
2. Height Control applies to commercial terrace buildings or any suitable free-standing commercial lots and landed residences (Residential 1 (R1), Traditional Village (TV1), and Established Residential (EH)).

The streamline of development intensity in the KLLP2040 takes into account the following criteria as follows:

1. Plan compact city development due to limited land supply;
2. Conform to physical conditions, location and size of the site;
3. Increase capacity and upgrading of infrastructure, utilities and roads;
4. Improve public transport system;
5. Establish growth centres hierarchy, replanning area strategies and current development trends;
6. Maintain typology of landed housing, establish housing and terraced commercial;
7. Enhanced image and value of an area;
8. Adopt flexible and dynamic development approach; and
9. Coordinate implementation planning incentives.

Determination of intensity also takes into account the main land use zone for a plot of land. Land use zones will be classified according to the main land use that is suitable to show the typology, intensity and hierarchy of land plot development.

Plan of Development Intensity in the form of plot ratio control and building height is shown in Figure 6.1.5. The proposed plot ratio is the base plot ratio of a site.

Incentives of additional plot ratio are subjected to identified sites or areas as follows :

1. Transit Planning Zone (TPZ);
2. Lot Amalgamation Area;
3. Redevelopment Area; and
4. Development with Affordable Housing Components.

The principle of providing additional plot ratio incentives is considered if the development provides added value, contributes towards improving the quality of the built environment and urban sustainability.

The KLDCP2025 plot ratio is the base plot ratio, while the maximum plot ratio is subject to applicable incentives. Additional plot ratio incentives should be in accordance with the percentage rate of the base plot ratio that has been set. However, the implementation of incentive determination is subject to current policies and guidelines.

These planning controls apply to proposed new developments as well as additions and alterations to existing developments. Any development or existing land lot that has been approved in excess of the allowed base plot ratio is calculated as the maximum plot ratio set for the land and must be maintained.

However, this approved plot ratio cannot be taken into account as a base plot ratio for the purpose of granting incentives in the KLLP2040. If the base plot ratio along with incentives exceeds the approved plot ratio, the plot is eligible to be considered with the maximum plot ratio set.

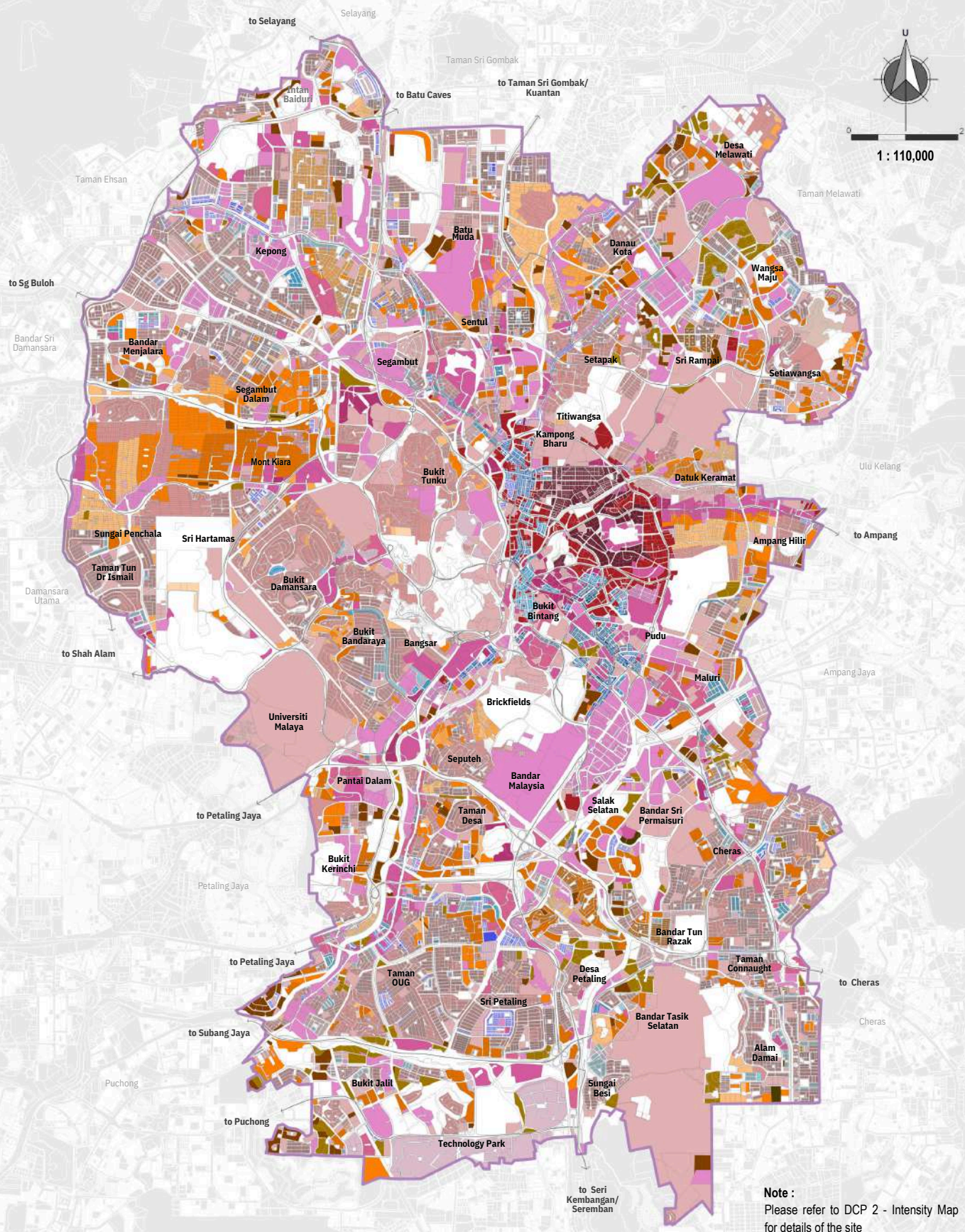


FIGURE 6.1.5 | Plan of Development Intensity KLLP2040

Legend:

Residential Plot Ratio

- PR 1:0.5
- PR 1:1.5
- PR 1:2
- PR 1:2.5
- PR 1:3
- PR 1:3.5
- PR 1:4
- PR 1:5
- PR 1:6

Non-Residential Plot Ratio

- PR 1:2
- PR 1:3
- PR 1:4
- PR 1:5
- PR 1:6
- PR 1:7
- PR 1:8
- PR 1:10

Height Control of Commercial Terraces

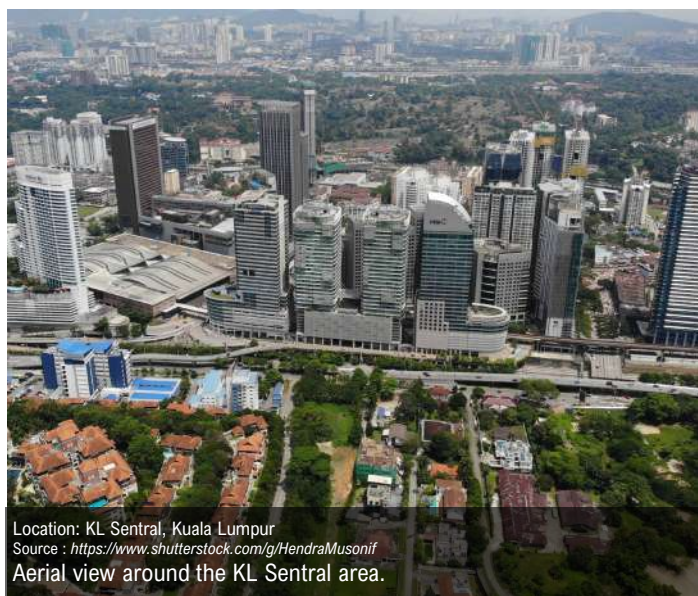
- 2 Storeys
- 3 Storeys
- 4 Storeys
- 5 Storeys
- 6 Storeys
- 7 Storeys
- 10 Storeys
- 14 Storeys

Height Control Residential

- 2 Floor
- 3 Floor

Others

- Main Road
- Kuala Lumpur Boundary



INISIATIF PELAKSANAAN 6-1.1C

► STRENGTHEN THE PLANNING CONTROL LAYER

The planning control layer is an additional requirement in to the land use zone plan and the development intensity plan. The KLLP2040 has identified seven (7) layers of planning control and application details as well as planning guidance as shown in Table 6.1.3. Detail compliance requirements and location of planning control layer are as outline in Volume 1: Part 1 Development Control, KLLP2040.

Table 6.1.3: Planning Control Layer

Planning Control Layer
<p>1. Planning Control Layer for Intensity Control of Layout Plan</p> <p>This planning control layer refers to control over an area that has been granted approval for plot ratio or height approval based on the development scheme. Intensity Control Layout Plan is shown as a single development plot marked with only one plot ratio. Plot ratio and height according to the development plot should refer to the approved layout plan.</p> <p>The Layout Plan Intensity Control must take into account the marking of open areas (Land Use Zones OS1, OS2, and OS3) and community facilities (Land Use Zones PF1 and PF2) as well as Retention Ponds, Detention Ponds including drainage components only. However, if there are amendments to the relevant layout plan, there is a need to maintain the size of open areas or community facilities as previously approved in the development scheme of the layout plan and which have received pre-comp approval or are under construction.</p> <p>The establishment this planning layer control is intended to:</p> <ol style="list-style-type: none"> Control the maximum floor space approved within the distribution of development plots subject to the approved layout plan or specified height control; and Facilitates implementation of a long period development due to certain changes based on market needs, demand and government policies without involving changes to the KLLP2040.
<p>2. Planning Controls Layer for of River, Lake and Pond</p> <p>This planning control layer refer to a side corridor for all new developments and redevelopments located adjacent to identified rivers, lakes and ponds. It is categorized into two (2) components as follows:</p> <ol style="list-style-type: none"> Riverside Corridor; and Lakeside and Pondsides Corridors. <p>The establishment this planning of the control layer of riverside, lake and pond corridor planning is intended to:</p> <ol style="list-style-type: none"> Preserve and conserve Riverside Corridors as flood control areas as well as ecological corridor of the lake to enhance the natural habitat of the city's biodiversity assets; Contribute to the provision of green areas for Kuala Lumpur; Develop the river areas as a public recreation centres and nodes to attract tourists and enhance the image of Kuala Lumpur as a Green, Healthy, and Vibrant City; Ensure that all forms of new development and redevelopment around the lake and pond area are carried out in a harmonious, attractive, comfortable, safe and environmentally friendly manner; Make the Lakeside and Pondsides Corridors as a recreational area that are accessible to the public; and Maintain Lakeside Corridors and Pondsides Corridors as access routes and spaces for lake and pond operation and maintenance work. Ensure the implementation of the Flood Mitigation Plan in future development.

Table 6.1.3: Planning Control Layer (continued)

Planning Control Layer
<p>3. Planning Control Layer for Heritage Areas or Buildings</p> <p>This planning control layer is to ensures all buildings in the designated zone comply with the requirements and guidelines. Compliance with heritage area this development guidelines is aimed to conserve and maintain the special character of within the heritage zone of Kuala Lumpur. Planning control layer for Heritage or Building is divided into three (3) components as follows:</p> <ol style="list-style-type: none"> Heritage Zone consists of old buildings with a special architectural character which ought to be preserved. It is mostly concentrated in the Kuala Lumpur City Centre; Heritage Buildings have historical, architectural, cultural or aesthetic values that require conservation either in whole or in part depending on the significance of the heritage category; and Heritage site refers to a site or location identified as having historical value that is important to the culture of the community. It refers to any site that remains in a specific location and cannot be moved to another location such as a historical park, nature reserve and old burial ground. <p>The determination of the Heritage Areas And Building planning control layer is intended to:</p> <ol style="list-style-type: none"> To maintain and preserve buildings or sites that have historical significance for a specific area; To highlight the uniqueness of Kuala Lumpur by conserving and improving the character, image and identity of cultural heritage of specific areas; To ensure that changes and new developments comply with prescribe conditions based on Heritage Area Development Control mechanism; and To provide long term protection on properties of heritage significance to ensure conservation through resource management on a larger scale.
<p>4. Planning Control Layer for Height Control Zone Surrounding the Istana Negara</p> <p>Planning control layer for Height Zone Surrounding the Istana Negara refers to the additional control mechanism to the height or intensity control guidelines of the building. Any building located within 800 metres and 1 kilometre of the Istana Negara boundary is included in this height control. This control is to preserve open vistas from and towards the Istana Negara itself.</p> <p>The determination of this zone planning control layer is intended to:</p> <ol style="list-style-type: none"> Enhance the superiority and dignity of the Istana Negara as a symbol of national government; and Ensure tranquility and privacy of the palace are controlled against high-intensity development in the surrounding area.
<p>5. Planning Control Layer for Line of Sight Towards Iconic Landmarks</p> <p>Planning control layer for Line of Sight refers to additional control over the height, design or orientation of new buildings located in the identified line towards iconic landmarks in Kuala Lumpur.</p> <p>The determination of this zone planning control layer is intended to ensure that the importance of existing iconic landmark buildings as symbols of Kuala Lumpur are preserved.</p>

Table 6.1.3: Planning Control Layer (continued)

Planning Control Layer
<p>6. Planning Controls Layer for Public Open Spaces in Private Schemes (OS4)</p> <p>Planning control layer for Public Open Spaces in Private Schemes (OS4) refers to multi-purpose Public Open Spaces located at ground level or at podium that is accessible to the public. It is an area of public use and not only limited specific to the local community.</p> <p>The determination of the OS4 Planning Control Layer is intended to:</p> <ol style="list-style-type: none"> A one (1) new initiative to address the issue of limited land availability through innovative methods to ensure the use of multifunctional open spaces; Ensuring availability of Public Open Spaces innovatively in large-scale private development schemes; Optimising land use by allowing other activities underneath the open spaces; Enabling collaboration with building owners for the high quality management and maintenance of open spaces; Addressing the issue of limited land availability for development purposes in urban areas in line with the need to achieve the target of 20 square metres of open space per person by 2040; and Diversifying the types of public open spaces from concentrating on the ground level only.
<p>7. Planning Controls Layer for Affordable Housing (RMM)</p> <p>Planning control layer for Affordable Housing (RMM) refers to existing and approved affordable houses. These houses are affordable and livable to meet the needs of B40 and part of M40 income groups.</p> <p>The determination of the RMM planning control layer is intended to:</p> <ol style="list-style-type: none"> Ensure the retaining of existing RMM in line with the needs of future population; Coordinate existing RMM redevelopment to ensure that the redeveloped site retain the number of existing units and encourages the addition of units in the same development scheme; and Balance RMM demand needs for B40 and part of M40 groups which is expected to experience pressure in demand compared to the overall supply of residential units in Kuala Lumpur by 2040.

CP 6-1.2:

MANAGING UNDEVELOP LAND IN AN OPTIMUM AND PRODUCTIVE APPROACH

Kuala Lumpur is a city with rapid economic growth in Malaysia. KLSP2040 estimated an area of 1,149.65 hectares of residential land is required to accommodate a population of 2.35 million people based on normal development approach.

The KLLP2040 proposes land management that focuses on land requirement and the increase in intensity according to suitability. It involve undeveloped land (vacant land) with an area of 1,668.94 hectares.

Vacant lands are land available for future development. This limited availability of land is a key factor in planning land development in Kuala Lumpur holistically.

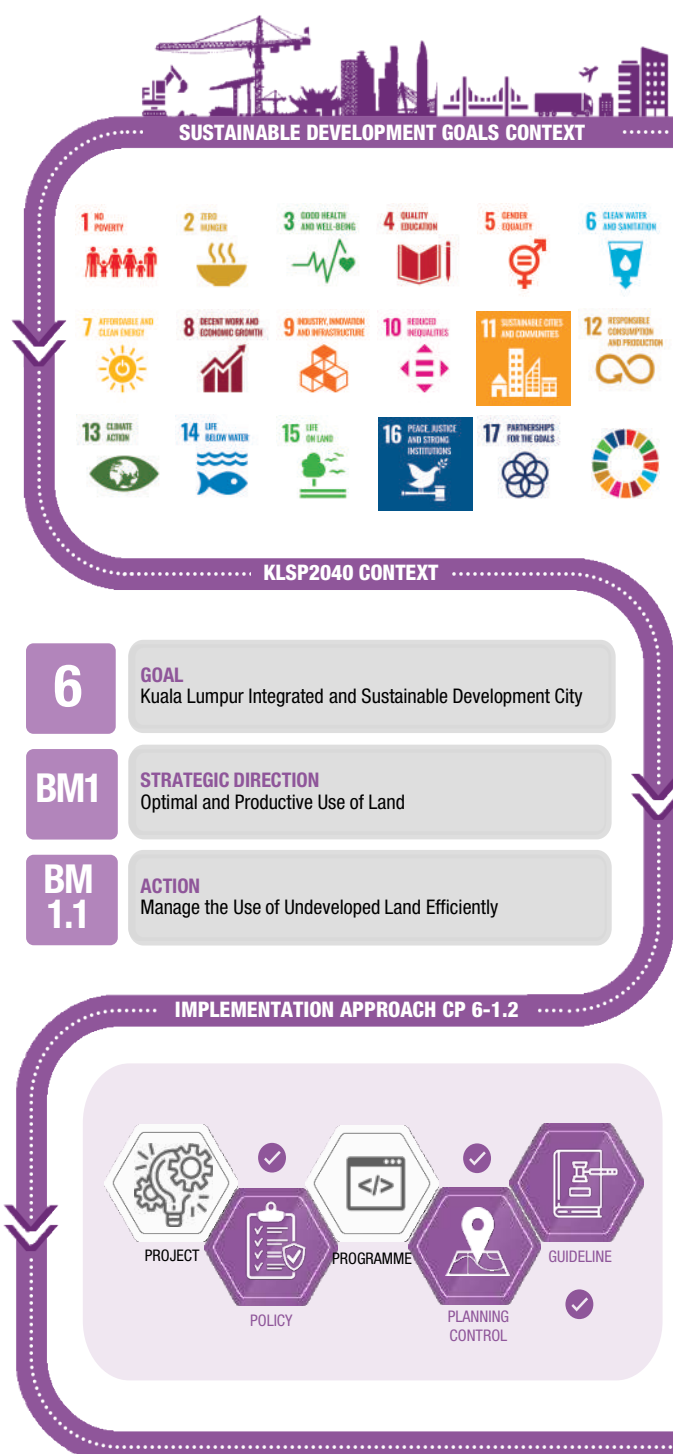
Kuala Lumpur also has spaces that are potential for activity sharing and uses such as river reserve, roads and rail reserve, transmission line and other spaces that can be used as open space, community gardens, pedestrian walkway and micromobility vehicle routes as well as other suitable activities. Encouraging space sharing in this area will contribute to more optimal, economical and productive land use.

The proposal for the implementation of CP 6-1.2 is carried out through two (2) initiatives as follows:

1. Determine Suitable Land Use Zones And Intensity For Undeveloped Land (Vacant Land); and
2. Encourage Sharing Of River, Roads And Rail Reserve, Transmission Line And Other Spaces For Suitable Activities.

CP 6-1.2

COORDINATION CONTEXT OF SDGs AND KLSP2040



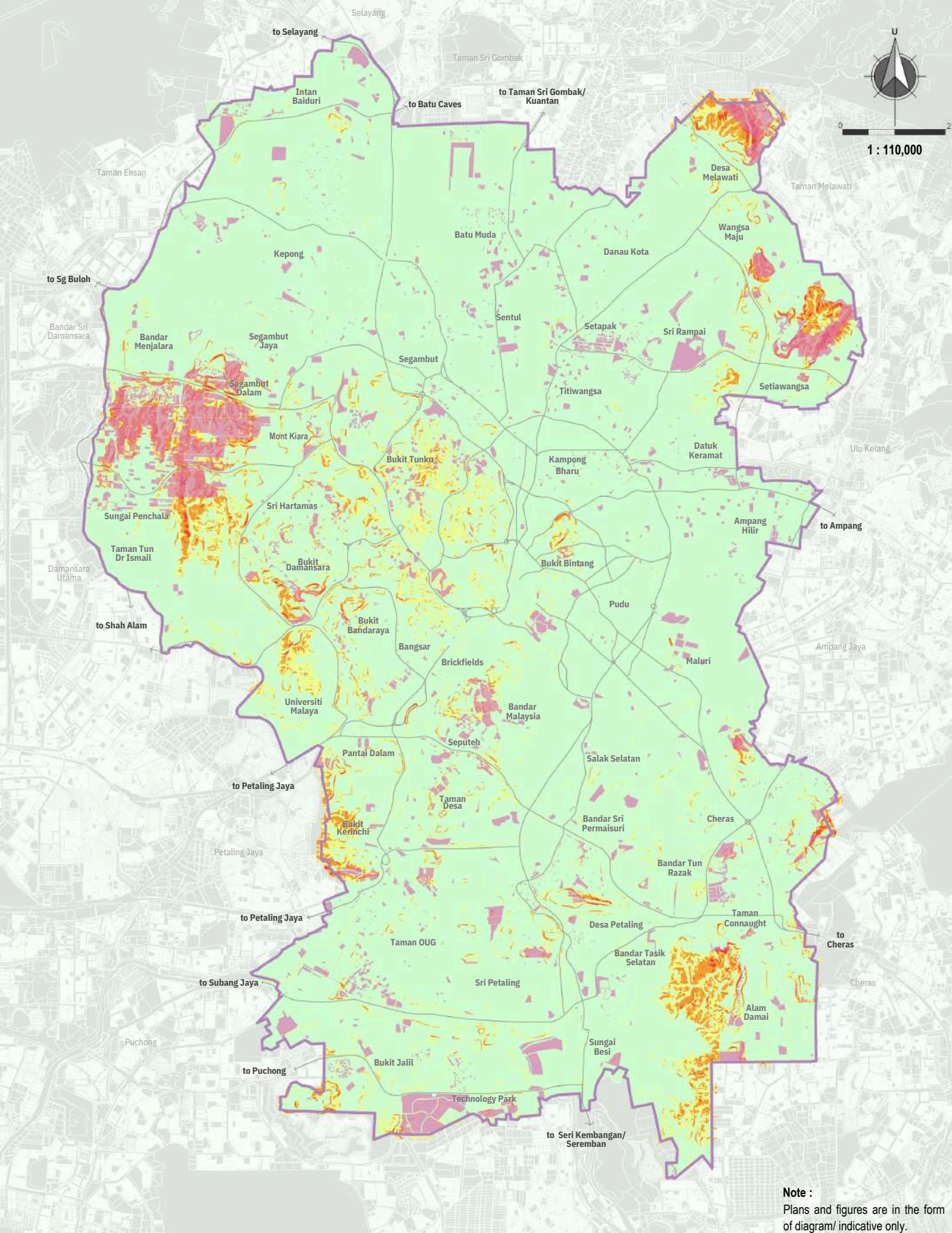


FIGURE 6.1.6 | Plan of Undeveloped Land Distribution (Vacant Land), 2024

— Main Road
— Kuala Lumpur Boundary

IMPLIMENTATION INITIATIVE 6-1.2A

► DETERMINE SUITABLE LAND USE ZONES AND INTENSITY FOR UNDEVELOPED LAND (VACANT LAND)

The proposed land use zoning for undeveloped land (vacant land) involves maintaining or changing the zoning and development intensity. The zone and development intensity for the vacant land involved must be suitable to the local context and in line with changed development trend.

KLLP2040 estimates that there are 1,668.94 hectares of undeveloped land, and 1,604.89 hectares of this land is undeveloped without committed development. However, potential land without constraints as stated in PSKL2040 is seen to be decreasing in line with the development approvals granted.

The availability of vacant land in Kuala Lumpur is proposed to be zoned as residential areas with higher intensity, such as the proposed basic plot ratio for free-market housing is up to 1:4 and up to 1:6 for affordable housing development. This planning is in line with the need for housing to accommodate the increasing population by 2040.

The proposed base plot ratio for commercial land use zones is up to 1:10, depends on suitability of the location and the size of the land lot involved. The proposed land use zoning and intensity for the vacant land site are as shown Table 6.1.4.

The development of vacant land that is sloped hilly should refer to Garis Panduan Perancangan Pembangunan di kawasan Bukit dan Cerun, Wilayah Persekutuan Kuala Lumpur 2010. This guideline will guide development with engineering solutions subject to compliance with special conditions emphasising the factor of safety.

Development in this area should also consider local sensitivity risks, targeted mitigation measures towards reducing current risks, avoid future risks and strengthen local resilience. Vacant land with small lots on other hand is encouraged to be developed through the method of lot amalgamation to produce a more comprehensive and planned development.

BRIEF INFO

DISTRIBUTION OF UNDEVELOPED LAND

1,668.94 Hectares

Total Undeveloped Land

1,604.89 Hectares

Undeveloped land without committed development

Table 6.1.4:
Proposed Land Use Zone and Intensity for Undeveloped Land (Vacant Land)

Land Use Zone	Area (Hectares)	Base Plot Ratio
1. Residential	961.19	Until 1:6
2. Commercial	134.95	Until 1:10
3. Industrial	110.56	Until 1:4
4. Mixed Development	177.32	Until 1:6
5. Institution	44.64	Until 1:4
6. Community Facilities	43.46	Until 1:2
7. Cemetery and Mortuary Management	1.01	-
8. Infrastructure and Utility	24.94	-
9. Open Space	168.70	-
10. Transportation	2.17	-
Total	1,668.94	

IMPLEMENTATION INITIATIVE 6-1.2B

ENCOURAGE SHARING OF RIVER, ROADS AND RAIL RESERVE, TRANSMISSION LINE AND OTHER SPACES FOR SUITABLE ACTIVITIES

Potential shared use of space with various suitable temporary activities can optimize land usage. The use of space and activities beyond KLCH jurisdiction area must involve cooperation with stakeholders for the purpose of implementing partnerships.

The use of space and activity sharing are subject to the approval and conditions set by the involved agencies. It also needs to be properly and effectively maintained.

The necessary actions to support this initiative as shown in Table 6.1.5.

Table 6.1.5:
Proposed Suitable Activities For Space Sharing

Suitable Activities	Location
1. Community Garden	a. Residential and commercial areas; b. Community facilities areas; c. Transmission line; and d. River reserve.
2. Food Truck	a. Suitable public space; and b. Vehicle parking space at certain period.
3. Parking	a. Under suitable LRT line and highways
4. Recreation Space and Public Park	a. Road reserve; and b. Transmission line.
5. Recycle Space	a. Utility reserve.
6. Art Space	a. Building alleys.
7. Nursery	a. Under suitable rail line; and b. Transmission line.
8. Public Plaza	a. River reserve.

Source : Adapted from KLSP2040

The criteria for suitable use and sharing of spaces are as follows:

1. Suitable river reserve near the residential and commercial areas . For example in Sungai Bunus area ;



2. Suitable space under elevated highways and suitable railways located near to residential and commercial areas. The area must have good access through local roads and subject to the approval and guidelines of relevant agencies. For example, in Chow Kit rail line, Kuala Lumpur; and



3. The corridor area of the transmission line including the easement by TNB with 20 metres to 30 metres along the alignment so as not to interfere with the transmission route and line towers. For example in PPR Intan Baiduri, Kuala Lumpur.



IMPLEMENTATION PROPOSAL

CP 6-1.3:

REGULATING INDUSTRIAL ACTIVITIES OUTSIDE SUITABLE LAND USE ZONES

The replanning of industrial activities that operate without a license and are located outside of the industrial zone such as in the residential land use zone and the commercial land use zone needs to be emphasised. This activity needs to be controlled through a legalisation programme to ensure the industrial activities carried out are not disrupted and cause disturbance to the surrounding area.

Industrial activities carried out in residential zones usually consist of small and medium industries as well as cottage industries. There are still some polluting industries such as metal and iron industries that are carried out in residential zones that need to be addressed.

The industrial activities carried out in the commercial land use zone are mostly service industry activities such as vehicle repair. A service industry like this needs to be regulated in terms of the nature of activity to prevent issue of disturbance and environmental pollution in the area.

The proposal for the implementation of CP 6-1.3 is carried out through two (2) initiatives as follows:

1. Allow Selected Industrial Activities in Land Use Zones of Commercial;
2. Allow Selected Industrial Activities in Land Use Zones of Traditional Village and Special Village CULB

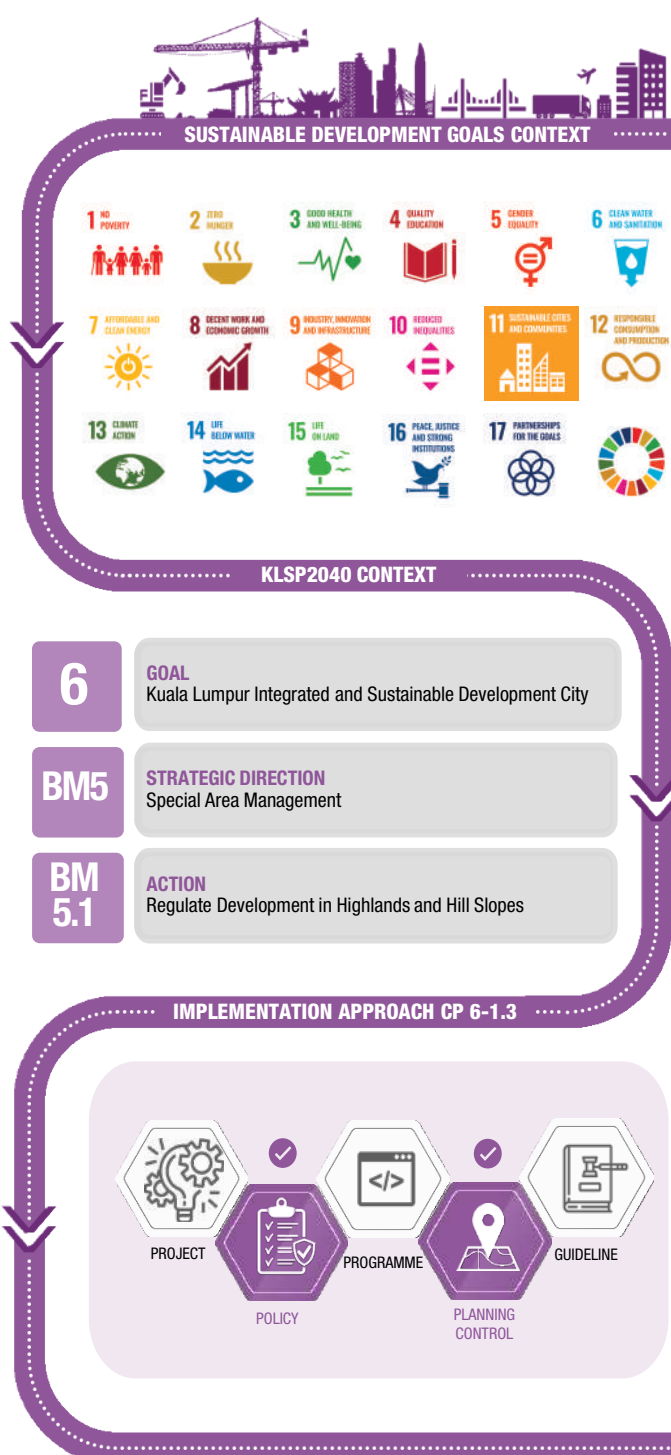


Location: Jalan Tunku Abdul Rahman, Kuala Lumpur
Source: https://www.shutterstock.com/g/aslamas_ad

Service industry such as repairing vehicles require control to avoid nuisance to the citizens of the city.

CP 6-1.3

COORDINATION CONTEXT OF
SDGs AND KLSP2040



IMPLEMENTATION INITIATIVE 6-1.3A**▶ ALLOW SELECTED INDUSTRIAL ACTIVITIES IN LAND USE ZONES OF COMMERCIAL**

The industrial activity legalisation programme in the commercial land use zone is aimed at controlling permitted industrial activities to promote economic growth, ensure urban sustainability and assure the quality of life in Kuala Lumpur.

Industrial activities permitted for the legalisation programme in commercial land use zone consist of non-polluting industries are as follows:

1. Light Industrial Activities: Storage, packaging and distribution as well as publishing and printing; and
2. Medium Industrial Activities: vehicle repair services, manufacturing and processing as well as vehicle exhibition and sales centres.

This initiative is important to ensure that industrial activities carried out in the commercial land use zone do not cause issues on nuisance and pollution to the surrounding area as well as not affecting the level of productivity of commercial activities.

The necessary actions to support this initiative are as shown in Table 6.1.6.

Table 6.1.6: Details of Industrial Activities Permissible in Commercial Land Use Zones

CITY CENTRE COMMERCIAL (CCC)
Permissible with Conditions
<ol style="list-style-type: none"> 1. Technology, Research and Development 2. Medical and Health Laboratory
MAJOR COMMERCIAL (MC)
Permissible with Conditions
<ol style="list-style-type: none"> 1. Packaging, Storage and Distribution 2. Vehicle Repair and Services 3. Technology, Research and Development 4. Medical and Health Laboratory 5. Construction Material Storage 6. Household Goods Services Centre
COMMERCIAL (C)
Permissible with Conditions
<ol style="list-style-type: none"> 1. Packaging, Storage and Distribution 2. Petrol Station and Vehicle Maintenance 3. Vehicle Repair and Services 4. Technology, Research and Development 5. Medical and Health Laboratory 6. Construction Material Storage 7. Household Goods Services Centre
LOCAL COMMERCIAL (LC)
Permissible with Conditions
<ol style="list-style-type: none"> 1. Vehicle Service and Repair

IMPLEMENTATION INITIATIVE 6-1.3B**▶ ALLOW SELECTED INDUSTRIAL ACTIVITIES IN LAND USE ZONES OF TRADITIONAL VILLAGE AND SPECIAL VILLAGE CULB**

Selected industrial activities are allowed with control in Land Use Zones of Traditional Village 1 (TV1), Land Use Zones of Traditional Village 2 (TV2) and areas that use Special Village CULB.

Selected industrial activities are allowed with control must be regularly monitored to avoid nuisance such as foul smell, noise, and others.

The necessary actions to support this initiative are as shown in Table 6.1.7.

Table 6.1.7: Industrial Activities Allowed in Traditional Village Land Use Zones and Special Village CULB

TRADITIONAL VILLAGE 1 (TV1)
Permissible with Conditions
<ol style="list-style-type: none"> 1. Vehicle Repair and Services 2. Cottage Industry
TRADITIONAL VILLAGE 2 (TV2)
Permissible with Conditions
<ol style="list-style-type: none"> 1. Vehicle Repair and Services 2. Cottage Industry
LIMITED TO THE FOLLOWING VILLAGES ONLY:
Malay Reserve Villages (MRV)
<ol style="list-style-type: none"> 1. Kampung Segambut 2. Kampung Palimbayan 3. Kampung Bukit Lanjan 4. Kampung Selayang Lama 5. Kampung Sungai Penchala
Non-Malay Reserve Villages (NMRV)
<ol style="list-style-type: none"> 1. Kampung Pandan Melayu 2. Kampung Pasir Segambut 3. Kampung Malaysia Tambahan 4. Kampung Malaysia Raya 5. Kampung Bharu 6. Kampung Datuk Keramat
New Villages
<ol style="list-style-type: none"> 1. Kampung Baru Cheras Baru 2. Kampung Baru Salak Selatan 3. Kampung Baru Jinjang Selatan 4. Kampung Baru Jinjang Utara 5. Kampung Baru Baru Ayer Panas

STRENGTHENING URBAN GROWTH CENTRE HIERARCHY

SCENARIO OF URBAN GROWTH CENTRE IN KUALA LUMPUR

Urban growth centre is a commercial focus area which offers services and facilities to the surrounding population. This focus area is supported by activities such as residential, recreational parks, government and public services, especially those within the TPZ and TIZ.

The main function of the urban growth centre is to promote balanced development and accessibility of areas within Kuala Lumpur. The growth centre needs to distribute development pressure from City Centre to the surrounding areas. It will be a node that connects the road network, transit rail, green network, community facilities, pedestrian walkway and micromobility vehicle route.

The planning of urban growth centre area focuses on combining monocentric and polycentric urban structures to ensure balanced urban growth and good accessibility to community facilities. This concept establishes one (1) main urban growth centre and supported by several growth centres of a lower hierarchy.

Redevelopment areas can also be part of urban growth centres by considering the function, activity, intensity, connectivity, availability of current and future infrastructure as well as taking into account the strategic direction in KLSP2040.

Development in the growth centre areas are to strengthen the function of each area while promoting efficient and optimal land use. Development in the urban growth centre should also take into account physical aspects and design such as identity, image and development control to maintain the skyline and visuals of the city in the following areas:

1. TPZ/TIZ area;
2. Redevelopment area;
3. Heritage Zone; and
4. Visual Line of Sight Towards Iconic Landmarks

Towards realising Kuala Lumpur as a city with more productive and effective space utilisation, one (1) Implementation Proposal is formulated under Planning Strategy 6-2, as shown in Figure 6.2.1.

Figure 6.2.1:
Implementation Proposal for Planning Strategy 6-2

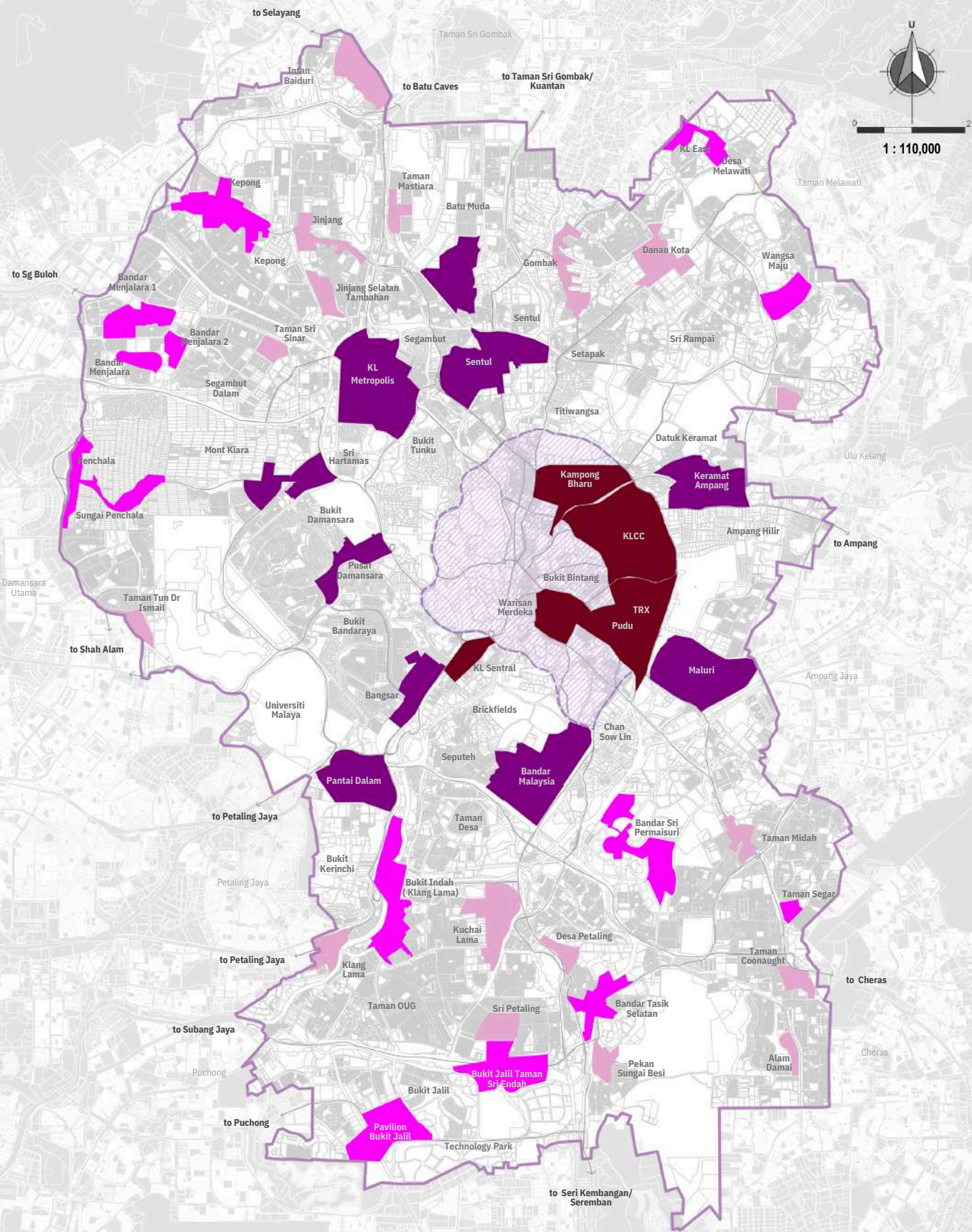
SP 6-2

STRENGTHENING URBAN GROWTH CENTRE HIERARCHY

CP 6-2.1

Strengthening Urban Growth Centres





Note :
Plans and figures are in the form of diagram/ indicative only.

FIGURE 6.2.2 | Plan of Centre Hierarchy of Urban Growth

Legend:

- Primary Growth Centre
- Supporting Growth Centre
- District Growth Centre
- Local Growth Centre

Others

- Main Road
- Kuala Lumpur Boundary
- City Centre Boundary

CP 6-2.1:

STRENGTHENING URBAN GROWTH CENTRES

Kuala Lumpur is the key focus in development planning that can add value and contribute to the development of the surrounding area. It remains functional as a city centre accommodating global corporate headquarters, high-end hotels, major shopping centres, recreational and entertainment centres, professional and medical services as well as specialised training facilities.

The overspill of development pressure from the city centre has resulted in the growth of new cities around Kuala Lumpur. Urban growth is also influenced by development policies, physical factors, infrastructure capacity and community facilities as well as urban socioeconomics.

Strengthening the new urban growth centre requires improvement on the level of facilities, infrastructure and services in order to increase the urban quality of life in line with current development.

There are four (4) hierarchies of urban growth centres in Kuala Lumpur as follows:

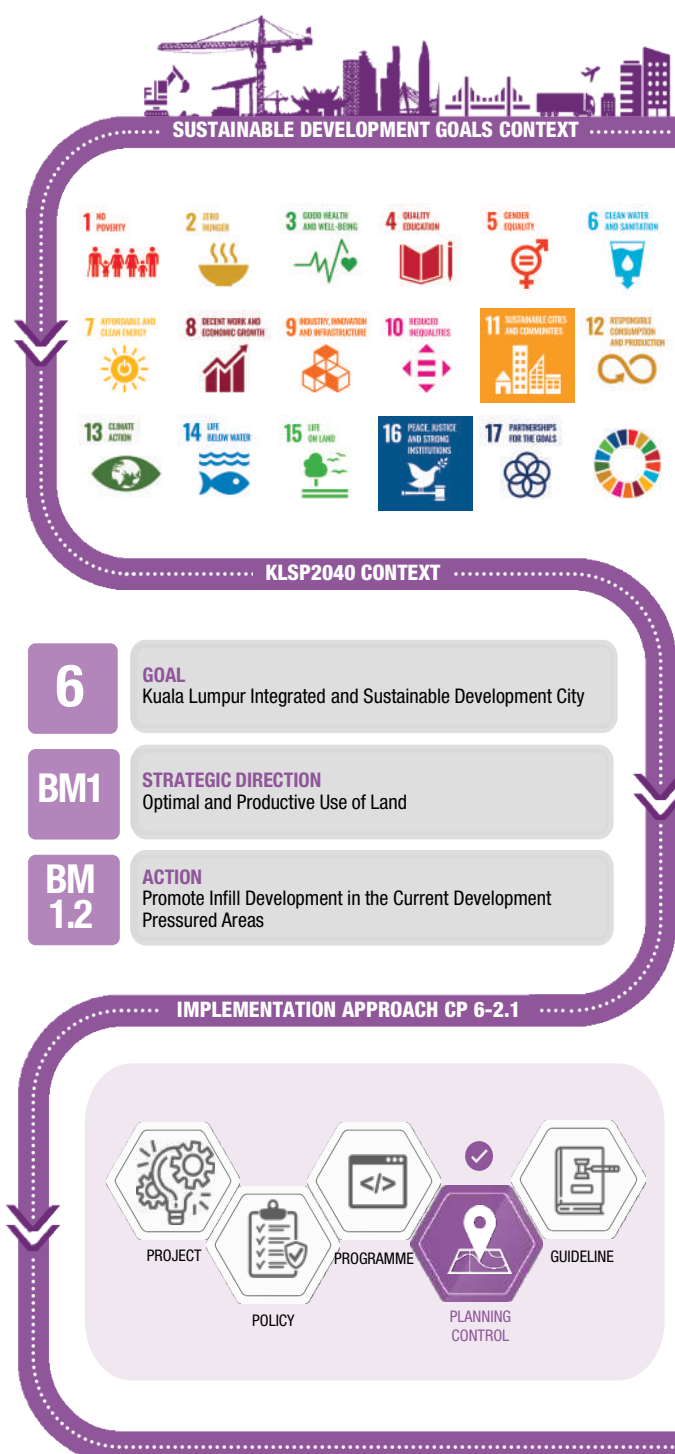
1. Primary Growth Centre;
2. Secondary Growth Centre;
3. District Growth Centre; and
4. Local Growth Centre.

The proposal for the implementation of CP 6-2.1 is carried out through two (2) initiatives as follows:

1. Strengthen Urban Growth Centre Hierarchy; and
2. Development Planning in Urban Growth Centre Hierarchy.

CP 6-2.1

COORDINATION CONTEXT OF
SDGs AND KLSP2040



IMPLEMENTATION INITIATIVE 6-2.1A

► STRENGTHEN URBAN GROWTH CENTRE HIERARCHY

The new urban growth scenario is the result of development pressure from within the city centre. These new growth centres develop and form a hierarchy based on distinctive functions.

The strategy to strengthen the hierarchy of urban growth centres is one of the approaches in controlling development of urban area.

The necessary step in supporting this initiative is to set the main characteristics of each growth centre hierarchy as shown in Table 6.2.1.

Table 6.2.1:
Hierarchy and Main Characteristics of Growth Centres in Kuala Lumpur

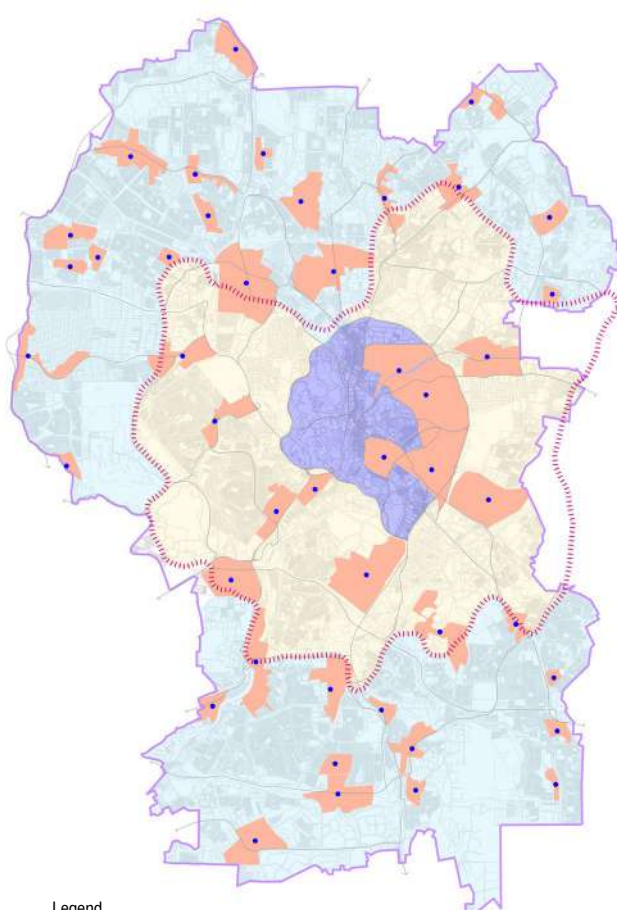
Hierarchy of Urban Growth Centre	Main Characteristics
PRIMARY GROWTH CENTRE Primary Growth Centre is the highest hierarchy of growth centre and located within the boundaries of the City Centre and KL Sentral.	<ol style="list-style-type: none"> 1. A centre with significant economic growth; 2. A mega-scale development with potential investment and new job opportunities; 3. An area with high employment population and commercial activity; 4. A planned development area with the integration of active mobility modes and emphasis on seamless, comfortable and safe pedestrian walkways routes; 5. A centre that has an adequate community facilities such as health and safety facilities; 6. A centre that has a complete infrastructure facilities such as bus services network and rail network and stations; 7. A centre that has international standard green building design and construction; and 8. A centre that encourages low-carbon communities with low-carbon conceptual development in line with the strategic direction of KLSP2040.
SECONDARY GROWTH CENTRE Secondary Growth Centre is a new hierarchy introduced to reduce the high development pressure from the City Centre to the surrounding area. It consists of an upgraded district growth centre and several potential new areas.	<ol style="list-style-type: none"> 1. A centre with the potential as a redevelopment area or committed development; 2. A centre that has good connection networks with transit stations; 3. A centre with the ability to implement lot amalgamation for development purposes; 4. A centre that offers services and employment opportunities in support of primary growth centres; 5. A centre that provides housing to increase the occupancy rate in the city; and 6. A centre that encourages low-carbon communities with low-carbon conceptual development in line with the strategic direction of KLSP2040.
DISTRICT GROWTH CENTRE District Growth Centres are areas with medium-scale commercial and employment centres that are located nearby to residential and neighbourhood areas. It serves as a service, social, cultural and recreational hub for the local community.	<ol style="list-style-type: none"> 1. A centre that supports local employment and business needs in commercial areas; 2. A centre that attracts investment with flexible activities on a medium scale; 3. A centre that allows activities in the City Centre such as entertainment with suitable regulations and scale; and 4. A centre that encourages low-carbon communities with low-carbon conceptual development in line with the strategic direction of KLSP2040.

Table 6.2.1:**Hierarchy and Main Characteristics of Growth Centres in Kuala Lumpur (continued)**

Hierarchy of Urban Growth Centre	Main Characteristics
LOCAL GROWTH CENTRE Local Growth Centre is a community and commercial hub located in a establish neighbourhood and within close proximity to other growth centres. It contributes to economic growth and local activities as well as to support the social needs of surrounding neighbourhood.	<ol style="list-style-type: none"> 1. A centre that provides recreational areas and small-scale commercial to cater the needs of the residents and reduce the need to travel to access certain spesific services; 2. A centre that emphasises the 15 minutes city concept through active mobility modes and strengthening the first and last mile system. It can reduce the dependency on private vehicle and carbon emissions; and 3. A centre that connects residential to commercial areas and parks through the upgrading of street or road with streetscapes, green canopies, and pedestrian walkway connectivity that is universal, safe, and age-friendly.

BRIEF INFO

OVERVIEW OF AREA COVERAGE UNDER DEVELOPMENT CONTROL



- Legend
- City Centre Development Control
 - Urban Growth Centre Development Control
 - Development Control Around City Centre
 - Kuala Lumpur General Development Control

City Centre Development Control

1. The City Centre area has been developed with high intensity developments and building landmarks that reflect Kuala Lumpur's identity; and
2. Urban design in the City Centre area is subject to the Kuala Lumpur Urban Design Guidelines.

Growth Centre Development Control

1. The urban growth centres has special characteristics that allow these areas to increase the intensity based on criteria and conditions that has been outlined.

Development Control Around City Centre

1. The area around the City Centre needs to be controlled in terms of height and intensity to maintain the physical visual appreance of the City Centre;
2. The boundaries of these areas are bounded by the proposed MRT3 rail line;
3. The development pressure that occurs in the area at the City Centre causes a demand for high-intensity in this area. However the increase in intensity in these areas are lower compared to the urban growth centre; and
4. Increase in intensity will be based on criteria and conditions that have been outlined.

Kuala Lumpur General Development Control

1. This control applies to areas other than those specified above; and
2. The intensity in this area must not exceed the intensity of the growth centre areas and must be in harmony with the existing development and neighbourhood.

IMPLEMENTATION INITIATIVE 6-2.1B

DEVELOPMENT PLANNING IN URBAN GROWTH CENTRE HIERARCHY

A city is an economic growth center and a hub for the services and a country's population such as Kuala Lumpur. Each city has its own character and role and needs to be planned based on a hierarchy with specific characteristics to avoid duplication of functions from the aspects of land use, economy, social, infrastructure, urbanisation facilities and others.

The necessary actions to support this initiative are divided into general and specific initiatives as shown in Table 6.2.2.



Table 6.2.2:

Development Planning Initiatives of Urban Growth Centre Hierarchy in Kuala Lumpur

General Initiative
<ol style="list-style-type: none"> 1. Emphasise on commercial land use and mixed development land use, as well as strengthening the provision of public facilities in locations that are easily accessible to the public; 2. Adopt integrated TOD concept to promote comprehensive development; 3. Provide quality and liveable housing for various group of the society; 4. Provide green areas and identify areas with potential to be used as public spaces; 5. Emphasise on development that prioritises pedestrians and encourages the use of micromobility vehicles; 6. Improve back lanes and increase the accessibility to transit stations and public transportation; 7. Strengthen main roads as walkable and shared streets as well as limit the flow of private vehicles in the urban growth centre; 8. Improve integration system and provision of an efficient public transport in making public transportation as users main choice; 9. Strengthen the image, function and identity of each key urban growth centre; 10. Consider the design of adjacent buildings and surrounding environment to create harmony between buildings; 11. Emphasise urban design that encourages active street activity; 12. Emphasise development and provision of facilities based on universal design and suitable for all age groups; 13. Comply with green building and low carbon building standards; and 14. Identify effective and systematic parking management methods.

Table 6.2.2:

Development planning in the urban growth centre hierarchy in Kuala Lumpur (continued)

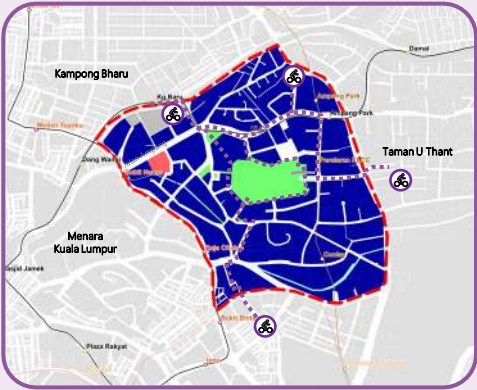
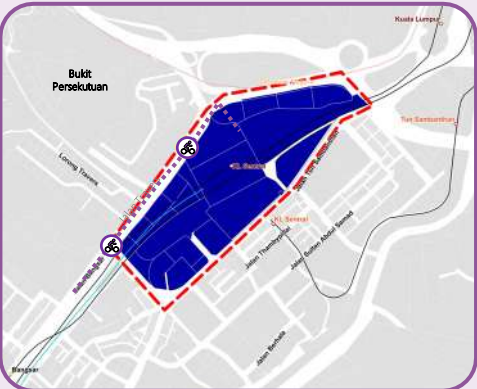
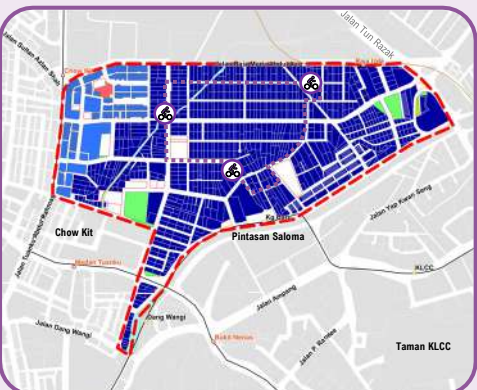
Location	Specific Initiatives
1. PRIMARY GROWTH CENTRE	
<p>1. KLCC AND BUKIT BINTANG</p> 	<ol style="list-style-type: none"> 1. Enhance and improve key commercial areas and shopping centres; 2. Ensure active mobility mode routes to key tourist hotspots such as KLCC, Pavilion, Petaling Street, Kasturi Walk and River of Life (RoL) are in good condition, safe and comfortable; 3. Enhance Jalan Bukit Bintang as a shopping street by limiting traffic speed. This road has the potential to be upgraded as a dedicated pedestrian walkways and micromobility vehicle route; 4. Propose improvements for pedestrian walkways and micromobility vehicle routes crossings at the intersection of KLCC and Public Bank, and join with Saloma Link; 5. Improve crossing time at Bukit Bintang main crossing; 6. Enhance surroundings of Jalan Ampang as an eco-district; and 7. Utilise Jalan Ampang cemetery as an open green area.
<p>2. KL SENTRAL</p> 	<ol style="list-style-type: none"> 1. Enhance identity of the area through urban design improvements as well as pedestrian walkways and micromobility vehicle routes around TOD KL Sentral including Brickfields with the concept of Street for People; 2. Promote provision of shuttle transportation and improve pedestrian walkways and micromobility vehicle routes connections especially bicycles along Jalan Bangsar towards Taman Botani Perdana and River of Life (RoL); 3. Improve green space with appropriate methods; and 4. Provide a seamless pedestrian walkways route connecting KL Sentral, the National Museum and the Bukit Persekutuan area through underground development.
<p>3. KAMPONG BHARU</p> 	<ol style="list-style-type: none"> 1. Enhance identity of the area as an enclave of Malay identity in the City Centre through urban design and development control in accordance with KGaris Panduan Seni Bina Melayu Islam Kampong Bharu; 2. Maintain the mosque as the main node of development in Kampong Bharu; 3. Consider the skyline and view of KLCC and Kuala Lumpur Tower in the planning of height, orientation or design of future development; and 4. Integrate Kampong Bharu development with Kampong Bharu and Dang Wangi LRT Station, Kampong Bharu MRT Station as well as Chow Kit Monorail Station. 5. Integrate development with key infrastructure around the site such as Duke 2A and AKLEH.

Table 6.2.2:

Development planning in the urban growth centre hierarchy in Kuala Lumpur (continued)


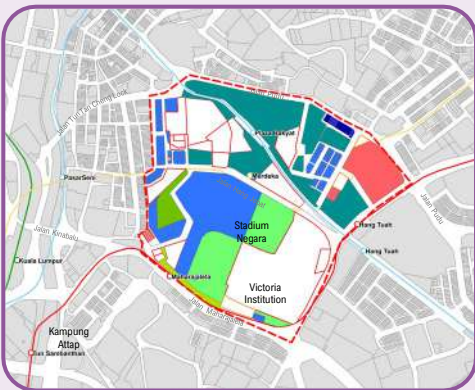

Location	Specific Initiatives
1. PRIMARY GROWTH CENTRE	
4. TRX AND PUDU 	<ol style="list-style-type: none"> 1. Adopt specific design guidelines for the development of TRX; The Tun Razak Exchange Development Code - Plot Controls; 2. Maintain and enhance identity of Pasar Pudu enclave as a Market Area through the improvement of urban design and public spaces; 3. Apply Urban Block concept in small plots for the purpose of large-scale development in infill areas; 4. Provide public spaces especially green areas with pedestrian and micromobility vehicle routes; 5. Encourage provision of community facilities in development areas that can be directly accessed by the public from ground level; and 6. Improve the pedestrian walkways and micromobility vehicle routes around from Pasar Pudu to Maluri through Jalan Cochrane.
5. WARISAN MERDEKA AREAS AND PLAZA RAKYAT AREAS 	<ol style="list-style-type: none"> 1. Maintain and enhance identity of independence heritage architectural area through development control and urban design; 2. Provide suitable, safe and comfortable pedestrian walkways and micromobility vehicle routes facilities to connect three (3) main public transports, namely Merdeka MRT Station, Hang Tuah and Plaza Rakyat LRT Station as well as Hang Tuah and Maharajalela Monorail Station; 3. Provide interconnected pedestrian walkways routes for new developments such as Merdeka 118 Tower to Merdeka MRT Station and Plaza Rakyat LRT Station; and 4. Enhance pedestrian landscape design from Jalan Hang Jebat to Jalan Sultan up to the River of Life (RoL).
2. SECONDARY GROWTH CENTRE	
1. BANDAR MALAYSIA 	<ol style="list-style-type: none"> 1. Connect green linkages between Bandar Malaysia and the surrounding focal points with an emphasis on through emphasising of integrated pedestrian walkways and micromobility vehicle routes. Bandar Malaysia will be connected to the Razak City area through provision of a bridge and to the River of Life (RoL) through Kwong Tong cemetery; 2. Develop Bandar Malaysia as a nature-friendly city by adopting green and low-carbon development guidelines as well as application of sponge city concept; 3. Integrate development components with MRT stations and proposed High-Speed Rail (HSR) stations; and 4. Integrate development with key infrastructure around Bandar Malaysia such as Duke 2A (Istana Link) and Setiawangsa Pantai Expressway (SPE).

Table 6.2.2:

Development planning in the urban growth centre hierarchy in Kuala Lumpur (continued)



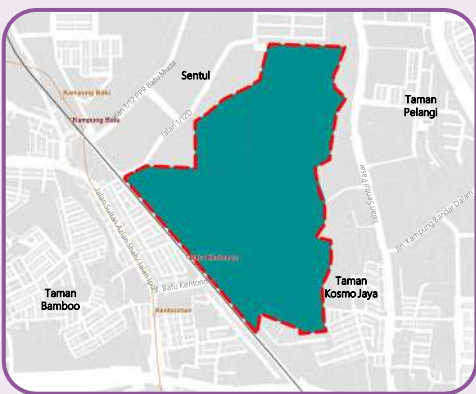
Location	Specific Initiatives
2. SECONDARY GROWTH CENTRE	
<p>2. BANGSAR</p> 	<ol style="list-style-type: none"> 1. Increase green canopy and connect pedestrian walkways routes to improve connectivity and create a continuous route to KL Sentral, Setia Federal Hill, Jalan Abdullah area, Bangsar 61, KL Eco City and Mid Valley; 2. Develop a multi-choice residential component to increase the quality of urban living and encourage population growth in urban growth centre areas; 3. Emphasis services sector that can offer high-value employment opportunities; and 4. Improve and strengthen the urban design of Bangsar Growth Centre.
<p>3. BANGSAR SOUTH</p> 	<ol style="list-style-type: none"> 1. Connect two (2) main landmarks of Bangsar South, such as Telekom Malaysia Tower and Angkasapuri building through a green network corridor to form a pleasant key route by adopting the 'Glasgow M8 Motorway Elevated Park Project'; 2. Integrate development components with the Universiti and Kerinchi LRT Stations; 3. Create a central open space that becomes the social nodes of this area; and 4. Implement redevelopment of Taman Sri Angkasa Flats.
<p>4. BATU KENTONMEN</p> 	<ol style="list-style-type: none"> 1. Develop this area in a planned manner by focusing on the provision of residential, commercial, community facilities and recreational areas; 2. Provide conducive affordable housing and affordable commercial spaces; 3. Promote mixed development by integrating future development components with Kampung Batu KTM Station and Batu Kotonmen MRT Station; and 4. Create a central open space that becomes the social node of this area.

Table 6.2.2:

Development planning in the urban growth centre hierarchy in Kuala Lumpur (continued)

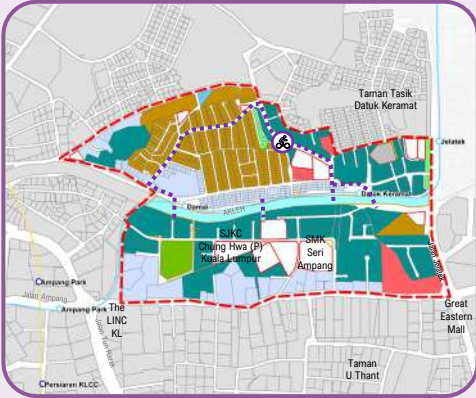
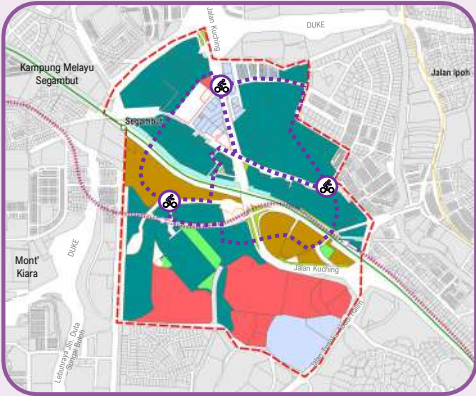
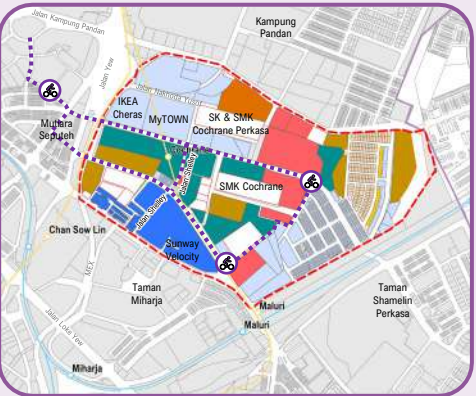
Location	Specific Initiatives
2. SECONDARY GROWTH CENTRE	
5. JALAN AMPANG AND DATUK KERAMAT 	<ol style="list-style-type: none"> 1. Connect northern area of Kampung Datuk Keramat, Jalan Damai and southern area of Jalan Aman through a safe pedestrian walkways crossing and micromobility vehicle routes to expand the network of LRT Damai, LRT Dato Keramat and LRT Jelatek; 2. Develop residential areas and mixed development areas comprehensively through the approach of lot amalgamation incentive; 3. Upgrade local roads in support of higher development intensity in Datuk Keramat, Jalan Damai and Jalan Aman for future development; and 4. Encourage quality residential development in line with the character of Jalan Ampang.
6. KL METROPOLIS 	<ol style="list-style-type: none"> 1. Enhance KL Metropolis which is the centre of M.I.C.E with the proposed MRT Laluan Lingkar (MRT3) transit station in this area; and 2. Improve connectivity between KL Metropolis development area and Kompleks Jalan Duta with the redevelopment area in the north consisting of Tan Chong Motor, Goh Ban Huat and Federal Cable, through pedestrian overpasses and micromobility vehicle routes that across the Sungai Keroh.
7. MALURI 	<ol style="list-style-type: none"> 1. Enhance open space at Cochrane MRT Station as the main open space for Maluri growth centre; 2. Improve green space by identifying suitable approach such as the use of space under the transmission line and SMART tunnel reserve; 3. Improve pedestrian walkways and micromobility vehicle routes as well as the first and last mile from Cochrane MRT Station to Sunway Velocity and MyTown or IKEA; and 4. Develop Jalan Shelley as a pedestrian-friendly road with appropriate width and shaded trees for pedestrian walkways and micromobility vehicle routes to connect Sunway Velocity with MyTown or IKEA.

Table 6.2.2:

Development planning in the urban growth centre hierarchy in Kuala Lumpur (continued)


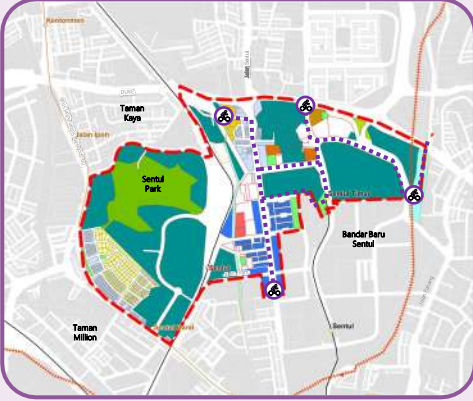
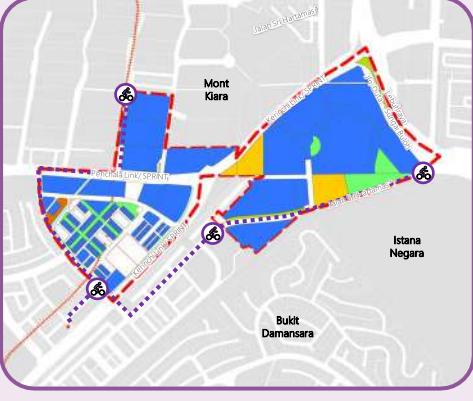
Location	Specific Initiatives
2. SECONDARY GROWTH CENTRE	
<p>8. PUSAT BANDAR DAMANSARA</p> 	<ol style="list-style-type: none"> 1. Improve pedestrian walkways and micromobility vehicle routes to Pusat Bandar Damansara MRT Station and Semantan MRT Station; 2. Ensure that part of the areas located within the height control zone of Istana Negara comply with the specified height regulations; 3. Enhance pedestrian walkways and micromobility vehicle routes for the first and last mile to connect residential areas around Damansara City Centre to Damansara City Centre MRT station; 4. Propose Jalan Damansara as pedestrian-friendly road with suitable width and shaded trees for pedestrian and micromobility vehicle routes; and 5. Propose improvement, rearrangement and urban design that consider the concept of off-street cafes or al-fresco in suitable areas.
<p>9. SENTUL</p> 	<ol style="list-style-type: none"> 1. Increase livability rate of the area for every level of society through the provision of quality housing; 2. Encourage use of privately owned open space as public open space for social activities of local residents and surrounding areas; 3. Enhance open spaces around growth centre areas; 4. Propose pedestrian walkways and micromobility vehicle routes that connect Sentul West MRT Station, Sentul East MRT Station and Sentul KTM Station in making this area easily accessible by pedestrian users; and 5. Focus on business activities that generate high-value employment opportunities.
<p>10. SRI HARTAMAS</p> 	<ol style="list-style-type: none"> 1. Propose pedestrian walkways and micromobility vehicle routes from MRT Sri Hartamas Station to Jalan Sri Hartamas 1 and proposed Mont Kiara MRT Station to Jalan Kiara 4; 2. Propose Jalan Sri Hartamas 1 and Kiara 4 as pedestrian-friendly road with suitable width and shaded trees for pedestrian and micromobility vehicle routes to create connectivity between residential and commercial areas; 3. Enhance open space around Sri Hartamas growth centre; and 4. Identify the best approach of parking management in Sri Hartamas area.

Table 6.2.2:

Development planning in the urban growth centre hierarchy in Kuala Lumpur (continued)


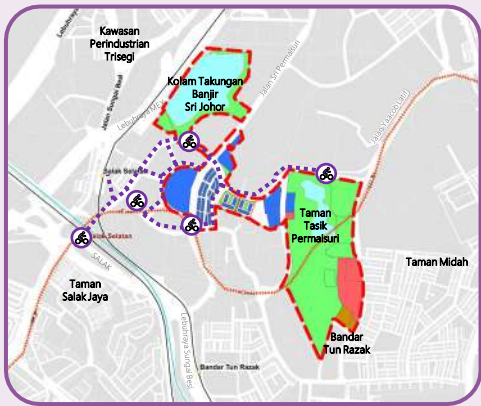
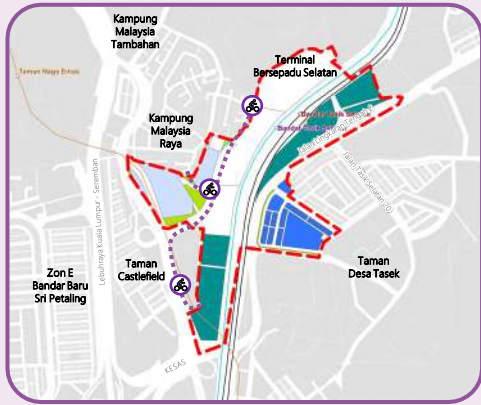
Location	Specific Initiatives
3. DISTRICT GROWTH CENTRE	
1. BANDAR MENJALARA 	<ol style="list-style-type: none"> 1. Improve accessibility through the green linkages connecting Taman Tasik Menjalara and Taman Utama Desa Park City with suitable pedestrian walkways and micromobility vehicle routes; 2. Emphasise the use of feeder buses that connect Bandar Menjalara area to Sri Damansara Sentral MRT Station; 3. Emphasise control of commercial terraces character in Bandar Menjalara area in line with road infrastructure and limited parking spaces; and 4. Enhance road infrastructure and parking in Bandar Menjalara commercial area.
2. BANDAR SRI PERMAISURI 	<ol style="list-style-type: none"> 1. Encourage commercial and recreational development that prioritises pedestrian walkways and micromobility vehicle routes access to transit stations; 2. Emphasise the use of feeder buses that connect Bandar Sri Permaisuri area to the Salak Selatan KTM Station; 3. Propose Sri Johor Flood Retention Pond as an open recreational area that can be used by the public; 4. Improve accessibility through green connectivity network that connects Bandar Sri Permaisuri with Taman Tasik Permaisuri and Sri Johor Flood Retention Pond; and 5. Ensure that new developments provide open spaces that can be used by the public.
3. BANDAR TASIK SELATAN 	<ol style="list-style-type: none"> 1. Identify suitable activities to improve the role of Bandar Tasik Selatan commercial area as a district growth centre; 2. Strengthen the pedestrian walkways and micromobility vehicles route as the first and last mile that connects commercial and residential areas in Bandar Tasik Selatan with the Bandar Tasik Selatan Integrated Terminal (TBS); and 3. Propose catchment pond next to Bandar Tasik Selatan Integrated Terminal (TBS) as a recreational area that can be used by the public.

Table 6.2.2:

Development planning in the urban growth centre hierarchy in Kuala Lumpur (continued)



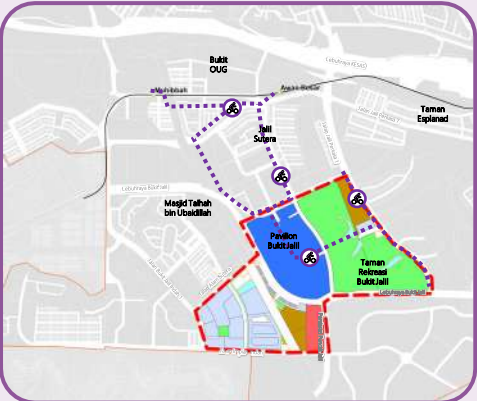
Location	Specific Initiatives
3. DISTRICT GROWTH CENTRE	
<p>4. PANTAI DALAM</p> 	<ol style="list-style-type: none"> 1. Provide pedestrian walkways and micromobility vehicle routes from Bukit Indah commercial area to Petaling KTM Station and propose MRT3; 2. Emphasise the use of intermediate buses that connect the Bukit Indah commercial area to Petaling KTM station; 3. Propose pedestrian walkways and micromobility vehicle routes from Bukit Indah commercial area to Pantai Eco Park across the Sungai Klang; 4. Implement the proposed additional alignment of RoL 1 along Bukit Indah commercial area facing the Sungai Klang; and 5. Upgrade landscape space of Jalan Klang Lama in Bukit Indah growth centre area to enhance its image and identity.
<p>5. BUKIT JALIL AND TAMAN SRI ENDAH</p> 	<ol style="list-style-type: none"> 1. Provide pedestrian walkways and micromobility vehicle routes facilities to Bukit Jalil LRT Station and Sri Petaling LRT Station in new development; 2. Improve connectivity between the commercial areas of Endah Parade, Bukit Komanwel, Sri Petaling LRT Station and Bukit Jalil LRT Station; 3. Ensure the existing area surrounding the lake is developed as a recreational area and integrated with Sungai Midah and the Bukit Jalil Sports Complex; 4. Utilise Sungai Kuyoh as a green area and make it as one of the main elements of urban planning and design in the area; and 5. Identify suitable activities to generate active commercial activities.
<p>6. PAVILION BUKIT JALIL</p> 	<ol style="list-style-type: none"> 1. Connect Bukit Jalil Pavilion area with the LRT station through feeder bus services and the use of comfortable active mobility modes; 2. Emphasis use of feeder buses that connect Pavillion Bukit Jalil area to the Muhibbah LRT Station and Awan Besar LRT Station; and 3. Improve parking lot at Awan Besar LRT Station with multi-storey parking to encourage the use of LRT in this area.

Table 6.2.2:

Development planning in the urban growth centre hierarchy in Kuala Lumpur (continued)

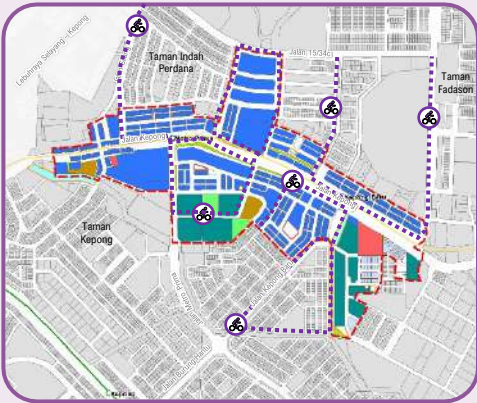
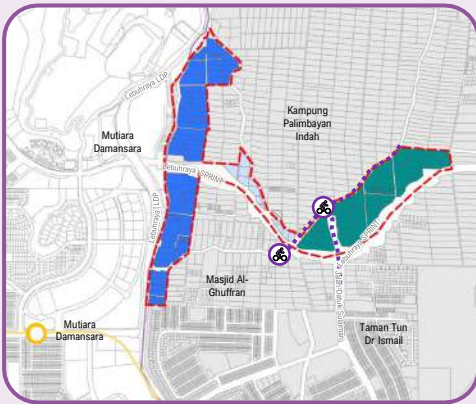

Location	Specific Initiatives
3. DISTRICT GROWTH CENTRE	
7. KEPONG 	<ol style="list-style-type: none"> 1. Provide pedestrian walkways and micromobility vehicle routes to Kepong Baru MRT Station and Metro Prima MRT Station for new developments; 2. Enhance existing walkways with shade-providing plants to improve pedestrian comfort at Jalan Kepong and its surroundings; 3. Propose an interconnected pedestrian walkways and micromobility vehicle routes with canopy tree coverage similar to those implemented in Sentul East, to make the area easily accessible for pedestrians; and 4. Propose an Urban Block design concept on redevelopment and new development sites in ensuring the design in Kepong growth centre area is more organised.
8. PENCHALA 	<ol style="list-style-type: none"> 1. Encourage commercial development that is suitable to the activities, character and intensity in Mutiara Damansara; 2. Propose lot amalgamation approach by emphasising on suitable infrastructure development and community facilities in line with proposed development concept; 3. Ensure activities in Penchala growth centre are supporting medium and high intensity for the entire Rezab Melayu Penchala and Rezab Melayu Segambut; 4. Ensure new development considers the existing topographical conditions and physical environment; 5. Emphasise the importance of preserving Sungai Penchala skyline from the elevation level of highways which needs to be controlled in terms of height; and 6. Emphasise the use of feeder buses that connect the growth centre area to the MRT Laluan Lingkar (MRT 3) and Mutiara Damansara MRT Station.
9. TAMAN MELATI AND KL EAST 	<ol style="list-style-type: none"> 1. Provide safe and comfortable pedestrian walkways and micromobility vehicle routes that connect major developments areas such as KL East, Platinum Hill and surrounding commercial centres with Gombak Integrated Terminal and Taman Melati LRT Station; 2. Emphasis the use of feeder buses that connect Taman Melati area to Taman Melati LRT Station; 3. Introduce Jalan Melati 4 and its surroundings, a pedestrian-friendly road with suitable width and shaded trees for pedestrian walkways and micromobility vehicle routes; and 4. Encourage local community service activities and facilities.

Table 6.2.2:

Development planning in the urban growth centre hierarchy in Kuala Lumpur (continued)

Location	Specific Initiatives
3. DISTRICT GROWTH CENTRE	
<p>10. WANGSA MAJU</p> 	<ol style="list-style-type: none"> 1. Increase livability of the area through the provision of quality housing especially for areas located within 400 metres from the LRT station; 2. Encourage commercial development adapting to the, character and intensity in supporting Wangsa Maju as Carbon Neutral Growth Centre; 3. Identify good parking management approach in Wangsa Maju area; 4. Provide a safe and comfortable pedestrian and micromobility vehicle routes that connects Wangsa Maju area with Sri Rampai LRT station; and 5. Enhance function of open space around Wangsa Maju.
<p>11. TAMAN SEGAR</p> 	<ol style="list-style-type: none"> 1. Coordinate development intensity for Taman Segar with infrastructure facilities such as parking and active mobility to public transport stations; and 2. Provide a comfortable and safe surrounding pedestrian and micromobility vehicle routes from Taman Segar commercial area to Taman Mutiara MRT station; 3. Emphasis the control of commercial terraces character in Taman Segar area in line with road infrastructure and limited parking spaces; 4. Identify good parking management approach in Taman Segar; 5. Enhance function of open space around Taman Segar; and 6. Improve accessibility to local community facilities.
4. LOCAL GROWTH CENTRE	
<p>1. JINJANG SELATAN</p> 	<ol style="list-style-type: none"> 1. Provide a safe and comfortable pedestrian and micromobility vehicle routes with canopy tree coverage that connects Jinjang Selatan area to Jinjang MRT Station and Segambut KTM Station in creating this area easily accessible by pedestrians; 2. Identify suitable activities to improve the role of Jinjang Selatan commercial area as a local growth centre; 3. Emphasis on the use of feeder buses that connects Jinjang Selatan area to Jinjang MRT Station and KTM Segambut Station; and 4. Ensure adequate provision of open space in accordance with planning requirements.

Table 6.2.2:

Development planning in the urban growth centre hierarchy in Kuala Lumpur (continued)

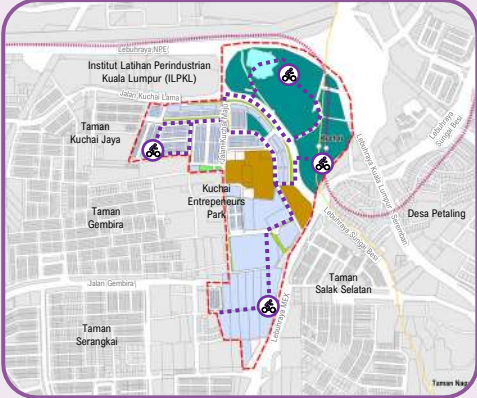


Location	Specific Initiatives
4. LOCAL GROWTH CENTRE	
2. KUCHAI LAMA 	<ol style="list-style-type: none"> 1. Provide pedestrian walkways and micromobility vehicle routes facilities with canopy tree coverage from Kuchai Entrepreneurs Park to public transport station in new development areas in ensuring this area is easily accessible for the pedestrian; 2. Emphasis on the use of feeder buses that connects Kuchai Lama area to proposed Kuchai MRT Station; 3. Identify suitable activities to improve the role of Kuchai Lama area as a local growth centre; 4. Emphasis control of commercial terraces character in Kuchai Lama area in line with road infrastructure and limited parking spaces; and 5. Ensure adequate provision of open space in accordance with planning requirements.
3. TAMAN CONNAUGHT 	<ol style="list-style-type: none"> 1. Provide pedestrian walkways and micromobility vehicle routes facilities with canopy tree coverage from Taman Connaught to Taman Connaught MRT Station; 2. Emphasis on the use of feeder buses that connects Taman Connaught area to Taman Connaught MRT Station; and 3. Regenerate Taman Connaught commercial area with suitable activities to enhance the function as a local growth centre.
4. TAMAN TUN DR ISMAIL 	<ol style="list-style-type: none"> 1. Enhance urban design through improvement of landscaping and street furniture in Taman Tun Dr. Ismail commercial area; 2. Maintain and strengthen image and function of Pasar TTDI as a commercial area by improving urban design of surrounding area; 3. Improve pedestrian walkways and micromobility vehicle routes with canopy tree coverage from the growth centre, surrounding residential area and TTDI Rimba Kiara Recreation Park to TTDI MRT Station in ensuring this area is easily accessible for pedestrians; 4. Emphasis control of commercial terraces character in Taman Tun Dr. Ismail area in line with road infrastructure and limited parking spaces; and 5. Identify suitable activities to improve the function of Taman Tun Dr. Ismail as a local growth centre.

Table 6.2.2:

Development planning in the urban growth centre hierarchy in Kuala Lumpur (continued)




Location	Specific Initiatives
4. LOCAL GROWTH CENTRE	
<p>5. DANAU KOTA</p> 	<ol style="list-style-type: none"> 1. Improve pedestrian walkways and micromobility vehicle routes from Danau Kota growth centre to Wangsa Maju LRT Station and the proposed MRT station through Jalan Genting – Klang, Jalan Kilang and Jalan 3/27A with canopy tree coverage to ensure this area is easily accessible for the pedestrians; 2. Emphasis on the use of feeder buses that connects Danau Kota area to the proposed MRT station and LRT Wangsa Maju; 3. Enhance commercial activities around Danau Kota growth centre by encouraging commercial activities oriented towards the lake view; and 4. Provide green landscape elements along the main road to enhance the image and identity of local growth centre.
<p>6. JINJANG</p> 	<ol style="list-style-type: none"> 1. Maintain and strengthen the image and function of Jinjang Utara and Pasar Jinjang Selatan as commercial areas through the design of shophouses; 2. Improve pedestrian walkways and micromobility vehicle routes with canopy tree coverage from Jinjang local centre to Jinjang MRT Station, Sri Delima MRT Station, and the proposed MRT station to ensure these areas are easily accessible for pedestrians; 3. Increase green landscape elements along the main road to improve the image and identity of Jinjang local centre; and 4. Identifying the best methods of parking management in Jinjang.
<p>7. KLANG LAMA</p> 	<ol style="list-style-type: none"> 1. Improve connectivity of surrounding neighborhoods within 400 metres up to 800 metres radius to the Klang Lama Local Growth Centre; 2. Improve comfortable pedestrian walkways and micromobility vehicle routes with tree canopies around the local centre, surrounding neighborhoods and community facilities; 3. Beautify the Sungai Klang as a significant green corridor element in the planning and design of the area especially in terms of accessibility and river frontage; and 4. Plan and reorganise the layout of commercial and terrace commercial along the street (on-street) with the provision of parking facilities.

Table 6.2.2:

Development planning in the urban growth centre hierarchy in Kuala Lumpur (continued)




Location	Specific Initiatives
4. LOCAL GROWTH CENTRE	
8. PEKAN SUNGAI BESI 	<ol style="list-style-type: none"> 1. Maintain the image and function of Pekan Sungai Besi as a commercial area through the strengthening of urban design and emphasising the control of commercial terraces character; 2. Improve the comfort of pedestrian walkways and micromobility vehicle routes around the commercial centre towards Sungai Besi MRT Station with green tree canopies; 3. Propose connectivity improvements from Permai Apartment area to Sungai Besi MRT Station and further to Pekan Sungai Besi; 4. Upgrade the existing open space in Lakefields commercial centre with green landscape elements, urban furniture, and lighting to increase the level of its usage; and 5. Strengthen the road infrastructure and reorganise the layout of parking spaces along the road (on-street parking) in Pekan Sungai Besi growth centre.
9. SELAYANG 	<ol style="list-style-type: none"> 1. Improve connectivity of Pasar Borong Selayang with Pasar Selayang through improvement of feeder buses around the local growth centre area; 2. Improve the quality of pedestrian walkways and micromobility vehicle routes that connect the Pasar Borong Selayang area to Taman Sri Selayang bus station especially in terms of safety, to make this area is easily accessible for pedestrians and public transport users; 3. Reorganise the layout of on-street parking in the Pasar Borong Selayang area to avoid traffic congestion, especially during peak hours; and 4. Strengthen the image and function of Pasar Selayang as a commercial area through the improvement of shop buildings as well as the restructuring of shop lots according to sectors such as banking, retail, telecommunications, and others.
10. SETIAWANGSA 	<ol style="list-style-type: none"> 1. Maintain the image of existing tree canopies and increase green landscape elements along Jalan Taman Setiawangsa to enhance the image and identity of the local growth centre; 2. Improve pedestrian walkways and micromobility vehicle routes with canopy tree coverage around Setiawangsa Growth Centre to Setiawangsa LRT Station; 3. Upgrade existing pedestrian walkways routes to covered pedestrian routes from Apartment Mahsuri to Jalan Setiawangsa 1; 4. Propose an extension of covered pedestrian walkways routes from the intersection of Jalan Setiawangsa 13 and Jalan Setiawangsa 1 to the Jalan Taman Setiawangsa intersection; 5. Enhance the open space area around the Setiawangsa Growth Centre; and 6. Identify a good parking management approach, especially in the Setiawangsa commercial area.

Table 6.2.2:
Development planning in the urban growth centre hierarchy in Kuala Lumpur (continued)



Location	Specific Initiatives	
4. LOCAL GROWTH CENTRE		
11. SRI PETALING	<div></div>	<div><ol style="list-style-type: none">1. Encourage the use of feeder buses that connect the Sri Petaling commercial area with Sri Petaling LRT Station and Bukit Jalil LRT Station;2. Provide a central open space within the commercial area of the local growth centre;3. Enhance green space through suitable methods such as encouraging vertical green or on roof top planting in Sri Petaling Growth Centre;4. Improve pedestrian walkways and micromobility vehicle routes that connects commercial areas to public facilities and neighborhood areas; and5. Create a multi-level parking centre with community facilities and landscape elements, as well as canopy cover around the parking centre.</div>
12. TAMAN MASTIARA	<div></div>	<div><ol style="list-style-type: none">1. Enhance commercial activities surrounding Taman Mastiara through the promotion of suitable commercial activities to improve the function of Taman Mastiara as a local growth centre;2. Improve connectivity, especially for residential activities and residing facilities, to Taman Wahyu KTM Station, Kampung Batu KTM Station and Kampung Batu MRT Station through the improvement of covered pedestrian walkways and micromobility vehicle routes integrated with green landscape elements; and3. Emphasis the use of feeder buses that connects Taman Mastiara Growth Centre to Taman Wahyu KTM Station, Kampung Batu KTM Station, and Kampung Batu MRT Station.</div>
13. TAMAN MIDAH	<div></div>	

Table 6.2.2:
Development planning in the urban growth centre hierarchy in Kuala Lumpur (continued)





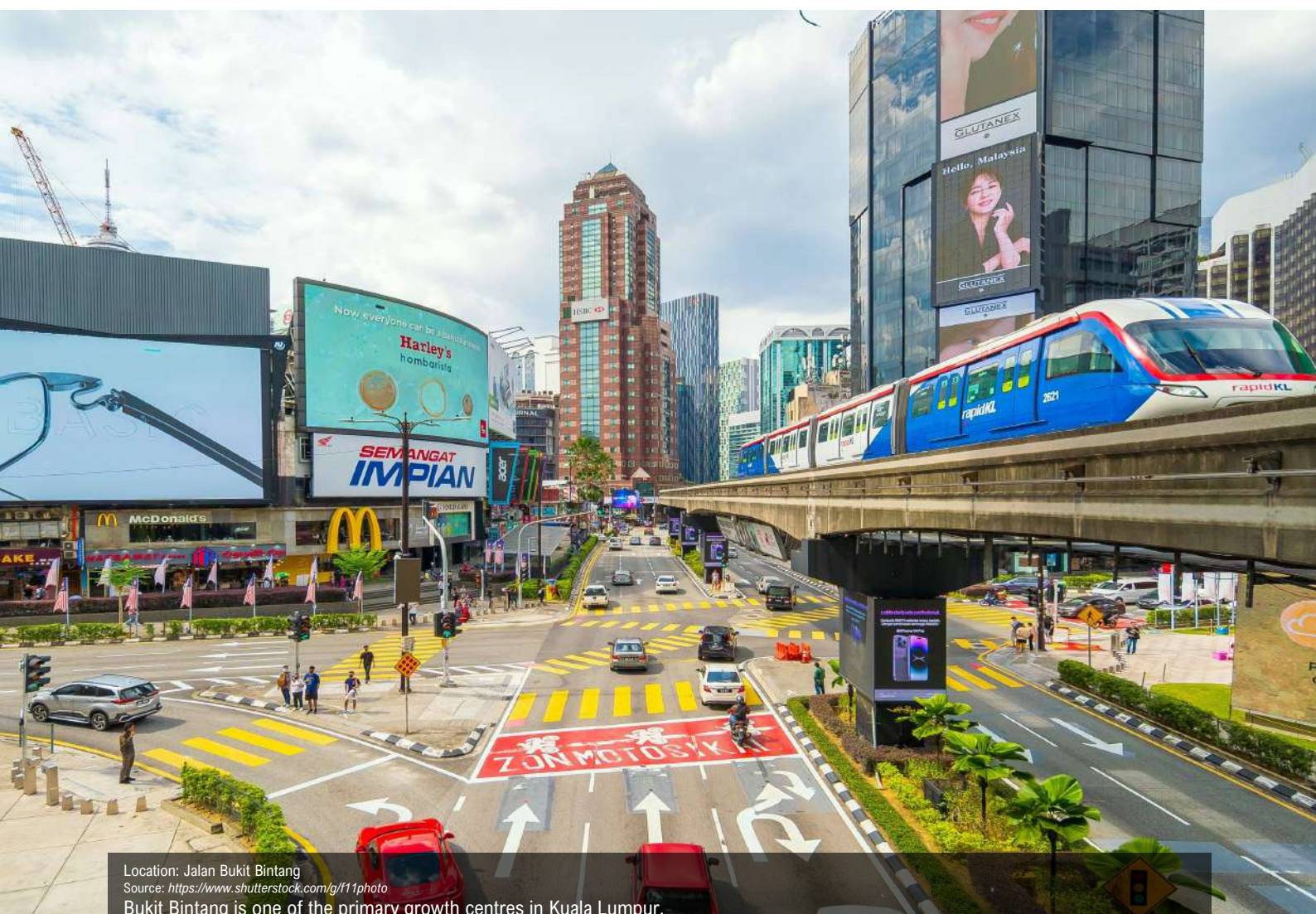
Location	Specific Initiatives
4. LOCAL GROWTH CENTRE	
14. TAMAN SRI SINAR 	<ol style="list-style-type: none"> 1. Connect Taman Sri Sinar growth centre with the United Point Shopping Centre through the provision of safe and comfortable pedestrian walkways and micromobility vehicle routes; 2. Improve the connectivity of the Taman Sri Sinar Local Growth Centre to the Segambut KTM Station through the provision of feeder busses and proposed Taman Sri Sinar MRT Station through the improvement of pedestrian walkways and micromobility vehicle routes; and 3. Proposed a green network along Jalan 8/38D and 9/38D up to Taman Sri Sinar for the use of pedestrian walkways and micromobility vehicle routes in suitable width to enhance the image and identity of the area.
15. ALAM DAMAI 	<ol style="list-style-type: none"> 1. Improve the accessibility of Alam Damai Local Growth Centre to Surau As-Sobirin, Masjid Al-Mukhlisin, and surrounding residential areas through the provision of pedestrian walkways and micromobility vehicle routes with good shaded trees; 2. Improve connectivity from the Alam Damai commercial area to Alam Damai Recreation Park through a park connector; 3. Improve green space in the Alam Damai Growth Local Centre through a suitable approach such as integrating the parking area with green landscape elements, and ensure adequate provision of open space in accordance with planning requirements; and 4. Ensure the provision of adequate parking to cater to development pressure from inside and outside the growth centre.
16. GOMBAK 	<ol style="list-style-type: none"> 1. Improve connectivity within Gombak Local Growth Centre through the improvement of Jalan Gombak by providing safe and comfortable covered pedestrian walkways and micromobility vehicle routes; 2. Emphasise the development of new commercials with a design concept that encourages street-level activities (active street frontage); 3. Regenerate the Gombak commercial area with suitable activities to improve the function of the Gombak Local Growth Centre; 4. Increase canopy trees along Jalan Gombak to improve the image and identity of the local growth centre; and 5. Create and increase open space in the Gombak Growth Centre through a suitable approach, such as integrating parking areas with green landscape elements.

Table 6.2.2:
Development planning in the urban growth centre hierarchy in Kuala Lumpur (continued)

Location	Specific Initiatives
4. LOCAL GROWTH CENTRE	
17. DESA PETALING 	<ol style="list-style-type: none"> 1. Improve the connectivity of the surrounding neighbourhood to the Desa Petaling local growth centre, especially Jalan 2/125 through the provision of safe and comfortable pedestrian walkways and micromobility vehicle routes with shaded landscapes; 2. Emphasise the use of feeder buses that connect the Desa Petaling commercial area with Taman Naga Emas MRT Station and Bandar Tasik Selatan Integrated Terminal; 3. Create a centralised open space in the proposed new development to improve the image of the Desa Petaling growth centre; and 4. Identify a good parking management approach in the Desa Petaling area.



Location: Jalan Bukit Bintang
Source: <https://www.shutterstock.com/g/f11photo>
Bukit Bintang is one of the primary growth centres in Kuala Lumpur.

SCENARIO OF INFILL DEVELOPMENT IN KUALA LUMPUR

Rapid development is often linked to the availability of land to accommodate future development. The concept of infill development is the best alternative in increasing an optimal and efficient use of land in Kuala Lumpur.

It also can minimise the pressure of new development area or scarcity of open space issues. The development of infrastructure such as upgraded transit and road systems makes an area potentially suitable for infill development in line with the rapid development growth in Kuala Lumpur.

Infill development can activate the area and increase more effective use of urban space. It ensures efficient land resources for smart city development, promotes social interaction, improves quality of life and physical environment. Infill development is also seen to be able to allocate new facilities according to the needs of the local community.

KLSP2040 has identified two (2) types of significant infill development for Kuala Lumpur, as follows:

1. Infill for residential parcels in established housing area; and
2. Infill in commercial or industrial areas.

The site criteria for infill development are as follows:

1. A vacant lot or a lot with existing use that is uneconomical;
2. Ensure it is located within existing built-up areas, city centre areas, growth centre and regeneration areas; and
3. Have existing infrastructure, utilities and community facilities that are well-established.

Towards realising Kuala Lumpur as a city with more productive and effective space utilisation, one (1) Implementation Proposal is formulated under Planning Strategy 6-3, as shown in Figure 6.3.1.

BRIEF INFO

BENEFIT OF INFILL DEVELOPMENT

1. Increase use of land in built-up areas to be more optimal and efficient;
2. Reduce pressure of new development area and the scarcity of open space issues;
3. Generate activities and uses that reactivate the area;
4. Effective use of urban space, encouraging social interaction and providing prospects for new facilities according to the needs of the local community;
5. Increase population and availability of affordable housing in the city; and
6. Diversify use of land in urban areas.

Figure 6.3.1:
Implementation Proposal for Planning Strategy 6-3

SP 6-3

ENCOURAGING INFILL DEVELOPMENT

CP 6-3.1

Infill Development According to Development Components

Infill development refers to the development of empty land or sites with less optimal land use involving various scales of development in existing built-up area. It aims to improve the image and value of a particular land and its surrounding.

The implementation needs to consider specific development control principles to ensure the harmony of new development with the image, identity, function and current condition of surrounding area by referring to the Second National Urbanisation Policy 2 (NUP2) and KLSP2040.

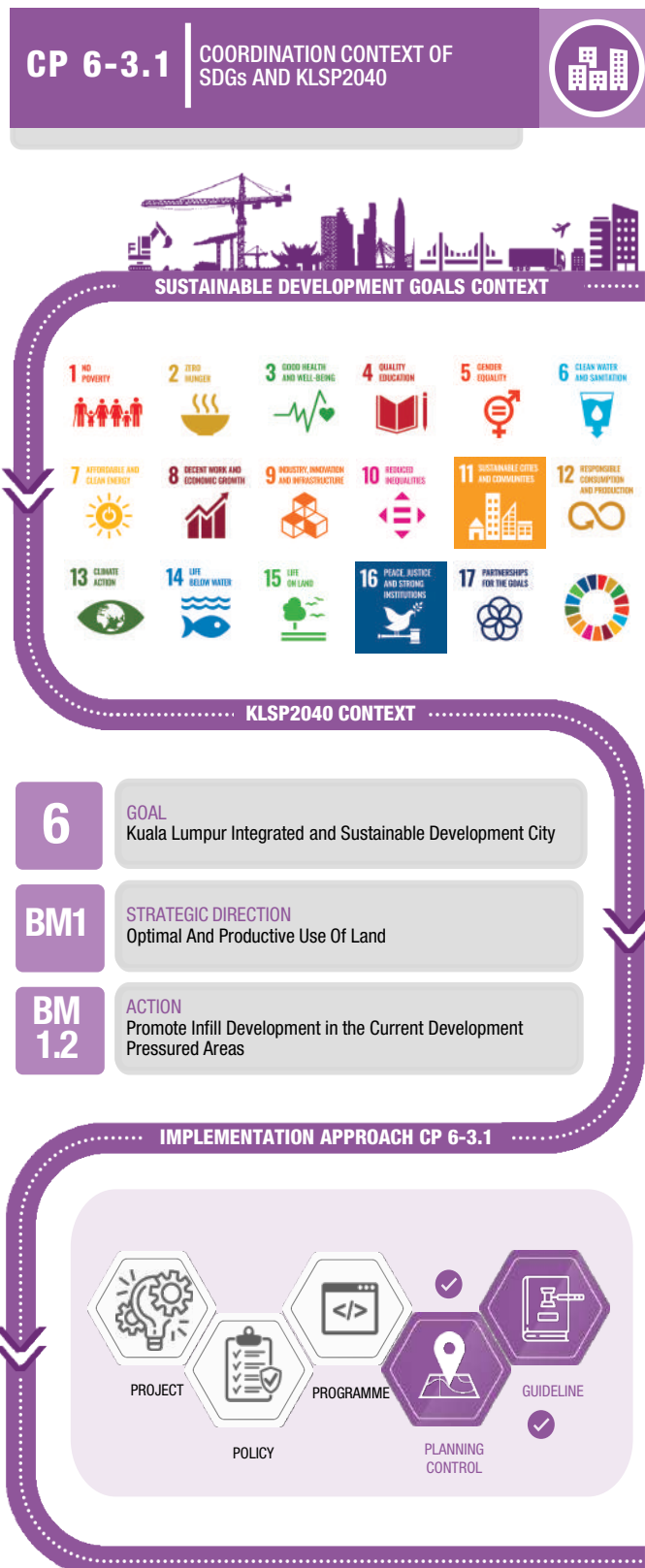
The purpose of infill development control is to ensure that it follows the basic principles of planning as follows:

1. Promote development that is harmonious with the scale and function of development surrounding;
2. Have good connectivity with existing infrastructure such as transport systems, roads, pedestrian walkways routes and open spaces;
3. Promote development of Compact City, Smart Growth and Green Building;
4. Ensure quality urban design; and
5. Ensure the infrastructure or utility site especially retention ponds or catchment ponds that has been given possession for development still maintains the existing function of the particular infrastructure or utility and upgraded subject to requirements.

The KLLP2040 has identified sites or undeveloped land (vacant land) located in the city centre, primary commercial zone, regeneration area, and boundaries of urban growth centres with the potential to be developed for infill development, as shown in Figure 6.3.1.

The proposal for the implementation of CP 6-3.1 is carried out through two (2) initiatives as follows:

1. Promote Infill Development in City Centre and Commercial Centres; and
2. Control Infill Development in Existing Built-up Areas.



IMPLEMENTATION INITIATIVE 6-3.1A**PROMOTE INFILL DEVELOPMENT IN CITY CENTRE AND COMMERCIAL CENTRES**

Infill development in city centre and commercial centre focuses on areas, sites or undeveloped land (vacant land) located within the City Centre, Primary Commercial zones, regeneration area and sites within the boundaries of urban growth centres.

The selection of an infill area or site is based on the following characteristics:

1. Vacant land;
2. Undeveloped land between buildings;
3. Abandoned land with uneconomic development;
4. Old warehouse buildings in industrial areas or zoned as commercial areas;
5. Separate hypermarket site;
6. Open vehicle parking spaces;
7. Vacant shop site or old shop house;
8. Abandoned, unproductive and non-operating industrial site or buildings;
9. Petrol site; and
10. Utility sites that are no longer in active use.



Location: ST Rosyam Mart Hypermarket
ST Rosyam Mart building as a separate hypermarket site that could potentially be used for infill development.

IMPLEMENTATION INITIATIVE 6-3.1B**CONTROL INFILL DEVELOPMENT IN EXISTING BUILT-UP AREAS**

Infill development can promote township development in existing urban areas especially in Greater Kuala Lumpur area.

Infill development control needs to be implemented especially for built-up areas, brownfield areas and greenfield areas.

The necessary actions to the initiative of are as follows:

1. Identify main areas of infill development;
2. Create one (1) master plan for infill development planning;
3. Determine mixed development of land use, height and intensity of sustainable infill development;
4. Diversify land use class activities and ensure not to cause disturbance, such as a mix of residential, commercial, cultural, recreational, institutional, and modern industrial activities;
5. Provision of infill development design and guidelines;
6. Empower provision of quality public spaces in the city centre and commercial centres with suitable infill development such as provision of plazas, recreational parks and cultural spaces;
7. Upgrade existing infrastructure and utilities to support infill development requirement;
8. Increase transportation facilities including pedestrian walkways and micromobility vehicle routes;
9. Ensure the harmony of building scale and function of the surrounding area is preserved in a harmonious manner;
10. Promote infill development through planning advisory services; and
11. Involve the existing communities in the infill development process.

STRENGTHENING REDEVELOPMENT PLANNING THROUGH SUSTAINABLE CITY CONCEPT

SCENARIO OF URBAN REDEVELOPMENT IN KUALA LUMPUR

Kuala Lumpur still has old and dilapidated areas that are not suitable for residing and are no longer conducive, especially the low-cost houses that were built as early as the 1970s. These cause a deterioration in the character and fabric of the city that also affects the image and identity of Kuala Lumpur.

The deterioration that occurred affected the quality of buildings and the environment, as well as the capacity of infrastructure and community facilities that were unable to comply with the needs of the current population. This scenario gives the impression that there are areas in Kuala Lumpur, especially the existing public housing areas, that have the potential to be redeveloped. Redevelopment that have been completed and under construction include Kuala Lumpur Convention Centre (KLCC), KL Sentral, Bangsar South, Mid Valley, Merdeka 118, Razak Mansion Public Housing and Government Quarters in Jalan Cochrane. This redevelopment trend is one of approach that contributes to optimise the use of limited land in Kuala Lumpur.

The expansion of the rail network also encourages the redevelopment of residential, commercial, and industrial sites located near transit stations with provision of better facilities that meet the needs of population. This development will encourage redevelopment around transit stations and in areas outside the City Centre in line with the construction of the Putrajaya MRT Line and the proposed MRT Circle Line.

This redevelopment is to ensure that continuity of development even with a limited land area. It also can support Kuala Lumpur's aspirations towards sustainable and integrated development.

Toward realising Kuala Lumpur as a city with more productive and effective space utilisation, one (1) Implementation Proposal is formulated under Planning Strategy 6-4, as shown in Figure 6.4.1.

BRIEF INFO

INTERPRETATION OF REDEVELOPMENT

Renewal on an existing site or area that involves changing the whole or a substantial part of the area from the layout, structure, function or activity of the building or area.

REDEVELOPMENT ADVANTAGE

- 1 Improve quality of environment that provides investment opportunities as well as more integrated land management for future.
- 2 Well planned development through the provision of community facilities, public space, open space and more efficient infrastructure.
- 3 Increase value of land through the formation of a more economical diversity of activities.
- 4 Improve quality of life and economy of population in Kuala Lumpur.
- 5 Provide necessary housing and offer a variety of mixed activities to support the needs of population in the future.

Source: Adapted from Panduan Pelaksanaan Pembaharuan Semula Bandar

Figure 6.4.1:
Implementation Proposal for Planning Strategy 6-4

STRENGTHENING REDEVELOPMENT PLANNING THROUGH SUSTAINABLE CITY CONCEPT

CP 6-4.1

Redevelopment of Old, Dilapidated and Abandoned Areas or Buildings

CP 6-4.1:**REDEVELOPMENT OF OLD, DILAPIDATED AND ABANDONED AREAS OR BUILDINGS**

KLLP2040 has identified a total of 139 main and potential sites for redevelopment. The Redevelopment Incentive is also eligible for consideration if there are other sites that meet the redevelopment criteria.

KLLP2040 also identifies eight (8) Specific Redevelopment Incentive sites that have been zoned as Land Use of Residential 2 (R2) and Land Use of Residential 3 (R3) which usually has an area of less than 10,000 square feet. This sites need to comply with certain criteria to qualify for the use of designated land use zone.

The principles of redevelopment in Kuala Lumpur are as follows :

1. Prioritise the redevelopment of public housing sites and areas that are obsolete, old, or abandoned in TPZ and TIZ;
2. Obtain planning incentives in the form of additional plot ratio intensity to the base plot ratio in KLLP2040 to encourage redevelopment initiatives from private sectors.
3. Ensure redevelopment to comply with criteria to improve the quality of environment, quality of life, low-carbon cities and smart cities.

Redevelopment will be able to accommodate the limited land needs in Kuala Lumpur in line with the increase in population by 2040. The implementation of redevelopment that covers old, dilapidated, and abandoned areas or building can also be seen to be able to improve the quality and image of Kuala Lumpur as a Low Carbon, Resilient and Inclusive City.

The proposal for the implementation of CP 6-4.1 is carried out through four (4) initiatives as follows:

1. Improve Selection Criteria Of Redevelopment Sites;
2. Implement Redevelopment On Identified Sites;
3. Implement Provision Of Planning Incentives; and
4. Implement Sustainable Urban Criteria In Redevelopment Planning.

CP 6- 4.1**COORDINATION CONTEXT OF SDGs AND KLSP2040****SUSTAINABLE DEVELOPMENT GOALS CONTEXT****KLSP2040 CONTEXT****6****GOAL**

Kuala Lumpur Integrated and Sustainable Development City

BM2**STRATEGIC DIRECTION**

Renewal Of Old Areas

BM 2.2**ACTION**

Create Development Opportunities in Urban Redevelopment Areas

IMPLEMENTATION APPROACH CP 6-4.1

IMPLEMENTATION INITIATIVE 6-4.1A

► IMPROVE SELECTION CRITERIA OF REDEVELOPMENT SITES

The criteria for the selection of the development site is in line with the Panduan Pelaksanaan Pembaharuan Semula Kuala Lumpur. The criteria for selecting redevelopment sites have been updated and improved in the context of implementing KLLP2040 to accommodate the limited land availability in Kuala Lumpur by the year 2040.

The necessary actions to support this initiative need to consider the following key aspects as follows:

1. Identify residential, commercial and industrial, institutional, community facilities, infrastructure and utilities, as well as transportation areas that are dilapidated and no longer viable excluding Land Use Zone of Residential 1 (R1), Established Residential (EH) and Traditional Village 1 (TV1);
2. Identify residential, commercial and industrial buildings that have been abandoned for more than ten (10) years;
3. Identify abandoned development projects that have been confirmed by the responsible agency or committee;
4. Identify buildings that are certified unsafe for occupancy by the responsible agency;
5. Identify residences that are not suitable for living physically and socially;
6. Identify complex buildings or business centres that are not viable;
7. Identify areas of former solid waste disposal sites and sewage treatment plant sites that are no longer in use and have fulfilled the site's rehabilitation period;
8. Identify buildings and telecommunications tower sites that are no longer in use;
9. Identify dilapidated or abandoned institutional areas;
10. Identify area of the former depot or public transportation station; and
11. Identify squatter areas.

IMPLEMENTATION INITIATIVE 6-4.1B

► IMPLEMENT REDEVELOPMENT ON IDENTIFIED SITES

The KLLP2040 has identified are 139 sites in Kuala Lumpur as redevelopment areas as shown in Figure 6.4.2. These identified sites involve residential, commercial, institution, infrastructure and utility land use areas as well as other land uses. There are 60 redevelopment sites in residential land use zone and 60 redevelopment sites in TPZ and TIZ area.

Residential area redevelopment generally focuses on public housing areas and multi-storey housing that are dilapidated infrastructure or utility sites that have been given possession for the development are still required to maintain the existing function of the particular infrastructure or utility.

Most redevelopment site involving public housing area are to be classified as Land Use Zone of Mixed Development (MX) to accommodate both commercial and affordable housing development. This approach incorporate the concept of cross-subsidisation to ensure the financial viability of project.

IMPLEMENTATION INITIATIVE 6-4.1C**▶ IMPLEMENT PROVISION OF PLANNING INCENTIVES**

The KLLP2040 consider provision of planning incentives through the provision of additional plot ratios to base plot ratio. The provision of these incentives is to encourage the private sector to initiated the implementation of redevelopment.

The KLLP2040 proposes to provide detailed incentives especially redevelopment for mixed development as follows:

1. Development of the whole area with permanent built structures and stratified ownership;
2. Replanning of old, dilapidated or abandoned areas, building or facilities
3. Regeneration planning of an area or building.

The provision of this incentive is subject to the following financial and development commitments as follows:

1. Provide transit houses or financial allocations for temporary accommodation during the construction period of development;
2. Demolition of the overall original building structure;
3. Ensure construction of new buildings and utilities are in line with planning requirements for the development of new infrastructure;
4. Replanning and upgrade infrastructure and utilities for identified site areas;
5. Allow for the replanning of an area when the value of the land has exceeded the value of the existing permanent structure;
6. Replanning dilapidated or non-viable areas in line with current needs; and
7. Ensure physical structure of building is constantly upgraded and updated.

This incentive policy can also change according to current government's policy changes. Details of the redevelopment categories and criteria are explained in Volume 1: Part 1, Development Control, KLLP2040.

IMPLEMENTATION INITIATIVE 6-4.1D**▶ IMPLEMENT SUSTAINABLE URBAN CRITERIA IN REDEVELOPMENT PLANNING**

Implementation of redevelopment area must comply with the criteria that have been set in order to inject new synergies through the realignment of existing development areas and future needs.

The necessary actions to support this initiative are as follows:

1. Mixed development that complements each other, such as residential, offices or businesses;
2. Development that emphasises the public interest in land owned by the government and its agencies;
3. Development principles for inclusive, equitable and carry out engagement with relevant stakeholders;
4. Provision of mixed income housing which is at least 30 percent of the total development by giving priority to the current residents of the site;
5. Provision of affordable retail and office space to encourage entrepreneurial activities;
6. Establish and provide more flexible vehicle parking-spaces for redevelopment within TPZ and TIZ;
7. Provision of integrated, quality and inclusive green space, open space and community facilities;
8. Provision of building design and use of technology that reduces the impact on social, environmental and urban management aspects;
9. Evaluation of social and physical impact assessment to consider the needs of redevelopment sites such as Social Impact Assessment, Environmental Impact Assessment and Traffic Impact Assessment; and
10. Development that aligns with elements or principle of Low Carbon City, Safe City, Smart City and Resilient City.

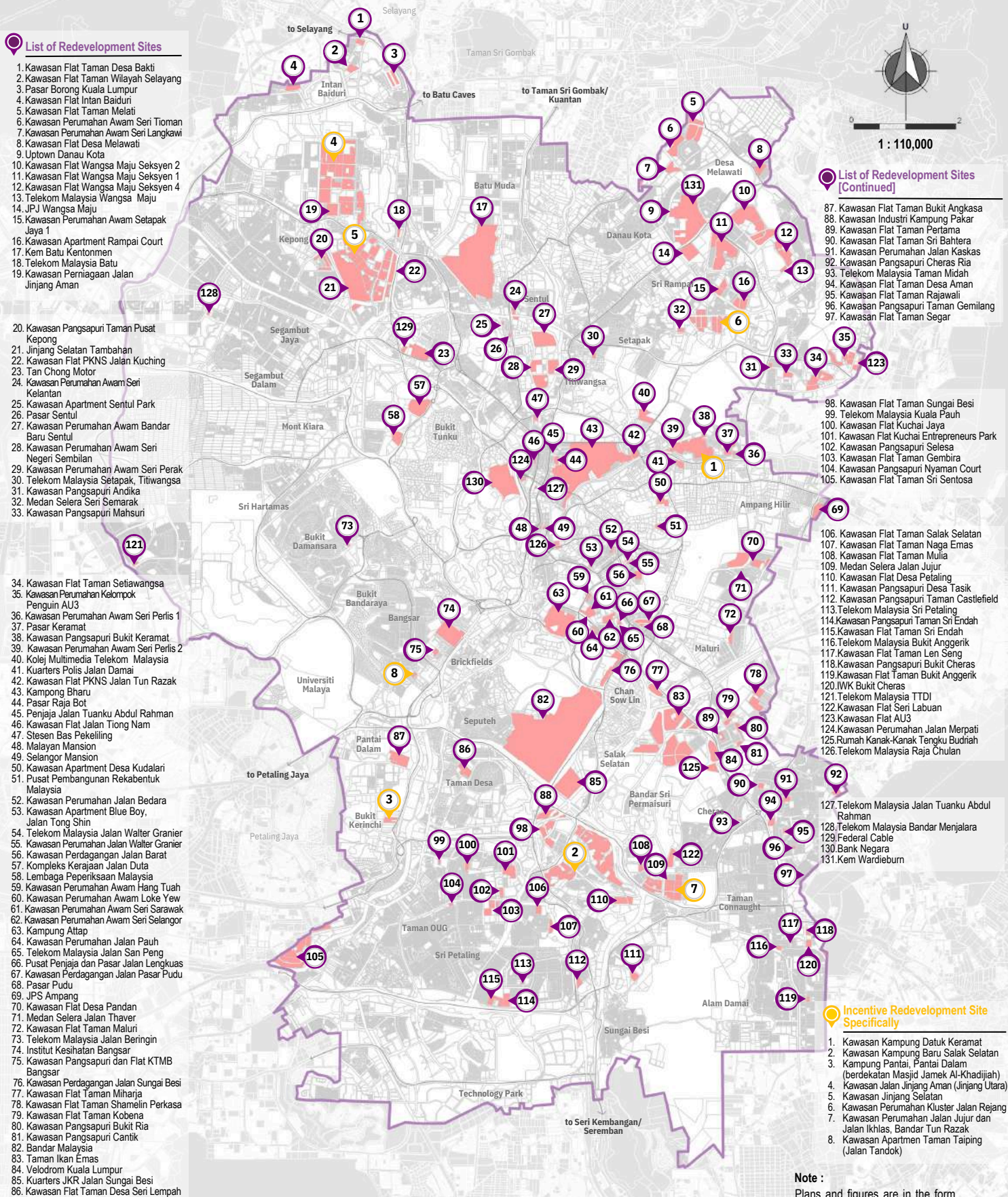


FIGURE 6.4.2 | Plan of Redevelopment Sites Distribution Draft KLLP2040

Legend:

● Redevelopment Site

Others

— Main Road
— Kuala Lumpur Boundary

REVITALISING URBAN FUNCTIONS THROUGH THE PRESERVATION AND CONSERVATION OF OLD BUILDINGS

SCENARIO OF REVITALISING URBAN FUNCTIONS IN KUALA LUMPUR

Revitalisation of urban functions in Kuala Lumpur focuses on buildings with historical significance and architectural value in the Primary Heritage Zone, Secondary Heritage Zone and Special Character Zone.

The encouragement to reactivate old buildings does not only involve conservation, renovation, and restoration work on heritage buildings. The improvement of buildings, environment and new activities are necessary in the effort to improve the image and quality of the city to attract visitors. The KLLP2040 focuses on the conservation of old towns and buildings involving four (4) criteria, as follows:

1. Areas that have heritage significance and cultural value;
2. Important and valuable government buildings;
3. Historic old shophouse; and
4. Historic public sites.

BRIEF INFO

NUMBER OF HERITAGE BUILDINGS, KUALA LUMPUR



Heritage buildings gazetted under the National
Heritage Act 2005

National Heritage: 33
Heritage: 44



Heritage buildings in the process of being
gazetted by DNH

5

Source: Adapted from Department of National Heritage, 2024

Various old buildings of different eras and architectural styles have shaped the image of early business areas in Kuala Lumpur. Rows of old shophouses with the neo-classical, renaissance, art deco, colonial and modern eclectic architectural styles remain in the Kuala Lumpur Heritage Zone to this day.

The KLLP2040 has identified as many as 840 units of old shophouses in the Kuala Lumpur Heritage Zone that have architectural significance to be preserved and restored. Meanwhile, some have been given a new lease of life with façade beautification work and the color of the building.

There are also old buildings that have been renovated without following the guidelines on the conservation of heritage buildings that have been enforced. The rapid development of city has led to conflicts with existing planning policies and conservation of heritage buildings. In addition, the cost and conservation process are also a challenge for Kuala Lumpur to carry out conservation work.

The Legal aspects also bring constraints to KLCH and government agencies especially in terms of management, finance and maintenance of government-owned or privately owned heritage buildings that are empty and unused.

The existence of old buildings and shophouses in the heritage zone can contribute to the local socioeconomic. Old empty and derelict buildings and shophouses have the potential to be repurposed to reinvigorate the function of the city.

The principle of conservation needs to be emphasised when renovation work to preserved the originality of the design and materials used.

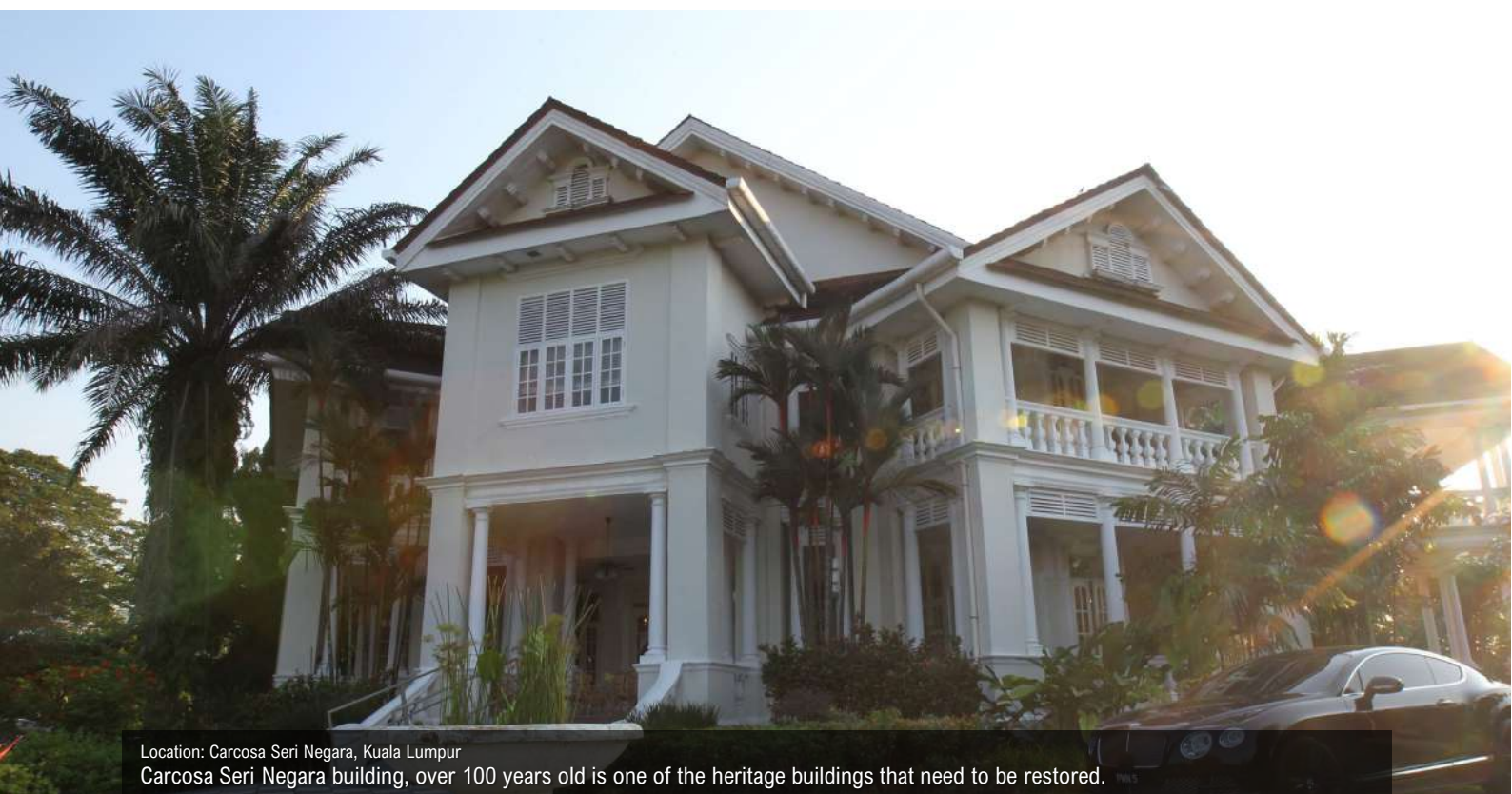
Encouraging the revitalization of the city and old historical buildings through the principles of conservation that are important as follows:

1. Protect heritage buildings and old buildings from damage and neglect;
2. Restore, adapt and reuse of historic buildings for heritage tourism purposes;
3. Retain social memory through the incorporation of the spirit of a place (genius loci) by preserving old buildings;
4. Attract more tourists to visit heritage areas in Kuala Lumpur;
5. Promote sustainable environment as well as the use of pedestrian walkway routes to reduce carbon emissions through good traffic management; and
6. Increase revenue for the government and related agencies as well as local populations through involvement in the heritage tourism industry.

Empowerment of existing heritage assets will benefit Kuala Lumpur by emphasising on the quality and upgrading of old, building areas. This empowerment focuses on public areas with urban heritage importance that could benefit everyone.

Towards realising Kuala Lumpur as a city with more productive and effective space utilisation, four (4) Implementation Proposals area formulated under Planning Strategy 6–5, as shown in Figure 6.5.1.

Figure 6-5.1:
Implementation Proposal for Planning Strategy 6-5



Location: Carcosa Seri Negara, Kuala Lumpur
Carcosa Seri Negara building, over 100 years old is one of the heritage buildings that need to be restored.

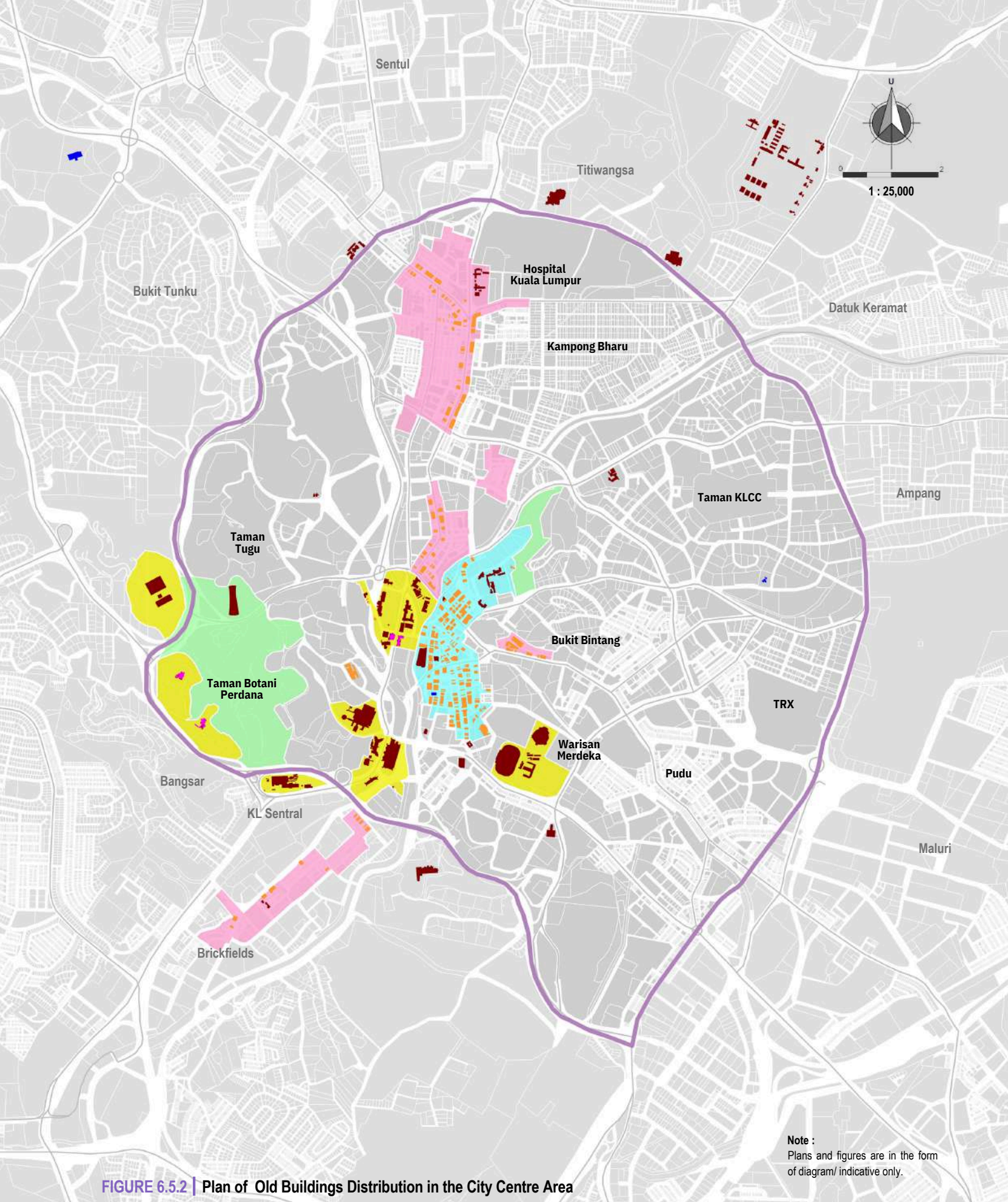


FIGURE 6.5.2 | Plan of Old Buildings Distribution in the City Centre Area

CP 6-5.1:

PRESERVATION AND CONSERVATION OF OLD BUILDINGS WITH HERITAGE VALUE

Old buildings that have historical value with a unique environment and architectural style are the main attractions for tourists. The approach of preservation and conservation of old buildings is a best practice to ensure that heritage buildings can be readaptive, revitalized and given a new lease of life.

This approach creates a more competitive and sustainable environment. It will create a better image and quality on par with new development areas.

Preservation and conservation work needs to take into consideration current factors, building conditions, functions and activities to be created. In addition, the work of upgrading supportive facilities such as street furniture, back and side lane beautification, and replanning of formal and informal activities should be considered to improve the quality of the old building environment.

The proposal for the implementation of CP 6-5.1 is carried out through three (3) initiatives as follows:

1. Restoration the Original Appearance of Old Buildings With Heritage Value;
2. Adaptive Reuse of Old Buildings With Heritage Value; and
3. Improve Environment of Old Buildings With Heritage Value.

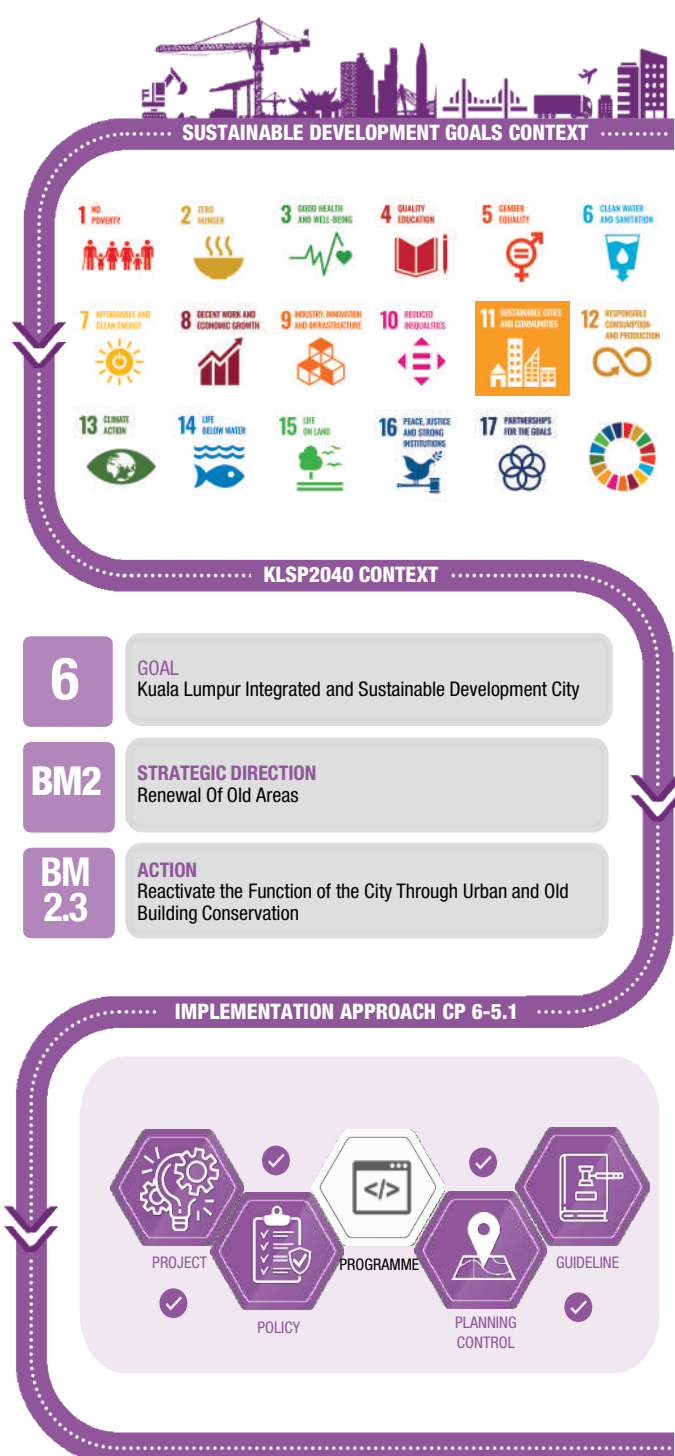


Location: Loke Chow Kit's former home, Jalan Tangsi

Loke Chow Kit's former house known as Loke Hall was built in 1907 and went through the conservation process and was gazetted by the Department of National Heritage in 2012.

CP 6-5.1

COORDINATION CONTEXT OF SDGs AND KLSP2040



IMPLEMENTATION INITIATIVE 6-5.1A

► RESTORATION OF EXISTING OLD BUILDINGS WITH HERITAGE VALUE

Restoration of old buildings that have heritage value subject to the conservation methods. This method involves the work of reconstruction, and restoration of the original appearance and finishes of old buildings through the use of appropriate building materials and treatment techniques. It can be applied to old shophouses and individual buildings that require minimal restoration work.

The main objective of this restoration is to avoid damage to the entire old building which has historical significance and heritage value. It promotes the repurposing of old buildings for local socioeconomic activities and optimising the use of a building's space.

The restoration method of old buildings can be promoted and used as a very valuable resource to attract tourists to Kuala Lumpur.

The KLLP2040 identified old buildings that have the potential for the implementation of restoration methods, as follows:

1. Bangunan Masjid Jamek Sultan Abdul Samad;
2. Bangunan Pasar Seni;
3. Bangunan Stadium Negara;
4. Bangunan Carcosa Seri Negara; and
5. Old Shophouses.

The necessary actions to support this initiative are as follows:

1. Restore important functions of old buildings such as centres for religious, cultural, and artistic activities as well as other suitable activities;
2. Restore building façades, architecture, building structures and interior spaces in old business areas;
3. Maintain the original architectural patterns and styles such as Neo Gothic, Tudor Revival, Eclectic Mughal and minarets to retain their significance as heritage buildings;
4. Improve quality of lighting to highlight the beauty of architecture, liven up nighttime activities and improve security elements;
5. Preserve and conserve old buildings that have heritage value in line with conservation principle, which is to extend the lifespan of old buildings; and
6. Encourage socioeconomic activities by revitalising areas facing the river such as boutique hotels, cafes and Al-Fresco, souvenir and handicraft sales, art galleries, as well as performances.



Location: Pasar Seni, Kuala Lumpur

The building was constructed in 1888 as a wet market during the days of the tin trade. In 1986, it became Pasar Seni and no longer operated as a wet market.



Location: Masjid Jamek Sultan Abdul Samad

This mosque was built in 1909 and is one of the oldest mosques in Kuala Lumpur that functions as a centre for religious activities for Muslims.

BRIEF INFO

PROCEDURES OF HERITAGE BUILDING CONSERVATION

Department of National Heritage has issued the 2016 Heritage Building Conservation Guidelines which detail the conservation of heritage buildings, as follows:

CONSERVATION OF HERITAGE BUILDINGS Work Procedures

- 01 Brick Pillar Treatment
- 02 Chalk Wall Treatment
- 03 Stone Flooring Treatment
- 04 Roof Damage Treatment
- 05 Treatment of Wood Posts and Beams
- 06 Treatment of Wooden Beams and Floors
- 07 Treatment of Ceilings and Wooden Beams
- 08 Treatment of Wood Elements Due to Termite Attacks
- 09 Door and Window Treatment
- 10 Wood Staircase Treatment

Source: Adapted from Heritage Building Conservation Guidelines, 2016.

BEST PRACTICE

HERITAGE BUILDING IN SINGAPORE, CONSERVATION OF LITHUANIA AND HOLLAND



Location: Clarke Quay, Singapore
Source: Pinterest.com

Singapore's Clarke Quay has restored the old building's important function as a the main focal point of the public with new activity attractions such as Al-Fresco dining facing the river.



Location: Vilnius, Lithuania

Vilnius, Lithuania, is famous for its 17th and 18th-century architecture. This area has undergone a facelift, preserving the original design and materials.



Location: Amsterdam, Holland

Building façade beautification at a famous building in Amsterdam, Holland that uses modern materials but still maintains the character of the original building façade.

BEST PRACTICE

ADAPTIVE REUSE OF ST.ANN WAREHOUSE BROOKLYN, NEW YORK



Before: St. Ann's Warehouse that was left empty and unused.



Building of St. Ann's Warehouse after going through the process of restoration and reuse in 2015.



St. Ann's Warehouse was originally built in 1850 as a tobacco warehouse on the Brooklyn Bridge and has undergone a transformation involving restoration and adaptive reuse into a theater studio.

IMPLEMENTATION INITIATIVE 6-5.1B

ADAPTIVE REUSE OF OLD BUILDINGS WITH HERITAGE VALUE

The method of reusing old buildings of heritage value for new uses that are appropriate and compatible is the best approach to ensure that old buildings are actively used and appreciated by the community.

It also can protect and provide great benefits in reviving the function of old buildings.

The necessary actions to support this initiative are as follows:

1. Repair and maintain old buildings involving façades, architecture and building structures as well as interior spaces through appropriate methods and techniques;
2. Restore important function of this old building as a main focal point for the public with business activities such as AI-Fresco cafes, boutique hotels, souvenir and handicraft sales, art galleries as well as performances;
3. Practice concept of shared facilities concept (communal living) to save space and promote social interaction especially for the B40 group, single persons and newly employed;
4. Encourage involvement of various parties including the public, private sector and non-governmental organisations to diversify activities and new functions of old buildings; and
5. Encourage lighting elements to highlight the design of the building façade as well as a safety element.

IMPLEMENTATION INITIATIVE 6-5.1C

IMPROVE ENVIRONMENT OF OLD BUILDINGS WITH HERITAGE VALUE

The approach for this implementation initiative is to enhance the environment of old buildings that have heritage significance. This area with old buildings was the main focus area and an important node for the people of Kuala Lumpur in the past.

The KLLP2040 identified and proposed several actions in improving the environment of old buildings, as follows:

1. Improve and maintain supporting facilities, landscape beautification, street scape improvement and cleanliness of the area, especially in the area facing the river;
2. Encourage lighting elements to highlight the design of the building façade and also as a safety element;
3. Improve accessibility through pedestrian walkway and micromobility vehicle routes facilities, and public transportation services that meet age-friendly and disabled-friendly standards, efficient and safe;
4. Ensure continuous maintenance of the environment and provision of an attractive landscape;
5. Improve and empower the quality of environment as well as maintenance of business areas to be more organised, planned and conducive;
6. Provide a special space to promote placemaking activities as well as heritage-related programmes such as cultural, arts, and local skills activities especially in public and open spaces such as in Pasar Seni and Lebuhr Pasar Areas;
7. Applying the concept and elements of a safe city such as providing CCTV, security booths and lighting elements;
8. Create pause area that provides basic facilities such as street furniture, shade and suitable activities in strategic areas to encourage the public to use pedestrian walkway and micromobility vehicle routes;
9. Identify good practices in better-organised parking management;

10. Implement the Area Improvement Programme (AIP) in less viable areas; and
11. Ensure public lanes or paths are free of obstacles such as informal structures.

PROPOSED EXAMPLE

PROPOSED ENVIRONMENTAL IMPROVEMENT OF OLD BUILDINGS



Location: Jalan Melayu, Kuala Lumpur

Illustration of the surrounding Jalan Melayu surrounding where the entrance gates and business activities highlight the identity and culture of a race.

BEST PRACTICE

CAMDEN LONDON



Location: Camden, London

Source: <https://www.shutterstock.com/g/pedrorufo>

A clean and well-organised open bazaar area like in Camden, London which has become a tourist attraction.

**PREPARATION HERITAGE AREA
CONSERVATION ACTION PLAN**

Conservation Action Plan is provided as a guide that involves the preparation of a framework or structure for the implementation of development projects in suitable heritage areas. This action plan will detail the implementation mechanism, monitoring method and implementation period.

The implementation of Heritage Area Conservation Action Plan for the conservation of heritage areas is part of the strategic commercial areas that have been identified in KLSP2040. Six (6) Commercial Area Improvements (PKK) have been identified within the Heritage Zone and Kuala Lumpur Heritage Trail route in the Heritage Area Conservation Action Plan.

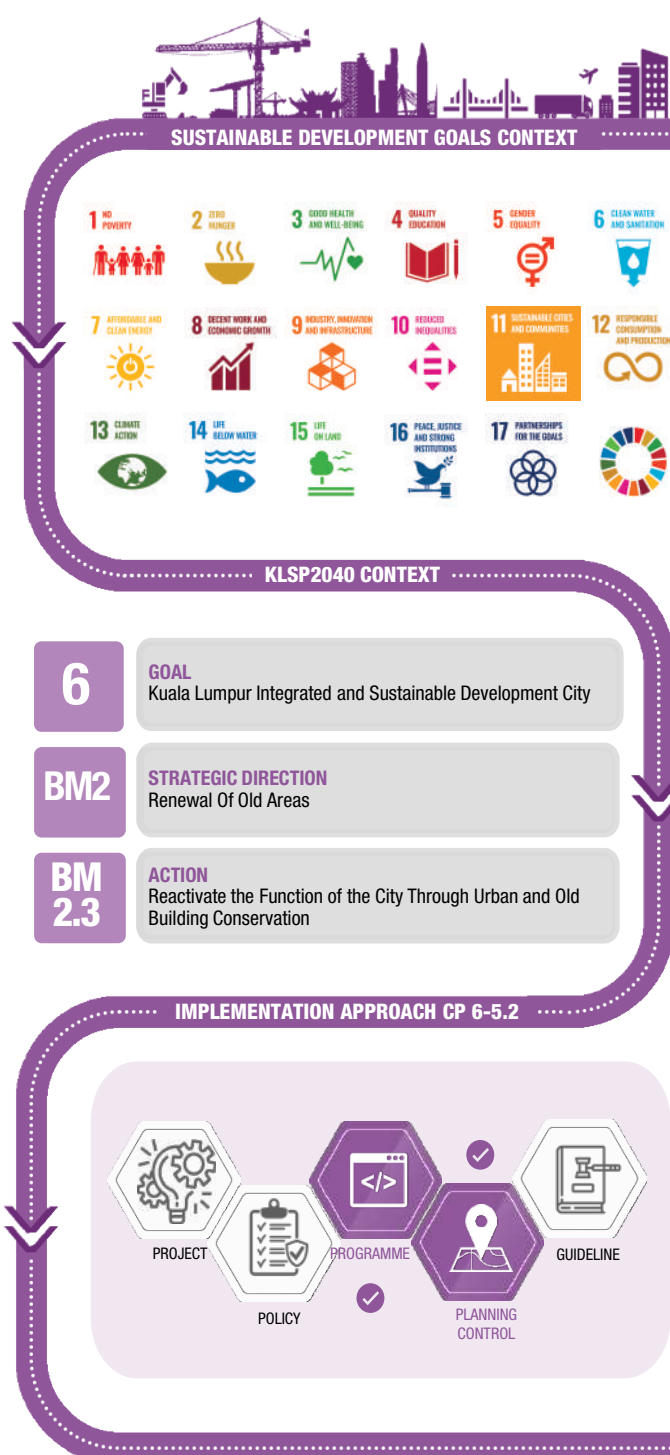
The selection of the area is based on the function of an old area such as an old business area and the availability of heritage buildings to be restored and preserved. It will improve the quality of the environment and reactivate the function of the area with new activities, making it more competitive.

Heritage Area Improvement Programme (PPKW) implementation needs to be driven by the involvement of private sector and premises owners by taking collective responsibility to ensure the area remains viable. The implementation duration of this plan depends on the scale and complexity of the actions to be carried out.

The KLLP2040 has detailed the recommendations for the preservation and conservation of heritage areas as well as the specific measures that need to be prepared in the Heritage Area Conservation Action Plan.

The proposal for the implementation of CP 6-5.2 is carried out through four (4) initiatives as follows:

1. Draft Guidelines for The Implementation of Heritage Area Improvement Programme (PPKW);
2. Identify Action Area Of Heritage Area Improvement Programme (PPKW);
3. Implement Area Improvement Measures; and
4. Implement Collaboration Programme With The Department of National Heritage.

CP 6-5.2**COORDINATION CONTEXT OF
SDGs AND KLSP2040**

IMPLEMENTATION INITIATIVE 6-5.2A

► DRAFT GUIDELINES FOR THE IMPLEMENTATION OF HERITAGE PPK

The Implementation Guide of Heritage Area Improvement Programme (PPKW) needs to be formulated so that planning and development for the buildings and areas involved can be restored and preserved. The implementation of PPKW can be done entirely by private developers, landowners (individuals) or companies interested in implementing it. Implementation mechanism of the PPKW area can also be implemented through Government-Private cooperation under the Public-Private Partnership Unit (UKAS).

JWP and KLCH are the main agencies coordinating the implementation guidelines for renewal projects. KLCH will act as a coordinator and process applications for the implementation of PPKW by developers, owners or companies so that it fulfills the requirements that have been set.

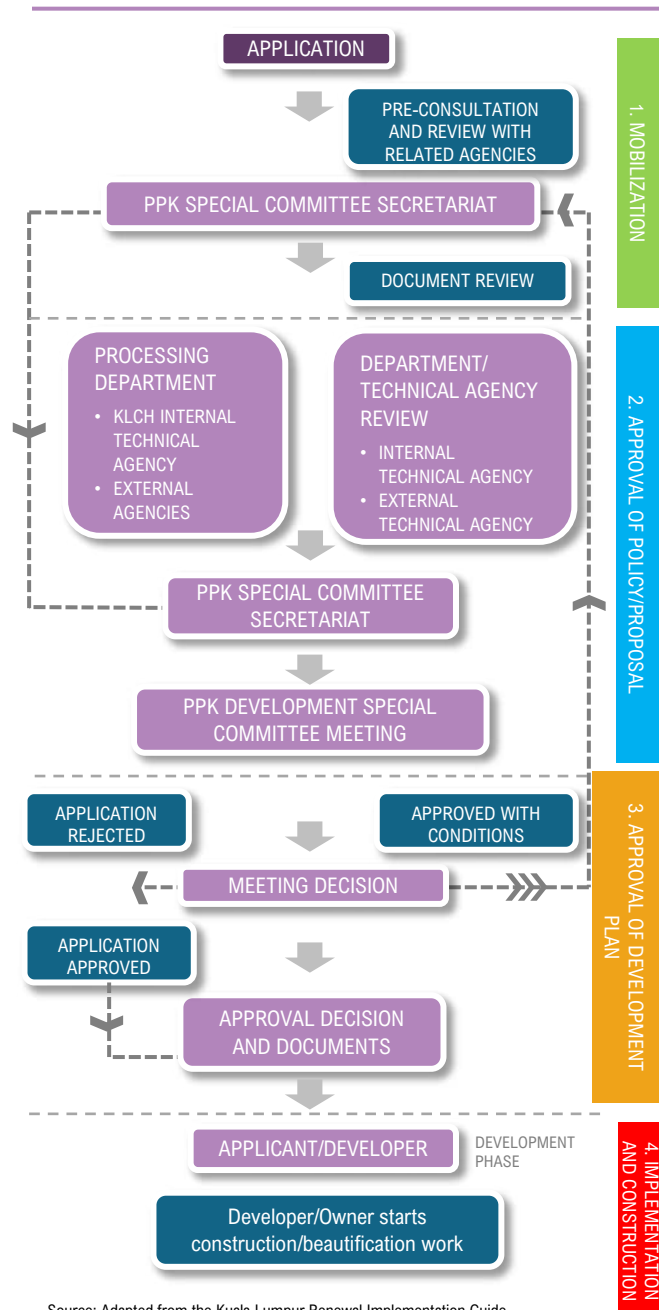
The necessary actions to support this initiative are as follows:

1. Establish one (1) special unit under the KLCH internal department to coordinate the implementation of the PPKW through a decision making committee at the KLCH level;
2. Carry out a study and prepare a detailed masterplan or action plan for the area involved;
3. Establish PPKW Guidelines to control development in the areas involved; and
4. Coordinate Planning Permission Application Approval Process for the PPKW Area as shown in Figure 6.5.3 which involves four (4) stages as follows:
 - a. Mobilisation Stage (Proposal Preparation);
 - b. Policy Approval Stage;
 - c. Development Plan Approval Stage; and
 - d. Implementation and Construction Stage.

Private developers, land owners (individuals) or any company need to go through several stages of development approval from KLCH's technical department or agency for the proposed PPKW area.

The Heritage PPK Implementation Process Guide is as shown in Figure 6.5.3.

Figure 6.5.3:
Heritage Area PPK Implementation Process Guide



Source: Adapted from the Kuala Lumpur Renewal Implementation Guide

IMPLEMENTATION INITIATIVE 6-5.2B

IDENTIFY ACTION AREA OF HERITAGE AREA IMPROVEMENT PROGRAMME (PPKW)

Identification of the area and demarcation of Heritage Area Improvement Programme (PPKW) is based on the current situation, existing activities, and its importance to the heritage of Kuala Lumpur. It include stable areas and old areas ready to return to competitiveness.

The selection criteria for action areas of PPKW are as follows:

1. Retain the original primary function of heritage area that needs to be preserved and restored;
2. Feature heritage value within building façade in a row of old shops with the potential to be maintained;
3. Old heritage area with potential become more competitive and livable;
4. Feature old city layout with attractive urban design that should be preserved and conserved;
5. Old area that serve as a key node for the public and a major attractions;
6. Significant heritage buildings that owned by the local people;
7. Feature architectural heritage and national identity;
8. Strengthen national pride in the country, unity and enhance human capital among Malaysians; and
9. Improve inclusive public spaces that are accessible, appreciated and enjoyed by various layers of society.

The KLLP2040 identified PPKW areas to support this initiative as shown in Table 6.5.1.

Table 6.5.1:
Proposed Heritage PPK Action Area










1. Medan Tuanku Abdul Rahman <ul style="list-style-type: none"> Part of Traditional Shop Trail 	
2. Pasar Pudu dan Jalan Landak <ul style="list-style-type: none"> Part of Old Pudu Town Trail 	
3. Pasar Raja Bot <ol style="list-style-type: none"> Jalan Raja Bot; and Jalan Hj Hussein. <ul style="list-style-type: none"> Part of the Heritage Village Trail 	
4. China Town <ol style="list-style-type: none"> Jalan Petaling; dan Jalan Panggung. <ul style="list-style-type: none"> Part of the Petaling-Bukit Nanas Heritage Zone; Part of the Tin Trading Town Trail; and Part of the Madras area Improvement Program by KLCH and agencies. 	

Table 6.5.1: Proposed Heritage PPK Action Area (continued)

<p>5. Medan Pasar</p> <p>a. Jalan Medan Pasar; dan</p> <p>b. Lorong Medan Pasar</p> <ul style="list-style-type: none"> Part of the Petaling-Bukit Nanas Heritage Zone; Part of the Tin Trading Town Trail; and Part of the proposed Hang Lekiu Block Rejuvenation Program by KLCH and agencies. 		<p>7. Dataran Merdeka</p> <p>a. Jalan Raja;</p> <p>b. Jalan Leboh Pasar Besar;</p> <p>c. Jalan Mahkamah Tinggi;</p> <p>d. Jalan Mahkamah Persekutuan; and</p> <p>e. Jalan Tun Perak;</p> <ul style="list-style-type: none"> Part of the Civic District Trail; Part of the Primary Heritage Zone: Dataran Merdeka, Kuala Lumpur Railway Station, Masjid Negara and Stadium Merdeka; and It is a proposed Dataran Merdeka Heritage Area Redevelopment by KLCH and agencies. 	
<p>6. Masjid India</p> <p>a. Jalan Tuanku Abdul Rahman;</p> <p>b. Jalan Masjid India; dan</p> <p>c. Jalan Melayu</p> <ul style="list-style-type: none"> Part of the Special Character Zone of Jalan Tuanku Abdul Rahman and Jalan Doraisamy, Part of Traditional Trades Trail; and Part of the Masjid Jamek Sultan Abdul Samad Enclave Action Plan Proposals by KLCH and agencies, 		<p>8. Carcosa Seri Negara</p> <p>a. Persiaran Tuanku Ja'afar;</p> <ul style="list-style-type: none"> Part of the Primary Heritage Zone: Parliament, Carcosa Seri Negara and Taman Botani Perdana; Part of the Lake Gardens Trail; and Is a Proposed Redevelopment of the Carcosa Seri Negara Area by KLCH and agencies. 	
		<p>9. Masjid Jamek Sultan Abdul Samad</p> <p>a. Jalan Tun Perak;</p> <p>b. Jalan Melaka;</p> <p>c. Jalan Melayu; and</p> <p>d. Jalan Benteng.</p> <ul style="list-style-type: none"> It is an area of the Masjid Jamek Enclave Action Plan by KLCH and agencies; Part of the Secondary Heritage Zone: Jalan Petaling-Bukit Nanas; and Part of Tin Trading Town Trail. 	

PROGRAMME OF BUSINESS IMPROVEMENT DISTRICT (BID) IN HATTON GARDEN, UNITED KINGDOM



The business environment becomes more vibrant and marketing management is managed more efficiently.

The implementation of BID in Hatton Garden, UK in 2016 was driven by the partnership of investors from the private sector to see the Hatton Garden area realize its potential and grow as a world-renowned business and tourism destination. The BID has helped to enhance its iconic status as London's prominent jewelry precinct.

Source: <https://www.hatton-garden.london/about>

PROGRAMME OF BUSINESS IMPROVEMENT DISTRICT (BID) IN HAMPSTEAD VILLAGE, UNITED KINGDOM



The character of the heritage area is translated through the use of street furniture design and original color of the building as well as maintaining the original façade of the old building.



The implementation of the BID programme in Hampstead Village, UK was established in 2016 for a period of five (5) years to benefit businesses and improve the trading environment in the area.

The objective is to preserve and develop the appeal of Hampstead Village to visitors, encourage business development and maintain the unique atmosphere of the area.

This BID programme in Hampstead Village, UK has conserved and preserved buildings by maintaining the original materials and colors of old buildings. In addition, the area has also been improved with the use of street furniture and CCTV facilities to monitor the safety of visitors.

Source: <https://hampsteadvillagelondon.com/>

IMPLEMENTATION INITIATIVE 6-5.2C

► IMPLEMENT AREA IMPROVEMENT MEASURES

Improvements to the area involving the upgrading of the surrounding environment is important to make it more conducive in preserving heritage buildings in the PPKW area. The involvement of private parties and premise owners is important so that function of the PPKW area can benefit everyone in the area.

The necessary actions to support this initiative are as follows:

1. Reactivate the original function or a new function that is more economical without changing and affecting the heritage interest using a better marketing strategy;
2. Preserve and conserve the heritage buildings of the PPK area;
3. Maintain the building and surrounding of the PPKW area;
4. Strengthen urban design elements and beautification of the surrounding areas that are less viable;
5. Improve comfort, safety and accessibility in the PPK area;
6. Improve promotion and management of the PPKW area for mutual benefit and attraction to tourists; and
7. Encourage support activities that enhance the function of the PPKW area.

The activities promoted in the PPKW area must be able to contribute to and improve the economic and surrounding competitiveness of the heritage area.

The KLLP2040 identifies measures to improve the PPKW area and activities that are encouraged in the heritage area as shown in Table 6.5.2.

BEST PRACTICE

PROGRAMME OF BID IN NORTHBANK, LONDON, UNITED KINGDOM

BID programme at Northbank, London, UK includes Trafalgar Square, the Strand and Aldwych which are the main focus areas of tourists in the city of London. It is a transformational programme to make Northbank a world-class business and tourism destination from a combination of various business partners and stakeholders. The implementation of this BID is very successful and brought great benefits to the area.



Source: <https://www.thenorthbank.london/northbank-bid>

The BID programme in Northbank successfully applies a holistic approach by creating public spaces and placemaking activities that form the gateway to the West End. This programme has created a Creative and Cultural District supported by several stakeholders. Its implementation has successfully overcome several major problems by:

1. Improve air quality;
2. Solve traffic congestion;
3. Provide more open space;
4. Being pedestrian and cyclist friendly; and
5. Expanding connections with the surrounding area.

Table 6.5.2:

Proposed measures Improvement of Heritage PPK Area

Langkah Penambahbaikan	Lokasi								
	Medan Tuanku Abdul Rahman	Pasar Pudu dan Jalan Landak	Pasar Raja Bot	China Town	Medan Pasar	Masjid India	Dataran Merdeka	Bangunan Carcosa	Bangunan Masjid Jamek
Preserve and Conserve buildings									
1 Conserving building façades, original colors and control of billboards on heritage buildings; and	✓	-	✓	✓	✓	✓	-	✓	✓
2 Encourage the conservation of old buildings and shophouses that have heritage value.	✓	-	✓	✓	✓	✓	-	✓	✓
Maintain PPKW Area									
3 Improve the cleanliness of heritage areas; and	✓	✓	✓	✓	✓	✓	✓	✓	✓
4 Maintain roads, drains and alleys between buildings;	✓	✓	✓	✓	✓	✓	-	-	-
Strengthen Urban Design Elements and Beautifying the Environment									
5 Encourage placemaking and street art activities;	✓	-	-	✓	✓	✓	✓	-	-
6 Enhance lighting elements in heritage building façades;	-	-	-	✓	✓	✓	-	✓	✓
7 Enhance the image and character of the area through the design of street furniture, colors, pathways and landscape elements; and	✓	✓	✓	✓	✓	✓	✓	✓	✓
8 Incorporate way finding elements in heritage areas	✓	✓	✓	✓	✓	✓	✓	-	✓
Improve Comfort and Safety									
9 Provide pedestrian walkway and micromobility vehicle routes for access to public transportation stations;	✓	✓	✓	✓	✓	✓	✓	-	✓
10 Upgrade basic tourism facilities and street furniture;	✓	✓	✓	✓	✓	✓	✓	✓	✓
11 Improve safety elements through the installation of CCTV and adaptation of CPTED; and	✓	✓	✓	✓	✓	✓	✓	✓	✓
12 Improve the provision of age-friendly and disabled-friendly facilities.	✓	✓	✓	✓	✓	✓	✓	-	✓
Improve Promotion and Management									
13 Improve the promotion and marketing aspects of the PPKW area; and	✓	✓	✓	✓	✓	✓	✓	✓	✓
14 Create efficient management and administration to increase the competitiveness of the PPKW area.	✓	✓	✓	✓	✓	✓	✓	✓	✓
Encourage and Diversify Heritage Area Activities									
15 Increase the space utilisation and the provision of facilities for art and cultural activities;	✓	-	-	-	✓	✓	✓	-	-
16 Reorganise stall and open bazaar activities;	-	✓	-	✓	-	✓	-	-	-
17 Empower activities that support heritage areas and existing activities that attract visitors;									
a. Ethnic traditional clothing stores, fabric and accessories stores;	-	-	-	✓	✓	✓	-	-	-
b. Traditional products, handicrafts and souvenirs;	-	-	-	✓	✓	✓	✓	-	-
c. Local foods, traditional foods and street cafés;	✓	✓	✓	✓		✓	-	-	-
d. Boutique hotels and accommodations with a 'bed and breakfast' concept;	✓	-	-	✓	✓	-	-	✓	-
e. Market activities, night markets, open markets and planned hawkers	✓	✓	✓	✓	✓	✓	-	-	-
f. Open bazaar and festive bazaar activities (seasonal);			✓		✓	✓	-	-	-
g. Festive and religious goods of various races;	✓	✓	✓		✓	✓	-	-	✓
h. Street café, street food, fresh fruits and flower;	✓	-	✓	✓	✓	✓	-	-	-
i. Art activities, street art and street artists;	-	-	✓	✓	✓	✓	✓	-	-
j. Cultural performances, theater and folk entertainment;	-	-	✓		✓	✓	✓	-	-
k. Museum of art and history	-	-	-	✓	✓	-	✓	-	-

Notes :

1. Padang Kelab Selangor (Dataran Merdeka)
2. Bangunan Masjid Sultan Abdul Samad (Bangunan Masjid Jamek)

IMPLIMENTATION INITIATIVE 6-5.2D

► IMPLEMENT COLLABORATION PROGRAMME WITH THE DEPARTMENT OF NATIONAL HERITAGE

The collaboration programme is aimed to encourage the regeneration and upgrading of old areas or dilapidated, unoccupied and derelict buildings. This initiative will also rejuvenate the function of old buildings without affecting the overall value of building design, urban function, quality of urban fabric and character of Heritage Zone.

The KLLP2040 proposed five (5) actions for collaboration programmes with the Department of National Heritage (JWN) and related government agencies as follows:



Table 6.5.3:
Proposed Actions for Collaboration Programmes with JWN and Related Government Agencies

Action	Details
1. Provision of Incentive for Preservation and Conservation of Heritage Areas or Buildings	<ul style="list-style-type: none"> a. Provide Incentive for Financing of Conservation Work and Preservation of Heritage Areas or Buildings based on National Heritage Act 2005 (Act 645); and b. Provide development incentives based on suitability and importance to heritage preservation as well as compliance with planning guidelines set by relevant agencies.
2. Coordination Activities in Heritage Areas or Buildings	Coordinate activities related to heritage in the form of culture and art.
3. Research and Development (R&D) of Heritage Areas or Buildings	JWN in collaboration with KLCH to carry out research on specific heritage areas or buildings in particular old shop buildings that have heritage significance.
4. Maintenance of Public Buildings with Heritage Status	<ul style="list-style-type: none"> a. Maintenance of public buildings with heritage status is carried out by JWN and related government agencies. Section 38, National Heritage Act, 2005 allows the government to cooperate with any party in an effort to conserve and preserve heritage sites. JWN as a heritage authority can facilitate building maintenance through collaboration with relevant government agencies; and b. Preparation of the Maintenance Guide for Heritage Status Buildings by JWN involves aspects of inspection, maintenance, conservation and preservation of heritage sites according to the set criteria that can be implemented by relevant government agencies.
5. Implementation of Government and Private Partnerships	<ul style="list-style-type: none"> a. Implementation improvement programmes by private parties can be implemented on individual landowners and corporation. This method of implementation is highly encouraged in the regeneration of old areas that are less competitive within heritage sites in City Centres; and b. Renewal of heritage area or building can be implemented as a collaboration between government and private sector involving several approaches implemented by UKAS, FTD, MOTAC, JWN and KLCH for that particular purpose.

PARTICIPATION AND ENGAGEMENT WITH COMMUNITY

Heritage conservation programmes can be implemented with the cooperation from stakeholders and community support. The collaboration of all parties is a good approach for building continuous relationships that benefit the community.

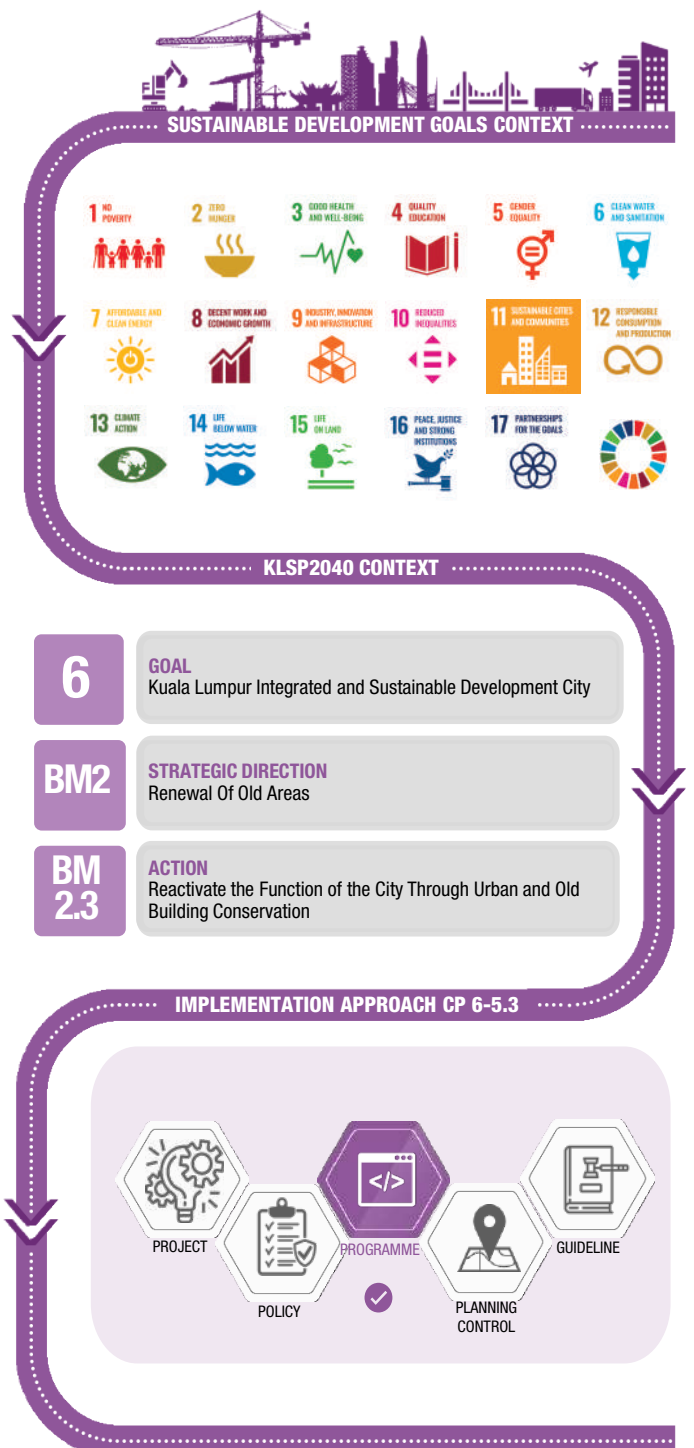
Community refers to residents or communities in a particular area that play an important role in revitalising the function of an area or city. Therefore, cooperation between the community and relevant government agencies is important to achieve the goal of better environmental quality.

Community involvement in the preservation and conservation of heritage buildings will help to reduce the conflict between achieving a better quality of life with aspects of economic development and the importance of preserving and conserving heritage assets for future generations.

Community involvement will create a conducive environment for improving quality of life for the community, sense of belonging and social relationships that appreciate local values.

The proposal for the implementation of CP 6-5.3 is carried out through three (3) initiatives as follows:

1. Develop Open Application For Heritage Area Of Kuala Lumpur;
2. Optimise Use of Social Media Platforms; and
3. Implement Heritage PPK Funding And Finance Among The Community.

**CP 6- 5.3****COORDINATION CONTEXT OF SDGs AND KLSP2040**

IMPLEMENTATION INITIATIVE 6-5.3A

► DEVELOP OPEN APPLICATION FOR HERITAGE AREA OF KUALA LUMPUR

The formation of an open application regarding the development and heritage development in Kuala Lumpur is a method of involving the public or the local community. This application is openly accessible which allows the public to obtain information and report any issue related to heritage in Kuala Lumpur.

The content of the application must be related to the effort of revitalising heritage areas and old buildings in Kuala Lumpur. This application is able to increase the role of community in contributing to the empowerment and a sense of belonging to heritage areas and buildings.

The necessary actions to support this initiative are as follows:

1. Develop specific open applications (open web) that can be integrated with software such as Geographical Information System (GIS) and Google Maps to facilitate participation and interactive engagement with the community;
2. List and update of details need to be included in the particular application are as follows:
 - a. Details of heritage areas and buildings within the city centre;
 - b. Details of old buildings and vacant buildings that have heritage significance;
 - c. Current issue or damages complaints; and
 - d. Suggestions for improvement and suitable activities.
3. Encourage community to actively participate in the preservation and conservation of heritage buildings and sites.

IMPLEMENTATION INITIATIVE 6-5.3B

► OPTIMISE USE OF SOCIAL MEDIA PLATFORMS

Current trends show the need to promote heritage areas and old buildings using different methods. An optimal use of social media platforms is among the best and current trend in revitalising heritage areas and old buildings in Kuala Lumpur with the community.

The necessary actions to support this initiative are as follows:

1. Optimise the use of social media platforms such as websites, Facebook, Instagram, X and others to participate in the promotion of heritage tourism in Kuala Lumpur;
2. Provide content in the form of information, complaints and suggestions that are in line with the objective of revitalising heritage areas and old buildings in Kuala Lumpur;
3. Form a display concept on social media that can attract various groups of people. The content is in the form of photos or videos that take into consideration the uniqueness and aesthetic value of buildings and heritage sites;
4. Promote activities with key industry players and stakeholders through a community-based activity schedule and programme; and
5. Increase coverage on social media by creating specific hashtags. The hashtags sign must be directed to the role and contribution of community in the effort to revive functions of the city through conservation of old towns and buildings.

This implementation will encourage the community and public to participate actively based on current trends and support the efforts made by relevant government agencies.

BEST PRACTICE

APPLICATION OF CITIZEN'S EYE

The Citizen's Eye application was developed through the River of Life Public Outreach Programme (RoLPOP) to allow communities or members of the public to report any information related to activities on river management or problems such as pollution.

The Public Outreach Programme (POP) started in 2012 to foster cooperation and increase the awareness of target groups to reduce river pollution. This programme promotes a sense of belonging to the river and creates lasting long-term behavioral changes in protecting the river. RoLPOP's target group consists of the public and stakeholders such as educational institutions, local communities, traders and private parties.

The same approach can be applied in Kuala Lumpur's heritage zone which has many historic buildings of which some have been inactive. Community involvement through open applications is important to make monitoring and planning more effective in the future, especially in tourists attraction areas.

The involvement of key agencies such as KLCH, MOTAC and JWN is needed to directly motivate the local community and stakeholders to revitalise historic buildings in Kuala Lumpur's heritage zone.



The Citizen's Eyes open application concept by RoLPOP5 allows the public to express their views on arising problems in their area.

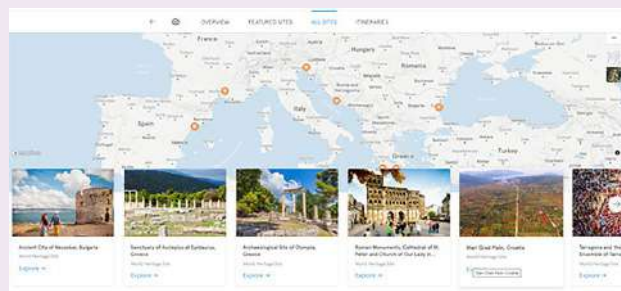
BEST PRACTICE

OPEN APPLICATION OF UNESCO - WORLD HERITAGE JOURNEYS EUROPE AND UNESCO #SHAREOURHERITAGE

The open application function implemented by UNESCO for the location of heritage sites around the world has provided extensive exposure and functions as a magnetic field that can attract tourists, positively impacting on the socioeconomic aspects of communities in the areas involved.

World Heritage Journeys Europe

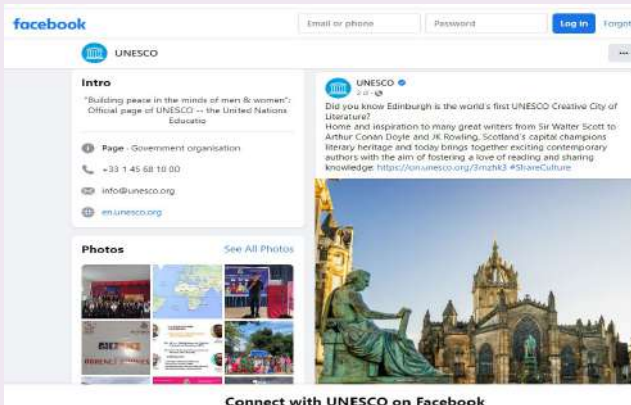
UNESCO has established cooperation with several agencies such as National Geographic with financial support from the European Union (EU) to develop UNESCO World Heritage Journeys Europe. This interactive website allows web surfers from around the world to explore World Heritage sites in Europe with a new context and perspective.



World Heritage Journeys Europe provides details about European culture and history to inspire visitors around the world before the actual visit to the heritage site.

UNESCO #ShareOurHeritage.

UNESCO is promoting access to culture including world heritage sites with living heritage practices during the COVID-19 pandemic that is sweeping the world as part of UNESCO's #ShareOurHeritage campaign. UNESCO launched an interactive online exhibition featuring heritage sites from around the world through collaboration with other agencies such as Google Arts & Culture and promotion through social media platforms such as Facebook, LinkedIn, Instagram and others.



UNESCO's promotion of the heritage and cultural sites of communities around the world through several social media platforms.

► IMPLEMENT HERITAGE AREA IMPROVEMENT PROGRAMME (PPKW) FUNDING AND FINANCE AMONG THE COMMUNITY

The implementation of the Heritage Area Improvement Programme (PPKW) programme will focus on areas of old buildings and shops that have heritage significance and require improvement in terms of services and environmental quality. PPKW's financial resources and funding are to cover the expenses of beautification works, improve services and upgrade facilities and maintenance managed by an appointed management body.

The KLLP2040 identifies funding sources that can be offered in the PPK areas, as follows:

1. Financing from premises owners and tenants;
2. Funding from public and private sources;
3. Joint venture financing; and
4. Voluntary funding from stakeholders.

The necessary actions to support this initiative are as follows:

1. Additional tax collection on activities and business premises involved.

Collective contribution from the premise owners or tenants determined by the appointed PPKW management body. The additional tax rate will take into account the factors of location, area of the premise and the type of services offered and agreed by all.

2. Public or private financing according to the importance of the project to be implemented.

Projects that have a high impact on heritage preservation and socioeconomic benefits will be given priority from this funding source. Funding sources can be obtained in the form of development funds or incentives. Incentives by the government must meet specific conditions and criteria including:

- a. Meet regeneration site criteria;
- b. Involve beautification, improvement and restoration of heritage areas and buildings;
- c. Improve old business areas of heritage significance; and
- d. Implement heritage PPKW programme.

3. Funding as a joint venture between the government and the private sector.

This joint venture financing involves processes and approaches under UKAS. UKAS plays a role as a central agency in forming a strategic partnership between the public and private sectors that has an impact on the socioeconomics.

Funding sources can be obtained in the form of funds or development incentives according to procedures and criteria that have been set.

4. Additional funding from premises owners and voluntary contributions.

PPKW management body can also obtain additional funding from property and premises owners and voluntary contributions from interested organisations outside the PPKW vested area.

The type of financing of PPKW area will involve four (4) main activities, as follows:

1. Increase corporate social responsibility (CSR);
Improve the surrounding quality of heritage areas and old businesses to fulfill social responsibilities through beautification and maintenance projects that have a positive impact on owners, visitors and the PPKW community.
2. Strengthen security of the PPKW area;
Improve security features by providing a complete security system to create a safe business area with zero crime and social behavior problems.
3. Improve quality of the public space (public realm); and
Improve the surrounding of public spaces and the provision of street furniture such as pedestrian walkway and micromobility vehicle routes, public parks, signs and placemaking activities.
4. Promote the PPKW area.
Marketing and promoting of the PPKW area through social media, periodic programmes and activities in the form of culture and arts to create the identity of PPKW area to tourists and public.

CP 6-5.4:**IMPLEMENTING HERITAGE BUILDING
CONSERVATION INCENTIVES**

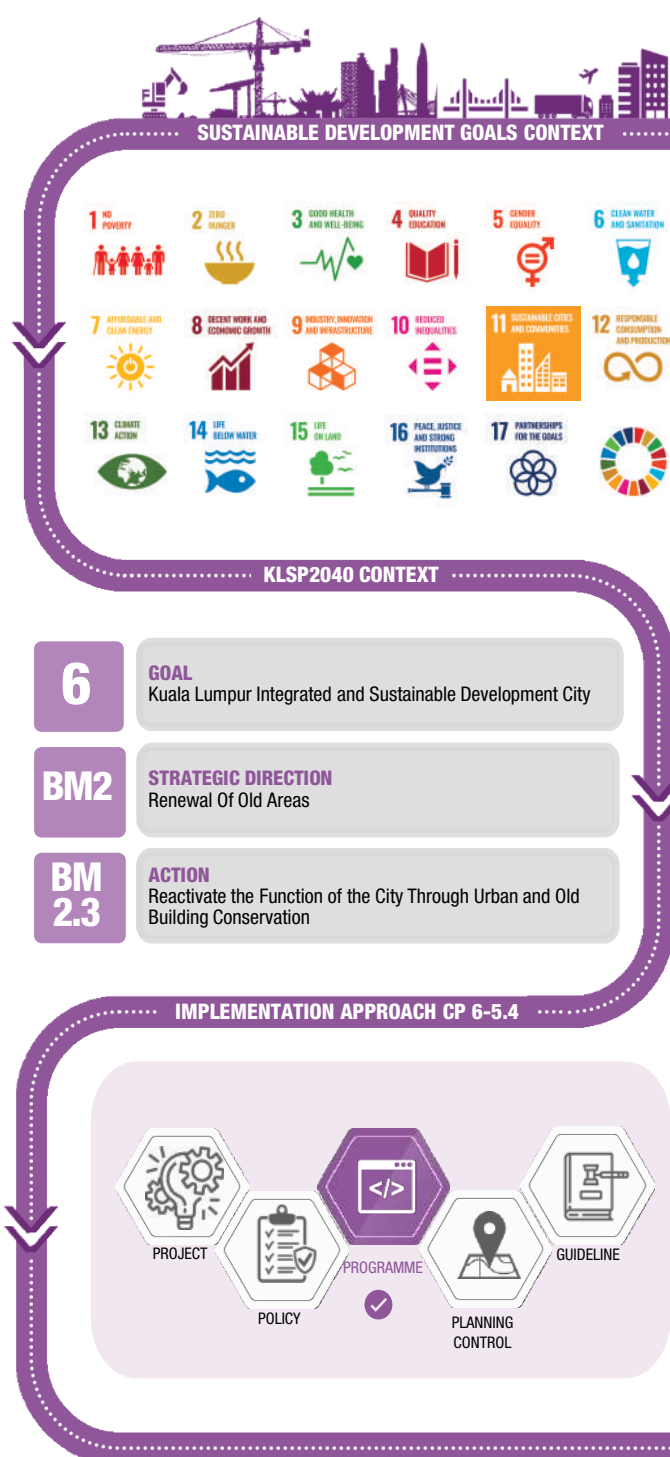
The implementation of heritage building conservation requires encouragement and motivation. Providing incentives is one form of encouragement that can be given to owners or developers of heritage buildings to conserve and maintain heritage buildings. The incentives offered depend on the relevant government agencies or other parties whether they will be given in the form of funds or other appropriate services.

Incentives provision must give priority to heritage buildings that have been gazetted under Act 645, Act 267 and comply with planning requirements that have been set by KLCH.

This incentive is proposed to support the restoration, improvement and maintenance of old buildings that have heritage value. It is important to ensure the long-term preservation of historical heritage resources in Kuala Lumpur. It will also encourage the involvement of private parties or building owners to preserve and conserve heritage buildings.

The proposal for the implementation of CP 6-5.4 is carried out through one (1) initiative as follows:

1. Identifying Incentives for Planning and Development of Heritage Areas and Buildings.

**CP 6-5.4**COORDINATION CONTEXT OF
SDGs AND KLSP2040

IDENTIFY PLANNING AND DEVELOPMENT INCENTIVES OF HERITAGE AREAS AND BUILDINGS

Redevelopment, rehabilitation and adaptive reuse are approaches that help to empower conservation of heritage assets or buildings. This empowerment requires the cooperation of all parties related to the implementation of suitable incentives.

Regeneration incentives can be given for sites upgrading, areas and old buildings that are dilapidated and less viable. KLCH will act as a coordinator and evaluate the proposed project to obtain consideration for the development incentive.

The KLLP2040 identifies criteria for heritage sites and buildings that are eligible for planning and development incentives as follows:

1. Gazetted heritage sites and buildings under the National Heritage Act 2005 (Act 645);
2. Development sites located within 200 metres of heritage sites and buildings; and
3. Specific criteria were determined by KLCH based on the importance of the site.

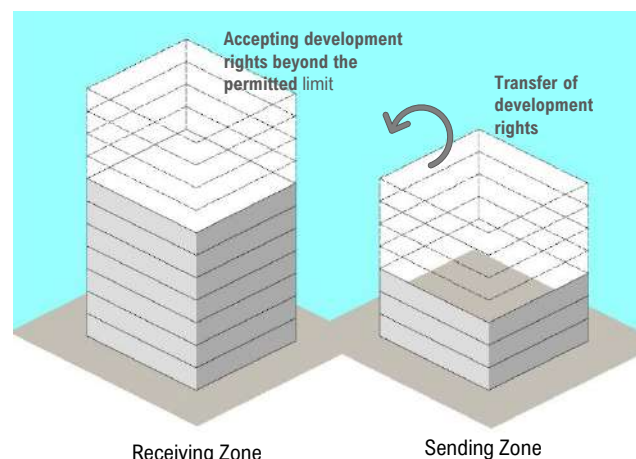
The necessary actions to support this initiative are as follows:

1. Allowing the Transfer of Development Right; and

The transfer of development rights is intended to enable financial resources to be generated for the purpose of conserving heritage buildings and preserving the form of development in accordance with KLCH regulations. This transfer of rights is through the ratio of unused plots from the heritage site or building to the site or building outside the heritage site. It is subject to the conditions, guidelines set by KLCH and compliance with the relevant agency's technical review as well as not affecting the related heritage site or building.

The implementation of the transfer of development rights needs to be detailed with specific studies and action plans according to the legislation and specific guidelines before it is implemented as shown in Figure 6.5.4.

Figure 6.5.4:
Development Rights Transfer Programme



Sending Zone:



1. The sending zone is a heritage building that is in the **heritage preservation zone**; and
2. A heritage preservation zone where development rights are **"transferred"** from it to another area.

Receiving Zone



1. The receiving zone is **located outside the conservation area or heritage zone**;
2. This zone **"receives development rights"** where the same developer adds intensity beyond what is allowed from the **Sending Zone**;
3. This process is controlled at the Development Order (DO) application stage; and
4. It is necessary to take into account the level of infrastructure capacity, utilities and community facilities.

2. Implement Heritage Area Matching Grant.

Matching grants are funds provided to be given according to proportion from other sources. Matching grants are usually created for the public interest or the benefit of the community by creating a dedicated trust fund for the regeneration of areas of heritage interest.

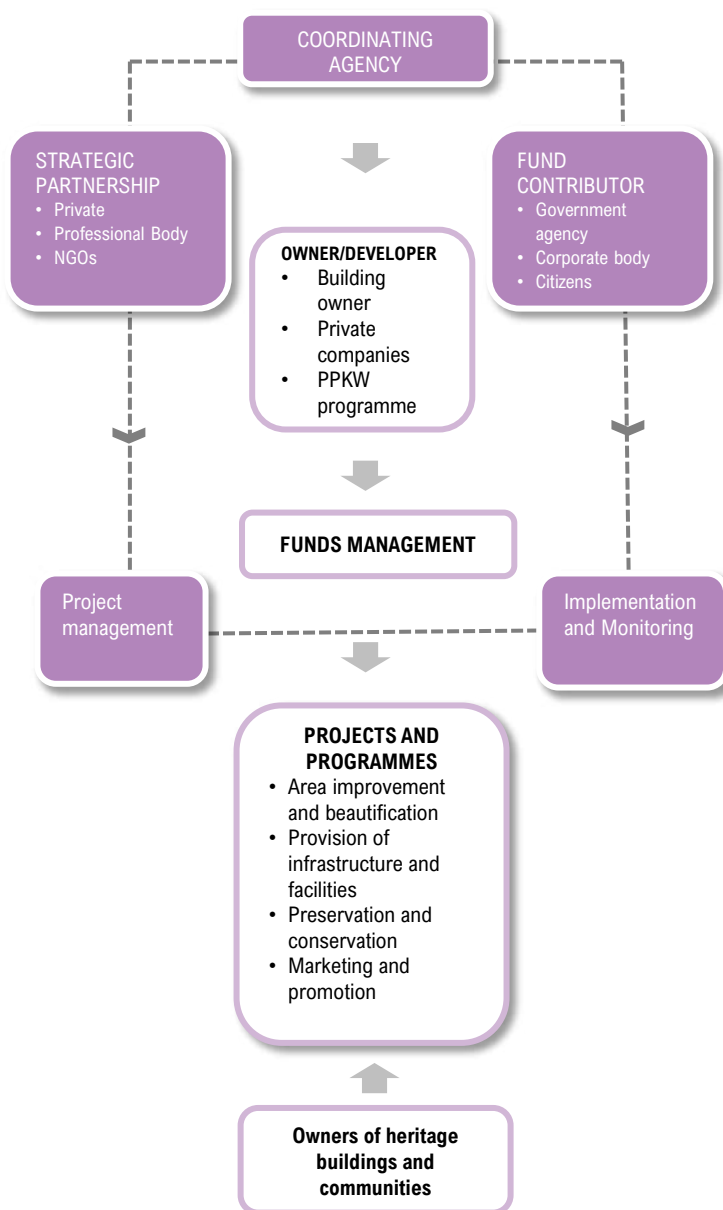
Sources of funds can be obtained through statutory bodies, corporate bodies, private companies and the public. This win-win situation can be obtained in the form of cost-sharing through contributions and proportions from different sources of funds.

This resource allows owners of old sites, areas, or buildings through the Heritage Area Improvement Programme (PPKW) to improve the surroundings of their premises. Agencies or related parties will give priority to improve and upgrade infrastructure, promote and carry out activities and programmes that add value to buildings and heritage areas that have been regenerated.

This situation will benefit the owners of old buildings, KLCH and also the public.

The provision of incentives is subject to the suitability and importance of the heritage site and compliance with the matching grant implementation process as shown in Figure 6.5.5. It also needs to comply with the established planning guidelines.

Figure 6.5.5:
Matching Grant Implementation Process



INTEGRATING RAIL TRANSPORTATION AND SPATIAL DEVELOPMENT

SCENARIO OF RAIL TRANSPORTATION AND SPATIAL DEVELOPMENT IN KUALA LUMPUR

Kuala Lumpur is a city equipped with an existing, under construction and at the planning stage of rail transport system. This system supports the rapid growth of Kuala Lumpur and increases the level of user access to rail transport facilities and services in the city.

The integration of land use development with rail transit stations is a key challenge of spatial planning in Kuala Lumpur because almost all transit stations are located in existing built up area. The supply of vacant land, especially in the area of the rail transit stations is very limited for infill development. The integration of rail transit stations and land use development can be implemented if there are areas for redevelopment such as KLCC and KL Sentral.

The rail transit station area has become the focus of mixed development as a centre of employment, commerce and residential. This area needs to have a high level of connectivity to rail transit stations with provision of pedestrian walkway and micromobility vehicle routes at street level, underpasses and overpasses facility for the users.

The integrated development of rail transport and land use can also be implemented through the concept of underground and air rights development apart from development at ground level.

The concept of air rights and underground space development is one of the methods to meet the growing demand for land with limited land availability in Kuala Lumpur.

The concept of underground development is currently limited to the provision of pedestrian walkway routes and parking spaces. This concept has the potential to be expanded but needs to be regulated through planning mechanisms and comply with existing legal provisions.

The concept of using air rights is to create an overlapping development on top of the existing development and the creation of layered ownership with lots below and above the ground surface. This concept has the potential to be implemented to optimise the use of air right with various activity uses.

The KLLP2040 proposes a comprehensive and effective integration of transport through the implementation of the concept of Transit Oriented Development (TOD) and the spatial development of underground and air right so that Kuala Lumpur becomes an integrated and sustainable development in the future.

Toward realising Kuala Lumpur as a city with more productive and effective space utilisation, two (2) implementation proposals are formulated under Planning Strategy 6–6, as shown in Figure 6.6.1.

Figure 6.6.1:
Implementation Proposals of the Planning Strategy 6-6

SP 6-6

INTEGRATING RAIL TRANSPORTATION AND SPATIAL DEVELOPMENT

CP 6-6.1

Planning Transit Oriented Development (TOD)

CP 6-6.2

Planning Underground and Air Space Development In Main Transit and Infrastructure Areas

PLANNING TRANSIT ORIENTED DEVELOPMENT (TOD)

The transit station areas act as a catalyst for development of land use activities through compact development, mixed land use and pedestrian oriented development. The development around this station will be translated into the concept of Transit Oriented Development (TOD). This will indirectly affect the character of the surrounding area, transit usage patterns, land use zones and the intensity of development planned at each transit station.

The KLSP2040 has listed 27 stations as TOD including two (2) station that located outside Kuala Lumpur borders, which is the Bandar Utama Station and Gombak Station. The KLLP2040 has proposed an additional 20 potential transit stations out of 103 transit stations as TOD development. This proposal of 20 additional stations is based on the criteria as follows:

1. Availability of undeveloped land;
2. Availability of area or site with potential for redevelopment; and
3. Focus on type of mixed development and serves as a point of origin and destination.

A total of 58 transit stations are not listed as TOD developments since the stations do not meet the criteria. However, stations are not listed as TOD are still eligible to receive planning incentives in order to encourage high intensity development around transit stations subject to the suitability of the area.

The KLLP2040 also encourages the TOD development concept within a catchment radius of 400 metres from the station boundaries outside the border of Kuala Lumpur.

The proposal for the implementation of CP 6-6.1 is carried out through two (2) initiatives as follows:

1. Apply Planning Principles in Transit Stations; and
2. Determine Development Form By TOD Category.

CP 6-6.1**COORDINATION CONTEXT OF SDGs AND KLSP2040****SUSTAINABLE DEVELOPMENT GOALS CONTEXT****KLSP2040 CONTEXT****6**

GOAL
Kuala Lumpur Integrated and Sustainable Development City

BM3

STRATEGIC DIRECTION
Integration of Land Development and Public Transportation

BM 3.1

ACTION
Promote TOD Development in Transit Areas

IMPLEMENTATION APPROACH CP 6-6.1

IMPLEMENTATION INITIATIVE 6-6.1A

► APPLY PLANNING PRINCIPLES IN TRANSIT STATIONS

Transit Oriented Development (TOD) planning incorporates urban design principles that are considered important for planning of holistic and liveable development. The principles of TOD development are based on TOD planning guidelines as well as adaptations from foreign examples of TOD development best practice.

The necessary actions to support this initiative are as shown in Table 6.6.1.

Figure 6.6.2: TOD Development Concept

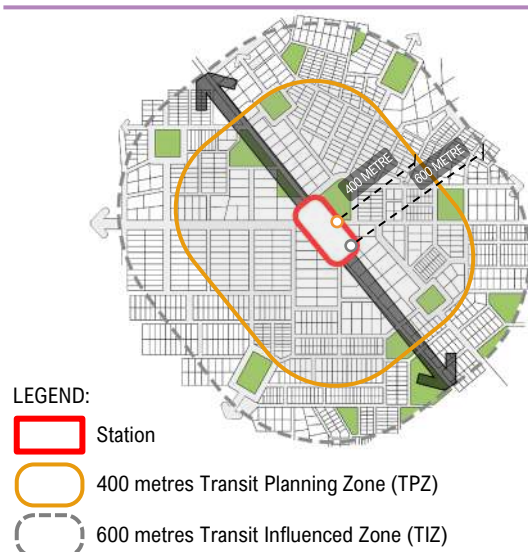


Table 6.6.1: Proposed TOD Principles

TOD principle	Description
1. Mixed and multiple use developments	<ul style="list-style-type: none"> a. Mixing of activities within a building or between land use activities to encourage transit use; b. A variety of activities around the station and surrounding areas; and c. Provision of housing and affordable commercial space in the TOD area.
2. Compact and high-intensity development	<ul style="list-style-type: none"> a. Higher intensity development especially within 400 metres and 600 metres from station.
3. Livability	<ul style="list-style-type: none"> a. Provision of open spaces, institutions, civic and welfare spaces as well as security facilities; b. Provision of quality, easily accessible and sufficient facilities; c. Development design based on active ground floor retail; d. Human scale development design; and e. Application of the characteristics of CPTED principles and universal design.
4. Connectivity	<ul style="list-style-type: none"> a. Provision of effective transport mode options for movement in and around the TOD area (feeder buses, pedestrian walkway and micro-mobility vehicle routes); and b. Compact urban development with a comprehensive network of pedestrian walkway and micromobility vehicle routes.
5. Age-friendly and disable-friendly environment (pedestrians, and micro-mobility vehicles)	<ul style="list-style-type: none"> a. Provision of continuous and seamless pedestrian and micromobility vehicle routes with crossing and barrier-free facilities; b. Provision of pedestrian walkway and micromobility vehicle routes crossings that are age-friendly and disable-friendly and integrated with smart elements for safety purposes; c. Provision of supporting facilities and route design that can support the movement of all groups, and especially people with disabilities, including the provision of signage for those with hearing impairment and learning disabilities as well as bicycle parking; d. Preference for covered walkways or shade landscaping to encourage activities of pedestrian walkway and micromobility vehicle routes; and e. Good and safe lighting to prevent crime especially at night.
6. Application of sustainable planning concept	<ul style="list-style-type: none"> a. Implementation of safe city elements CPTED, universal designs, smart technology and Low Carbon City including the use of smart poles, smart pedestrian technology, CCTV and panic buttons; and b. Barrier-free environment that is accessible to all.

OVERVIEW OF PROPOSED DESIGN CONCEPT AND DEVELOPMENT IN TOD AREA



Illustration of the proposed provision of covered walkways to encourage pedestrian activities among residents.



Illustration of the proposed provision of a continuous and safe user-friendly pedestrian crossing.



Illustration of the proposed provision of effective mode of transportation options for moving in and around the TOD area.



Illustration of the use of smart elements that can be implemented in Kuala Lumpur such as the installation of CCTV and bollards.

IMPLIMENTATION INITIATIVE 6-6.1B

► DETERMINE DEVELOPMENT FORM BY TOD CATEGORY

The KLSP2040 has identified five (5) TOD categories according to the activities and character of a transit station. It will indirectly determine the land use zone and intensity of development according to transit station.

The determination of the TOD category according to KLSP2040 is as follows:

- TOD 1:** City Centre (CBD);
- TOD 2:** Main Growth Centre;
- TOD 3:** Neighbourhood Area;
- TOD 4:** Institution and Community Facilities Area; and
- TOD 5:** Suburban Area.

Land use and the intensity of development in the TOD area must be optimised so that environmental, economic and social benefits can be reaped from this development.

The necessary actions to support this initiative are through the determination of proposed stations based on the guideline framework land use zones and intensity according to the TOD category as shown in Table 6.6.2.

BRIEF INFO

Type of TOD/ Category	TOD 1 City Centre (CBD)	TOD 2 Main Growth Centre	TOD 3 Neighbourhood Area	TOD 4 Institution and Community Facilities Area	TOD 5 Suburban Area
URBAN ACTIVITY PATTERNS	<ol style="list-style-type: none"> 1. Main business hotspot centre; 2. High intensity mixed; development 3. High intensity housing; and 4. Main office area. 	<ol style="list-style-type: none"> 1. Business hotspot centre; 2. Medium high mixed development; 3. High and medium high intensity housing; and 4. Office area. 	<ol style="list-style-type: none"> 1. Housing area; and 2. Neighbourhood business area. 	<ol style="list-style-type: none"> 1. Higher education centre; 2. Main Sports centre, cultural/civic centre; and 3. Administrative office area. 	<ol style="list-style-type: none"> 1. Housing; 2. Industry; 3. Institution; and 4. Specific employment activity.
TYPE OF STATION	Transportation hub	Integrated Interchange and Rail Station	Rail Station		
TRANSIT SERVICES	> 2 types of transit services in the Core TOD Zone (KTM, MRT, LRT, monorail, BRT, tram, high-speed rail)	> 2 types of transit services in the TOD Secondary Zone (KTM, MRT, LRT, monorail, BRT, tram, high speed rail)	1 type of transit service in the secondary zone		1 type of transit service in the supporting zone
DEVELOPMENT INTENSITY	High intensity	Medium high intensity	Medium intensity		
FACILITIES PROVIDED	<ol style="list-style-type: none"> 1. Feeder bus; 2. Pedestrian walkway connector network until the secondary zone; 3. Micromobility vehicle connector network until the supporting zone; and 4. Taxi, e-hailing services and others. 				<ol style="list-style-type: none"> 1. Similar to the facilities provided in TOD 1 to TOD 4; and 2. Park and Ride Facilities.

Source: Adapted from KLSP2040

Table 6.6.2: Station Proposals Based on the TOD Guidelines Framework

Number	List of TOD Stations (KLSP2040)	Number	List of TOD Stations (KLLP2040)
1.	KL Sentral	28.	Sri Rampai
2.	Hang Tuah	29.	Kampung Baru
3.	Masjid Jamek	30.	Dato' Keramat
4.	Sungai Besi	31.	Damai
5.	Sentul Timur	32.	Maharajalela
6.	Sentul Barat	33.	Kuchai
7.	Sentul	34.	Cochrane
8.	Ampang Park	35.	Kentonmen
9.	Mid Valley	36.	Hospital Kuala Lumpur
10.	Titiwangsa	37.	KLCC
11.	Chan Sow Lin	38.	Taman Connaught
12.	Salak Selatan	39.	Sri Delima
13.	Taman Midah	40.	Putra
14.	TRX	41.	Kepong Baru
15.	Kerinchi	42.	Pudu
16.	Bukit Bintang	43.	Bandar Malaysia North
17.	Pasar Seni	44.	Persiaran KLCC
18.	Maluri	45.	Conlay
19.	Bukit Jalil	46.	Bandaraya/Bank Negara
20.	Bandar Malaysia South	47.	Taman Tun Dr. Ismail
21.	Bandar Baru Sentul		
22.	Kepong Sentral		
23.	Kampung Batu		
24.	Setiawangsa		
25.	Pandan Jaya		
26.	Bandar Utama (Luar Sempadan Kuala Lumpur)		
27.	Gombak (Luar Sempadan Kuala Lumpur)		

Source: Adapted from KLSP2040

Note: The total number is 47 TOD stations in Kuala Lumpur, TOD stations 1 to 27 are TOD stations that have been listed by KLSP2040 while TOD stations 28 to 47 are proposed additional transit stations in the KLLP2040.

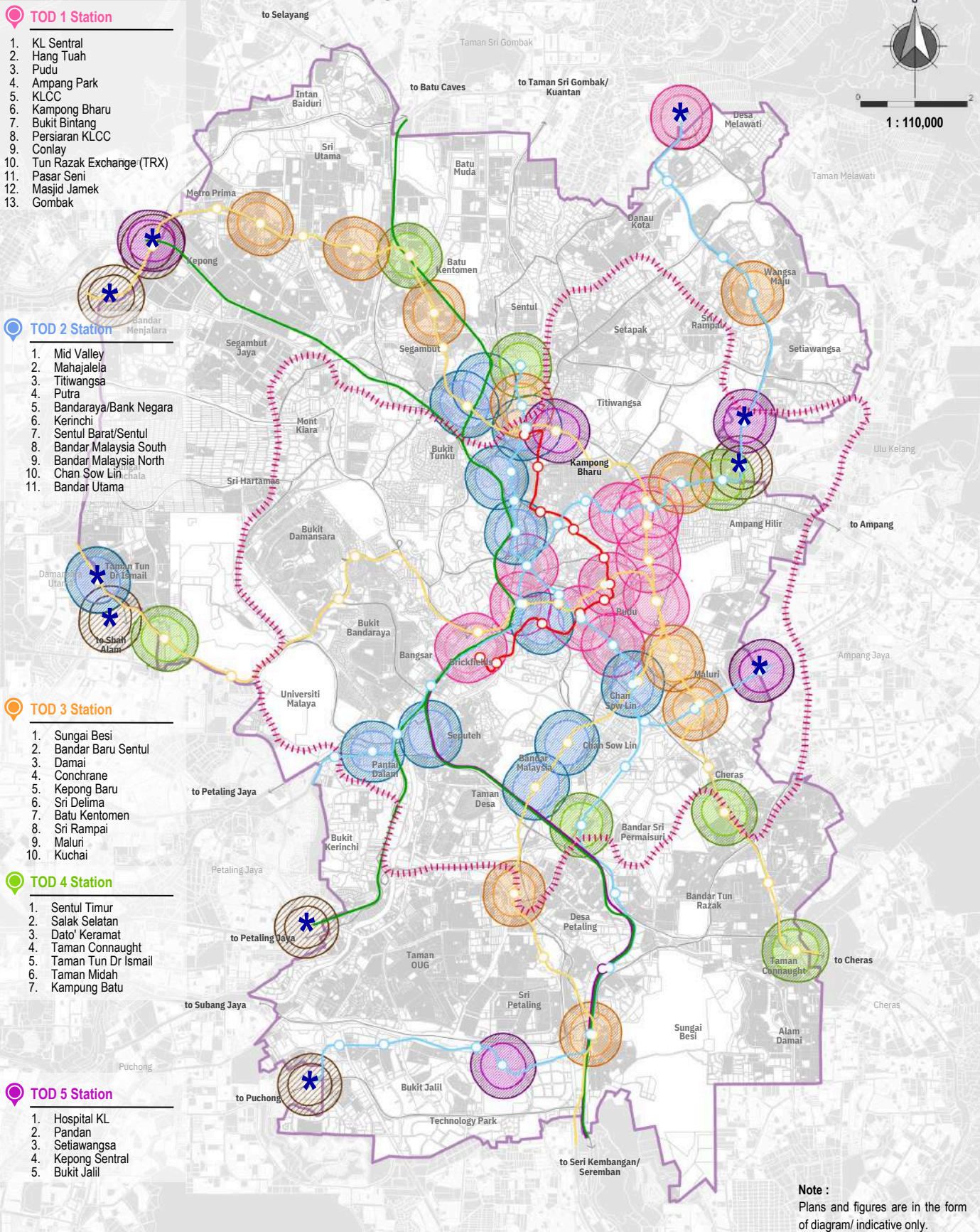


FIGURE 6.6.3 | Plan of Proposed Potential Transit Stations For Transit-Oriented Development (TOD)

Legend:

Existing

- Transit Station for Concept TOD 1
- Transit Station for Concept TOD 2
- Transit Station for Concept TOD 3
- Transit Station for Concept TOD 4
- Transit Station for Concept TOD 5
- Station Outside Kuala Lumpur

CP 6-6.2:**PLANNING UNDERGROUND AND AIR SPACE DEVELOPMENT IN MAIN TRANSIT AND INFRASTRUCTURE AREAS**

Rapid development, population density and limited land availability in Kuala Lumpur require a planning approach involving underground development and use of air rights development. This planning approach allows the available land and space resources to be used optimally and more effectively. Air rights and underground development are currently the trend for modern urban development in line with the development of technology and rapid development of cities in the world.

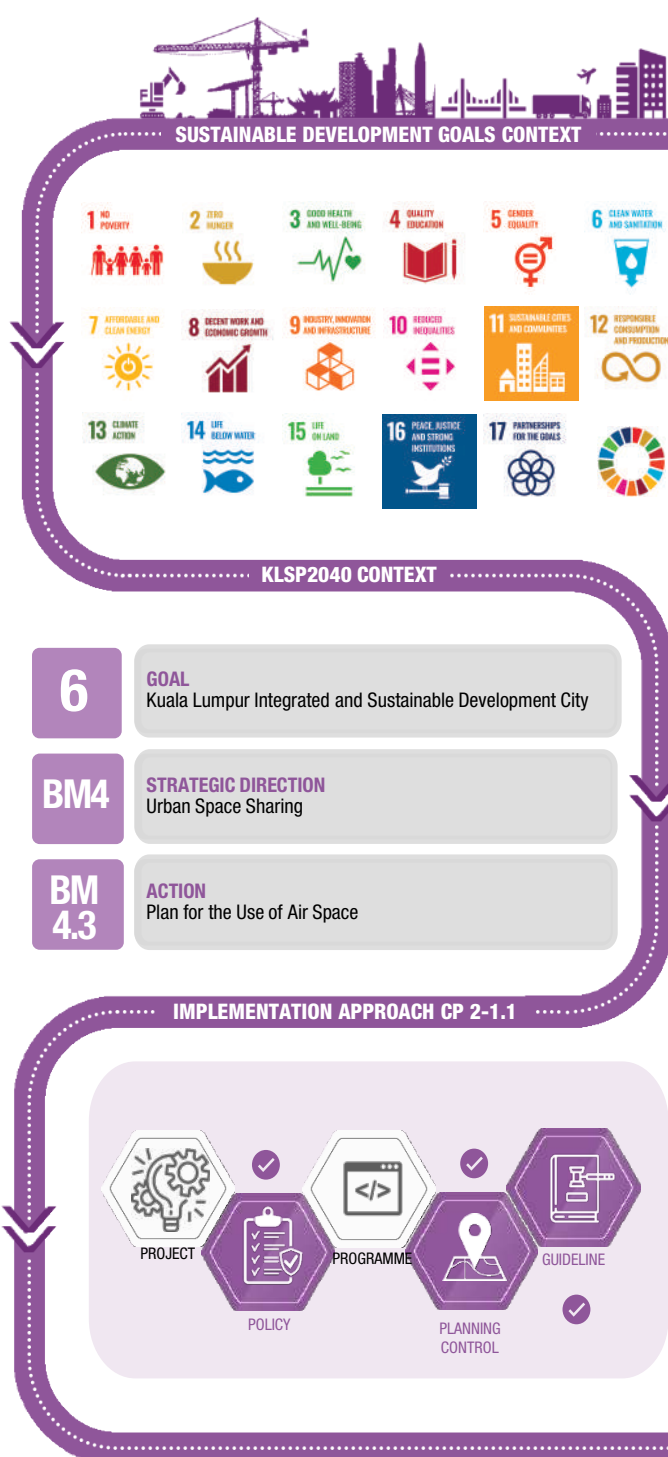
Priority areas for the implementation of underground space and air rights planning are in the high intensity commercial and mixed development land use zone including TOD areas.

The main components of the proposed underground development are commercial activities, recreation, creative industries and social activity centres. The implementation must ensure the environment and space provided underground are of high quality, safe and comfortable for users.

Amendments to the National Land Code in 1990 and 2016 have allowed underground land to be used and developed for permitted activities. Meanwhile, the main components of the air rights must be examined based on activities allowed according to the provisions of law and current guidelines.

The proposal for the implementation of CP 6-6.2 is carried out through three (3) initiatives as follows:

1. Propose the Development of Underground Space;
2. Promote The Development of Air Rights; and
3. Promote Development Through The Spatium Concept.

CP 6-6.2COORDINATION CONTEXT OF
SDGs AND KLSP2040

IMPLEMENTATION INITIATIVE 6-6.2A

► PROPOSE DEVELOPMENT OF UNDERGROUND SPACE

Underground development should be encouraged especially in TOD areas to ensure optimal use of space and land. This initiative can also be a new alternative to overcome the issue of limited land for development in Kuala Lumpur.

The necessary actions to support this initiative are as follows:

1. Encourage development of activities based on commercial, community facilities land use zones and other activities that capable of supporting a vibrant and dynamic underground city concept;
2. Ensure good accessibility to public transport services and connectivity for active mobility modes including pedestrian walkways and micro-mobility vehicle paths;
3. Ensure provision of complete infrastructure and supporting facilities; and
4. Apply sustainable planning concept such as element of Crime Prevention Through Environmental Design (CPTED), universal design, green building, smart technology and Low Carbon City.

IMPLEMENTATION INITIATIVE 6-6.2B

► PROMOTE THE DEVELOPMENT OF AIR RIGHTS

The development of air rights for undeveloped land is encouraged especially in TOD areas and mixed development zones.

The necessary actions to support this initiative are as follows:

1. Encourage development of air rights as a recreational area or green space to support the implementation of low carbon cities and reduction of urban heat islands;
2. Develop air rights as a facility that supports good urban connectivity and pedestrian-oriented concepts such as development of skyways or elevated linkages between buildings;
3. Ensure availability and maintenance of infrastructure facilities and other supporting facilities that are complete and capable of meeting the needs of users and visitors; and
4. Apply sustainable planning concept such as element of Crime Prevention Through Environmental Design (CPTED), universal design, green building, smart technology and Low Carbon City.

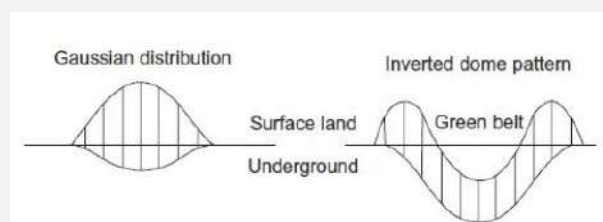
BRIEF INFO

CONCEPT OF UNDERGROUND DEVELOPMENT

The activities that can be proposed for underground pedestrian-oriented space are commercial and recreational in nature, such as offices, shopping centres, restaurants, sports centres, hotels, convention halls, education centres and health clinics.

Underground space development also connects two (2) buildings or more to create an urban ecosystem that has good pedestrian walkway accessibility.

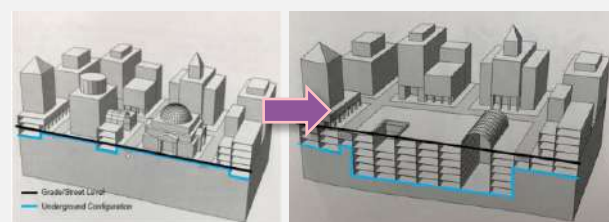
This concept uses an inverted dome pattern instead of Gaussian distribution, making the underground space development area more connected with good accessibility with a more vibrant and dynamic use of space. This can attract a high number of pedestrians and drive economic development rapidly as well as reduce the issue of congestion on the roads.



Source: Underground Infrastructures; Planning, Design, and Construction

Before

After



Source: Urban Subterranean Space: A link between a ground level public space and underground infrastructure

BEST PRACTICE**DEVELOPMENT OF AIR RIGHTS AND UNDERGROUND IN JAPAN**

The terrace rooftop garden at Kyoto Station is a tourist attraction because it functions as an observatory deck to enjoy the view of Kyoto City.



The development of an underground complex in Tenjin Chikagai Underground Street that connects the rail transport system.



A beautiful view of the city from the High Line Park in Manhattan. The High Line Park is a popular linear park built on elevated railroad tracks above Tenth Avenue in New York City.

IMPLEMENTATION INITIATIVE 6-6.2C**PROMOTE DEVELOPMENT THROUGH THE SPATIUM CONCEPT**

Development through the concept of spatium focuses on overlapping development on top of existing development with layered ownership. This concept aims to address the limited availability of land and the increasing demand for land in Kuala Lumpur for future development. This concept will take into account various aspects including legislation, physical and social impact, economic and infrastructure capacity as well as security.

The necessary actions to support this initiative are as follows:

1. Provide relevant specific guidelines covering location, area, support structure and access requirements;
2. Coordinate related legal provisions through ownership and leasing;
3. Ensure capacity and availability of building infrastructure and environment;
4. Ensure level of development safety and preparedness against disaster risk; and
5. Apply sustainable planning concept such as element of Crime Prevention Through Environmental Design (CPTED), universal design, green building, smart technology and Low Carbon City.

BEST PRACTICE**DEVELOPMENT THROUGH THE SPATIUM CONCEPT IN JAPAN**

Osaka famous cityscape with the elevated highway going through an office building in the business district of Japan third largest city in Kansai province.

REGULATING DEVELOPMENT IN SPECIAL AREA MANAGEMENT (SAM) ZONE

SCENARIO OF DEVELOPMENT IN SPECIAL AREA MANAGEMENT ZONE (SAM) KUALA LUMPUR

Kuala Lumpur has a diversity of flora and fauna as a natural heritage asset that supports sustainable development. Due to its rapid growth, cases of environmental disasters and other disasters continue to increase.

The trend of flash flood incidents in Kuala Lumpur has increased over a period of ten (10) years. A total of seven (7) cases were recorded in 2011 and increased to 13 cases in 2020. There are also cases of landslides in steeply sloping areas that affect the quality of life of city residents.

The preservation of forested areas as an element of Special Area Management (SAM) Zone has the potential to generate positive impact on the environment by reducing the urban heat island effect, lowering local temperatures, and becoming a habitat for various flora and fauna.

KLSP2040 has placed special emphasis on planning and developing important areas. It covers protection of nature, biodiversity and preservation of ecosystem from the pressure of increasingly vigorous development.

Toward realising Kuala Lumpur as a city with more productive and effective space utilisation, one (1) Implementation Proposal is formulated under Planning Strategy 6–7, as shown in Figure 6.7.1.

BRIEF INFO

THE IMPORTANCE OF FORESTS AS SAM

1. Supply oxygen;
2. Habitats for flora and fauna;
3. Reduce local temperature; and
4. Reduce effects of urban heat island.



Taman Rimba Bukit Nanas, which is surrounded by rapid development in the City Centre, needs to be protected to help reduce the heat island effect in Kuala Lumpur.

Figure 6.7.1:
Implementation Proposal for Planning Strategy 6-7

SP 6-7

REGULATING DEVELOPMENT IN SPECIAL AREA MANAGEMENT (SAM) ZONE

CP 6-7.1

Classification of Types and Levels Of Special Area Management (SAM) Zone

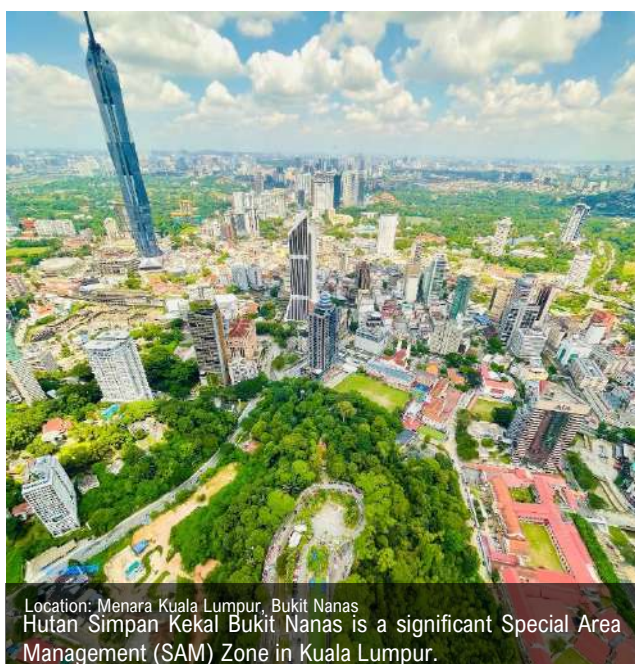
CP 6-7.1:**CLASSIFICATION OF TYPES AND LEVELS OF SPECIAL AREA MANAGEMENT (SAM) ZONE**

Special Area Management (SAM) Zone that receive the impact of development will change the stability of ecosystem and can affect the quality of environment. Overall land use planning needs to be integrated with the availability of SAM Zone, which covers forested areas, water bodies, and hilly and sloping areas. This area receives rapid development pressure from the surrounding area in terms of physical, economic and social activities. This scenario requires efficient zoning and management actions towards achieving Sustainable Development Goals (SDGs) in addition to balancing physical, economic and social development in Kuala Lumpur.

The availability of SAM by the year 2040 is 1,272.76 hectares (5.23 percent) of the area of Kuala Lumpur, which needs to be integrated with the KLDCP2025 Land Use and Intensity Zone Map.

The proposal for the implementation of CP 6-7.1 is carried out through three (3) initiatives as follows:

1. Classify Special Area Management (SAM) Zone;
2. Identify Special Area Management Zone (SAM); and
3. Manage Special Area Management Zone (SAM).

**CP 6-7.1****COORDINATION CONTEXT OF SDGs AND KLSP2040****SUSTAINABLE DEVELOPMENT GOALS CONTEXT****KLSP2040 CONTEXT****6**

GOAL
Kuala Lumpur Integrated and Sustainable Development City

BM5

STRATEGIC DIRECTION
Special Area Management

BM 5.1

ACTION
Regulate Development in Highlands and Hill Slopes

IMPLEMENTATION APPROACH IP 6-7.1

IMPLIMENTATION INITIATIVE 6-7.1A

► CLASSIFY SPECIAL AREA MANAGEMENT (SAM) ZONE

The level of Special Area Management (SAM) Zone comprise of different classification based on the nature of resource and its sensitivity to the development impact in which any form of development needs to consider the quality of environment in the area.

The KLLP2040 proposed a special classification for

Table 6.7.1:
Proposed Classification of SAM in Kuala Lumpur

Classification of SAM	Details
SAM Level 1: Natural Biodiversity Protection Area (high control)	<p>SAM Zone Level 1 is a natural Permanent Reserve Forest (PRF) that has been gazetted under the National Forestry Act 1984. This area is a natural resource that accommodates high-value biological diversity and is very sensitive to the impact of development in the surrounding area. The activities carried out must emphasis preserving and maintaining the environment that does not affect the nature of the resource ecosystem.</p> <p>This SAM Zone Level 1 is a land use zone of Forest Reserve (FR).</p>
SAM Level 2: Biodiversity Conservation Area (moderate control)	<p>SAM Level 2 is a forested resource area that supports conservation work. It is also sensitive to the impact of surrounding development at a moderate level. Activities carried out with an average impact are allowed without affecting the nature of the resource ecosystem.</p> <p>This SAM Level 2 is land use zone of Public Open Space 1 (OS1).</p>
SAM Level 3: Controlled Development Area (low control)	<p>SAM Level 3 has natural resources that allow development with selective and controlled development only. This SAM Level 3 is subject to compliance with the KLDCP2025 Land Use and Intensity Zone Map, the KLLP2040 and planning requirements of relevant guidelines.</p>



Location: HSK Bukit Nanas

The maintenance of PFR Bukit Nanas as SAM Level 1 which is currently surrounded by buildings will balance the quality of its environment.



Location: Taman Persekutuan Bukit Kiara

Taman Persekutuan Bukit Kiara is a SAM forest park that needs to be preserved and conserved.



Location: Taman Tasik Ampang Hilir

Taman Tasik Ampang Hilir is a water body that balances nature with development in the city of Kuala Lumpur.

IMPLIMENTATION INITIATIVE **6-7.1B**

► IDENTIFY SPECIAL AREA MANAGEMENT ZONE (SAM)

Recent development of global climate change also threatens the availability of resources in Kuala Lumpur if it is not well managed. The KLLP2040 has identified the types and levels of SAM in Kuala Lumpur in order to control, monitor and manage the resources.

It will also transform Kuala Lumpur into a sustainable and resilient city by 2040.

The necessary actions to support this initiative is by SAM classification according to different sensitivity levels depending on the resources ecosystem as shown in Table 6.7.2.

Table 6.7.2:
Classification of Type and Level of SAM in Kuala Lumpur

Level of SAM	SAM	Area (Hectare)	Percentage (%)
Level 1	The identified Permanent Reserves Forest (PRF) are: 1. HSK Bukit Lagong (Additional); 2. HSK Bukit Nanas; 3. HSK Bukit Sungai Puteh; 4. HSK Sungai Besi; and 5. HSK Sungai Besi Tambahan.	84.62	6.65
Level 2	The identified Urban Forest Parks are: 1. Taman Persekutuan Bukit Kiara; and 2. Hutan Rimba Bukit Kerinchi	223.21	17.54
Level 3	The identified rivers, ponds and flood retention are: 43 ponds and flood retention	381.44	29.97
	3 main rivers, 9 big rivers and 4 small rivers	429.69	33.76
	The identified hill areas are: 1. HSK Bukit Nanas (95 metres); 2. Part of Bukit Sg. Besi (295 metres); 3. Part of Bukit Arang (Universiti Malaya) (140 metres); 4. Part of Bukit Gasing (Pantai Dalam) (155 metres); 5. Part of Bukit Dinding, Wangsa Maju (295 metres); 6. Part of Bukit Batu Tabor dan Bukit Mas (300 metres); 7. Part of Bukit Pudu (165 metres); and 8. Part of Taman Persekutuan Bukit Kiara (260 metres).	153.80	12.08
	The identified slope areas Class IV (Exceeding 35°) are: 1. Bukit Lanjan; 2. Bukit Kiara; 3. Bukit Gasing; 4. Bukit Dinding; 5. Bukit Batu Tabor; Bukit Sungai Besi.		
	Total	1,272.76	100.00

IMPLIMENTATION INITIATIVE 6-7.1C

MANAGE SPECIAL AREA MANAGEMENT ZONE (SAM)

Development at SAM needs to be managed by considering level, location and permitted activities aspects to preserve and conserve SAM resources. The management and compliance requirements of development control is an efforts to achieve sustainable development in Kuala Lumpur in line with SDGs goals.

The necessary actions to support this initiative is through development control as shown in Table 6.7.3. Development control is required to avoid a significant impact on the SAM that have been identified.

Development should comply with Land Use and Intensity Zone Map KLDCP2025 as well as referring to the planning requirements in the relevant guidelines.

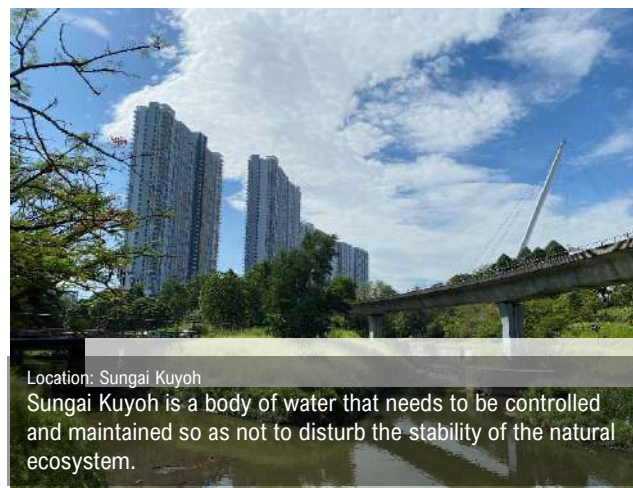


Table 6.7.3:
Development Control in Special Area Management Zone (SAM) According to Levels

SAM	Permitted Activities or Work	Forms of Control
Level 1 - PFR: 1. HSK Bukit Lagong (Additional); 2. HSK Bukit Nanas; 3. HSK Bukit Sg Puteh; 4. HSK Sungai Besi; and 5. HSK Sungai Besi Tambahan. Land use zone of Forest Reserve (FR).	a. Preservation, conservation, and maintenance work; b. Research and development (R&D); c. Ecotourism; d. Recreation or leisure; e. Office (Use Class A3); and f. Facilities involving food and drink (Use Class A5).	a. Practice environmentally friendly methods that do not affect the stability of the ecosystem and have a low impact; and b. Adhere to appropriate technical guidelines and special conditions.
Level 2 - Urban Forest Parks : 1. Taman Persekutuan Bukit Kiara 2. Hutan Rimba Bukit Kerinchi Land use zone of Public Open Area 1 (OS1).	a. Preservation, conservation, and maintenance work; b. Research and development (R&D); c. Recreation or leisure; d. Office (Use Class A3); e. Facilities involving food and drink (Use Class A5); and f. Entertainment (Use Class A6).	a. Practice environmentally friendly methods that do not disturb the stability of the ecosystem and have a moderate impact, and b. Adhere to appropriate technical guidelines and special conditions.
Level 3 – Water Bodies: Rivers and ponds or flood retention. Land Use Zone of Infrastructure and Utilities (IU), that is Drainage (Use Class H3).	a. Preservation, conservation, and maintenance work; b. Research and development (R&D); c. Recreation or leisure; and d. Commercial or residential development subject to planning suitability	a. Practice environmentally friendly methods that do not disturb the stability of the ecosystem and have a moderate impact; b. Drainage and Irrigation Report according to the Urban Stormwater Management Manual (MSMA2); and c. Adhere to appropriate technical guidelines and special conditions.

Table 6.7.3:**Development Control in Special Area Management Zone (SAM) According to Levels (continued)**

SAM	Permitted Activities or Work	Forms of Control
<p>Level 3 – Hilly areas (150-300 metres):</p> <ol style="list-style-type: none"> 1. HSK Bukit Nanas; 2. Part of Bukit Sungai Besi; 3. Part of Bukit Arang (in Universiti Malaya Campus); 4. Part of Bukit Gasing (Pantai Dalam); 5. Part of Bukit Dinding, Wangsa Maju; 6. Part of Bukit Batu Tabor and Bukit Mas; 7. Part of Bukit Pudu; and 8. Part of Taman Awam Berskala Besar Bukit Kiara. <p>(Level 3 - Slope areas Class IV (Exceeding 35°) :</p> <ol style="list-style-type: none"> 1. Bukit Lanjan; 2. Bukit Kiara; 3. Bukit Gasing; 4. Bukit Dinding; 5. Bukit Batu Tabor; and 6. Bukit Sungai Besi. <p>Refer to KLDCP2025 Land Use Zone and Intensity Map for Land Use Zones.</p>	<ol style="list-style-type: none"> a. Preservation, conservation, and maintenance work; b. Research and development (R&D); c. Recreation or leisure; d. Residential (own land); e. Office (Use Class A3); f. Facilities involving food and drink (Use Class A5); and g. Entertainment (Use Class A6). 	<ol style="list-style-type: none"> a. Prepare engineering studies and earthwork plans; b. Practice slope stabilization engineering approach (engineering solutions); c. Comply with the requirements of the geotechnical study; d. Prepare geological and geomorphological mapping work; e. Prepare a detailed Environmental Impact Assessment Report (EIA) study including an Environmental Management Plan (EMP); f. Prepare Drainage and Irrigation Reports according to the Urban Stormwater Management Manual (MSMA2); and g. Adhere to appropriate technical guidelines and special conditions.



Location: Bukit Gasing, Kuala Lumpur

Source: <https://www.shutterstock.com/g/Peter+Simetzberger>

Bukit Gasing is a hilly area at Level 3 that needs to be preserved and restored.

EMPOWERING AND DEVELOPING VILLAGES IN KUALA LUMPUR

SCENARIO OF DEVELOPMENT TRADITIONAL VILLAGES AND ORDINARY VILLAGES IN KUALA LUMPUR

Kuala Lumpur has old village areas located outside the City Centre. KLSP2040 has identified six (6) traditional villages consisting of Traditional and Semi-Traditional Villages.

These villages did not have a clear traditional profile such as cultural components, architecture, economic activities and others. This issue is driven by the location of the village in the urban area where the history of its existence is based on the function of Kuala Lumpur as an economic centre.

The traditional identity of the village in Kuala Lumpur can be clearly seen through character, architecture of the buildings and atmosphere of the village. The village characteristic can also be seen through the planning of small roads, close arrangement of residential, residential lots that do not have access as well as the provision of village community facilities at a moderate and centralised level.

The KLLP2040 proposes villages with traditional values be maintained and preserved through infrastructure improvement programmes, empowerment of community facilities, open spaces, tourism development and preservation of Special Tradition Zones.

Toward realising Kuala Lumpur as a city with more productive and effective space utilisation, four (4) Implementation Proposals are formulated under Planning Strategy 6–8, as shown in Figure 6.8.1.

BRIEF INFO

TYPES OF VILLAGES IN KUALA LUMPUR

6

Traditional Village

7

Potential Development Village

24

Ordinary Village

Figure 6.8.1:
Implementation Proposals for Planning Strategy 6-8

SP 6-8

PLANNING QUALITY DEVELOPMENT IN TRADITIONAL AND ORDINARY VILLAGES

CP 6-8.1

Empowering Identity of Traditional Village 1 (TV1)

The criteria for classifying traditional villages in Kuala Lumpur are different according to the current situation, capacity of infrastructure and local populations.

The KLLP2040 has proposed a special classification for villages in Kuala Lumpur for the purpose of preservation, conservation and provision of suitable development as follows:

Table 6.8.1: List Of Traditional Villages And Other Villages In Kuala Lumpur

Type of Village	List of Village	Details
Traditional Village	<ol style="list-style-type: none"> Land Use Zone of Traditional Village 1 (TV1) <ol style="list-style-type: none"> Part of Kampung Padang Balang Land Use Zone of Traditional Village 2 (TV2) <ol style="list-style-type: none"> Part of Kampung Padang Balang (other than those under Traditional Village zone); Part of Kampung Sungai Mulia; Part of Kampung Sungai Merali; Kampung Banda Dalam; Part of Kampung Chubadak Hulu; and Part of Kampung Puah Asal. 	<p>Traditional Village is divided into two (2) zones which are Land Use Zone of Traditional Village 1 (TV1) which is a controlled development area and Land Use Zone of Traditional Village 2 (TV2) which is an area where development is allowed with certain conditions and acts as a buffer to land use zone of TV1 and other development areas;</p>
Potential Development Village	<ol style="list-style-type: none"> Kampung Sungai Penchala; Kampung Bukit Lanjan; Kampung Palimbayan; Kampung Segambut; Kampung Selayang Lama; Kampung Datuk Keramat; and Kampung Bharu; 	<p>Potential Development Village is a village that has been identified as having the potential to be developed subject to the predetermined intensity in line with its surrounding area. The village was given a new lease of life through improvement proposals such as development of road networks, infrastructure, utilities and suitable community facilities; and</p>
Ordinary Village	<ol style="list-style-type: none"> Kampung Semarak; Kampung Pandan Melayu; Kampung Pandan India; Kampung Pasir Baru; Kampung Pantai Dalam; Kampung Muhibbah; Kampung Petaling Bahagia; Kampung Batu Muda; Kampung Seri Batu; Kampung Melayu Segambut; Kampung Pasir Segambut; Kampung Segambut Tengah; Kampung Segambut Bahagia; Kampung Delima; Kampung Batu Muda Tambahan; Kampung Desa Bakti; Kampung Malaysia Tambahan; Kampung Malaysia Raya; Kampung Melayu FRIM; *Kampung Baru Salak Selatan; *Kampung Baru Cheras Baru; *Kampung Baru Jinjang Selatan; *Kampung Baru Jinjang Utara; dan *Kampung Baru Kolam Air Panas. 	<p>Ordinary Village refers are villages that have developed concurrently with the surrounding development pressure on a medium scale and some have been converted into planned housing area. However, there are still villages that practice the culture and lifestyle of village community by carrying out self-sufficient activities.</p>

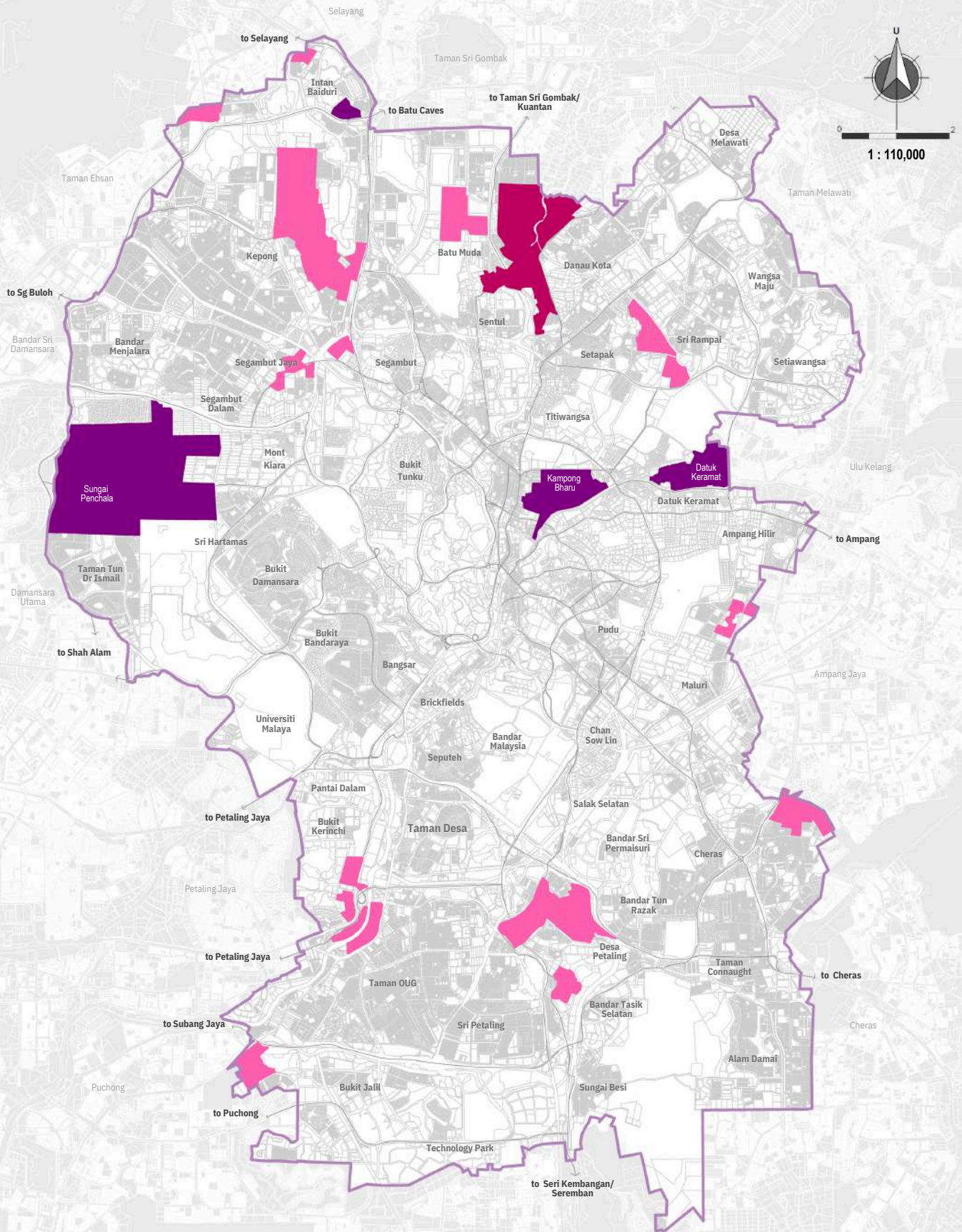


FIGURE 6.8.2 | Plan of Traditional Villages and Ordinary Villages Distribution in Kuala Lumpur

Legend:

- Traditional Village
- Development Potential Village
- Ordinary Villages

Others

- Main Road
- Kuala Lumpur Boundary

Note :
Plans and figures are in the form of diagram/ indicative only.

CP 6-8.1:**EMPOWERING IDENTITY AND PLANNING OF VILLAGE DEVELOPMENT**

Traditional village is an area that has been passed down for several generations with the characteristics of a Malay culture identity. This village exists in an unplanned and organic manner with linear and clustered settlement pattern. KLLP2040 establishes traditional villages encompassing the Land Use Zone of Traditional Village 1 (TV1) and the Land Use Zone of Traditional Village 2 (TV2).

Land Use Zone of Traditional Village 1 (TV1) involves part of Kampung Padang Balang with an area of 41.23 hectares. Meanwhile, the Land Use Zone of Traditional Village 2 (TV2) covers 6 villages with an area of 131.52 hectares, characterized by traditional Malay housing, which plays a role in supporting the identity of Land Use Zone of Traditional Village 1 (TV1).

KLLP2040 also identifies seven (7) villages with development potential covering 624.44 hectares and 24 regular villages, namely 19 villages and five (5) newly developed villages that no longer have village characteristics covering 964.40 hectares.

Land Use Zone of TV1 which embodies the characteristic and environment of traditional village will be preserved and protected. This include maintaining the presence of detached or semi-detached houses designed with traditional Malay architectural elements, with a height not exceeding three (3) storeys. Zone TV2, on the other hand, features more modern residential characteristics such as terrace houses or multi-storey houses with designs that incorporate elements of Traditional Malay House, which are permitted.

Empowerment of the identity of the traditional zone area involves the surrounding village areas that also face development pressures. This area is classified as a development potential village. This potential development village is a village that has been and is planned for future development based on current development trends and pressures.

The proposal for the implementation of CP 6-8.1 is carried out through four (4) initiatives as follows:

1. Control Development Planning of Land Use Zone of Traditional Village 1 (TV1);
2. Improve Planning of Land Use Zone of Traditional Village 2 (TV2);
3. Develop and Improve Selected Villages; and
4. Improve Planning of Ordinary Villages.

CP 6-8.1**COORDINATION CONTEXT OF SDGs AND KLSP2040****SUSTAINABLE DEVELOPMENT GOAL CONTEXT****KLSP2040 CONTEXT****6****GOAL**

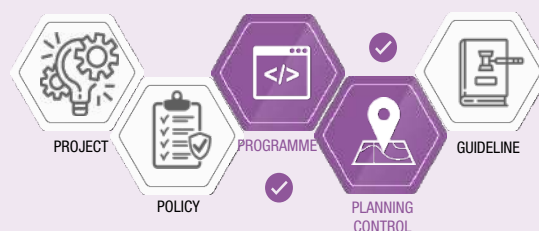
Kuala Lumpur Integrated and Sustainable Development City

BM5**STRATEGIC DIRECTION**

Special Area Management

BM 5.3**ACTION**

Plan Quality Development in Traditional Villages and Other Villages

IMPLEMENTATION APPROACH CP 6-8.1

IMPLEMENTATION INITIATIVE 6-8.1A

► CONTROL DEVELOPMENT PLANNING OF LAND USE ZONE OF TRADITIONAL VILLAGE 1 (TV1) ZONE

Development planning control in traditional village areas is carried out with the aim to ensure that traditional village areas can develop in a controlled manner. The development planning control in this area is to maintain the original traditional value of villages.

Zone TV1 has the potential to be preserved based on its status as Malay Reserve Land (KRM). There is a strong historical value, a Malay village atmosphere, and natural assets like the Gombak River, making it suitable for preservation.

The planning of the TV1 area emphasises and encourages the development of heritage tourism with a 'living museum' concept through the provision of supporting facilities such as village landscapes, access roads, gateways, and tourism activity planning.

The necessary actions to support this initiative are as follows:

1. Prepare and implement a detailed Master Plan and Urban Design Plan for the Traditional Village Area;
2. Promote business activities and services that incorporate elements such as handicrafts and food products;
3. Encourage local cottage industrial activities related to traditions such as carving art, manufacturing of traditional musical instruments and weapons;
4. Encourage homestay activities among residents and registered with the authorities to support traditional tourism activities;
5. Allow single and semi-detached type houses with height control not exceeding three (3) floors;
6. Control design of buildings that characterise Malay tradition;
7. Strengthen planning of road and utility infrastructure such as upgrading Jalan Padang Balang and Jalan Bandar Dalam as the main roads;
8. Identify methods of maintaining the character and intensity of development through innovative approaches such as Transfer of Development Right (TDR);

9. Develop recreational components along and across Sungai Gombak including rest and recreation areas, pedestrian walkway and micromobility vehicle routes;
10. Provide historical inscriptions that explain the existence of villages in Kuala Lumpur;
11. Provide four (4) formal entrances to land use zone of TV1 with signages and landscape elements as shown in Figure 6.8.3 and Table 6.8.2;
12. Encourage villagers to provide tourism support components such as homestays, and bicycle facilities; and
13. Create a special event to visit the Traditional Zone with a joint venture between the tourism agency and KLCH to promote the TV1 village.



Figure 6.8.2:
Plan of Proposed for Formal Entrance to the Traditional Zone



LEGEND:

- Traditional Village 1 (TV1)
- 📍 Proposed Entrance
- 📍 Proposed Mini Gallery
- 📍 Traditional Malay House
- 📍 Historical Inscriptions
- Road
- Main Road Network
- Walkways and Bicycle Network
- Leisure and Recreation Area



Illustration of gateway and special signages to show a sense of welcoming to the traditional village area.



Illustration of gateway as a sign of entry to the traditional village area.



Illustration of Mini Gallery to explain the existence of villages in Kuala Lumpur.

Table 6.8.3 : Formal Entrance Proposals

Entrance	General Initiatives	Specific Initiatives
P1	<ol style="list-style-type: none"> Provision of gateway as a sign of entry into the traditional village area; and Provision of landscape elements with village characteristic as well as friendly pedestrian walkway and micromobility vehicle routes. 	<ol style="list-style-type: none"> Provision of gateways or special signages to show a sense of welcoming to the village area; Empowerment of business activity focus areas in P1 as the main attraction; Mosque as the focus of activities for Islamic and cultural historical tourism; and Entrance road from Jalan Kampung Padang Balang.
P2		Entrance road from Jalan Changkat.
P3		Entrance road from Lorong Sungai Mulia.
P4		Entrance road from Jalan Marmar.

IMPLEMENTATION INITIATIVE 6-8.1B

IMPROVE PLANNING OF TRADITIONAL VILLAGE 2 (TV2) ZONE

Part of TV2 is a Malay Reserve Area (KRM) that was established under the Malay Reserve Enactment 1913 and the Land Enactment 1987. The enactment of this law aims to ensure that Malays are able to own land, especially in urban areas. This KRM area also cannot be transferred to non-Malays either through sale or lease.

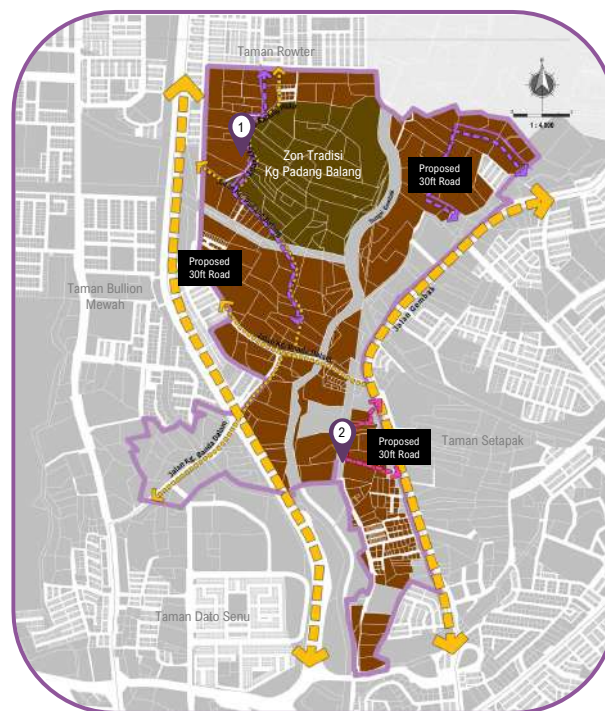
Land Use Zone of Traditional Village 2 (TV2) has the potential to be improved through land use class planning, land use activities and development control. Among the development controls that can be applied are base plot ratio development and height of building.

It also needs to be supported by the provision of public and infrastructure facilities in part of TV2 areas.

The necessary actions to support this initiative are as follows:

1. Control land use zone and intensity of residential development or compatible with surrounding typology with a base plot ratio of 1:2.0;
2. Providing the KRM Gombak Planning Guidelines that align with the Land Use and Building Class for the TV2 Land Use Zone in line with the pressures of development and the main physical sectors, namely trade, industry, and housing;
3. Provide high-intensity development incentives for TV2 that suit the area subject to the capacity of facilities and infrastructure of the area;
4. Strengthen planning of road and utility infrastructure such as the provision of suitable road reserves as shown in Figure 6.8.4;
5. Optimise vacant space and road reserves for landscape beautification and supporting facilities for visitor and tourist such as bus parking and visitor vans;
6. Develop recreational components along and across Sungai Gombak including rest and recreation areas, pedestrian walkway and micromobility vehicle routes; and
7. Consider shading aspects such as covered walkway, soft and hard landscape equipped with supporting facilities.

Figure 6.8.4:
Plan of Proposed Traditional and Partial Traditional Zone Gombak KRM



LEGEND:

- Traditional Village 1 (TV1)
- Traditional Village 2 (TV2)
- Proposed 30ft Road
- Proposed 50ft Road
- Road
- Main Road Network



Illustration of Road Reserve Proposal at Jalan Padang Hulu (30').



Illustration of Road Reserve Proposal at Lorong Balai Raya (50').

IMPLIMENTATION INITIATIVE 6-8.1C

DEVELOP AND UPGRADE POTENTIAL DEVELOPMENT VILLAGES

Developing the Potential Development Village requires in upgrading the facilities and infrastructures within village area in Kuala Lumpur. The identified village is recommended to be opened for development subject to planning control to preserve land ownership, asset ownership, and its community. New development is encouraged to incorporate Malay values and intangible values to ensure the continuity of development design with Land Use Zones TV1 and TV2.

The necessary actions to support this initiative are as follows:

1. Strengthen planning of road and utility infrastructure as shown in Table 6.8.3;
2. Provide open space, public facilities and optimise vacant space for leisure and recreation activities;
3. Encourage development that integrates pedestrian walkway and micromobility vehicle routes into open spaces and transit stations;
4. Consider shading aspects such as covered walkway, soft and hard landscape as well as equipped with supporting facilities; and
5. Strengthen the image and character of Traditional Village through urban design elements, signages and gateway development that characterise Malay tradition.

The proposed development plan of the village is as shown in Table 6.8.3.

Table 6.8.3 :
Proposed Upgrade of Jalan Sungai Penchala and Jalan Segambut

Area	Specific Initiatives
Jalan Sungai Penchala and Palimbayan	<ol style="list-style-type: none"> 1. Main entrance and exit to the village leads to Country Heights; 2. Widening the road from 12 metres (40') to 30 metres (100'); 3. Provision of streetlights, signages, landscaping element and others; and 4. Proposal for this street to be more pedestrian walkway and micromobility vehicle routes friendly.
Jalan Sri Penchala	<ol style="list-style-type: none"> 1. Widening the road from 10 metres (30') to 20 metres (66'); 2. Provision of streetlights, signages, landscaping element and others; and 3. Proposal for this street to be more friendly pedestrian walkway and micromobility vehicle routes.
New road proposal	<ol style="list-style-type: none"> 1. Proposed road width of 20 metres (66'); and 2. Road bypass that connects Kampung Bukit Lanjan, Palimbayan and Segambut Dalam.

BEST PRACTICE

PROVISION OF RECREATION AREAS ALONG THE NORTH SASKATCHEWAN RIVER TO EDMONTON PARK, CANADA



Provision of recreational components such as soft and hard landscape around the river area.

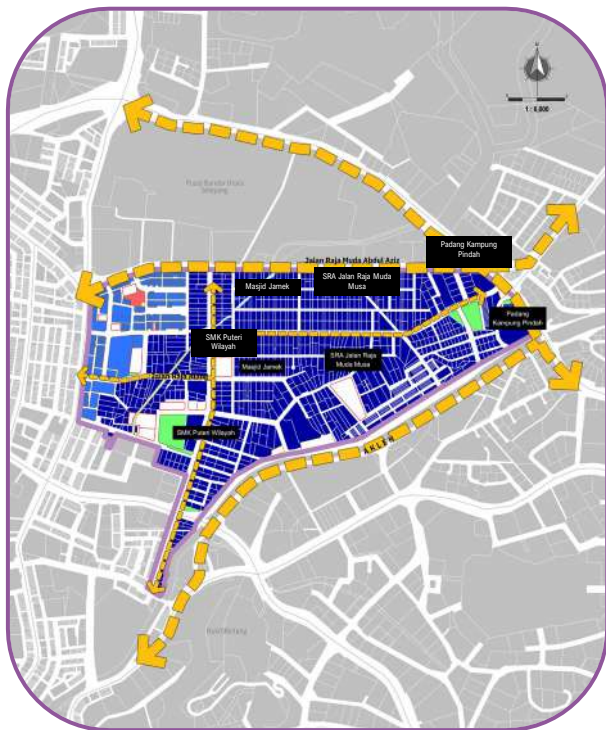


Provision of soft and hard landscape components as well as other supporting facilities around the river area.

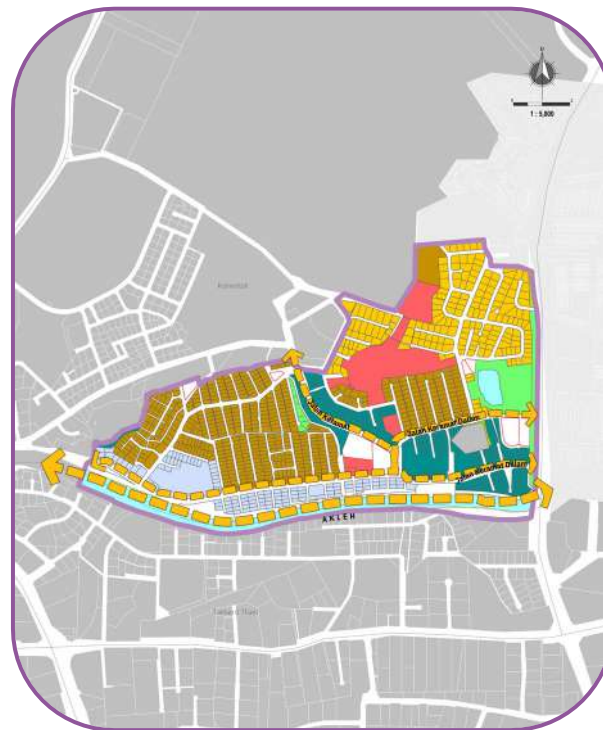
Table 6.8.4:

Proposed Plan for Potential Development Village

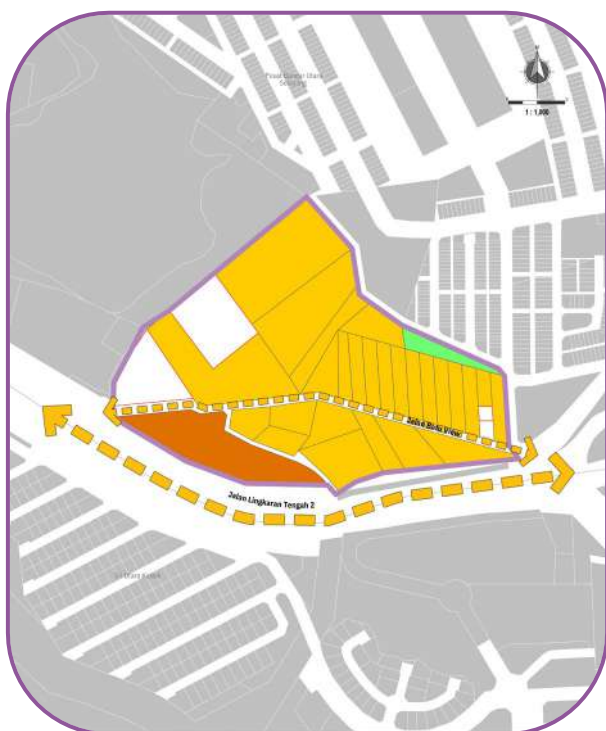
1. Kampung Bharu



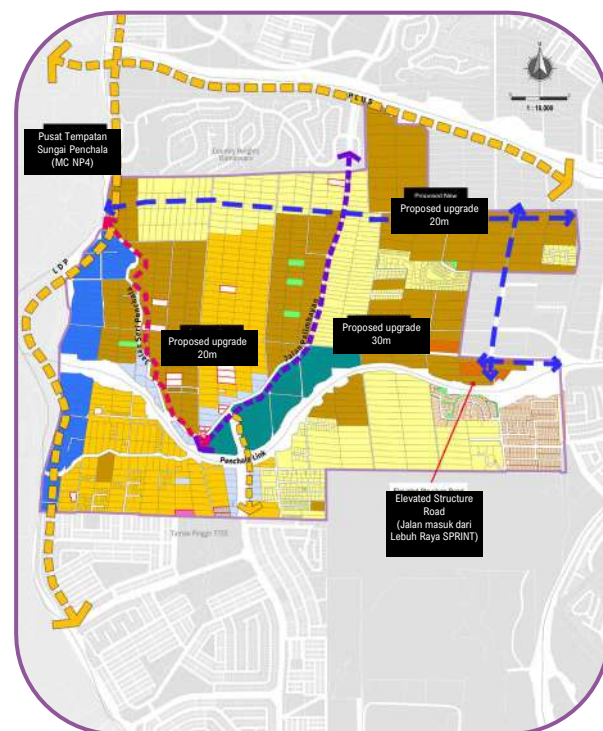
3. Kampung Datuk Keramat



2. Kampung Selayang Lama (KRM)



4. Kampung Sungai Penchala (MRV) Kampung Bukit Lanjan, Kampung Palimbayan and Kampung Segambut (KRM)



IMPLIMENTATION INITIATIVE

6-8.1D

► IMPROVE PLANNING OF VILLAGES

The planning of the development of villages, particularly the improvement of infrastructure, involves two (2) areas, namely villages and the New Villages. New Villages is an area where residents from rural areas were resettled by the British Colonial government in the 1950s. The impact of that action has resulted in the provision of community facilities and infrastructure in this area being incomplete. Village planning needs to emphasize aspects of infrastructure and utilities, area structure, and village image.

The necessary actions to support this initiative are as follows:

1. Allow development of shops or cottage industries in areas that receive development pressure in a controlled manner along main roads;
2. Encourage lots amalgamation for suitable sites to ensure that new development does not affect the surrounding area;
3. Provide community support facilities that comply with the needs and density of population;
4. Improve infrastructure and utility services in line with development pressure;
5. Consider shading aspects such as covered walkways, soft and hard landscape equipped with facilities such as street furniture, rest facilities trash cans, lamps and other supporting facilities; and
6. Control and enhance the image and character of the village through urban design elements, landscaping or street furniture such as signages.



Location: Kampung Batu Muda Community Hall
Kampung Batu Muda community hall facilities.



Location: Medan Sri Pantai Kampung Pantai Dalam

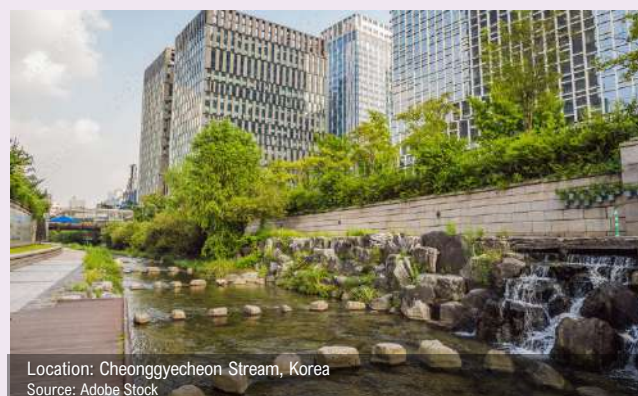
Food court in Sri Pantai Kampung Pantai Dalam.

BEST PRACTICE

RECREATIONAL ELEMENTS IN URBAN AREA CHEONGGYECHEON STREAM, KOREA



Location: Cheonggyecheon Stream, Korea
Source: Adobe Stock



Location: Cheonggyecheon Stream, Korea
Source: Adobe Stock

Provision of recreational facilities such as hard and soft landscape along areas with water elements.

SUMMARY

GOAL 6 : EMPOWERING DEVELOPMENT OF KUALA LUMPUR AS AN INTEGRATED AND SUSTAINABLE CITY

Various initiatives and implementation approaches have been proposed for Goal 6 towards empowering development of Kuala Lumpur as an Integrated and Sustainable City can be realised.

The planning and implementation of Goal 6 in the KLLP2040 considers the SDGs, proposal of KLSP2040 and other national development policies which are detailed through projects, policies, programmes, planning controls and guidelines.

The proposed strategies, initiatives and implementation approaches emphasis on planning and coordinating land development effectively, strengthening urban growth centre hierarchy, encouraging infill development, strengthening redevelopment planning, revitalizing urban functions, integrating rail transportation and spatial development, regulating development in Special Area Management Zone (SAM) as well as planning quality development in village.

Table 6.1 shows a summary of the planning strategy and implementation proposal for Goal 6.

Table 6.1:
The Summary of Planning Strategy and Implementation Proposal of Goal 6

Planning Strategy	Implementation Proposal	Implementation Approach				
		Project	Policy	Programme	Planning Control	Project
SP 6-1	CP 6-1.1	-	1	-	1	1
	CP 6-1.2	-	1	-	1	1
	CP 6-1.3	-	1	-	1	-
SP 6-2	CP 6-2.1	-	-	-	1	-
SP 6-3	CP 6-3.1	-	-	-	1	1
SP 6-4	CP 6-4.1	1	1	-	1	1
SP 6-5	CP 6-5.1	1	1	-	1	1
	CP 6-5.2	-	-	1	1	-
	CP 6-5.3	-	-	1	-	-
	CP 6-5.4	-	-	1	-	-
SP 6-6	CP 6-6.1	-	-	-	1	1
	CP 6-6.2	-	1	-	1	1
SP 6-7	CP 6-7.1	-	-	-	1	1
SP 6-8	CP 6-8.1	-	-	1	1	-
TOTAL		2	6	4	12	8

J2



GLOSSARY AND ABBREVIATION



GLOSSARY

TERMS	INTERPRETATION
Active Mobility	Pedestrian walkaways, bicycle lanes, and micromobility vehicles.
Adaptation	Adaptation encompasses actions that help communities and ecosystems cope with real and anticipated climate change. Examples include changes in weather patterns, rising sea levels, and natural disasters such as droughts and floods.
Affordable Housing	Affordable housing refers to homes that are attainable, livable, and safe to occupy, designed to meet the needs of the B40 and M40 income groups, with a maximum price set according to the current government policy.
Air Rights Development	The concept involves creating stacked development on top of existing structures and establishing layered ownership with volumetric lots both below and above the ground surface, aimed at meeting the growing demand for land.
Al fresco	Al fresco dining, or alfresco dining, is a common referring refers to eating together outdoors, especially in the open air.
Artificial Intelligence (Ai)	Intelligence possessed and demonstrated by a programming system or machine that is capable of performing tasks and functions similar to those generated by human thinking.
Augmented Reality (AR)	Technology that combines the real world with computer-generated information to create an interactive experience. By using software, apps, and hardware such as AR glasses, augmented reality integrates digital content into real environments and objects.
Big Data	Big Data refers to large and complex data sets that are often used for analysis processes.
Biodiversity	The Convention on Biological Diversity defines biodiversity as the variety of living organisms from various sources that includes land, sea and aquatic ecosystems, as well as the ecological complexes that form part of them, including the diversity of species, between species and ecosystems.
Biological	Biology is the scientific study of life. It examines the structure, function, growth, origin, evolution, and distribution of living things. This field classifies and explains organisms, their functions, how and why species exist, as well as their interactions with one another and with the environment.
Biogas	Biogas is a gas produced through the action of bacteria on organic waste materials and used as fuel.
Biomass Fuels	Biomass fuels a renewable energy sources derived from organic materials. Some examples of biomass fuels include wood, crops, fertilisers, and solid waste, which when burned, the chemical energy in biomass is released as heat.
Blue Corridor	The blue corridors are water bodies such as river reserves, ditches, catchment ponds and natural lakes.
Blueprint	A design plan or other technical drawing.
Bolted Joint	A bolt is a fastener consisting of a rod with a head. The head has a smooth surface, and screw-type threads area used on the exterior of the bolt. Typically, the bolt head has several edges, and its flat surface is not require the use of a screwdriver.
Buffer Zone	A buffer zone is usually takes the form of a green area, which separates two (2) land use activities that are incompatible, such as residential and industrial areas.
Build Back Better	The use of the recovery, rehabilitation and reconstruction phases after a disaster to increase the resilience of nations and communities through integrating disaster risk reduction measures into the restoration of physical infrastructure and societal systems, and into the revitalization of livelihoods, economies, and the environment.

TERMS	INTERPRETATION
Built-Up Area	Existing developments consisting of residential, commercial, industrial, institutional, public facilities, and infrastructure.
Carbon City	A city that adopts the sustainable development principles and ensures the fulfillment of development needs of all segments of society are met. It actively contributes and demonstrates strong commitment at the global level in stabilising CO2 emissions and other greenhouse gases that cause climate change, through actions to reduce global pollution. Additionally, the city is capable of demonstrating a high level of efficiency in energy use, the use of low-energy resources, and in the technology production.
Climate Change	A significant change in the climate of a region observed between two reference periods
Concept of Sponge City	This concept is an integrated and innovative water management strategy addressing the impacts of climate change, mitigating flood disasters and water retention.
Climate Change	Significant changes in climate seen in the climate of a region between two reference periods.
Creative industry	Industries that involve individual creativity, skills, and talents that have the potential to generate wealth and create job opportunities through the promotion and exploitation of intellectual property.
Disabled People	According to the Persons with Disabilities Act 2008, PWDs include those who have long-term physical, mental, intellectual or sensory impairments which, in interaction with various barriers, may hinder their full and effective participation in society.
Density	Refers to the intensity of land use, calculated based on the number of people, housing units, or rooms, or any combination of these factors per unit area of land.
Ecology	The relationship between living organisms and their environment.
E-Commerce	Any commercial transaction carried out through an electronic networks, including activities such as information delivery, marketing promotion, supply or delivery of goods or services, although payment and delivery related to the transaction may be carried out offline.
e-hailing	The process of ordering a car, taxi, limousine, or any other form of transportation through a virtual device, computer, or mobile cellular device.
El Niño	The condition of high surface water temperatures due to global warming. This temperature increase can lead to the death of corals and fish
Endemic	Endemic refers to a disease or outbreak that always present in a certain area or region.
Fault Line	A fault line is a fracture or zone of fractures on the Earth's surface that has experienced displacement due to movement between two blocks with different directions of movement."
Feed-In Tariff	A mechanism of allowing electricity generated from renewable energy sources (TBB) by independent developers and individuals to be sold to the electricity supply utility company (TNB) at a premium tariff rate for a period set by the government.
First Mile - Last Mile	Describes the beginning or end of individual journey, typically involving public transportation. The trip is easily accessible by walking or cycling from public transit.
Global City	The city is determined by its strategic intersection within the global economic system and houses various world-class (international) activities.

TERMS	INTERPRETATION
Green Corridor	Refers to infrastructure reserve corridors that include highways, roads, rail tracks, utility reserve routes, linear green areas, and sloped areas.
Greenhouse Gas	Any gas that absorbs infrared radiation, including water vapor, carbon dioxide (CO ₂), methane (CH ₄), nitrous oxide (N ₂ O), halogenated fluorocarbons (HCFCs), ozone (O ₃), perfluorinated carbon (PFCs), hydro fluorocarbons (HFCs) and sulfur hexafluoride (SF ₆).
Greenhouse Gas Emission	Greenhouse gases absorb and emit infrared radiation in the wavelength range emitted by the earth.
Gross Domestic Product (GDP)	The total value of goods and services produced within a specific period after deducting the cost of goods and services used in the production process. This value represents the amount before deducting the value of fixed capital consumption; that is, the total value added at producers' prices for resident producers plus import duties. This GDP is also equivalent to expenditure on GDP (at purchasers' prices), which is the total of all final expenditure components on goods and services minus imports of goods and services
Group B40	The lowest 40 percent income household group of the overall income distribution. Households with a monthly income of less than RM4,850 per month.
Group M40	The group of households earning the middle 40 percent of the overall income distribution. Households with a monthly income between RM4,851 to RM10,970 per month.
Group T20	The group of households earning the top 20 percent of the overall income distribution has the highest income of more than RM10,971 per month.
Homeless	People who do not have a place to live or has an unstable living arrangement.
Hydropwer	Hydropower is a renewable energy source capable of generating electricity. It includes hydroelectric power, tidal power, wave power, and ocean thermal energy.
Inclusive	Inclusive means covering all groups and layers of society among citizens, regardless of gender, ethnicity, socio-economic status, age, education, religion and space.
Infill Development	Development or redevelopment carried out on vacant land or developed sites located within built-up areas and areas under development.
Intangible Heritage	Intangible heritage encompasses knowledge and skills conveyed through oral traditions, cultural and customary values, language, and literary expression.
Internet of Things (IoT)	It is a network of devices, vehicles, home appliances, and other physical objects embedded with electronics, software, sensors, actuators, and connectivity that allow such devices to connect, collect, and exchange data.
Labour Force	The labour force refers to the population in the working age group (15 to 64 years) whether employed or unemployed.
Linear Corridor	Areas of green/ ecological zones that connects one area to another in a linear manner.
Liveable City	A liveable city in the Malaysian context refers to a built environment that provides employment, housing, amenities, and access to various infrastructure, as well as physical and social facilities. It is safe, vibrant, exciting, and healthy, surrounded by peace, tranquility, and greenery. Every citizen and their family can enjoy comfort and peace in an urban lifestyle

TERMS	INTERPRETATION
Magnitude	Magnitude is a logarithmic scale of an object's brightness used in astronomy, measured at a specific wavelength or passband, usually in the optical or near-infrared range.
Micromobility	Refers to transportation solutions for short-distance travel, usually at the first or last distance of the trip.
Micromobility Vehicles	Micromobility vehicles are a type of light transportation mode, such as electric scooters and bicycles, including shared bikes, electric pedal-assisted bikes, and others that are similar.
Mitigation	Actions taken to overcome/ reduce the implications of a natural disaster and climate change.
Monocentric	A city that has one business center (the Central Business District) with economic, cultural, and administrative activities concentrated in the central area and expand outward from that one centre.
MRT Sungai Buloh – Kajang (SBK) (MRT)	A 46km-long train route, with a 9.5km underground section running beneath central Kuala Lumpur, starting from Kwasa Damansara (northwest of Kuala Lumpur) and ending in Kajang.
MRT Sungai Buloh – Serdang – Putrajaya (SSP) (MRT2)	A 57.7km-long train route, with 13.5 km of underground tracks, and 44.2 km of elevated tracks. It begins at Kwasa Damansara (northwest of Kuala Lumpur) and ending in Putrajaya.
MRT 3 – Laluan Lingkar	A 50.8km-long train route, comprising 10.7km of underground tracks and 40.1km of elevated tracks.
Multinational	A company that has assets and facilities in one or more countries outside its home country, and has a centralized office where global management is coordinated.
MySmart Wilayah	This is a Federal Territories Smart City Blueprint developed by the Ministry of Federal Territories (KWP) in collaboration with PLANMalaysia (Department of Town and Country Planning) and the Ministry of Housing and Local Government (KPKT), in support of the Strategic Plan of the Ministry of Federal Territories 2021–2025.
Observatory centre	A national hub data, reference, monitoring, and reporting centre that monitors the well-being and sustainability of sustainable cities through social, municipal, economic and environmental aspects.
Pandemic	Pandemic refers to an outbreak that occurs on a larger scale and is not limited to a specific community or district alone.
Parklet	A small seating area or green space created as a public amenity on or alongside the pavement, especially in former on-street parking spaces
Photovoltaic	Photovoltaic is a field of technology and research related to the conversion of energy from sunlight into electricity.
Plot Ratio	Plot ratio means the ratio between the floor area of the building compared with the area of the building plot, as defined in Act 267 (Part 1, Section 2).
Pocket Park	A small park that is accessible to the public
Polycentric	A city that develops or grows by having more than one business center where each one has its own economic, cultural, and administrative functions.
Proactive	It refers to a positive attitude (of individuals, institutions, etc.) in planning or taking action (after careful consideration) well in advance of an event that would require such action — rather than only responding after the event has occurred.

TERMS	INTERPRETATION
Public Space	Public space is a social space that is generally open and can be used by the public.
Redevelopment	New development on an existing site or area that involves the complete or substantial renewal of the layout, structure, function, and activities of the building or area.
Riverside Corridor	Refers to areas where the requirement for a riverfront corridor will be imposed on proposed developments
Root Barrier	A root barrier is an underground wall installed to block plant roots. It is usually intended to protect structures or other plants, but root barriers are also used to retain soil moisture.
Sediment	To sink down and accumulate at the bottom. Sedimentation of materials such as mud, sand, and other substances that settle.
Senior citizen	Individuals aged 60 years and above.
Silo	A pit, trench, or tall cylinder (made of wood or concrete) used to produce or store livestock feed
Smart City	A city that uses information and communication technology (ICT) and technological advancements to address urban issues and improve quality of life, economic growth, environmental sustainability, and more efficient and safer urban management.
Smart Climate	Concepts related to climate change or intelligent environmental management using technology or artificial intelligence.
Spatial	Spatial is related to space.
Spatium	Spatium is a concept for creating overlapping development on top of existing development and the creation of layered ownership with volume lots below and above the ground surface, aiming to meet the needs of the increasingly high demand for land.
Stratum	Stratum is underground soil that has been identified for the purpose of independent and unrelated disposal or use.
Solar Energy	Solar energy or solar energy is a technology for obtaining useful energy from sunlight.
Sustainable Development	Development that can meet the needs of the present without compromising the ability to meet the needs of the future.
Tangible Heritage	Something that can be permanently seen and touched, whether static or movable.
Territory	Territory means an area that spans two (2) or more administrative areas. According to the Urban and Rural Planning Act, Aka 172, a region consists of two (2) states or more.
Transit	Transit point or stopover
Transit Oriented Development (TOD)	TOD, or Transit-Oriented Development, is a development concept based around rail or bus public transportation stations, with environments that offer high connectivity, are user-friendly, and reduce dependence on motor vehicles. It promotes mixed-use and high-density development within walking distance of surrounding components such as residential and commercial areas, while also encouraging optimal and inclusive land and space development.

TERMS	INTERPRETATION
Underground Space Development	The use of underground space is pedestrian-oriented, and activities that can be proposed include commercial and recreation, such as offices, shopping malls, restaurants, sports centers, hotels, convention halls, educational centers, and health clinics.
Universal Design	The design of environments and products that can be used freely by all groups of individuals without the need for any adaptation or specialised design.
Urban Heat Island	Urban heat island (UHI) refers to an urban or metropolitan area that is significantly warmer than its surrounding rural areas due to human activities.
Vertical	Perpendicular from top to bottom or vice versa
Vulnerable Group	Any person found begging in a public place in such a way as to cause or to be likely to cause annoyance to persons frequenting the place or otherwise to create a nuisance; or any idle person found in a public place, whether or not he is begging, who has no visible means of substance or place of residence or is unable to give a satisfactory account of himself.
Youth Citizens	Individuals between the ages of 15 and before reaching the age of 30.
Wave Energy	Wave energy devices generate energy directly from surface waves or from subsurface pressure fluctuations. Wave energy can be converted into electricity by changing the movement of the water surface or the change in water pressure as the wave propagates
Wind Energy	Wind energy is a renewable source of energy and it does not cause pollution; therefore, it is an alternative to fossil fuels.

ABBREVIATION

BAHASA INGERIS		BAHASA MELAYU
4G/5G	Generation Of Broadband Cellular Network Technology	Penjanaan Teknologi Rangkaian Selular Jalur Lebar
4IR	National Fourth Industrial Revolution (4IR) Policy	Dasar Perindustrian Keempat (4IR) Negara
AES	Automated Enforcement System	Sistem Penguatkuasaan Automatik
AI	Artificial Intelligence	-
AKLEH	Ampang – Kuala Lumpur Elevated Highway	Ampang – Kuala Lumpur Elevated Highway
ALS	Automated Locking System	-
APAD	Land Public Transport Agency	Agensi Pengangkutan Awam Darat
AVLS	Auto Vehicle Locating System	-
B40	Bottom 40%	Kumpulan terendah 40%
BBJ	Bukit Bintang Cultural Junction	Bukit Bintang Cultural Junction
BEE	Besraya Eastern Extension	Besraya Eastern Extension
BEI	Building Energy Index	Indeks Tenaga Dalam Bangunan
BIOECODS	Bio-Ecological Drainage System	Sistem Saliran Bioekologikal
BSS	Bike-sharing system	Bike-sharing system
C	Commercial	Perdagangan
CAPKL2050	Climate Action Plan Kuala Lumpur 2050	Pelan Tindakan Iklim Kuala Lumpur 2050
CCA	Climate Change Adaptation	-
CCC	City Centre Commercial	Perdagangan Pusat Bandar Raya
CDRI	Climate Disaster Resilience Index	-
CLQ	Centralized Labor Quarters	pusat penginapan pekerja
CM	Countermeasures	Langkah Balas
CO2	Carbon Dioxide	Karbon Dioksida
CP	Implementation Proposals	Cadangan Pelaksanaan
CPTED	Crime Prevention Through Environment Design	Pencegahan Jenayah Melalui Reka Bentuk Persekitaran
CUT	Common Utility Trench	Koridor Laluan Utiliti Guna Sama
DBKL	Kuala Lumpur City Hall	Dewan Bandaraya Kuala Lumpur
DCS	District Cooling System	Sistem Penyejukan Daerah
DID	Department of Irrigation and Drainage	Department of Irrigation and Drainage
DINK	Dual Income No Kids	-
DISF	Domestic Investment Strategic Fund	-
DLs	Distribution Licensees	Pemegang Lesen Pengagihan
DOE	Environmental Department	Jabatan Alam Sekitar

BAHASA INGGERIS		BAHASA MELAYU
DPN2	Second National Municipal Policy	Dasar Perbandaran Negara Kedua
DPN 2019-2030	National Transport Policy 2019-2030	Dasar Pengangkutan Negara 2019-2030
DPN2030	National Transport Policy 2030	Dasar Pengangkutan Negara 2030
DRR	Disaster Risk Reduction	Pengurangan Risiko Bencana
DUKE	Duta- Ulu Kelang Expressway	Lebuhraya Duta- Ulu Kelang
DURC	Dedicated Utility Road Crossing	Persimpangan Jalan Utiliti Khusus
E&O	Eastern and Oriental Berhad	Eastern and Oriental Berhad
ECRL	East Coast Railway Line	Laluan Kereta Api Pantai Timur
EIA	Environment Impact Assessment	Penilaian Impak Alam Sekitar
ERL	Express Rail Link	Pautan Rel Ekspres
ESCP	Erosion and Sediment Control Plan	Pelan Kawalan Hakisan dan Sedimen
ETS	Electric Train Service	Perkhidmatan kereta api elektrik
EVP	Electronic Vehicle Permit	-
FDI	Foreign Direct Investment	-
FIAHs	Pemegang Kelulusan Galakan	Feed-in Approval Holders
FiT	Feed-In Tariff	Tarif Galakan
FRIM	Malaysian Forestry Research Institute	Institut Penyelidikan Perhutanan Malaysia
GBI	Green Building Index	Indeks Bangunan Hijau
Gbps	Gigabits Per Second	Gigabit Sesaat
GHG	Greenhouse Gas Emissions	Pelepasan Gas Rumah Hijau
GIS	Geographic Information System	Sistem Maklumat Geografi
GLA	Greater London Authorities	-
GPWPKL 2010	-	Garis Panduan Perancangan Pembangunan di Kawasan Bukit dan Cerun bagi WPKL, 2010
Greentech Malaysia	Centre for Green Technology and Climate Change Malaysia	Pusat Teknologi Hijau dan Perubahan Iklim Malaysia
GUO	Global Urban Observatory	Balai Cerap Bandar Global
HORAS	Hybrid Off River Augmentation System	Sistem Pembesaran Luar Sungai Hibrid
HSK	Permanent Forest Reserve	Hutan Simpan Kekal
HSR	High Speed Rail	Keretapi Berkelajuan Tinggi
HTMP	Heritage Trail Master Plan	Pelan Induk Jejak Warisan
IBS	Industrialised Building System	Sistem Bangunan Berindustri
ICT	Communication and Information Technology	Teknologi Komunikasi dan Maklumat
IKMa	Institut Koperasi Malaysia	Institut Koperasi Malaysia
IKS	Medium Small Industry	Industri Kecil Sederhana

BAHASA INGGERIS		BAHASA MELAYU
IMUO	Iskandar Malaysia Urban Observatory	Balai Cerap Bandar Iskandar Malaysia
INSKEN	National Institute of Entrepreneurship	Institut Keusahawanan Negara
IoT	Internet of Things	Internet Pelbagai Benda
IP	Implementation Initiative	Inisiatif Pelaksanaan
IP	Innovative and Productive	Inovatif dan Produktif
IPT	Higher education institutions	Institusi Pengajian Tinggi
IPU	Air pollution index	Indeks Pencemaran Udara
IS	Inclusive and Fair	Inklusif dan Saksama
ITBM	Institusi Terjemahan dan Buku Malaysia	Institusi Terjemahan dan Buku Malaysia
ITS	Intelligent Transport System	Sistem Pengangkutan Pintar
IUCN	International Union for Conservation of Nature	Kesatuan Antarabangsa untuk Pemuliharaan Alam Sekitar
Jalan TAR	Tuanku Abdul Rahman Street	Jalan Tuanku Abdul Rahman
JAS	Environmental Department	Jabatan Alam Sekitar
JAWI	Federal Territories Department of Islamic Religion	Jabatan Agama Islam Wilayah Persekutuan
JBP	Department of Urban Transport	Jabatan Pengangkutan Bandar
JKKN	National Department of Culture and Arts	Jabatan Kebudayaan dan Kesenian Negara
JKM	Social welfare Department	Jabatan Kebajikan Masyarakat
JKTSM	Department of Manpower Peninsular Malaysia	Jabatan Tenaga Kerja Semenanjung Malaysia
JMG	Department of Minerals and Geosciences	Jabatan Mineral dan Geosains
JMM	Department of Meteorology Malaysia	Jabatan Meteorologi Malaysia
JPJ	Department of Road Transport	Jabatan Pengangkutan Jalan
JPPH	valuation and Property Services Department	Jabatan Penilaian dan Perkhidmatan Harta
JPS	Department of Irrigation and Drainage	Jabatan Pengairan dan Saliran
JPWKL	Education Department of the Federal Territory of Kuala Lumpur	Jabatan Pendidikan Wilayah Persekutuan Kuala Lumpur
JWN	National Heritage Department	Jabatan Warisan Negara
JWP	Department of Federal Territory	Jabatan Wilayah Persekutuan
KAKH	Kod Amalan Kebajikan Haiwan	Kod Amalan Kebajikan Haiwan
KDNK	gross domestic product	Keluaran Dalam Negara Kasar
Ketsa	Ministry of Energy and Natural Resources	Kementerian Tenaga dan Sumber Asli
KL	Kuala Lumpur	Kuala Lumpur
KLCAP 2050	Kuala Lumpur Climate Action Plan	Pelan Tindakan Iklim Kuala Lumpur
KLCC	Kuala Lumpur Convention Centre	Menara Berkembar Petronas
KLCP 2020	Kuala Lumpur City Plan 2020	Pelan Bandar Raya Kuala Lumpur 2020
KLDCP 2025	Kuala Lumpur Development Control Plan 2025	Pelan Kawalan Pembangunan Kuala Lumpur 2025

BAHASA INGGERIS		BAHASA MELAYU
KL	Kuala Lumpur Low Carbon Society Blueprint 2030	Pelan Induk Masyarakat Rendah Karbon Kuala Lumpur 2030
LCSBP2030		
KLIA	Kuala Lumpur International Airport	Lapangan Terbang Antarabangsa Kuala Lumpur
KLIA 2	Kuala Lumpur International Airport 2	Lapangan Terbang Antarabangsa Kuala Lumpur 2
KLIC	Kuala Lumpur Internet City	-
KLORR	Kuala Lumpur Outer Ring Road	Kuala Lumpur Outer Ring Road
KLPAC	Kuala Lumpur Performing Art Centre	Kuala Lumpur Performing Art Centre
KLUO	Kuala Lumpur Urban Observatory	Balai Cerap Bandar Kuala Lumpur
KLSP2040	Kuala Lumpur Structure Plan 2040	Pelan Struktur Kuala Lumpur 2040
KPKT	Ministry Of Housing And Local Governance	Kementerian Perumahan dan Kerajaan Tempatan
KPLB	Ministry Of Rural Development	Kementerian Pembangunan Luar Bandar
KPSBM	Ministry Of Tourism, Arts And Culture Malaysia	Kementerian Pelancongan, Seni dan Budaya Malaysia
KPTB	Labor Force Participation Rate	Kadar Penyertaan Tenaga Buruh
KRM	Malay Reserve Area	Kawasan Rizab Melayu
ktCO2eq	Kilo Tons Of Carbon Dioxide Equivalent	Kilo Tan Karbon Dioksida Setara
KTM	Malayan Railway	Keretapi Tanah Melayu
KTN	National Land Code	Kanun Tanah Negara
Ktoe	Kilotonne Of Oil Equivalent	Kilo Ton setara minyak
KuLSIS	Kuala Lumpur Slope Information System	Sistem Maklumat Cerun Kuala Lumpur
kWh	Kilowatt-hour	Kilowatt-jam
KWP	Ministry of Federal Territories	Kementerian Wilayah Persekutuan
LA21	Local Agenda 21	Agenda Tempatan 21
LC	Local Trade	Perdagangan Tempatan
LCCF	Low Carbon City Framework	Rangka Kerja Bandar Rendah Karbon
LED	Light Emitting Diode	Diod pemancar cahaya
LEO	Low Energy Office	Pejabat Tenaga Rendah
LEZ	Low Emission Zone (Zon Pelepasan Rendah Karbon)	Zon Pelepasan Rendah Karbon
LID	Low Impact Development	Pembangunan Berimpak Rendah
LIKE	Laluan Istana – Kiara Expressway	Laluan Istana – Kiara Expressway
LPPPIR	Household Income And Expenditure Survey Report	Laporan Penyiasatan Pendapatan dan Perbelanjaan Isi Rumah
LRA	Water Treatment Plant	Loji Rawatan Air
LRT	Light Rail Transit	Transit Aliran Ringan
LUAS	Selangor Water Management Board	Lembaga Urus Air Selangor
M2	Square Meters	Meter Persegi

BAHASA INGGERIS		BAHASA MELAYU
M40	Middle 40% income group	Kumpulan pendapatan pertengahan 40%
MAA	Malaysian Automotive Association	Persatuan Automotif Malaysia
MARA	People's Trust Council	Majlis Amanah Rakyat
MAS	Malay Agricultural Settlement	Penempatan Pertanian Melayu
MaTiC	Malaysian Tourism Center	Pusat Pelancongan Malaysia
MATRADE	Malaysia External Trade Development Corporation	Perbadanan Pembangunan Perdagangan Luar Malaysia
MBPJ	Petaling Jaya City Council	Majlis Bandaraya Petaling Jaya
Mbps	Megabits Per Second	Megabit Sesaat
MBSA	Shah Alam City Council	Majlis Bandaraya Shah Alam
MC	Efficient Mobility	Mobiliti Cekap
MC	Major Commercial	Perdagangan Utama
MCO	Movement Control Order	Perintah Kawalan Pergerakan
MEDEC	Malaysian Entrepreneur Development Center	Pusat Pembangunan Usahawan Malaysia
MESTECC	Ministry of Energy, Science, Technology, Environment and Climate Change	Kementerian Tenaga, Sains, Teknologi, Alam Sekitar dan Perubahan Iklim
MGTC	Malaysia Green Technology Corporation	Perbadanan Teknologi Hijau Malaysia
MHLG	Ministry of Housing and Local Governmance	Kementerian Perumahan dan Kerajaan Tempatan
MICE	Meeting, Incentives, Conferences and Exhibitions	Mesyuarat, Insentif, Persidangan dan Pameran
MIDA	Malaysian Industry Promotion Board	Lembaga Penggalak Industri Malaysia
MIGHT	Malaysian Industry - Government Group for high Technology	Kumpulan Industri-Kerajaan Bagi Teknologi Tinggi Malaysia
MITEC	Malaysia International Trade and Exhibition Centre	Pusat Pameran dan Perdagangan Antarabangsa
MNC	Multinational Corporation	Syarikat Multinasional
MOSTI	Ministry of Science, Technology and Innovation	Kementerian Sains, Teknologi dan Inovasi
MOT	Ministry of Transportation	Kementerian Pengangkutan
MOTAC	Ministry of Tourism, Arts and Culture	Kementerian Pelancongan, Seni dan Budaya
MPAJ	Ampang Jaya Municipal Council	Majlis Perbandaran Ampang Jaya
MPFN	National Physical Planning Council	Majlis Perancangan Fizikal Negara
MPK	Klang Municipal Council	Majlis Perbandaran Klang
MPKJ	Kajang Municipal Council	Majlis Perbandaran Kajang
MPKL	Kuala Langat Municipal Council	Majlis Perbandaran Kuala Langat
MPS	Selayang City Council	Majlis Perbandaran Selayang
MPSepang	Sepang Municipal Council	Majlis Perbandaran Sepang
MRF	Material Recovery Facility	Kemudahan Pemulihan Bahan

BAHASA INGGERIS		BAHASA MELAYU
MRT	Mass Rapid Transit	Transit Aliran Massa
MRT - Laluan (SBK)	MRT Sungai Buloh – Kajang Line	MRT Laluan Sungai Buloh – Kajang
MRT 2 – Laluan (SSP)	MRT Sungai Buloh-Serdang-Putrajaya	MRT Laluan Sungai Buloh-Serdang-Putrajaya
MRT 3 - Laluan Lingkaran	MRT Circle Line	MRT Laluan Lingkaran
MSC	Multimedia Super Coridor	Koridor Raya Multimedia
MSMA	Urban Storm Water Management	Manual Saliran Mesra Alam
MTDC	Malaysian Technology Development Corporation	Perbadanan Pembangunan Teknologi Malaysia
MUO	Malaysia Urban Observatory	Balai Cerap Bandar Malaysia
MVEC	Mid Valley Exhibition Centre	Pusat Pameran Mid Valley
MW	Megawatt	Megawatt
MWh	MegaWatt-hour	Megawatt-jam
MWp	MegaWatt-peak	MegaWatt-peak
MXI	Mix Development	Pembangunan bercampur
NAPIC	National property information centre	Pusat Maklumat Harta Tanah Negara
NBS	Nature- Based Solution	Penyelesaian Berasaskan Alam Semula Jadi
NEM	Pemeteran Tenaga Bersih	Pemeteran Tenaga Bersih
NFCP	National Fibersation on Connectivity Plan	Gentian Kebangsaan Pelan Kesalinghubungan
NGO	Non-Governmental Organizations	Pertubuhan Bukan Kerajaan
NODE	Northern Dispersal Expressway	-
NPCC	National Policy on Climate Change	Dasar Perubahan Iklim Negara
NPE	New Pantai Expressway	Lebuhraya Pantai Baru
NRW	Non-revenue Water	Kehilangan air tidak berhasil
NUA	New Urban Agenda	Agenda Perbandaran Baharu
nZEB	Nearly Zero Energy Building	Bangunan Hampir Sifar Tenaga
NZEB	Net Zero Energy Building	Bangunan Tenaga Sifar Bersih
OKU	Persons with Disabilities	Orang Kurang Upaya
OSD	On-Site Detention	Penahanan Di Tapak
OUG	Overseas Union Park	Taman Overseas Union
P2P	Peer to Peer	Rakan kepada Rakan Sebaya
PA	Public housing	Perumahan awam
PASS	Subsidised Rental Public Housing	Perumahan Awam Sewa Bersubsidi
PBB	United Nations	Pertubuhan Bangsa-bangsa Bersatu

BAHASA INGERIS		BAHASA MELAYU
PBN	State Authorities	Pihak Berkuasa Negeri
PBT	Local authority	Pihak Berkuasa Tempatan
PEERS	Partners Engaging and Empowering Rough Sleepers	Rakan Kongsi Melibatkan dan Memperkasakan Orang yang Tidur Kasar
PGK	Poverty Line Income	Pendapatan Garis Kemiskinan
PIJWKL	Kuala Lumpur Heritage Trail Master Plan	Pelan Induk Jejak Warisan Kuala Lumpur
PITKL	Kuala Lumpur Traffic Master Plan 2040	Pelan Induk Trafik Kuala Lumpur 2040
PKG	Feed-in Approval Holders	Pemegang Kelulusan Galakan
PKI	Industrial Area Improvement	Penambahbaikan Kawasan Industri
PKJ	Neighbourhood Improvement Programme	Penambahbaikan Kawasan Kejiranan
PKK	Commercial Area Improvement Programme	Program Penambahbaikan Kawasan Komersial
PKNS	Selangor State Development Corporation	Perbadanan kemajuan Negeri Selangor
PKPR	Small Office Home Office	Pejabat Kecil Pejabat Rumah
PLP	Distribution Licensees	Pemegang Lesen Pengagihan
PMB	Infrastructure Malaysia Berhad	Prasarana Malaysia Berhad
PMD	Personal Mobility Devices	Alat Mobiliti Peribadi
PPAM	Malaysian Civil Servant Housing	Perumahan Penjawat Awam Malaysia
PPR	-	Program Perumahan Rakyat
PPS	Spatial Management Plan	Pelan Pengurusan Spatial
PRIMA	1Malaysia People's Housing	Perumahan Rakyat 1Malaysia
PSPPA	Solid Waste Management and Public Cleaning	Pengurusan Sisa Pepejal dan Pembersihan Awam
R&D	Research and Development	Pusat Penyelidikan dan pembangunan
REHDA	Real Estate and Housing Developer's Association	Persatuan Pemaju Hartanah dan Perumahan
RFiD	Radio Frequency Identification Device	Peranti Pengenalan Frekuensi Radio
RFN4	Fourth National Physical Plan	Rancangan Fizikal Negara Keempat
RMK12	12th Malaysia Plan	Rancangan Malaysia ke-12
RoL	River of Life	Sungai Nadi Kehidupan
ROW	Right of Way	Hak Laluan
RMM	Affordable Housing	Rumah Mampu Milik
RSTP	Regional Sewage Treatment Plant	Loji Rawatan Kumbahan Serantau
RTB	Flood Mitigation Plan	Rancangan Tebatan Banjir
RTM	Radio and Television Malaysia	Radio dan Televisyen Malaysia
RUC	Road User Charging	Mengecas Pengguna Jalan Raya

BAHASA INGERIS		BAHASA MELAYU
RUMAW1P	Federal Territories Affordable Homes	Rumah Mampu Milik Wilayah Persekutuan
SAIDI	System Average Interruption Duration Index	Indeks Tempoh Gangguan Purata Sistem
SAM	Special Area Management	Kawasan Pengurusan Khas
SDG	Sustainable Development Goals	Matlamat Pembangunan Mampan
SEDA	Sustainable Energy Development Authority	Pihak Berkuasa Pembangunan Tenaga Lestari
SESB	Sabah Electricity Sdn. Bhd	Sabah Electricity Sdn. Bhd
SFDRR	Sendai Framework for Disaster Risk Reduction 2015-2030	Kerangka Kerja Sendai untuk Pengurangan Risiko Bencana 2015-2030
SIA	Social Impact Assessment	Penilaian Impak Sosial
SIRIM	Malaysian Institute of Standards and Industrial Research	Institut Piawaian dan Penyelidikan Perindustrian Malaysia
SKM	Malaysia Co-operative Societies Commission of Malaysia	Suruhanjaya Koperasi Malaysia
SMART	Stormwater Management and Road Tunnel	Pengurusan Air Ribut dan Terowong Jalan
SOHO	Small Office Home Office	Pejabat Kecil Rumah Pejabat
SOV	Use of Private Vehicles	Penggunaan Kenderaan Persendirian
SP	Planning Strategy	Strategi Perancangan
SPAH	Rainwater Harvesting System	Sistem Penuaian Air Hujan
SPE	Setiawangsa – Pantai Expressway	Setiawangsa – Pantai Expressway
ST	Energy Commission	Suruhanjaya Tenaga
START-UP	-	Syarikat pemula
SUDS	Sustainable Drainage Systems	Sistem Saliran Bandar Mampan
SV	Healthy and Vibrant	Sihat dan Vibran
SWCORP	Solid Waste Management and Public Cleansing Corporation	Perbadanan Pengurusan Sisa Pepejal Dan Pembersihan Awam
T20	Top 20% income group	Kumpulan berpendapatan Atas 20%
TAPS	Riverside Water Reservoir	Takungan Air Pinggiran Sungai
TAZ	Traffic Activity Zone	Zon Aktiviti Lalu Lintas
tc02EQ tan	Carbon Dioxide equivalent	Karbon Dioksida setara
TDR	Transfer of Development Rights	Pemindahan Hak Pembangunan
TEKUN	Business Group Economic Fund	Tabung Ekonomi Kumpulan Usaha Niaga
TIA	Traffic Impact Assessment	Penilaian Impak Lalulintas
TLK	Parking lot	Tempat Letak Kereta
TLM	Motorcycle Parking	Tempat Letak Motosikal
TM	Telekom Malaysia	Telekom Malaysia

BAHASA INGERIS		BAHASA MELAYU
TNB	Tenaga Nasional Berhad	Tenaga Nasional Berhad
TOD	Transit- oriented development	Pembangunan Berorientasikan Transit
TP	Land Use Zone of Technology Park	Zon Guna Tanah Taman Teknologi
TPO	Tree Preservation Order	Perintah Pemeliharaan Pokok
TPZ	Transit Planning Zone	Zon Perancangan Transit
TRX	Tun Razak Exchange	Tun Razak Exchange
TTDI	Taman Tun Dr. Ismail	Taman Tun Dr. Ismail
TUDM	Royal Malaysian Airforce	Tentera Udara Diraja Malaysia
UAV	Unmanned Aerial Vehicle	Dron
UDA	Urban Development Corporation	Perbadanan Pembangunan Bandar
UDGKL	Urban Design Guidelines Kuala Lumpur City Centre	Garis Panduan Reka Bentuk Bandar Pusat Bandaraya Kuala Lumpur
UFC	Urban Community Forest	Hutan Komuniti Bandar
UHI	Urban Heat Island	Pulau Haba Bandar
UKAS	Public Private Partnership Unit	Unit Kerjasama Awam Swasta
UNCRPD	Agenda United Convention on the Right of Person with Disabilities	Agenda Konvensyen Bersatu Mengenai Hak Orang Kurang Upaya
UNDRR	United Nations Office for Disaster Risk Reduction	-
UNESCO	The United Nations Educational, Scientific and Cultural Organization	Pertubuhan Pendidikan, Saintifik dan Kebudayaan Bangsa-Bangsa Bersatu
UNFCCC	United Nations Framework Convention on Climate Change	Konvensyen Rangka Kerja Perubahan Iklim Bangsa-Bangsa Bersatu
USM	University of Science Malaysia	Universiti Sains Malaysia
UTC	Urban Transformation Centre	Pusat Transformasi Bandar
VMS	Variable Message Signs	Sistem Informasi Perjalanan
VMT	Vehicle Miles Travelled	Batu Kenderaan Dilalui
VOC	Volatile Organic Compound	Sebatian Organik Meruap
WHO	World Health Organization	Pertubuhan Kesihatan Dunia
WKB 2030	Shared Prosperity Vision 2030	Wawasan Kemakmuran Bersama 2030
WKN	National Conurbation Region	Wilayah Konurbasi Nasional
WPKL	Federal Territory of Kuala Lumpur	Wilayah Persekutuan Kuala Lumpur
WSD	Water Saving Device	Peranti Penjimatan Air
WSUD	Water Sensitive Urban Design	Reka Bentuk Bandar Sensitif Air
WTC	World Trade Centre	World Trade Centre
YUPPIES	Young Urban Professionals	Profesional Muda Bandar
ZEB	Zero Energy Building	Bangunan Sifar Tenaga



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DEWAN BANDARAYA KUALA LUMPUR

