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ABSTRACT

The term "walkability" describes how friendly a city or a neighbourhood is to pedestrian activity. The whole idea of "walkable cities" is to create public urban spaces that are available for pedestrians and friendly for walkers. However, for a variety of reasons, most people still prefer to drive and take public transportation rather than walk. So, why is it important to prioritise walking as a mode of transportation? How to promote walkable lifestyle?

It is imperative to promote a walkable lifestyle where people are given the option to comfortably move around cities. For a city like Kuala Lumpur, walkability is not just nice-to-have, but is important and vital. This article by the author discusses the consideration of walkability as an important component towards strengthening the urban fabric, to both mitigate and adapt to the climate crisis and to improve social cohesion. This is critical for transforming Kuala Lumpur into a more liveable and sustainable city.

WE NEED WALKABILITY FOR A RESILIENT CITY

by **Alia Salleh**

Introduction: Walking – the forgotten mode of transportation

Kuala Lumpur aims to improve its public transport modal share to 70% by 2040, a lofty target from the current 25% [1]. One of the key challenges within this aim is solving the first-and-last mile connectivity. Various mobility options have been put to test: such as feeder buses and on-demand pick-up service by RapidKL; e-scooters (such as Beam and OoGya), and electric bicycles by the private sector. These current efforts are however keeping silent on one modest yet very viable option – walking. Walking may well be the missing link in solving the issue of first-and-last mile connectivity for our city, aside from the many innate benefits it offers to make Kuala Lumpur more liveable.

We know why walking is important as a transport mode. It emits zero carbon, is a healthy habit, and removes cars from roads. The conversation on walkability however goes beyond the activity. It concerns the design of our city. Currently, our city is designed for cars. But this is a recent phenomenon arising from induced demand for car-centric infrastructure and national automotive policy. As recent as 1990s, public transport modal share was 37%, before dropping to 25% currently. We can return to our recent history of a walkable and public transport-centric city by understanding how urgent we need it for our cities to be more resilient and adaptable towards our immediate challenges.

What is urban resilience? UN Habitat defines it as ‘the ability of any urban system, with its inhabitants, to maintain continuity through all shocks and stresses, while positively adapting and transforming towards sustainability’ [2]. In Kuala Lumpur’s context, we have experienced shocks to our mobility systems, namely from COVID-19 pandemic and at a smaller scale, Kelana Jaya LRT 5-day closure in November 2022. In the medium term, we anticipate further stresses to our transport systems arising from the impending climate emergency through increases in the probability of environmental disasters. How a city withstands or adapts to such events depends on the strength of its urban fabric, which include economic, environment, and social aspects.

Walkability is not just nice-to-have but is important and urgent for our city. In this article, we shall consider how walkability is an important component in our efforts toward strengthening the urban fabric, to both mitigate and adapt to the climate crisis as well as to improve social cohesion.

The state of walkability in Kuala Lumpur

Walking in Kuala Lumpur is not easy. Having an equatorial climate, the weather is hot with an average daily mean of 28°C, relatively humid, with annual rainfall of about 223 cm (double the global average annual precipitation). It is also a sprawling city; one needs to cover substantial distance when travelling. The construction of highways and wide roads have reduced walkability by slicing and dicing our city into ‘superblocks’ only navigable by motor vehicles. These superblocks erect physical barriers that make it difficult or inconvenient for people to walk to local shops and businesses, let alone discover new shops. These mega roads also create noise and air pollution, which make the immediate surrounding areas less attractive to businesses and their customers.

Visiting the newer shopping malls or commercial areas in Kuala Lumpur, you may notice a common design pattern – one that tries to imitate the natural pedestrian walks (Figure 1) using winding walkways, open spaces, and landscaping elements that help create a more organic and natural feel to the space. This approach acknowledges that walkability has great benefits towards local businesses as it increases visibility for small businesses and eateries, allowing people to browse and discover unfamiliar shops through visual prompts, essentially creating the ‘footfall traffic’ that businesses and investors track as indicators for the likelihood of making sales. Ironically, just a short walk to the edge or ‘frontier’ of these made-up walkways and you will realise that these idyllic walking tracks are mere ‘islands’ encircled by wide non-walkable roads with minimal pedestrian access and connectivity to the larger spaces beyond (Figure 2).

Figure 1: *Idyllic stroll in an ‘street’ set inside a shopping mall imitating the look and feel of a Japanese street; Photo by author, 2022*

Figure 2: *Just a few steps away from the ‘imitation street’ is a pedestrian bridge overlooking a multi-lane major road; Photo by author, 2022*

There have been efforts by Kuala Lumpur City Hall (DBKL) to improve pedestrian pathways in the city and impose a speed limit of 30 km per hour (a global standard) in urban and residential areas. In addition, elevated pedestrian pathways have been built alongside new real estate developments such as the one seen in Figure 2. These investments however leave much to desire, as the principle behind them still prioritise private cars instead of expanding road use to accommodate multi-modality. This led to half-hearted spending on pathways that are blocked by trees and signages or ones that end abruptly, zebra crossings that do not accommodate disabilities, and mazes of elevated paths. This illustration by Karl Jilg (Figure 3) captures the situation well – roads are deep chasms that pose danger to pedestrians.

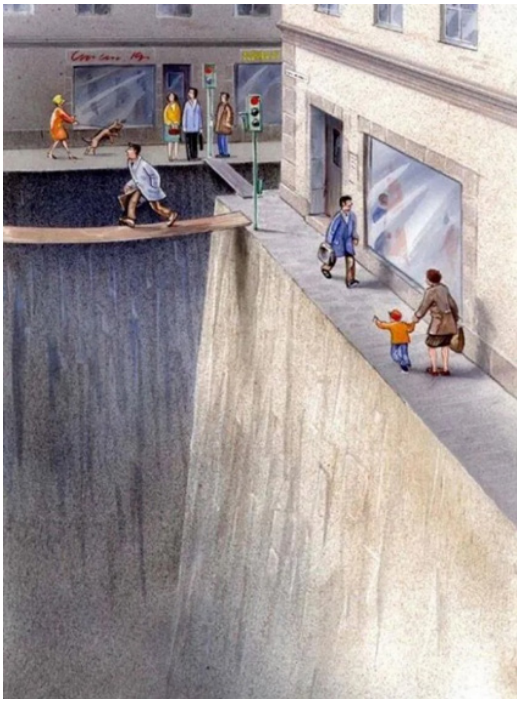

Figure 3: *Illustration by Karl Jilgt*

In February 2020, KL City Hall hinted on plans to pedestrianise 10 roads in the city by 2025, pioneered by 5 roads to be pedestrianised by the end of 2020, including Jalan Raja and Jalan Tuanku Abdul Rahman (TAR) [3]. However, the plan stalled and reports on it quietened down with the COVID-19 pandemic. While other cities, such as Paris, took advantage of the quiet downtime during the pandemic to permanently pedestrianise the city such as by adding cycle lanes [4], Kuala Lumpur failed to utilise the pandemic window to change road users habits. Instead, bus lanes were cut [5] and pedestrianisation efforts remained to be seen.

Why is walkability important for Kuala Lumpur?

Walkability supports zero carbon ambitions

Walking reduces emissions not just because the activity in itself is zero carbon but also because the act of diversifying modal share to include (and prioritise walking) would help speed up the transition towards net zero carbon. While the transportation sector contributes 20% of Malaysia's aggregate GHG emissions, of which 18% is from the road transport subsector [6], car drivers are still not paying the full cost of driving petrol or diesel-based vehicles, due to continued petrol subsidy and car-centric land use. A study in the European Union suggests that 'each kilometre driven by cars incur negative externality costs amounting to €0.11, while cycling and walking represent positive externality benefits of between €0.18 and €0.37 per kilometre' [7], taking into account – among others – emission, land use, travel time, health benefits, and safety.

Reprioritising walking is not just about asking everyone to walk but rather, is about diversifying transportation modal share, which benefits not just pedestrians but also car drivers. An increase in walking trips takes cars off roads, freeing them up for people who really need them, for instance families with small children, people with disability, older people, and car-poolers. Heavy traffic congestion is terrible for the environment. Fuel efficiency drops significantly in standstill traffic, making both energy consumption and CO_2 emission worse. Improving driving speed by 40 km/h reportedly has the potential of reducing CO_2 emissions by about 40% [6].

Additionally, walking infrastructure is less polluting than hard infrastructure like highways. Pathways that use 'nature-based solutions' (NBS) such as trees and pocket parks can act as the city's 'green lung' that captures and sinks carbon.

Walkability supports 'grey and green' approach to climate adaptability

Embedding walkability also makes Kuala Lumpur adaptable to immediate climate challenges: flood, extreme heat, and drought [8]. With a notable increase in Malaysia's annual rainfall intensity by 14% to 25% and increased probability of daily maximum temperature going beyond 33°C [9], Kuala Lumpur needs to manage stormwater runoff, mitigate urban heat island (UHI) effect, and increase water security.

As flash floods happen more often in Kuala Lumpur, there have been louder calls to incorporate the 'sponge city concept' where urban areas are designed to drain and absorb excess rainwater. One way this can be achieved is by integrating 'green' and 'grey' infrastructure for walkability. 'Green' infrastructure are nature-based tools to achieve infrastructure outcomes such as using wetlands to filter freshwater. Its 'grey' infrastructure equivalent would be traditional concrete drainage and water processing plants. A simple example of integrating them into a green drainage system include planting greeneries and large trees as a physical buffer to separate pedestrian pathway from motor vehicle zones (Figure 4). The greeneries will be able to absorb, filter, and slow down stormwater runoffs compared to simple concrete pavements that solely rely on drainage systems to divert excess water. Drained rain water can also be harvested for irrigating green landscapes and can naturally be absorbed into groundwater aquifers, towards increasing water security.

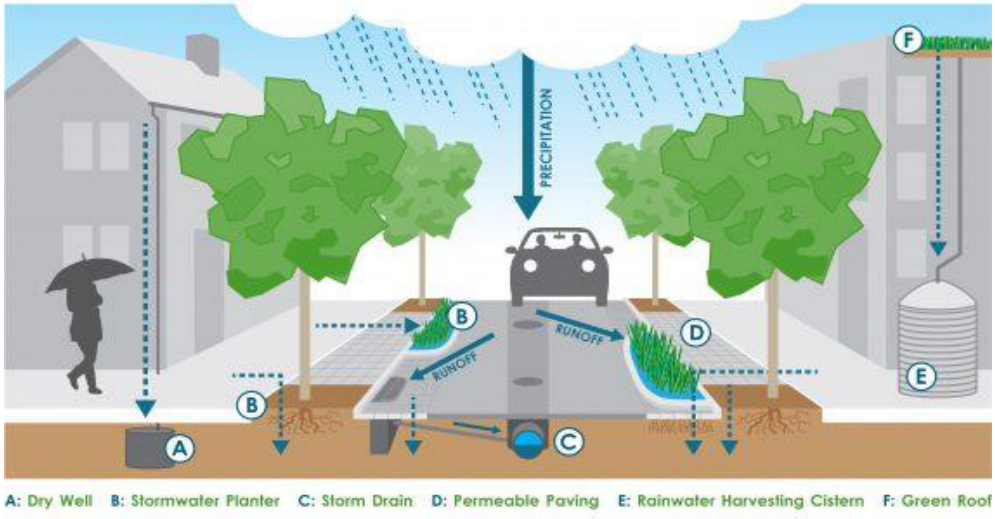

Figure 4: *Example of stormwater management in a single street* [10]

Green infrastructure such as shady trees and thick shrubs (like our local bougainvillea plant) not only are pleasing to the eyes but also provide excellent shade and cooling effect for the compound, creating a 'pedestrian microclimate' [11]. Such a system also creates interesting landscapes which encourages walking.

Emphasize on localisation and improve social cohesion

For a city to be resilient, not only do mobility systems need to be failproof, small communities also need to thrive. One significant component to a thriving community is the presence of local businesses and the high street, which are significant sources of employment and incentives for capital retention locally. It may sound counterintuitive, but speed has a downside. The advancement of mobility has allowed cities to expand with cars acting as the guiding 'multiplier' that 'determine the share of the road, highway, suburb, housing forms, and exurban development' [12]. When does the sprawling stop? Designing cities to accommodate walking focuses on nodes of 'mini centers' that are accessible for everyone and are linked to each other instead of isolating certain areas, creating 'ghetto'-like neighbourhoods. A slower pace retains traffic in the locality, which is good for local businesses. Instead of zooming past in their cars, commuters will be nudged to browse and make short stops at local shops.

Walkability is also key to attract and retain demand for tourism. Local councils know this very well, evident from the major resources put into beautifying waterfronts and central shopping districts like Jalan Tengku Abdul Rahman, Masjid Jamek and Petaling Street in Kuala Lumpur as well as Jonker Street in Melaka. Tourists do not visit cities to get stuck in traffic jams or to simply zoom past the city. Travelling means taking time to explore the city, which may explain why tourists are often attracted to destinations that are easy to explore on foot, where they can easily access a variety of attractions within walking distance.

A resilient city is not only infrastructurally inclusive but also needs to be socially inclusive to ensure social cohesion and economic participation of city dwellers. Designing for walkability is part of a broader conversation about mobility justice, which is concerned with ensuring that all members of a community have equal access to transportation options and the ability to move freely within their community. A good way to ensure equal access for everyone is to start with the lowest common denominator – children, disabled and/or differently abled persons, and older adults – by making sure that the infrastructure is safe and accessible for these three communities, who may have special needs or challenges.

Mobility cost is also reduced with increased walkability. In the same EU study cited earlier, the private cost of cars is highest among all modes of transport at €0.89, compared to €0.15 and €0.50 per kilometre for cycling and walking, respectively [7]. In EPF's Belanjawanku proposal, the cost of driving includes parking and car maintenance, and is estimated to cost between RM500 and RM1,100 for each household [13], not a small amount for young workers and people of low income.

A walkable city is also a social city where communities can meet, socialise, and integrate into the wider urban fabric. Wide roads create an unintended 'barrier effect' that deters sociability, while a walk to schools or shopping trip may mean bumping into neighbours or noticing changes around the neighbourhood. This kind of daily engagements allows members of the society to feel a sense of ownership towards their community.

Conclusion: Reflecting on 'walking' our way forward

In summary, walkability is an important and urgent issue for Kuala Lumpur towards becoming a more liveable and sustainable city. It reduces traffic congestion and air pollution while promoting social interaction and economic activity. Knowing this, the difficult-yet-not-impossible task is figuring out how. To embed walkability into our modality in the immediate future, we can start by acknowledging and recognizing walking as one of the major modes of transportation both in everyday discussions and in the policy arena. Importantly, to induce demand for walkability, we need public investments in the right kinds of amenities that could double as tools to tackle acute changes in the local climate, such that precious public funds get a higher bang for the buck. It is better to start small than to stand still. We can learn a thing or two from how Singapore, a city that shares

the same tropical climate as Kuala Lumpur, use lush landscaping and street furniture to encourage walking. To pedestrianise major streets such as Orchard Road, the Singaporean Urban Redevelopment Authority (URA) strategically incentivized private sectors to work together with government agencies to create lively streets.

The good news is that DBKL has been sending positive signals towards making Kuala Lumpur a 'people-friendly city'. It has introduced and expanded initiatives like the "KL Car-Free Morning" since 2013. Furthermore, DBKL's Low Carbon Mobility Blueprint 2021-2030 sets ambitious targets including aiming for 300km of 'Pedestrian Prioritised Street Network' by 2050 – The current figure for investments needed may still be unclear, but which area could possibly be a more suitable site to advocate for Walkability other than our very own landmark Green Building, Merdeka 118, an iconic piece of civil engineering prowess which overlooks several very sensitive heritage sites dubbed the Kuala Lumpur Creative and Cultural District (KLCCD) [14], and also a site that would benefit greatly from pedestrianisation?

BIBLIOGRAPHY

[1] NST, 27 10 2022. [Online]. Available: https://www.nst.com.my/news/nation/2022/10/844064/multi-pronged-approach-address-congestion-outlined-kl-traffic-master-plan. [Accessed 14 12 2022].

[2] UN-Habitat, "City Resilience Action Planning Tool," Nairobi, 2018.

[3] NST, "KL wants to pedestrianise 10 roads by 2025," New Straits Times, 9 2 2020.

[4] BBC, "Paris seeks to ban through traffic in city centre by 2022," 14 5 2021. [Online]. Available: https://www.bbc.com/news/world-europe-57109733. [Accessed 14 12 2022]

[5] FMT, "NGO takes RapidKL to task over termination of bus routes," Free Malaysia Today, 7 12 2020.

[6] KASA, "Low Carbon Mobility Blueprint 2021-2030: Decarbonizing Land Transportation," Ministry of Environment and Water (KASA), Kuala Lumpur, 2021

[7] S. Gössling, A. Choi, K. Dekker and D. Metzler, "The Social Cost of Automobility, Cycling and Walking in the European Union," Ecological Economics, vol. 158, pp. 65-74, 2019

[8] DBKL, "Kuala Lumpur Climate Action Plan 2050," City Planning Department, Kuala Lumpur, 2021.

[9] S. L. Yin, "National Climate Strategy: A Balanced Approach," Khazanah Research Institute, Kuala Lumpur, 2022

[10] C. o. Norwalk, "Norwalk Tomorrow," 2022. [Online]. [Accessed 19 12 2022]

[11] AbdulRahman, "Cities from Salt," 31 3 2021. [Online]. Available: https://www.citiesfromsalt.com/blog/the-feasibility-of-walkability-in-extreme-heat. [Accessed 13 12 2022]

[13] EPF, "Belanjawanku: Expenditure Guide for Malaysian Individuals & Families - Klang Valley," Kumpulan Wang Simpanan Pekerja, Kuala Lumpur, 2019

[14] ThinkCity, "Architecture of KLCCD," [Online]. Available: https://maps.thinkcity.com.my/think-city/maps/86923/architecture-of-klccd#. [Accessed 12 15 2022]