

# KL Bicycle Infrastructure Assessment and Aspiration: Perspective of a Bicycle Commuter



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**How to Design a Good Cycling Infrastructure in Malaysia's Cities, MIP, 16 July 2020**

# A bit about myself

- From Denmark
- A cyclist all my life
- A bicycle commuter in Kuala Lumpur since 2007
- Advocate for bicycling as key to urban transportation
- Sharing my bicycle commuting videos:  
<https://www.youtube.com/user/mysustainablefuture>

## My two bicycles



Folding bike



Electric cargobike  
giving Subang mayor a ride



# My Bicycle Commuter Journey

From the "bicycle capital" of Copenhagen to Kuala Lumpur



**My bicycle commute in  
Copenhagen**



**My bicycle commute in  
Kuala Lumpur**



# Everybody bicycles in Copenhagen



Member of parliament  
Magrethe Vestager



Future Queen, princess Mary  
Blue jacket. Photographed from car in front



# My own story: First 2 years in Kuala Lumpur





# My own story: First 2 years in Kuala Lumpur



There is **NO WAY** that I am going to bicycle here!

- 1) Traffic is crazy!
- 2) Hot & Humid climate!
- 3) No bicycle paths!

# But then I bought a bicycle....



My 1st bicycle in Malaysia:  
**Proton mountain bike**  
(Proton T-Bolt)

.... and found that bicycle commuting  
**IS POSSIBLE** insofar you choose your roads carefully.  
My rules are:

- 1) Don't go on roads with fast traffic (max. 50 km/h traffic)
- 2) Don't go on narrow roads, where cars cannot easily pass you
- 3) Be as visible as possible, bright clothing and use bicycle lights, even in the daytime

# What about the Climate? Need to shower?

My bicycle commute is 9 km and has an elevation of 145 meters

<https://www.thestar.com.my/lifestyle/features/2013/09/21/cyclings-cash-benefits/>



## The RM50 (USD12) shower retrofit

All Malaysian toilets have a bidet hose, buy a dual valve + a showering hose. Not ideal, but it works.

*NB. After 4 years, the building management installed a real shower*

Link to article:

<https://www.thestar.com.my/lifestyle/features/2013/09/21/cyclings-cash-benefits/>



# What about safety?

I often hear people say “You will not live long”

On the contrary,  
by exercising I am  
adding years to my life!



## STUDY:

### Bicycling saves society money

#### 1. RM4.50 saved per km (USD1)

Bicycling instead of driving car

#### 2. Savings mostly health related

- Reduced strain on the national health service
- More productive employees
- Less sick leave
- Longer life expectancy

Source: Danish Ministry of Transport (2014)



Traffic snarl: Hours wasted in traffic congestion cost the country billions annually. — AZHAR MAHFOF/The Star

## Costly congestions

A World Bank study shows that traffic jams cost us billions.

By MICKEY JENSEN and GREGORY REIMANN

THE morning and afternoon commute, the hours spent driving those dreaded kilometres to and from work - have you ever wondered how much sitting in a traffic jam really cost you and Malaysia?

Here's the answer: A World Bank study showed that in 2014, economic losses due to traffic congestion in the Klang Valley was RM20bil - that's RM45mil a day. The majority of this cost is associated with lost productivity, followed by wasted fuel and environmental damage caused by tailpipe exhaust fumes.

The report Malaysia Economic Monitor - Transforming Urban Transport calculated that the value of the total time lost when people are stuck in traffic jams in Kuala Lumpur, doing nothing productive, ranges from RM10bil to RM20bil annually. Notably, this also amounts to one million wasted hours per day.

As for fuel, RM1bil to RM2bil are wasted because of traffic congestion. This extra petrol burnt means greater environmental and social damage. According to an International Monetary Fund study, the environmental cost to society (primarily due to air pollution) from using one litre of petrol is RM2.20. This adds another RM1bil to RM2.5bil to the annual cost of congestion in Kuala Lumpur.

#### Slow traffic, faster death

There are also indirect hidden costs, such as a decline in public health induced by inactive lifestyles and stress from traffic congestion. A city built around the car means less space for pedestrians and cyclists. A World Health Organisation report states that Malaysia has one of the most physically inactive populations in the world, with more than half of the

population classified as being "inactive" compared with the global average of 20%. Being "inactive" is classified as having less than 150 minutes of moderate-intensity exercise per week, such as a brisk walk.

Britain's Department of Health has termed inactivity as the "silent killer" or "the new smoking" as a lack of physical exercise can lead to health conditions such as obesity, diabetes, heart disease and various forms of cancer.

With its inactive lifestyle, it is no wonder that the Malaysian population has the highest overweight rate in Asia - 66% of the population is in this category and about 14% is classified as obese. This is significantly higher than number two on the list, Singapore, where 36% of the population is overweight and 11% obese.

Long, congested morning and afternoon commutes are also associated with higher stress levels. A report by market analysis consultants, Frost & Sullivan, discovered that over 40% of Malaysians found road congestion as their number one frustration. On the whole, commuting seems to lead to a general decrease in happiness and individual well-being.

#### Causes of congestion

The key causes of congestion are the lack of public transportation options, coupled with increased car ownership. Over 70% of Malaysia's population now live in urban centres, compared to 40% in 1985. As income increases, the desire and ability to own a car grows.

Increased car ownership does not necessarily lead to road congestion on its own; it only becomes a problem if everyone uses their car on a daily basis. For example, you can use your car on weekends, but commute daily using public transport. The lack of comprehensive public transport options, long connecting and waiting times, and the

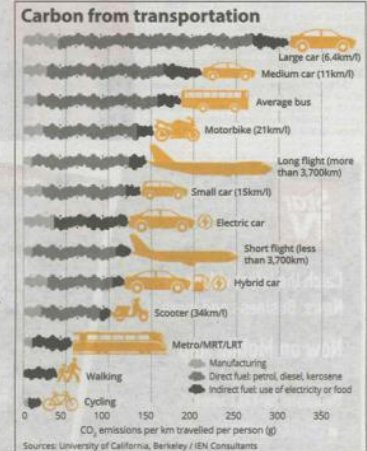
problem of getting to and from key public transportation lines (the first and last mile problem), means it can take people up to three times longer to commute with public transport than by car, according to the World Bank study. This has led to 80% of Kuala Lumpur inhabitants using their private car for their daily commute. However, where public transport options are available, such as in Hong Kong and Singapore, private car use for commuting is only 10% and 40%, respectively.

Given the limited alternate transport choices in Malaysia, there is almost no way around owning a motorised vehicle. As a proportion of an average household's income, Malaysians spend 50% more on transport compared to households in cities with effective public transportation, such as Hong Kong or Tokyo, according to the World Bank.

Even with new roads and expressways, congestion is still a growing problem here. One obvious solution is to build more public transportation networks, for example new MRT lines. The second step, according to the World Bank, is to implement taxation policies that can influence behaviour. Such policies can include taxes on petrol, congestion charges and increased toll fares at peak hours. This may seem unpopular but the taxes collected can be used to fund public transportation projects. If a viable alternative to private transport existed, opting to move away from the car could save each household money on transportation costs.

#### Livable cities

Using bicycles to mitigate the "first and last mile" problem is worth pursuing. Battery-assisted bicycles can alleviate perspiration problems in the hot and humid tropics. Imagine if you can cycle to the MRT station from your home,



take your bike with you onto the MRT, and cycle a few kilometres from the station to your work place. Such a model is already practised in European cities such as Copenhagen. This mode of transport not only reduces the cost to your wallet, but has health benefits as it keeps you physically active as well as reduces your environmental footprint. Building an infrastructure for such a mode of mobility may include more bicycle lanes and green areas. By moving in this direction, the city will become more "livable" as more green spaces often lead to greater social interaction.

Some European cities have gone as far as banning cars in their city centres. This is the case for Oslo, which plans to re-focus the city centre around people by 2019. Madrid plans to achieve a car-free centre by 2020. The benefits of livable cities are many: greater mental

and physical well-being, reduced environmental impact, and reduced financial cost. Our car-centric society has many unwanted consequences. The emergence of more and more cars on Malaysian roads has outstripped our ability to expand road capacities. Traffic congestion has hidden costs amounting to billions of ringgit. It is time for city planners to reclaim city roads as that attractive social space with human interaction that they used to be, and to perceive cars and their associated air and noise pollution as not part of the solution but as part of the problem.

The writers are from IEN Consultants Sdn Bhd, a green building consultancy. Read the report at [www.worldbank.org/en/country/malaysia/publication/malaysia-economic-monitor-june-2015](http://www.worldbank.org/en/country/malaysia/publication/malaysia-economic-monitor-june-2015).

My article in The Star, Dec 2016 (link)

# Main Safety Issues

in my experience as a KL bicycle commuter

- 1) Infrastructure design
  - a) Parked cars (getting hit by door)
  - b) Slip roads / ramps
  - c) Sharing path with pedestrians
  - d) Lack of bicycle path continuity
- 2) Behaviour & Lack of enforcement
  - e) Illegally parked cars (forcing cyclist out into traffic)
- 3) Poor road condition
  - f) Pot holes
  - g) Grills (missing)
  - h) Grills (that run parallel to road, i.e. bicycle wheel drop inside)





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Bicycle Commute - with CRASH!

4,773 views • 17 Aug 2015

72 0 SHARE SAVE ...

<https://youtu.be/qn1hHRqbh88?t=1457>

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Testing out new blue bicycle lanes in Kuala Lumpur, Malaysia

11,193 views • 14 Jan 2018

146 11 SHARE SAVE ...

<https://youtu.be/8cKdBtgPbtg?t=156>



# Video uploads of my bicycle commutes in KL

Lots of interest, getting 300,000+ views per year



Brompton bicycle in Kuala Lumpur - very useful and fast

74,355 views

412 18 SHARE SAVE ...

<https://youtu.be/qgS0SW67kdE>



Yike Bike through Kuala Lumpur - fast, convenient, fun!

20,172 views

225 5 SHARE SAVE ...

<https://youtu.be/7tzvEC73ovo>

# Video uploads of my bicycle commutes in KL

Lots of interest, getting 300,000+ views per year



Cargo Bike in traffic filmed from Brompton

1,143 views

43 0 SHARE SAVE ...

[https://youtu.be/tFt\\_p89Tbjk](https://youtu.be/tFt_p89Tbjk)



Brompton bicycle commute 3-4 times faster than by car!

15,002 views

209 5 SHARE SAVE ...

<https://youtu.be/GfCr71eT9TY>



# Video uploads of my bicycle commutes in KL

Lots of interest, getting 300,000+ views per year



Brompton bicycle + Train commute (16 km)

11,256 views • 29 May 2018

145 5 SHARE SAVE ...

<https://youtu.be/5J2rKAcClCU>



Testing out new blue bicycle lanes in Kuala Lumpur, Malaysia

11,032 views • 14 Jan 2018

142 11 SHARE SAVE ...

<https://youtu.be/8cKdBtgPbtg>

# Videos Inspire others to Bicycle

Comments to videos on <https://www.youtube.com/user/mysustainablefuture>



ervan redyan 2 hours ago

I've already watch all your videos, I'am a big fan of you.

[...]

And don't stop making videos of your ride... just go on and on.. you've already inspire many people.

big respect from indonesia!



D Pedersen 5 hours ago

Love watching these videos! Thanks for sharing! It was actually your videos which inspired me to get a Brompton and commute by bike a few years back. I. Have loved it and it has been life transforming. Been trying to pass on the message ever since.



Highlighted comment

Li Jinxing 4 days ago

After watching your video, I ended up buying 1 Brompton bike for myself 🥰🥰🥰🥰, you are my savior 🙏, love your videos 🥰



1



REPLY



Hide reply



mysustainablefuture

4 days ago

Glad to hear that. Enjoy your Brompton 😊🚲



1



REPLY

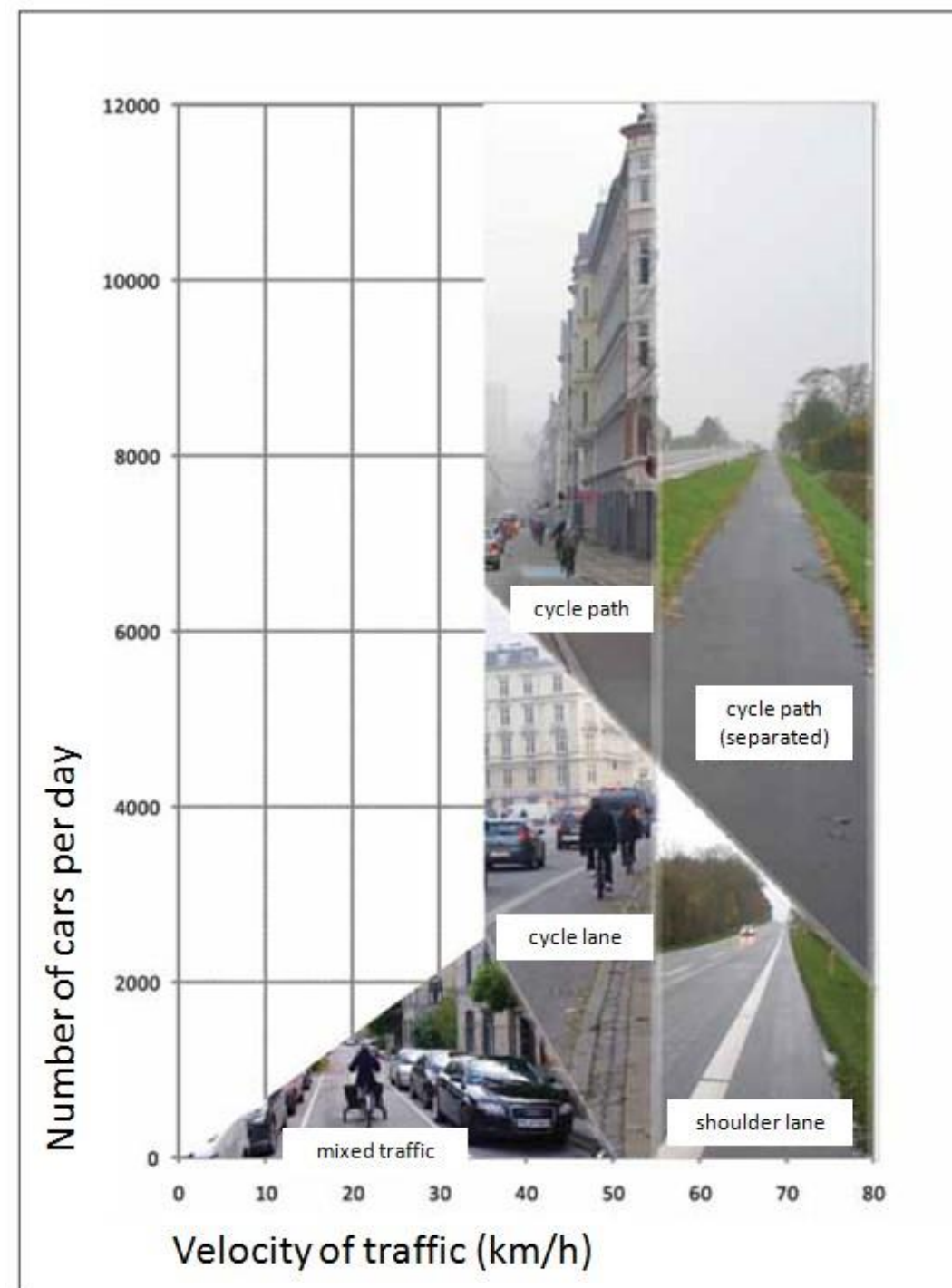


# Bicycle Infrastructure Design Chart

Bicycles and Pedestrians should not share the same path

Refer to bicycle design diagram from Denmark (on right) as applied to Kuala Lumpur:

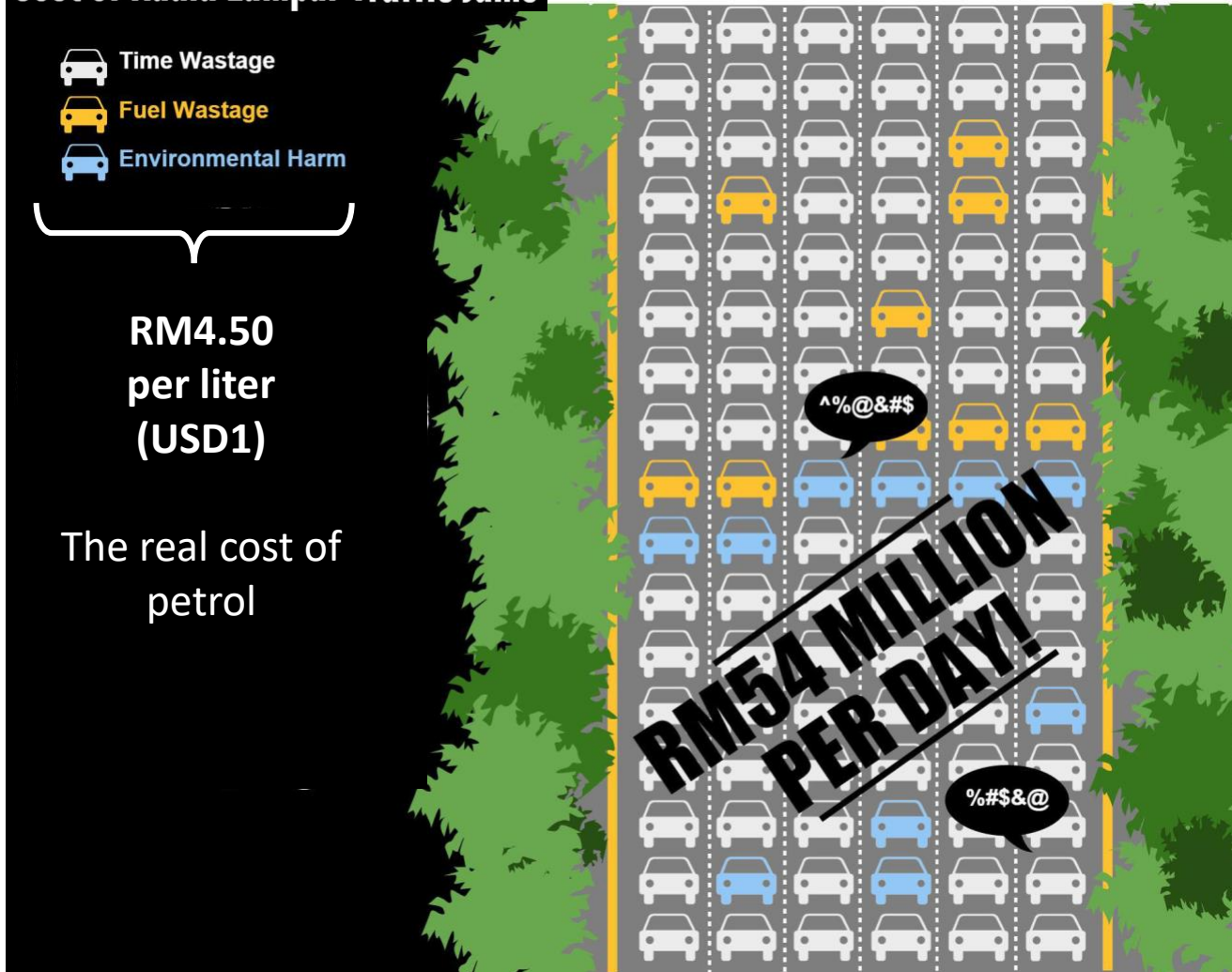
- 1) Roads with low speed traffic do not need designated bicycle lanes. Bicycle logos printed on road informing motorists that road is to be shared with bicyclists will be sufficient
- 2) Roads with semi-fast traffic (40-50 km/h) but moderate traffic rate (less than 6000 cars per day) can demarcate bicycle lane with just a stripe (no need to paint the whole lane blue). This is cheap to implement.
- 3) Roads with semi-fast traffic (40-50 km/h) but high traffic flow (more than 6000 cars per day) needs physically separation between cars and cyclists, for example a curb or low bollards.
- 4) Painting the entire bicycle path blue is normally done only at intersections to highlight to motorists that they need to look out for cyclists.



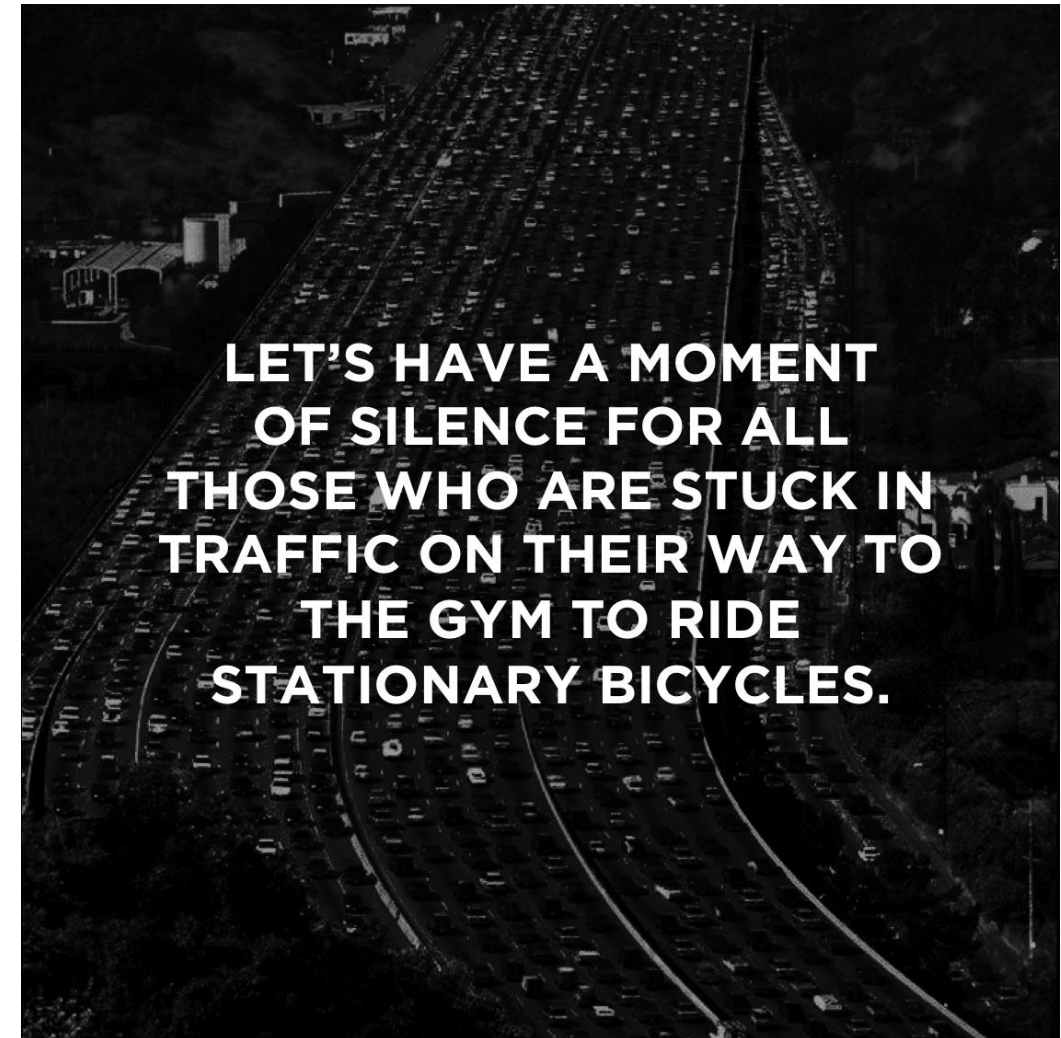
# 1 million hours wasted per day

in the traffic congestions of greater Kuala Lumpur

## Cost of Kuala Lumpur Traffic Jams

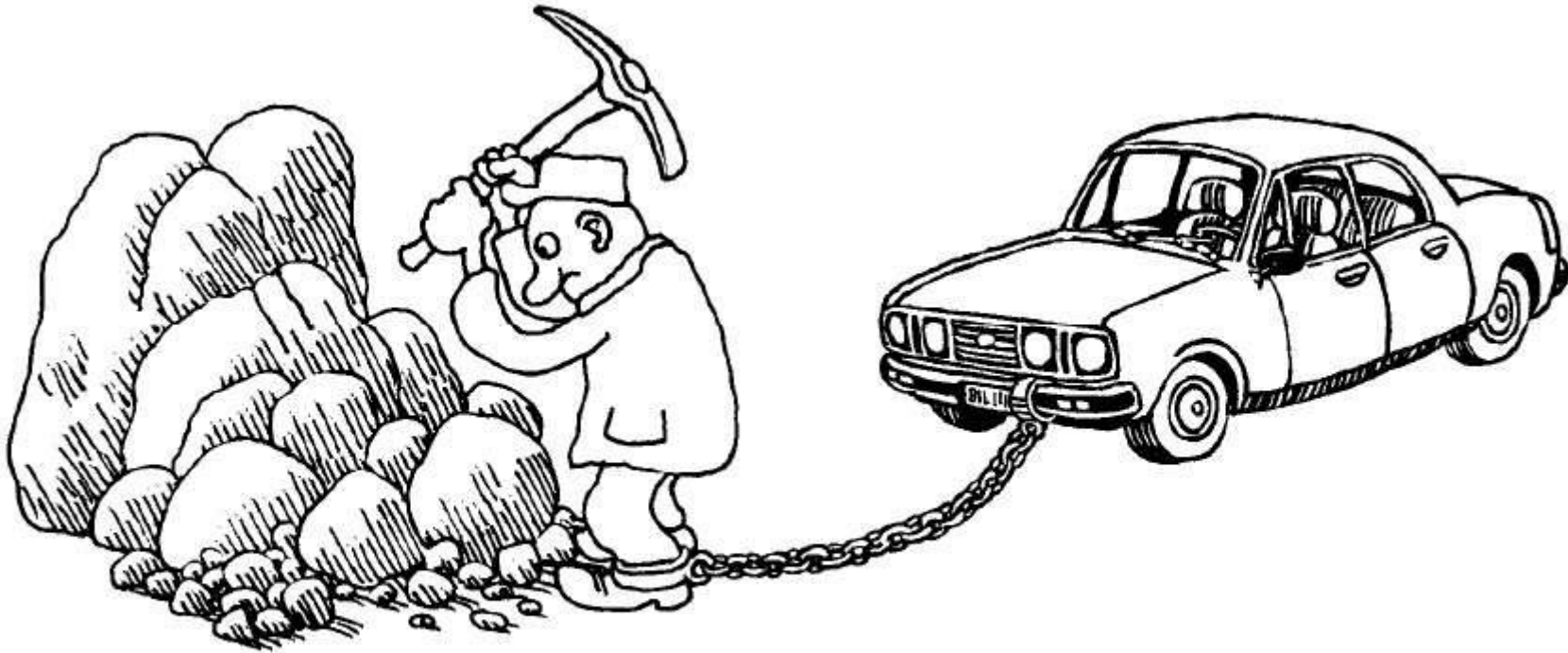


Infographic by IEN Consultants Sdn Bdn based on World Bank Study (2015)

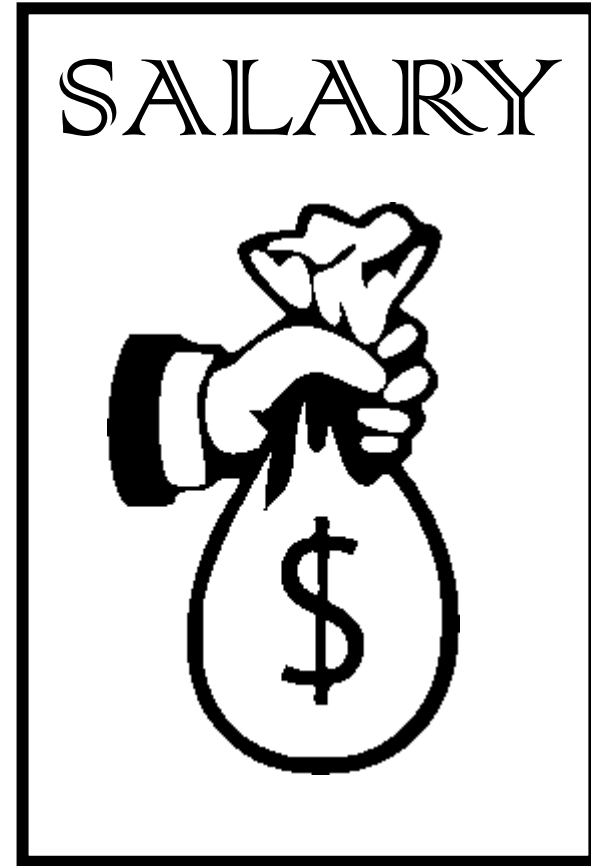




# “Freedom” of the Car

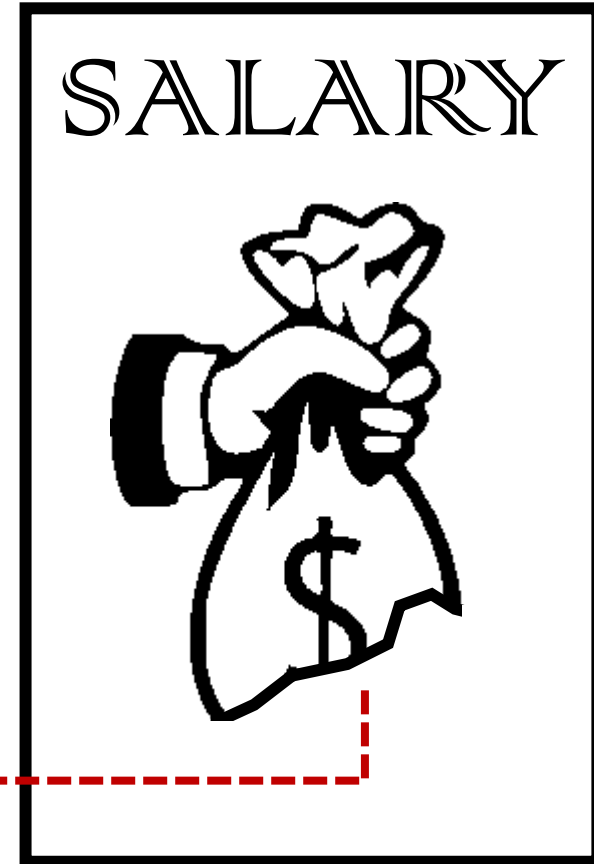
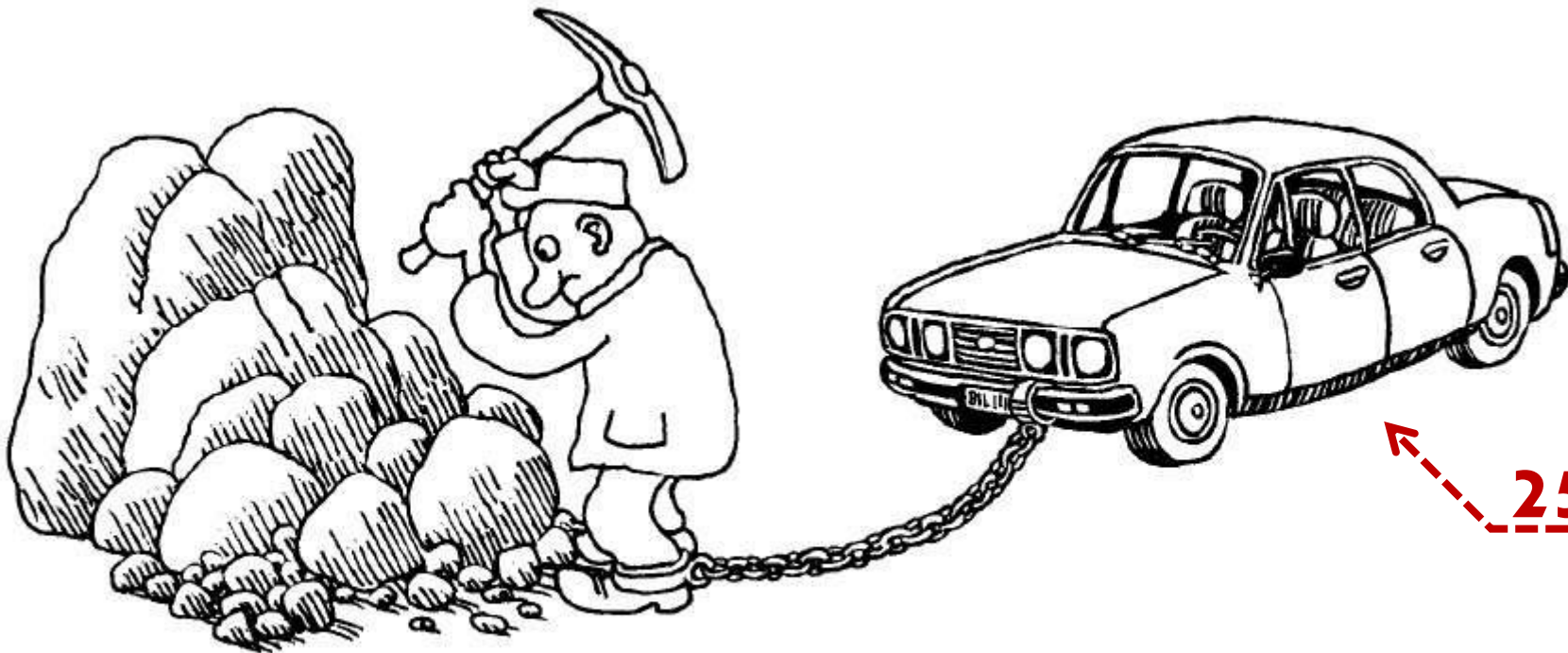


*The average Danish car owner works more than one week per month in order to achieve the freedom a car provides.*



*Danish cartoon (1984) still relevant today – also for South East Asia*

# “Freedom” of the Car



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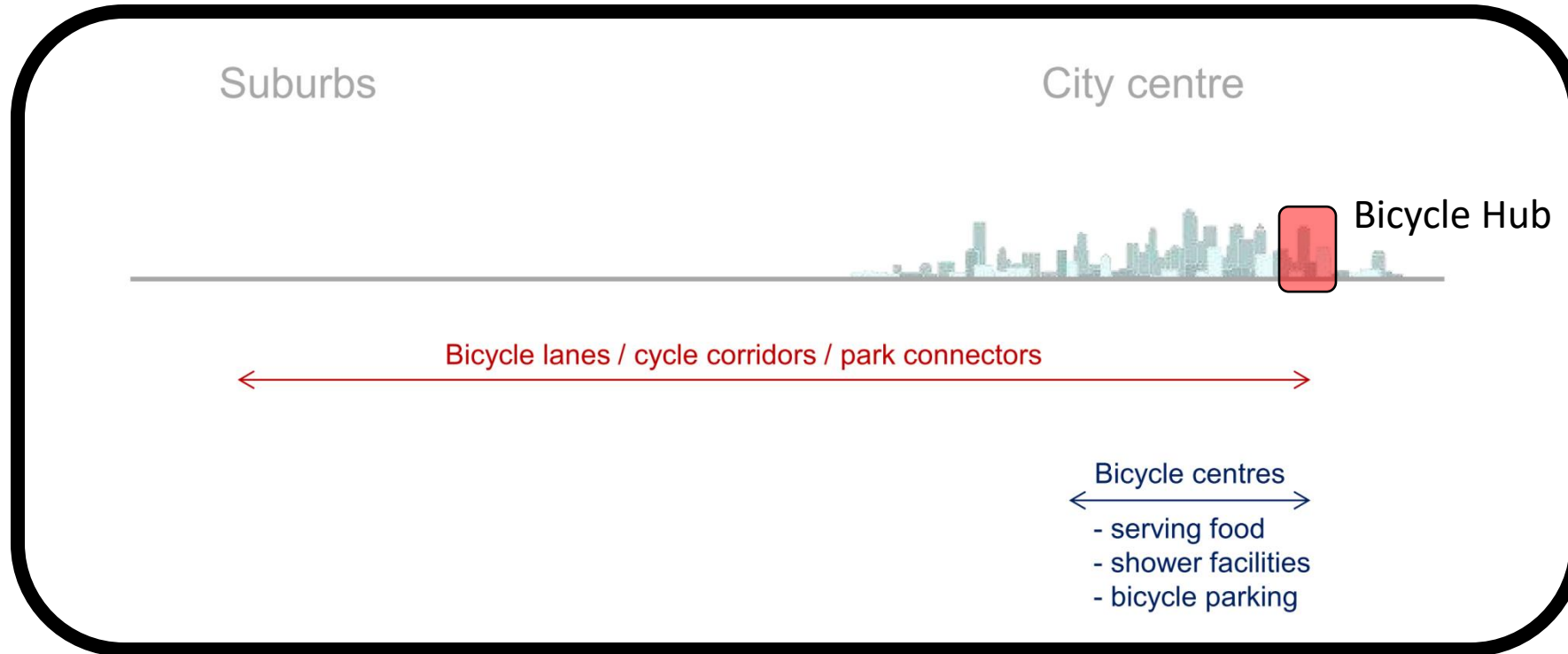
*Danish cartoon (1984) still relevant today – also for South East Asia*

For example, 80% of bicyclists in Manila quote cost savings for choice of transport



# WISH LIST: “Bicycle & Makan” concept

bicycle commuters get **free meal** to help spur bicycle commuting from suburbs to City Center



## BICYCLE HUB facilities



shower



food



repair

## What?

- Free meal for bicycle commuters
- Eat → Cool down → Shower → Go to work

## Where?

Near Transit Hub  
(street level)

## Why?

- Good for the city & good for people
- Reduce traffic congestion (RM54m cost per day, USD13m, for Kuala Lumpur)
- Improve public health (big saving)
- Helps Kuala Lumpur to achieve its C40 Cities Climate Leadership goals

# Concluding remarks

Improving bicycling and pedestrian infrastructure would have these benefits:

1. Make cities more livable
2. Give people alternate and cheaper transport options
3. Reduce energy consumption and carbon emissions
4. Reduce air pollution
5. Reduce noise pollution
6. Improve public health

**“Make bicycle commuting convenient and safe, and people will use it”**

Let's make dreams come true



**“The World has three major problems: Climate Change, Congestion and the Obesity Epidemic.**

**The bicycle is the answer to all three of them”**

Mr. Jan E. Jørgensen  
Member of the Danish Parliament



# Appendix

additional slides

## Bicycle commuter in Kuala Lumpur (June 2020)

Starting to  
become a daily  
sight, albeit still  
a very low  
number





# The biggest cost of cars: POOR HEALTH

Overweight prevalence (%) in Asian countries caused by diet and sedentary life-styles



Source: WHO Non-Communicable Diseases Country Profiles, 2011

## In the case of Malaysia:

- 44.2% of the population is overweight
- More than 50% of Malaysians are physically inactive (i.e. doing less than 150 minutes of exercise per week)
- The Malaysian Health Ministry of Health call it an **epidemic** of non-communicable diseases (NCD), including diabetes.

Cities are ramping up bicycling infrastructure in response to the Covid-19 pandemic to maintain safe time-efficient commuting



<https://youtu.be/TNJVoUo8hc8>