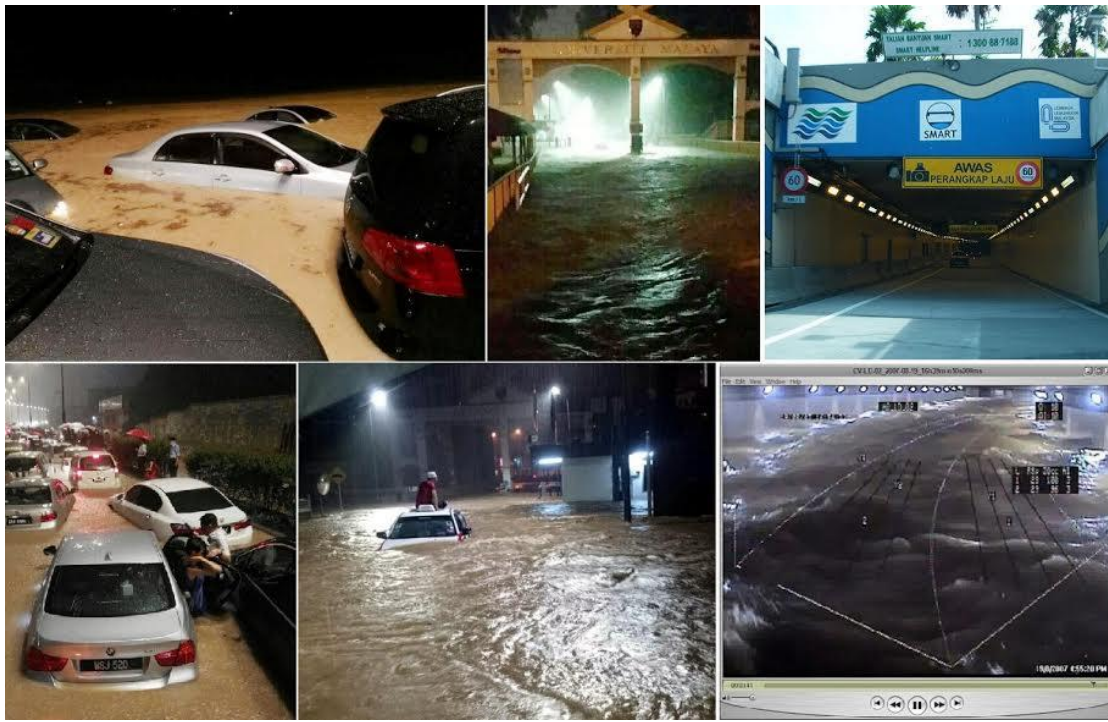


We Already Have A SMART Tunnel But Why Do Flash Floods Still 'Out-SMART' Us?



Following last month's flash floods that caught KL city dwellers by surprise, many cars became submerged, forcing people to leave their cars and run for their life.

Fortunately, no lives were lost but over a 100 car owners were left facing enormous repair bills after their cars were damaged by flood waters along Jalan Duta and Jalan Semantan.

This is not the first time such an incident had occurred in KL and the surrounding Klang Valley. In fact KL-ites have lost count of the number of times frequent flash flood have inundated the city.

It's not like the government didn't do anything. They had built the Stormwater Management and Road Tunnel (SMART) in 2007 that was touted as the solution to the flash floods problem.

But the recent flash floods in May proves that we must have missed something. What else could be the problem and ultimately, what are the long-term solutions?

History Of Major Floods In The Klang Valley

Kuala Lumpur had experienced major floods since the 1920s. However the 1971 major flood was the worst ever recorded in Malaysia's history. The incident happened in January 1971 due to seasonal heavy monsoon rains, which swelled the Klang, Batu and Gombak rivers.



Worst flash

flood in Kuala Lumpur in 1971 where 32 people were killed and 180,000 people were affected.

32 people were killed and 180,000 people were affected. The Prime Minister during that time, Tun Abdul Razak declared a state of national disaster in Western Malaysia.

As a result of the flooding, the Kuala Lumpur Flood Mitigation Programme was set up.

From published media reports online that we scoured, our unofficial survey turned up some interesting observations. Most importantly, we found out that there is at least one report of major flash floods in the city a year for the past six years.

In December 2011, thousands of motorists who were heading home after work were stuck in traffic due to flash floods with Jalan Tun Razak closed for traffic. Every single time, motorists end up wasting many hours stranded on the road.



Flash flood in December 2012. Thousands of motorists who were heading home after work were stuck in traffic due to flash floods with Jalan Tun Razak closed for traffic.

In March 2012, a total of 150 houses were flooded in Kampung Belacan with the water level rising frighteningly to above two metres, Bernama reports.

Needless to say, the ensuing heavy traffic congestion clogged up entrances to the capital including at the Maju Expressway, Middle Ring Road Two (MRR2) and North-South Expressway (PLUS) and hundreds of people had to seek temporary shelter at temporary relief centres at Sekolah Kebangsaan Sungai Serai and Sungai Serai Hall.

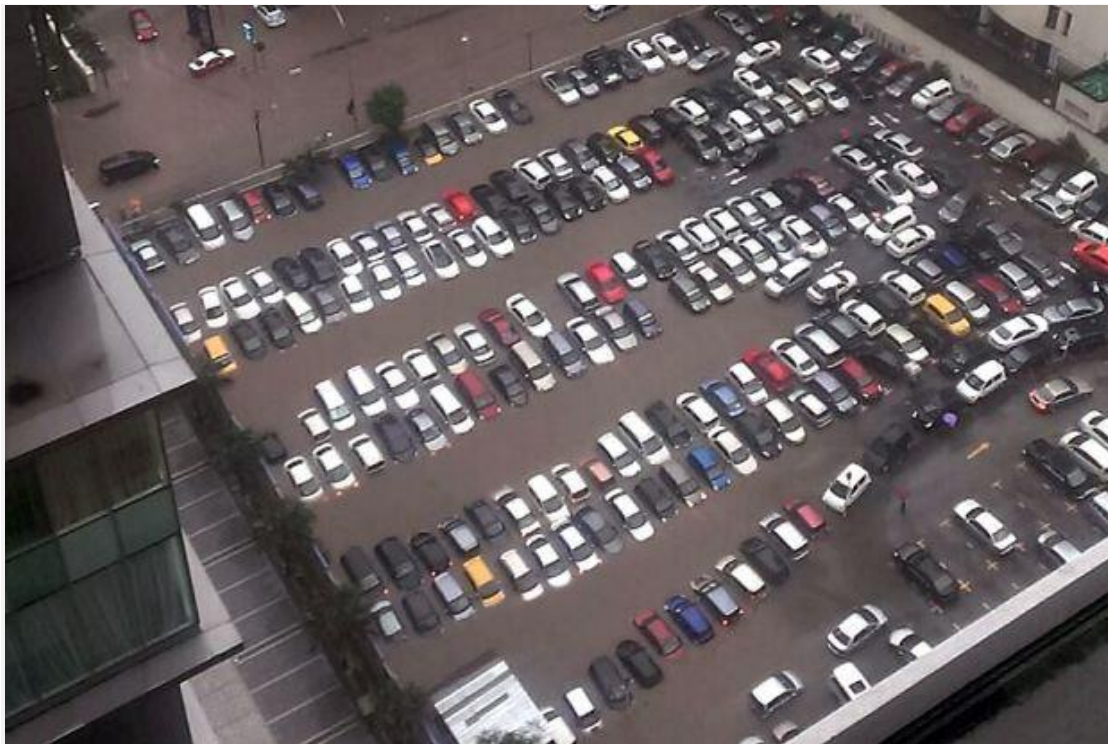
Another time in 2013, a particularly vicious thunderstorm uprooted a tree in the National Mosque parking lot and triggered flash floods along Jalan Tun Razak, Jalan Parlimen, Jalan Duta, Jalan Pudu, Jalan Cheras Lama, Jalan Chan Sow Lin and Jalan Segambut. Even major trunk roads Jalan Mahameru, Jalan Kuching and the Federal Highway were not spared.



Motorists

brave the floodwaters along Tun Razak Road tunnel after a thunderstorm caused a flash flood in the city. — Bernama photo

One fateful day December 2014, a two-hour downpour caused the Gombak River to overflow and spill into the city centre causing flash floods at a stretch along Jalan Ipoh and submerging several cars.



A two-hour

downpour caused the Gombak River to overflow and spill into the city centre.

Just last year, an afternoon downpour in November 2015 again led to flash floods in Kampung Datuk Keramat, Jalan Semarak, Jalan Sentul, Jalan Kampung Pandan, Jalan Ampang, Jalan Tun Razak, Sultan Iskandar Highway, Jalan Sultan Azlan Shah, Jalan Pahang, Jalan Gombak and Jalan Genting Klang.

More telling, the same stretch affected last month along Jalan Duta heading into Jalan Semantan, Damansara was also flooded, according to the Bomba.

Was that an early warning that we chose to ignore? However, the price we paid for brushing aside the earlier warning signs is the massive flooding last month.

Is a solution in sight?

Why Didn't The SMART Tunnel Do The Job It Was Designed For?

In the many decades of flash floods in the city, politicians, NGOs, experts and regular keyboard warriors have blamed everything from poor drainage systems, deforestation, construction debris clogging up drains or simply, Mother Nature.

According to the minister of natural resource and environment, Datuk Seri Dr Wan Junaidi Tuanku Jaafar, poor drainage system is the cause of the recent flash flood.

He said as the short term solution, the existence drainage system needs to be deepened. Plus, frequent maintenance need to be carried out to keep the drains from getting clogged.



sat on top of his taxi when flash floods occurred in Jalan Duta early May 2016.

A taxi driver

“For the long term solution, the drainage system in Jalan Duta, Universiti Malaya and Bangsar area need to be upgraded,” he said during a media conference regarding the recent flash flood incident.

At the same time, Wan Junaidi also did not rule out the possibility of flash floods in Jalan Duta is partly due to the construction of the Mass Rapid Transit.

The deputy director of flood management division at the Department of Irrigation and Drainage (DID) told a local news daily the occurrences of floods is increasing due to land use changes and progress.

"Whatever we do on land will affect the hydrology of an area. The transformation from previous surfaces to artificial non-pervious surfaces will increase the runoff rates and volume," he told a local English news daily.

We've developed our roads and buildings by covering once green verdant fields with asphalt without taking into account whether our drains can handle it or not. In simpler terms, asphalt cannot absorb water as quickly as soil can and urban development makes rivers become narrower.

Many Malaysians have also posed the obvious question. What about the SMART Tunnel?



Drainage and Irrigation Department Malaysia (DID) director general Datuk Ahmad Husaini Sulaiman had issued a media statement to not blame every flash flood on the SMART tunnel. At that time, he went on to explain that there are two types of floods in Kuala Lumpur – river flooding and flash floods.

Back in 2014, Drainage and Irrigation Department Malaysia (DID) director general Datuk Ahmad Husaini Sulaiman had issued a media statement asking the public to not blame every flash flood on the SMART tunnel. At that time, he went on to explain that there are two types of floods in Kuala Lumpur – river flooding and flash floods.

SMART was designed to deal primarily with river flooding from the Klang River, Husaini had highlighted back then.

Malaysian Digest contacted Husaini to get an update on the situation as apart from the Smart Tunnel, he had also mentioned the Batu-Jinjang system which diverts the excess water from Sungai Gombak and Sungai Keroh.

The aim was to divert the excess water into the Batu and Jinjang retention ponds in Air Panas and Setapak Jaya which had begun construction in 2013 and are expected to be completed by 2016.

“The water that goes to the SMART has to go through the drainage and irrigation system that’s already established in KL.

“But whether the SMART is doing its job or not actually depends on the (amount) of water that is supposed to be diverted into the SMART,” he told Malaysian Digest when was asked about the efficiency of the tunnel in handling the flash floods issue.

However we have to ask ourselves, how sure are we that the drainage and irrigation channels are clear and clean enough for the water to flow into the SMART tunnel?

“If those drainage and irrigation channels are clogged, the water will not be able to reach to the SMART tunnel.



If those drainage and irrigation channels are clogged, the water will not be able to reach to the SMART tunnel.”

“What we may be seeing right now is may not be the total volume of water reaching SMART tunnel,” he indicated the possible root cause of the perennial flash floods.

Ultimately, the human factor plays a large part in ensuring whether the drains channelling the rain water can do its job efficiently.

Check Your Drains, NGO Say Malaysian Can Do More

Commenting on the recent flash floods, Centre for Environment, Technology and Development Malaysia (Cetdem) executive director Anthony Tan shared with *Malaysian Digest* his insight on the protracted issue.

Firstly, he drew attention to the most common problem of urban flooding that is not unique to just our nation's capital.

He told us Kuala Lumpur's rapid development over the decades saw the amount of surface areas that used to be either grass land or non-paved areas have been paved over.

“So you have the question of where the runoff water is supposed to go.

“For example before a bungalow is built, it may have been either grass land or it might have been a secondary forest. When the rain falls, the water is can be absorbed into the ground.



Recent flash

floods in Jalan Duta was due to poor drainage system.

“That means there is a slowdown of water flow. But now when you have these concrete buildings and paved roads, the water is no longer retained.

“It has to go into the drainage system. But if the drainage system cannot handle the volume of water, it would overflow,” he pointed out the obvious fact.

Hence we could say that it may not be because Kuala Lumpur is an over-developed city, but a not-so-well-developed city!

However Anthony has a better term for it, that the city is not sustainably developed.

“Sustainable development has been in talked about since the 1980s. Let's look at the fact that flash floods are just a problem in Kuala Lumpur. I live in USJ and flash floods have become a

common occurrence,” he drew attention to a growing problem as the Klang Valley becomes more densely populated.

“When there were major flash floods in Kajang two or three years ago I was asked by a journalist what I would suggest people do.

“I said check your drain whether they are clogged. Whether the drains are clogged with construction debris,” he gave a simple suggestion to every Malaysian.

Hence we could say that it is not that we don’t have measures to solve or prevent flash floods. It is more like poor planning and maintenance as well as lack of public will.

It is of course easier to blame the weather but the real thing is, it is about the state of the city’s drainage, its maintenance and whether it was originally designed to handle the volume of development that exists today.

It’s easy to point finger and find faults in our government when natural disasters like flash floods happen. But we are guilty as well for clogging our drainage systems with rubbish.

It’s Time For Us To Have A First-Class Mindset

Ir Prof Dr Jeffrey Chiang Choong Luin, honorary secretary of the Institution of Engineers Malaysia had expressed his view that Malaysian have to seriously look into their rubbish disposal habits, in an opinion letter to a local online news portal.

“The public must be informed that the water drainage system is not a rubbish disposal system.

“It is time everyone understands that rubbish and other wastes can contribute to floods as well as other negative environmental effects.”

We cannot deny that some Malaysians treat our Mother Earth as a trash can, causing our drainage systems to become clogged and water to be overflow apart from contributing to the foul smell around the city’s waterways.



Because some of us treat our Mother Earth as a trash can, our drainage systems are clogged and caused the water to be overflow apart from the foul smell.

Besides getting the public involved in keeping public drainage systems rubbish-free, other avenues have focused on the river arteries that traverse the city.

There are many suggestions that the government can opt for to improve their ways of handling flash floods. One of it is to clean our Klang River.

“We have this programme called the River of Life. The programme aims to transform the Klang River into vibrant and liveable water front with high economic value,” Anthony said.

Both Gombak and Klang Rivers currently look like huge concrete drains with murky waters and are regularly used as an open sewer and rubbish dump.

Unfortunately, the downside to rehabilitate these rivers is that it costs billions of ringgit of taxpayers’ money. Once mankind causes the damage, it can take generations to undo the harm.

Anthony also brought up an opinion that perhaps there may be a system that could direct the water back into the river. He also urged city planners to look at sustainability.

“The more important point is as we develop more and more high rise buildings, we are having a situation where more and more areas in the city can no longer absorb water.

“Right now it has become a runoff water system,” he opined.

On the other hand, the Kuala Lumpur City Hall (DBKL) is mulling new plans to combat flash floods. They are proposing to install an underground waterway that would connect the city's network of storm drains and help disperse flood waters, on either Jalan Klang Lama or Jalan Kuchai Lama.

Yet, it remains to be seen if after a new underground waterway is built at great expense, we will still be cracking our heads over flash floods in the city in 10 years' time.



view of the Cheonggyecheon River in Seoul, South Korea. It used to be murky and dirty.

Day and night

Nonetheless, let us give our policy makers room to find long term solutions while we as a society should start adopting a first-class mindset by throwing our rubbish inside a trashcan.

--*Malaysian Digest*