

Facing urban flooding

IREFER to "Kuala Lumpur's SMART Tunnel not looking so smart anymore" and "Wet in a flash" (*The Star*, Dec 15) and agree with the editorial to get the authorities to review how rivers or even storm drains in the city are impacted by nearby development.

We've got to reassess the state of robustness of our infrastructure that is unable to withstand continuous rain in the city.

If our major city with state-of-the-art infrastructure is unable to weather the storm, we can almost figure out the predicament or fate of the other small cities during torrential rain.

Flooding in urban areas can be caused by flash floods or coastal floods or river floods, but there is also a specific flood-type that is called urban flooding.

Urban flooding is specific in that the cause is a lack of drainage in an urban area. As there is little open soil that can be used for water storage, nearly all the precipitation needs to be transported to surface water or the sewage system.

High intensity rainfall can cause flooding when the city sewage system and draining canals do not have the necessary capacity to drain away

the water.

Water may even enter the sewage system in one place and then get deposited somewhere else on the streets.

Flooding in general, and urban flooding in particular, is not unknown in the world or in Malaysia. The uneven distribution of rainfall coupled with rapid mindless urbanisation, encroaching upon natural drainage channels and lakes that are being used for high-value urban land for buildings, are the cause of urban flooding.

It is not surprising that the flood waters are unable to pass freely as it is being tresspassed by slum dwellers, small shopkeepers, illegal constructions, illegal vegetation, garbage dumping etc. This can result in obstruction of the water flow that contributes immensely to the fury of floods.

Old drainage and sewerage systems have not been overhauled nor are they adequate now. All the drainage and sewer systems in many parts of major cities in Malaysia have collapsed resulting in flooding.

The master plan for drainage could have been prepared in 1980s and may not have taken into consideration the future urbanisation, particularly

rural-urbanisation and unauthorised colonies.

We know the SMART tunnel is one of the most strategic efforts carried out. But, the time is right for more integrated and proactive plans for flood protection and flood management.

Experts assume that a rise in global temperatures will intensify water circulation and may therefore increase the frequency and magnitude of floods.

The frequency and intensity of floods in this region's river basins have clearly increased in the last few years.

Research shows that flooding is responsible for two-thirds of people affected by natural disasters.

Because of the complexity of flood prevention, there is a strong need to cooperate between different administrative levels (international, national, regional, local) as well as various organisations (governmental, public, municipal, private) and disciplines (water management, land management, risk management) in designing new legislative regulations on flood control measures and effective flood management mechanisms.

DR SHANKAR CHELLIAH,
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