

Flood control lessons from Japan

UNIQUE: Mitigation measures are incorporated in pavements, parks and playgrounds

LAST Friday, Klang was hit by flash floods, said to be the worst in recent years, after continuous rain.

Some low-lying areas were covered with as high as 4m of water, submerging cars and causing massive traffic jams.

Houses and shophouses were inundated, eight schools were closed while seven remained opened even though they were flooded.

Given the extensive damage, which affected nearly 4,400 households, losses can easily touch multi-million ringgit, especially when industries and businesses were also hit.

Resident outrage and finger-pointing continue until today.

Some parties criticised the Klang Municipal Council and state Drainage and Irrigation Department for failing to take preventive action such as better rubbish collection and drainage system, as well as ensuring developers abide by flood management guidelines.

Under the Urban Stormwater Management Manual for Malaysia, a 20-volume manual that acts as a nationwide policy to prevent flash floods, developers have to build water retention ponds for every housing project.

Sadly, many have found ways to bypass the rules. Some remove the tanks used to collect rainwater after they receive the certificate of fitness for completed buildings and re-use the tanks for the next project.

Besides over-construction on hill-slopes and clogged monsoon drains, public attitude also contributes to flash floods.

Dumping rubbish at non-designated places, including monsoon

drains, has to stop.

We also need stronger political willpower to promote recycling and environmentally sustainable waste management among commercial and domestic waste generators.

Kuala Lumpur and Tokyo are currently mulling new areas to be included in the Look East Policy. Flood

mitigation should be one. Malaysia should learn from the Japanese experience in control measures.

A meeting between Asean journalists and officials from Japan's Ministry of Land, Infrastructure, Transport and Tourism (MLIT) in Tokyo recently was an eye-

opener.

Malaysia may not experience as many natural disasters as Japan, but the country can learn from Japan on river administration and flood control in response to urbanisation.

MLIT's Water and Disaster Management Bureau has come out with a combination of measures to prevent serious damage from water-

related disasters.

According to the bureau's River Planning Division director Koji Ikeuchi control measures cover river improvement, river basins and steps to alleviate damage.

Like Japan, Malaysia has undertaken works to improve the rivers such as river widening and construction of dams. However, we lack in maintenance and controls over river pollution.

It is interesting to note that in Japan, flood mitigation measures are incorporated in the construction of pavements, playgrounds, parks and schoolyards.

To the naked eye, these structures look like normal buildings, but they are actually designed to have a dual purpose — to absorb or store rainwater temporarily — thus, preventing flash floods.

There are permeable pavements in the city, seepage pits and trenches are built near buildings, while rainwater tanks and seepage pits are constructed between buildings.

Trees are grown surrounding housing and commercial buildings as embankment control while

schoolyards and playgrounds in the parks act as rainwater storage. They are built lower than the school building or park levels.

Flood control ponds are also constructed to temporarily store rainfall so that it will not inundate rivers all at once. What's interesting is that some of the reservoirs do not look like reservoirs at all!

For instance, the Kirigaoka reservoirs are where tennis courts are situated, complete with car parks. The tennis courts are built on a flat land with a high surrounding embankment. When it rains, the tennis courts will be flooded temporarily to prevent the rainwater from filling the river too soon.

Malaysia, too, can implement these measures, especially when billions of ringgit have been allocated for urbanisation to make Greater Kuala Lumpur a world-class city by 2020. We have to act now so that the positive spin-offs from the multi-billion ringgit projects under the Economic Transformation Programme will not be washed away by the floods. hamisah-hamid@nstp.com.my

