

Far better drainage needed, especially for urban areas

WE take the basic elements of Nature as given because we have little choice. Civilisation centres on our ability to harness the useful elements and navigate around unfavourable ones, such as the vagaries of the weather.

In tropical climates like Malaysia's, the year-round sunny weather has yet to be fully tapped for solar energy generation. In the meantime, seasonal heavy rains and flooding have yet to be overcome satisfactorily and consistently.

Notwithstanding our nation's evident material progress, particularly



in urban conurbations, the floods that a deluge still brings can paralyse traffic and cripple daily life. Indeed, heavily built-up and densely populated areas somehow seem to have substandard drainage systems.

Precisely because the heavy rains and floods are seasonal, they are regular and predictable. How can workable solutions then still escape our planners and engineers?

The Hydrology and Water Resources Division has identified Kuala Lumpur, Selangor and Perak as the most flood-prone areas in Malaysia. Who would have guessed that these also happen to be the most "developed" parts of the country?

The so-called SMART (Storm Management And Road Tunnel) was supposed to be designed to cope with floods. Now we hear that SMART itself may have to be closed if flooding results from water flows at the confluence of the Ampang and Klang rivers exceeding 150 cubic metres per second.

PLUS Bhd blames the lack of synchronisation among government agencies for flash floods along the North-South Expressway. Nature provides the torrents of water, but it is our society that "contributes" the lack of coordination to produce floods.

Public bodies at Federal, state and municipal levels need to work more closely together to produce fool-proof plans and flood-proof standard operating procedures. There should be no such excuse as insufficient time, since we have had to suffer floods since time immemori-

al, a plight aggravated evidently by more urban and highway construction.

There is also the human element by way of bad habits, such as people indiscriminately dumping rubbish into drains. Our engineers, trained either locally or abroad, must factor in these local habits in designing adequate drainage systems.

A growing population further adds to the demands of proper drainage. So far we cannot know if we are keeping up with growing demands, simply because we have yet to begin to cope.