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DELIVERING MANY BENEFITS

Use a no-regret approach to tackle new-normal flash floods

AHMAD AFFANDI

IN the Klang Valley, flash floods are the new normal. The sixth Intergovernmental Panel on Climate Change report points out how climate change impacts are more severe and widespread than initially thought.

Southeast Asia is also one of the most vulnerable regions to climate change, whose effects include greater frequency of extreme precipitation events.

While awareness of the importance of climate adaptation and disaster-risk reduction has increased since the 2021-2022 floods, concerns remain about what lies ahead and the long-term plans to address it.

Data from the Department of Irrigation and Drainage shows the number of flood reports had increased from 122 in 2000 to 869 in 2020. Allocation for and expenditure on flood-mitigation projects and disaster aid increased in tandem.

More recently, Kuala Lumpur City Hall announced 14 interim measures to fight flash floods.

The government is considering building more Smart tunnels in major cities, such as Shah Alam, putting the bill at more than RM300 billion for long-term flood-mitigation measures up to 2100.

But is our response to floods and other natural hazards economically efficient and sustainable?

In Malaysia, the approach to major issues is often reactive and ad hoc. It does not address root causes, for example, the building of more highways to curb congestion.

Similarly, placing sandbags and water pumps in flood hotspots and deepening and enlarging rivers to reduce flooding are like an obese person who keeps loosening his belt or buying bigger trousers instead of shifting to a healthier lifestyle and diet.

Surely we need a more sophisticated approach?

While experts confirm that the increasingly intense floods are driven by climate change, we cannot discount the systemic factors that exacerbate the risks.

Examples include poor planning, unregulated and uncontrolled development and the loss of urban ecosystems.

The results are an urban system with little permeability and poor drainage that increase surface run-off, and urban heat islands that increase the severity of thunderstorms.

Flash floods are a pressing and deep-rooted issue. While action must be immediate, it needs to be guided by foresight and long-term vision rather than quick wins.

It's a cliché but there's an urgent need for holistic strategies and solutions to adapt and respond to climate change. The 12th Malaysia Plan acknowledged this.

One way is to shift from solutions that address a single hazard, such as excessive rainfall, to solutions that can tackle multiple hazards (dry spells, heatwaves) and other development issues (air and water pollution, poor sanitation, biodiversity loss and lack of green spaces) to maximise investments.

In other words, climate responses should take a no-regret approach, delivering as many co-benefits as possible.

A concept that embodies this approach and is gaining attention is sponge city. It brings the water cycle into the city and works with nature to absorb, clean and reuse rainwater.

Think of it as a massive urban-scale rainwater harvesting system.

Among the key features are contiguous green spaces, urban wetlands, permeable pavements and green roofs.

The challenges are in planning and implementation on the ground.

The success of these complex initiatives requires hardware components of technology and technical solutions, and software of governance and collective efforts.

The system and culture of siloed working, bureaucracy and territorial behaviour present governance issues.

Government agencies must share in decision-making to craft solutions.

Retrofitting a city requires massive capital investment. But an increasing focus on environmental, social and governance investing has expedited the requirements for climate goals and presented funding opportunities.

Revenue from a proposed carbon tax can be used to fund these activities.

We are on track to a 2.4° Celsius warming based on current pledges. The world has warmed by 1.1° Celsius since the industrial revolution.

Prioritising climate-resilient development and undergoing a radical transformation in flood management are no longer a nicely written policy statement or strategy. It's a necessity.

The writer is a senior analyst at the Institute of Strategic and International Studies Malaysia