

Time to get ready for a 'flood' of problems, Malaysia

Over in Malaysia's Twitterverse, somebody has tweeted pictures of floats, orange life vests and even a rickety sampan.

"GE15 starter pack," captioned the Penangite who goes by the handle ShaBrh7.

The tweet, which received over 1,250 likes and 684 retweets, is obviously meant as a sarcastic joke in light of the Election Commission's announcement that the polling date for the 15th General Election (GE15) will fall on Nov 19.

But how the hashtag #undibanjir – some even incorporate it into their own Twitter handles – has taken off over social media in recent days shows how much Malaysians are worried by floods hitting again this year.

Traditionally, Malaysian politicians tend to avoid holding yearend polls to avoid the north-east monsoon, which often causes flooding in the East Coast states of Pahang, Kelantan and Terengganu.

This year, the monsoon is expected to start mid-November.

La Niña – "the girl" in Spanish – is a weather phenomenon that leads to a cooling of seawater in central and east-central equatorial Pacific. This leads to unusually heavy rainfall in some parts of the world and drought elsewhere. In Malaysia, it normally leads to more rainfall, the consequence of which many, especially

Cold chain for food security

Selangoreans, still remember from the harrowing floods that struck in late 2021 and lasted until early this year.

It's the companion cycle to El Nino ("the boy"), or the El Nino-Southern Oscillation, which is associated with a band of warm ocean water that develops in the central and east-central equatorial Pacific, leading to drier-than-average rainfall conditions in our part of the world.

The two cycles shift back and forth irregularly every two to seven years. La Nina is in its third year running, leading weather analysts to expect heavier rainfall here now.

The tide is high

However, La Nina alone does not account for the floods. The effects of climate change caused by global warming, particularly rising sea levels and extreme weather, mean that Malaysia is increasingly vulnerable to such events, along with much of the world.

That's why it was such a relief when Budget 2023 was tabled on Oct 7 and Finance Minister Datuk Seri Tengku Zafrul Abdul Aziz announced that RM15bil had been allocated for flood mitigation as a long-term strategy until 2030 to deal with the effects of climate change.

This came on top of remarks by Environment and Water Minister Datuk Seri Tuan Ibrahim Tuan Man a month earlier that he expected Malaysia would have to spend RM392bil over the next 78 years on flood mitigation measures.

While Parliament has since been dissolved to make way for GE15, and Budget 2023 and all its allocations will have to be retabled when the Dewan Rakyat next reconvenes, it still raises the question: Is enough being put aside to deal with floods? And are there better and more viable ways of countering this annual natural disaster?

Spending money like water

Universiti Kebangsaan Malaysia's South-East Asia Disaster Prevention Research Initiative says that since the 1970s, the increase in the allocation for floods under the five-year Malaysia Plans has been exponential (see chart on P1).

"In short," says Dr Lim Choun Sian, programme coordinator for geological hazards, "the country will need more funding for flood mitigation."

Malaysia, he adds, has already spent huge sums on flood mitigation programmes and structures, especially the Drainage and Irrigation Department (DID), currently under the Environment and Water Ministry.

Floods are every country's problem, Lim points out.

"Even the rich and developed countries are not very successful in stopping them because they are complex events involving natural hazards, environmental change, human development intervention, and climate change," he explains.

A case in point is the flooding in parts of Europe in July 2021. Then, rich and developed countries like Austria, Belgium, Britain, Italy, Germany, Luxembourg, the Netherlands and Switzerland were affected by severe floods that killed 243 people and caused billions in property damage.

The incident highlighted the fact that First World countries are just as vulnerable to climate change as Third World and poorer countries.

Too much, too soon

The Intergovernmental Panel on Climate Change has warned of several tipping points if the world fails to limit global warming to 1.5°C, and among them is that the magnitude of flooding is expected to worsen over the next few years. So is throwing more money at the problem the only solution to mitigating the impact and stopping the recurrence of such events in the future?

In 2014, the flooding in Kelantan was declared the worst in the country at a cost of over RM1bil in damage and the loss of 21 lives.

In comparison, seven years later, the Selangor floods saw at least 54 lives lost and over RM6.1bil in damage, according to the **Statistics Department of Malaysia**.

Judging by this, it won't be too long before the cost and scale become too much for us to bear.

In a statement to The Star right after Budget 2023 was tabled, Sahabat Alam Malaysia (SAM) president Meenakshi Raman said that although the RM15bil funding for flood mitigation is significant, the measures should not be purely about engineering solutions but also about protecting and rehabilitating degraded forest areas.

Malaysia's Ecological Fiscal Transfer for Biodiversity Conservation is a process through which incentives are given to states to preserve forest and marine areas; allocation for this was increased from RM70mil to RM100mil annually in Budget 2023 – but that is still not enough given the urgent need to protect more forest areas, says Meenakshi.

Scientists have long argued for nature-based solutions such as using wetlands and jungles to help regulate water flow and absorb rainfall runoff before it can turn into a flood.

Lim says with good planning such as not developing high-risk areas or having risk informed development, Malaysia can reduce its spending in mitigating flooding.

“Even though this might keep increasing and might be only to fix priority and critical areas from losses from flood events – it is a juggle,” he admits.

Examples of such high risk areas, he says, would be places that are highly prone to floods, ie, being flooded several times in a year due to their physical condition or simply by being in the flood plains.

With good planning such as not developing high-risk areas or having risk informed development, Malaysia can reduce its spending in mitigating flooding. – Filepic

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Hotspot danger

Recently, to better prepare Malaysians, the DID released a list of flood hotspots in the country: There are a whopping 5,496 locations across the country. Sarawak has the highest with 1,034 locations and Labuan the lowest with 18. These locations include 1,248 villages and 235 housing neighbourhoods.

Selangor, the most populous and developed state, and which bore the brunt of last year's year-end floods, has 339 flood-prone locations.

Lim says that state governments and even the sensitised general public have long known about these hotspots, adding that the government has been mitigating floods in these areas every year. But in the past, these hotspot maps were “under pressure” to be kept relatively unknown by many parties worried that revealing locations might cause land and property prices to tank.

“The release of the hotspot maps was partly triggered by the public's need to know,” says Lim, describing the move as a healthy sign that shows the “government and society are becoming more mature and are prepared to start dealing with disaster risks”.

Rethinking development, says Lim, can also be a more viable solution.

“Rethinking development such as urban renewal plans or limiting new development in high risk areas would be more viable instead of using resources to frequently rescue people when there is flooding,” he points out.

What else besides funding is important to mitigate the impact of floods on people and property?

Lim says we have to change how we behave around disasters, and that preparedness at all levels of stakeholders is necessary to reduce disaster risks.

“The current trend calls for all parties to build a shared understanding of disaster risks in your area as well as anticipatory action in being resilient, how to deal with the threat and initiatives to protect oneself and one’s property,” he explains (see graphic on P2).

We need to be informed about what type of area we’re living in – is it low-lying, on a slope? – where the risks are in our area, how to act if a disaster happens, and, if we live in an at-risk area, making sure mitigations plans have been made and being carried out, says Lim.

The floods may yet become an inevitable part of our lives amidst the climate crisis – yes, even for urbanites – but Malaysians can do a lot to prepare ourselves.

In other words, get ready.

<https://www.thestar.com.my/lifestyle/living/2022/10/26/time-to-get-ready-for-a-039flood039-of-problems-malaysia>