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Flood mitigation a necessary expense

NATURE'S FORCE: Human lives must be protected even if the cost is high

THE weatherman has predicted a wet December, but the continuous rainfall, which is expected to spill into next month, may inundate only low-lying and flood-prone areas without reaching the scale of the big floods of 2013 and 2014.

This should be good news for residents in Bukit Mentok, Kemaman. It would be a most welcomed respite after the floods of 2013 and last year, which inundated their two-storey homes and forced them to evacuate to relief centres.

However, for those who live near the coastline, the sea may cause havoc should the rain be accompanied by high tide and rough sea conditions, forced by strong winds that have the strength to batter the coastline and cause serious beach erosion.

It happened last year. Although Terengganu was spared serious flooding, strong winds and waves eroded many stretches along the coastline, and forced some residents to flee their homes, which were either damaged or threatened by the waves.

From Besut to Kemaman, the rough sea conditions eroded weak stretches and forced the Drainage

and Irrigation Department (DID) to activate its emergency response team, to plug the damage with huge granite blocks and other stop-gap measures.

The Federal Government is spending more than RM70 million to protect beaches in Terengganu, and all projects to protect beaches from erosion will be completed by the first quarter of next year. But before they are completed, those who live near the coastline must remain alert of dangers, should they strike.

The most vulnerable would be the 3.2km stretch from Mengabang Telipot to Tok Jembal in Seberang Takir, which was battered by high waves that caused erosion in several areas, affecting fishing villages. There are already signs of damage along a reinforced stretch in Mengabang Telipot, but until the monsoon is over some time in March, it is difficult to assess the damage.

The monsoon will also reveal if the mitigation measures taken are adequate or have created more weaknesses along the coastline. If it's the latter, it proves that the fight against nature is a losing battle.

However, if past battles are used as a yardstick, then DID should be prepared for another round of defeat and go back to the drawing board to design foolproof measures to minimise the impact of nature's force.

It is highly unlikely that a permanent solution can be found, but at least, the department can work on long-term measures to minimise erosion in identified areas along the 240km stretch of beach from Besut to Kemaman.

Measures taken by DID and the Kuala Terengganu City Council to prevent flash floods are commendable, but despite such efforts, floods still occur, such as when two days of non-stop rain resulted in monsoon drains overflowing.

DID has spent RM12.5 million to clear rivers, including excavating narrow areas in rivers, and setting up pollutant traps in monsoon drains to ensure they are not choked by rubbish.

Tonnes of rubbish have been removed from the traps. The amount reflects the poor civic consciousness among the people, who "conveniently" dump household rubbish into the drains and expect the authorities to clean up the mess.

It makes good sense for the authorities to pool their resources to initiate a study, involving the simulation of the impact of undercurrents and waves. The study, with the aim of yielding practical results, can be conducted through collaborations with universities.

The undercurrents along the Terengganu coastline change their course after each monsoon, and

apart from creating erosive waves, they also create sandbars at the estuaries of major rivers.

This phenomenon was evident in Sungai Besut, Sungai Setiu, Sungai Terengganu, Sungai Marang, Sungai Paka, Sungai Dungun and Sungai Kemaman. The shifting sandbars pose a danger to fishing and passenger boats.

Accidents have occurred, where fishing boats, even those guided by experienced *tekong*, hit the sandbars during low tide. However, due to the shallowness of the water and the close proximity to the shore, the loss of lives was avoided.

The authorities should consider constructing offshore breakwaters to absorb the effects of strong waves and prevent the formation of sandbars near estuaries. Offshore breakwaters have been proven to be effective at the Petronas crude oil terminal in Kerteh.

These mitigation measures are costly, but something needs to be done to protect beaches, rivers and properties — and not to mention, human lives.

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ON THE FRONTLINE



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Erosion caused by strong waves in Mengabang Telipot, Terengganu. The authorities should consider constructing offshore breakwaters to absorb the effects of such waves and prevent the formation of sandbars near estuaries.

