

Johor 'sitting in bowl of water'

JOHOR FLOODS

A combination of factors

• River

Shallow rivers unable to cope with volume of water.

• Rain

Weather brings 500mm and 700mm of rain in four days in mid-December.

• Flood

Ground becomes saturated with water seeping in.

• Flat terrain

Prevents river water from flowing quickly to the sea.

• Sea

Tides along the coastal area slow down the flow of river water to the sea.

DID cites factors that led to floods

5/12/15/1

PETALING JAYA: The Johor floods that saw about 104,000 people evacuated was caused by a combination of factors that included the weather and topography.

A Drainage and Irrigation Department (DID) analysis, which will be handed to the Natural Resources and Environment Minister today, cited heavy rainfall in Johor since Dec 18 as the main cause for the floods.

DID director-general Datuk Keizrul Abdullah told *The Star* that between 500mm and 700mm of rain fell in Johor within four days in December, equivalent to the total amount of rainfall for the state for two-and-a-half months to three months.

He said the flood mitigation infrastructure was unable to cope with that kind of rainfall.

"The rainfall was much heavier than the one recorded in 1971 which saw the entire country flooded," Keizrul said.

"The rainfall in many parts of Johor, which

are situated in low-lying areas and flat terrain, have made the ground saturated.

"The climate, which has not seen such vigorous rainfall over the decades, and developments within the river basin have also caused the rivers to be narrower and shallower due to sedimentation," he said.

Keizrul said another contributing factor was that the rivers were located on flat terrain "making it impossible for the water to flow quickly to the sea."

The tide along the coast also prevented river water from getting to the sea quickly.

"As the result, Johor is akin to sitting in a bowl of water," he said, adding that the current flood mitigation infrastructure was built based on 25 years of rain data.

"But what we saw in Johor was not even recorded in the last 100 years."

Keizrul said it would take a long time for Johor to "dry up" as long as the rain continued.