

# Experts refute claims on steep rise in sea levels

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**KUALA LUMPUR:** Experts on climate change have refuted claims made in a local study which predicted that several areas in the country will go underwater by 2100.

Prof Dr Fredolin T. Tanggang, who is vice-chair of the Intergovernmental Panel on Climate Change (IPCC) Working Group 1, said he found it incredible that the study could come up with a figure that was more than the IPCC's projection.

Fredolin, who is also head of Universiti Kebangsaan Malaysia's (UKM) Research Centre for Tropical Climate Change System (IKLIM), said the IPCC's study on climate change published in 2007 reported that the global seawater level was expected to go up to only 0.57m by 2100 — and that's the upper limit.

The study by Universiti Tun Hussein Onn Malaysia (UTHM), reported by a daily last week, claimed that an analysis of the seawater level data recorded by the Department of Irrigation and Drainage (DID) since 2004 to early this year found that the country's seawater level was rising at an average of 10 centimetres per year.

UTHM Deputy Vice-Chancellor (academic and international) Prof Ir Dr Abdul Aziz Abdul Samad, who was quoted in the report, said if the seawater level continued to rise at a consistent rate, it would rise by 2.5m

by 2020.

The study said Batu Pahat, Johor, was deemed a critical area, having experienced flooding in the past as it was two metres below sea level.

Fredolin said a projection could not be made merely from data acquired by means of a simple statistical model.

"There have been similar studies in the past by National Hydraulic Research Institute of Malaysia (NAHRIM) based on statistical data from various localities that was collected over the last 20 to 30 years.

"A simple statistical model can only provide projection data in the form of a linear trend," he said.

In reality, rising seawater levels were affected by the dynamics of climate change, he said.

The rise in seawater levels was affected by melting glaciers and ice caps in the Arctic and Antarctic regions, which could not be taken into account by a simple statistical model.

Fredolin said he was not aware that there was any comprehensive study done locally on rising seawater levels that included such data, including thermal expansion and changes in regional oceanography.

Southeast Asia Disaster Prevention Research Institute's Datuk Dr Ibrahim Komoo said coastal erosion was a much bigger problem compared with rising seawater levels.

He said it would take at least a few hundred years for seawater levels to go up by only a few centimetres.

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— Datuk Dr Ibrahim Komoo  
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water levels will rise as a result of climate change, but the impact to the areas is not as great as to small islands formed by coral reefs like Sipadan, which is only 0.5m above sea level.”

Ibrahim said some parts of the country faced severe coastal erosions. He said some beaches in Kelantan had experienced coastal retrogradation (marine erosion) by as much as 100 to 200m.

However, he said that this was a natural process that could be mitigated by making the embankment higher or building houses on stilts.

Fredolin said coastal erosion could

be a result of several factors, including wind changes.

He said an IPCC study showed that there had been significant wind changes in the South China Sea in the last 40 to 50 years.

Changes in the characteristics of the wind can cause changes in storm activities. Fredolin hypothesised that strong winds could create whipping waves that eroded the shoreline, impacting the regions around the South China Sea.

He advised UTHM to publish its study in an international journal so that the IPCC could make an assessment of it.

Meanwhile, the Natural Resources and Environment Ministry said in a statement that the National Coastal Vulnerability Index Study on rising seawater levels projected that the global average increase for years 2000 to 2050 would be as much as 0.25m, or equivalent to five millimetres per year.

The statement said the DID's study was in line with the IPCC's statement that the seawater level would increase by as much as 28 to 43cm by the end of the century. Hence UTHM's claim of seawater levels rising by 10cm per year was inaccurate.

However, the statement said a study by NAHRIM using satellite altimeters found that the seawater levels along the coasts of Sabah and Sarawak were expected to rise at an average of between 0.43m and 1.06m by 2100.