

Warming to result in 33pc loss of sea ice zone, seminar told

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KOTA KINABALU: The warming over the Southern Ocean will result in the loss of approximately 33 percent of the sea ice zone by 2100.

The phenomenon may affect the production of Antarctic Bottom Water, and therefore the global thermohaline circulation, said John Turner of the British Antarctic Survey.

He said the assessment on how the climate of the Antarctic may evolve over the 21st century was based on the output from the 20 models used in the Intergovernmental Panel on Climate Change (IPCC) Assessment Report.

Over the 21st century, projections show a widespread surface warming during winter by 0.3-0.5 degree Celsius per decade across high southern latitudes, with peaks on the Antarctic plateau and in the sea ice zone, Turner said.

He said the weighting gives a temperature increase that is 20 per cent larger in the sea ice zone than the unweighted trend.

Turner was speaking during the Third Malaysian International Seminar on Antarctic (MISA3): "From the Tropics to the Poles" at the Le Meridien Hotel here yesterday in conjunction with the International Polar Year 2007-2008 and ICSU (ROAP)-SCAR Forum: "Understanding the Implications of Rapid Warming in the Polar Regions to Earth Systems".

The event was jointly organized by Universiti Malaysia Sabah (UMS) and the Malaysian Antarctic Research Program (MARP) of the Academy of Science Malaysia.

"We expect to see an increase in snowfall over the Antarctic continent which will offset to a small extent the expected rise in sea level," Turner said.

He said the models predict an increase in the mean westerly winds over the Southern Ocean, which will affect the Antarctic Circumpolar

Current.

Meanwhile, Michael Stoddart of the Antarctic Division, Australia said changes in the Southern Ocean around Antarctica over the past 12 years suggest that the region may be the most vulnerable part of the global marine ecosystem.

"Reduction in the duration and extent of sea ice has the real potential to upset the world's ocean circulation, resulting in dramatic impacts of a biological and economic nature, which could include a slowing of the warm North Atlantic Current," he said.

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