

Climate models are not good enough, researcher says

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Only a few climate models were able to reproduce the observed changes in extreme precipitation in China over the last 50 years. This is the finding of a doctoral thesis from the University of Gothenburg, Sweden.

Climate models are the only means to predict future changes in climate and weather.

"It is therefore extremely important that we investigate [global climate models](#)' own performances in simulating extremes with respect to observations, in order to improve our opportunities to predict future weather changes," says Tinghai Ou from the University of Gothenburg's Department of [Earth Sciences](#).

Tinghai has analysed the model simulated extreme precipitation in China over the last 50 years.

"The results show that climate models give a poor reflection of the actual changes in extreme precipitation events that took place in China between 1961 and 2000," he says. "Only half of the 21 analysed climate models analysed were able to reproduce the changes in some regions of China. Few models can well reproduce the nationwide change."

China is often affected by [extreme climate events](#). Such as, the flooding of 1998 in southern and north-eastern China caused billions of dollars worth of [financial losses](#), and killed more than 3,000 people. And the drought of 2010-11 in [southern China](#) affected 35 million people and

also caused billions of dollars worth of financial losses.

"Our research findings show that [extreme precipitation](#) events have increased in most areas of China since 1961, while the number of dry days – days on which there is less than one millimetre of precipitation – has increase in eastern China but decreased in the western China."

Cold surges in south-eastern China often cause severe snow, leading to significant devastation. Snow, ice and storms in January and February 2008 resulted in hundreds of deaths. Studies show that the occurrence of cold surges in southeast China significantly decreased from 1961 to 1980, but the levels have remained stable since 1980 despite global warming.

Provided by University of Copenhagen

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