

## **Simulation of Climate Response to a Super Eruption**

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There is increasing interest in the effects on climate following a 'Super eruption' such as the Toba eruption 75,000 years ago. Here we attempt to simulate the climatic changes following a generic 'Super eruption' using The Met Office's coupled ocean-atmosphere general circulation model. We found that simulated near surface temperatures fell by as much as 10 degrees celsius globally for several months and that a considerable deviation from normal temperatures continued for several decades. Global precipitation rates fell by over a third. The thermohaline circulation doubled in intensity, changing regional temperature patterns in the northern hemisphere and the sea ice coverage in the north Pacific and the Southern ocean was considerably larger than normal for several years. Despite these major impacts, longer term climatic changes that could lead to ice age type conditions did not occur.