



'Major' volcanic eruptions and climatic disasters

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In recent years, global warming has been blamed as a cause of numerous climatic disasters. However, with the exception of heatwaves, it remains difficult to show whether climatic disasters related to extreme temperature and precipitation variability such as floods, droughts and severe winters are caused by such a phenomenon. We have carried out a preliminary study on the link between 'major' volcanic eruptions of Volcanic Explosivity Index 4 and above and climatic disasters over 125 years of instrumental record in the densely populated region of southern China. The conclusions drawn are:

- (1) Rapid population growth in the region is increasing the risk of damage resulting from the occurrence of climatic disasters.
- (2) Major volcanic eruptions can be important in lowering the annual mean temperature of major urban areas affected by the influence of urban heat island.
- (3) Major volcanic eruptions can be a cause of extreme precipitation variability.

Selected examples of volcanic eruptions occurring in different parts of the world with an impact on the region will be used to illustrate the conclusions drawn.