# Climate Shift and Its Impact on Asian Summer Monsoon

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Several studies and debates on potential climate change, along with its ecological and economic impacts, have focused on the ongoing buildup of industrial greenhouse gases in the atmosphere and a gradual increase in global temperatures. It ignores recent and rapidly advancing evidence that Earth's climate repeatedly has shifted abruptly and dramatically in the past, and is capable of doing so in the future. The abrupt climate change, known as Climate Shift has been reported over the last decade by research of ocean, earth and atmosphere scientists at many institutions worldwide. Climate has undergone changes .in the past which has affected the earth positively in one region and negative in the other region. Abrupt changes in the climate will affect the behavior of Indian Ocean SST since mid- 1970s and the pattern of atmosphere variables. Long recognized negative correlation between Indian monsoon and ENSO has weakened rapidly during recent decades. As the rainfall distribution in the Indian subcontinent is not continuous within the season, it undergo period of enhanced and reduced spells of rainfall termed as active and break phases of monsoon which contributes 70% of rainfall over Indian subcontinent. The present study indicates that the features of Indian monsoon rainfall has changed significantly over two time periods, with a major change in the late 1970s and a minor one in the beginning of 1990s. The active spells are decreased and the break monsoon durations are enhanced after the climate shift of mid-1970s. The decrease in the duration of active rainfall and enhanced duration of monsoon breaks further worsened the Indian monsoon activity after the minor climate shift reported in early 1990s. The real cause of the major climate shift of mid-1970s and the minor one in the early 1990s seen on the atmospheric and oceanic parameters are not yet understood.