

## **GIS PREDICTION FOR THE CHANGE OF SUITABILITY OF SOME IMPORTANT CROPS OF INDIA WITH RISE OF TEMPERATURE**

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### **Abstract**

The Intergovernmental Panel on Climate Change (IPCC) for the first time was able to provide best estimates and likely ranges for global average warming in 2007. The report was based on each of its emissions scenarios. The average surface temperature of the Earth is likely to increase by 2 to 11.5°F (1.1-6.4°C) by the end of the 21st century. Based on this prediction crop simulation models were prepared with present condition as well as by rising the temperature by 2 °C for three crops like Black pepper, Ginger, Turmeric and Coconut. The study on turmeric and ginger shows that North eastern part of India remains suitable while eastern coastal states will become unsuitable for ginger and turmeric cultivation. In case of Black pepper, it shows suitability of Western Ghats will reduce while that of Eastern Himalaya's foot hills will turn to be more suitable. In case of coconut cultivation an opposite result was noticed where West Bengal, Orissa, Assam are becoming totally unsuitable for coconut cultivation but West coast will show an good increase in the production.