

Indian Climate Research Programme

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India's climate is dominated by summer monsoon, which shows spatial, inter-annual and intra-seasonal variability. Climate variability has tremendous impact on agricultural production and the socio-economic conditions of Indian population. Recognizing the role of land, atmosphere and oceanic processes in modulating the monsoon variability, a multi-disciplinary, decade-long Indian Climate Research Programme (ICRP) has been evolved to study the climate variability & climate change issues in the context of India. The ICRP envisages various land-ocean-atmosphere field experiments, analysis of available past data sets, past climate and climate change, climate and agriculture, and climate modeling.

A number of research projects were supported to implement the inter-disciplinary and multi-institutional coordinated sub-programs of ICRP. The available land-based, ocean-based and space-based data sets are being analysed towards improving our understanding of the monsoon variability in different socio-economic sectors. Field experiments were conducted to validate the crop simulation models in different agroclimatic conditions. The methane and nitrous oxide emission was monitored under different ecosystems. Different global, regional and meso-scale models are being run to predict monsoon systems. In order to understand the regional and locally predominant variability, several processes oriented field campaigns were organized. The Land Surface Process experiment (LASPEX) during 1997-1998, the Bay of Bengal Monsoon Experiment (BOBMEX) during July-August 1999, the Arabian Sea Monsoon Experiment (ARMEX)- Offshore Trough during July-August 2002 were implemented. Further, ARMEX-Warm Pool experiment is being planned for implementation during March to July 2003. Thus, the program pooled all the expertise available in the country on the land-ocean-atmosphere coupling and its interaction with monsoon variability. The initial results will be discussed in the presentation.

Thursday II (Talk)