

Monsoon and Tropical Climate (MONTCLIM)

The Monsoon and Tropical Climate (MONTCLIM) and Indian Climate Research Programme (ICRP) are directed towards undertaking studies on monsoon climate variability/change at different time scales, modeling atmospheric processes and technology development for atmospheric science research.

- The major scientific results of MONTBLEX data analysis were published as a book (422 pages) entitled 'Monsoon Trough Boundary Layer'.
- Successfully completed the field experiment on Land Surface Processes (LASPEX) over the Sabarmati River basin. The quality checked data sets have been provided to the participating scientists and the initial results were discussed during a three-day workshop. About 25 research papers are under publication. Also, archived the LASPEX database for further studies.
- Completed the indigenous development of Wind Profiler /Radio Acoustic Sounding System (RASS) for continuous atmospheric monitoring. Intensive testing and validation of the system are planned at its permanent location at Pune.
- Initiated the development and testing of Land-Atmosphere-Ocean coupled models on a diagnostic mode.
- Investigations on the air-sea coupling over the warm pool in Bay of Bengal and its role in summer monsoon circulation were undertaken. Marine boundary layer flux measurements were undertaken, as part of the Indian Ocean Experiment (INDOEX).
- Theoretical and modeling studies related to Monsoon Trough Boundary Layer Experiment (MONTBLEX), Land Surface Process Experiment (LASPEX), Crop-weather interactions, Ocean and Atmospheric Process Modeling (APM) are in progress.
- An agrometeorological data bank has been created at the Central

Research Institute for Dryland Agriculture (CRIDA), Hyderabad.

- Validated the CERES-Rice model for Hyderabad conditions. Initiated validation of CERES-Rice and Wheat models at Palampur and modeling Soybean crop growth at Jabalpur.
- The methane flux measurements were undertaken at Lucknow, Bhubaneswar and Jorhat and initiated nitrous oxide flux measurements in rice-wheat cropping system to study the global warming and climate change.
- Organized training / workshops on (1) Dynamic Simulation Modelling of Crop Weather Interactions in Brassica' at CRIDA, Hyderabad (2) Agromet Database Management at CRIDA, Hyderabad (3) LASPEX initial results at GAU, Anand, (4) XBT-training at NIO, Goa and (5) Geosphere-biosphere interactions at Guwahati.