

Indo-US Workshop on Integrating Weather and Climate Information in Water Management

JULY 5-7, 2006

Indian Institute of Tropical Meteorology, Pune, India

July 5, 2006 (Wednesday)

09:00 - 09:30 **REGISTRATION**

09:30 - 11:00 **Inaugural Session (Varahamihira Hall)**

Welcome by Prof. B.N. Goswami, Director, IITM

Concept by Prof. B. Rajagopalan, Univ. of Colorado, USA

American Perspective by Dr. Terry Fulp, USBR, USA

Inaugural Address: Dr. P.S. Goel, Secretary, DOD

Keynote Lecture: **Mr. R. Jeyaseelan**, Chairman, CWC, '*Status of India's Water Resources Situation and Future Perspectives*'

Dr. Smriti Trikha, IUSSTF: 'Indo-US S&T Cooperation - Perspectives and Opportunities'

Vote of Thanks by Dr. K. Krishna Kumar, IITM

11:00 - 11:30 **Refreshments**

11:30 - 11:45 **Logistics & Organization** (New Conference Hall, Library Building)

B. Rajagopalan, K. Krishna Kumar and C. Pandit

Session I: Water Resources Management and Operations

Chairman: Dr. M.A. Chitale; Rapporteur: Prof. B. Rajagopalan

11:45 - 12:30 **Terry Fulp** *Water Resources Management/Operations in the US*

12:30 - 13:00 **Guillermo Podesta** *Water Resources Perspective from South America and Argentina*

13:00 - 14:30 **Lunch**

14:30 - 15:00 **Pratap Singh** *Water Resources Potential of Himalayas and Possible Impacts of Climate Change*

15:00 - 15:45 **N. Ghosh** *Hydrology Project and the Role of CWPRS*

15:45 - 16:15 **Coffee Break**

16:15 - 16:45 **C.D. Thatte** *Strengthening Water Management*

16:45 - 18:00 **Brainstorming**

Needs for improved water management, areas of potential collaboration and potential funding sources

July 6, 2006 (Thursday)

Session II: Weather and Seasonal Climate Forecast of the Monsoon
Chairman: Dr. G.B. Pant; Rapporteur: Dr. M. Rajeevan

- 09:00 - 09:45** **Arun Kumar** *Long-range forecasts at the National Weather Service*
- 09:45 - 10:15** **B.N. Goswami** *Predictability of Monsoon on different time scales*
- 10:15 - 10:45** **M. Rajeevan** *Long range forecasts of monsoon rainfall over homogenous regions of India: New Developments*
- 10:45 - 11:15** *Coffee Break*
- 11:15 - 11:45** **A.K. Bohra/S.C. Kar** *Weather & Climate Forecasting of Monsoon at NCMRWF and its regional applications*
- 11:45 - 12:00** **Sulochana Gadgil** *Indian Climate Research Programme: Monsoon Zone Experiment*
- 12:00 - 12:30** **K. Krishna Kumar** *Monsoon rainfall variability - Present and future*
- 12:30 - 12:45** **N.K. Goel** *Climate Change Influences on Hydrological Elements*
- 12:45 - 14:00** *Lunch Break*

Session III: Hydrologic Modeling/Forecast Tools and Coupling with weather/seasonal forecast
Chairman: Dr. George Leavesley; Rapporteur: Dr. Alok Sikka

- 14:00 - 14:45** **George Leavesley** *A Modular Modeling Approach for Water and Environmental Resources Management*
- 14:45 - 15:15** **A.K. Gosain** *SWAT - A Distributed Hydrological Model*
- 15:15 - 15:45** **Michael Coe** *Global scale hydrologic modeling*
- 15:45 - 16:15** *Coffee Break*
- 16:15 - 16:45** **Kevin Werner** *Use of hydrologic models with weather/climate forecast for stream flow forecast*
- 16:45 - 17:15** **Guillermo Podesta** *Use of Climate Information to Manage Water Resources*
- 17:15 - 17:30** **B. Rajagopalan** *Use of downscaling tools with hydrologic models for stream flow forecast*
- 17:30 - 17:45** **Anju Gaur** *Closing Krishna basin: Where is water for tomorrow?*
- 17:45 - 18:30** **Brainstorming**
Tools for watershed modeling, coupling with weather forecasts

July 7, 2006 (Friday)

Session III Contd.

- 09:00 - 09:30** **Rama Nemani** *Ecological Forecasting by integrating surface, satellite and climate data with ecosystem models*
- 09:30 - 10:00** **A. Sikka** *Hydrological Modeling for Climate Change Impact Studies and Adaptation Measures*

Session IV: Decision Support Tools for water resources management and Institutional Infrastructure

Chairman: Prof. Upmanu Lall; Rapporteur: Dr. Kevin Werner

- 10:00 - 10:30** **J. Obeysekera** *Experiences in using climate outlook for water management in South Florida*
- 10:30 - 11:00** *Coffee Break*
- 11:00 - 11:45** **Edith Zagona** *Decision Support Tools for Water Resources Management*
- 11:45 - 12:15** **B. Rajagopalan** *Use of seasonal forecast in a decision support system*
- 12:15 - 13:00** **Manu Lall** *Decision Making under uncertainty*
- 13:00 - 14:00** **Lunch Break**
- 14:00 - 14:30** **Kevin Werner** *Organization of the US NWS hydrology program*
- 14:30 - 14:45** **M. Narasimha Rao** *Present Water Resources Scenario of Andhra Pradesh – Application of DSS Tools*

Session V: Groundwater Resource Management Development

Chairman: Dr. Terry Fulp; Rapporteur: Dr. Nityanand Singh

- 14:45 - 15:15** **Shakeel Ahmed** *Rainfall prediction could be an important input to a Groundwater Management Tool for an over-exploited Aquifer*
- 15:15 – 15:45** **Coffee Break**
- 15:45 – 16:30** **Hari Rajaram** *Groundwater management/development in the US*
- 16:30 - 16:45** **G. Srinivasan** *Water Resources Programs of WMO*
- 16:45 - 17:30** **Brainstorming**
Potential for institutional changes for issuing hydrologic forecasts
- 17:30 - 18:00** **Wrap-up, where do we go from here and adjourn**