

PREFACE

The guaranteed supply of water, the quality of which is also good enough to meet requirements of people, is an enormous challenge for all of us. Significant advances in the field of Hydrology with appropriate R&D inputs are needed to transform the course of water resources planning, development and management to cater to multiple uses and needs: irrigation, drinking water, hydropower etc. There is need for preparation of suitable action plans to deal with various hydrological problems that confront the water sector. It is important to emphasize the need for having a proper vision and prepare a long term perspective plan for tackling the various hydrological problems related with water resources development and management with due consideration of environmental, social, economic and political factors.

Keeping this in mind, the National Institute of Hydrology, Roorkee decided to organise an international conference on **Integrated Water Resources Management For Sustainable Development (ICIWRM-2000)** during December 19-21, 2000 in New Delhi with the main objective to provide a common platform for worldwide scientists and engineers to discuss and summarize the current knowledge and to evolve strategies for viable future plans of integrated water resources management for their wider implementation, both by the Govt. agencies and private sectors. The Fifth Phase of International Hydrological Programme (IHP-V, 1996-2001) of UNESCO also focuses on 'Integrated Water Resources Management'.

Realizing the importance of recent developments in the area of integrated water resources management for sustainable development, the conference focuses on the following 8 themes:

- I. Research and development for the management of surface water.
- II. Research and development for the management of ground water.
- III. Water pollution and environmental considerations
- IV. Integrated water resources management
- V. Stochastic and systems approach to hydrological problems
- VI. Watershed management and community participation
- VII. Assessment of hydrological hazards and impact of climate change
- VIII. Remote sensing, GIS and hydrologic instrumentation

We are delighted to mention that the symposium has attracted great attention and the organisers received an overwhelming response from authors from almost every corner of the world. Although, a good number of papers were received for the conference, due to various limitations, it was not possible to include all the papers in the proceedings. We are happy to inform that a large number of papers both from India and abroad, have been finally selected for presentation in various technical sessions. The papers presented at the conference covered wide range of topics concerning with water resources management for sustainable development.

The main proceedings of the conference have been brought out in two volumes. Volume-I contains the papers from theme 1 to 4. This volume contains as many as 76 technical papers, of which 12, 24, 21 & 19 papers are from themes I, II, III, and IV respectively. Volume-II of the proceedings contains a total of 57 papers, of which 13, 16, 13 and 15 papers are from themes V, VI, VII & VIII respectively. Hence in both volumes of the proceedings of the conference a total of 133 papers have been included.

We are sure that the proceedings of the conference, deliberations and discussions, both during the panel discussion and technical sessions will go a long way to assist in integrated planning, development and management of the water resources and watershed as a whole.

We do not want to miss the opportunity to express our sincere thanks and gratitude to all those who have been involved and helped to make this event a grand success including the organisations for providing financial support for the conference.