

Integrated Water Resources Management for Sustainable Development

**Theme Papers,
Rapporteurs' reports
and Addresses**

Edited by

R. Mehrotra

B. Soni

K. K. S. Bhatia

NOTICE

Neither the editors nor any person acting on behalf of the Conference is responsible for the use, which might be made of the following information.

The designations employed and the presentation of material throughout the publication do not imply the expression of any opinion whatsoever on the part of organisers, ICIWRM - 2000 concerning the legal status of any country, territory, city or of its authorities, or concerning the delimitation of its frontiers or boundaries.

© National Institute of Hydrology, Roorkee

Reproduction is authorised provided the source is acknowledged.

Proceedings of the International Conference on Integrated Water Resources Management for Sustainable Development

SPONSORS

Ministry of Water Resources, Govt. of India, New Delhi, India

Indian National Committee on Hydrology, Roorkee, India

United Nations Educational, Scientific and Cultural Organisation (UNESCO)

Hydrology Project, India

International Atomic Energy Agency, Vienna, Austria

International Centre for Integrated Mountain Development, Nepal

Water and Power Consultancy Services (India) Limited, New Delhi, India

Council of Scientific and Industrial Research, New Delhi, India

Indian Council of Agricultural Research, New Delhi, India

Department of Science and Technology, New Delhi, India

CO-SPONSORS WITHOUT FINANCIAL SUPPORT

IAHS, WMO and Institution of Engineers (India)

ORGANISED BY

National Institute of Hydrology, Roorkee - 247 667, (U.P.), India

INDEX

Theme Papers

- Theme I – Research and development for the management of surface water
Research and development for management of water resources 1-8
by Ian Cordery
- Theme II – Research and development for the management of ground water
Artificial recharge of groundwater in semi-arid and humid areas – experiences and new developments 9-13
by G. Jacks and K. C. B. Raju
- Theme IV – Integrated water resources management
Integrated water resources management – role of research and development in hydrology 14-24
by S. M. Seth
- Theme V – Stochastic and systems approach to hydrological problems
Periodicities in annual hydrologic data from the mid-western USA 25-32
by A. Ramachandra Rao and Khaled Hamed
- Theme VI – Watershed management and community participation
Assessment of participatory process of watershed management in India 33-50
by J. S. Samra
- Theme VII – Assessment of hydrological hazards and impact of climate change
Climate change and water resources planning; a somewhat sceptical view 51-56
by Geoff Kite
- Theme VIII – Remote sensing, GIS and hydrologic instrumentation
Role of remote sensing and geographical information system (GIS) in water resources management 57-69
by B. L. Deekshatulu and V. Hari Prasad

Rapporteur's Reports

- Theme I – Research and development for the management of surface water
by C. M. Pandit 70-72
- Theme II – Research and development for the management of ground water
by V. V. S. Gurunadha Rao 73-77
- Theme III – Water pollution and environmental considerations
by K. K.S. Bhatia 78-81

Theme IV – Integrated water resources management <i>by D. K. Kaushik</i>	82-88
Theme V – Stochastic and systems approach to hydrological problems <i>by N. K. Goel</i>	89-91
Theme VI – Watershed management and community participation <i>by K. D. Sharma</i>	92-93
Theme VII – Assessment of hydrological hazards and impact of climate change <i>by Alok K. Sikka</i>	94-97
Theme VIII – Remote sensing, GIS and hydrologic instrumentation <i>by S. K. Jain</i>	98-100
Addresses of Delegates, Key Note & Theme Speakers and Rapporteurs of the Conference	101-119
Table of Contents of Volumes I & II	120-129
