

14th NATIONAL SYMPOSIUM
ON HYDROLOGY

with focal theme on

MANAGEMENT OF WATER RESOURCES UNDER DROUGHT SITUATION

December 21-22, 2010

Venue:
MNIT, Jaipur, Rajasthan



NATIONAL INSTITUTE OF
HYDROLOGY, ROORKEE

Organized by



MALAVIYA NATIONAL INSTITUTE
OF TECHNOLOGY, JAI PUR

Sponsored by



INDIAN NATIONAL COMMITTEE ON HYDROLOGY
(IHP National Committee of India for UNESCO)

INTRODUCTION

Water is a vital resource gifted by nature to living beings on the earth. Water is not only essential to sustain life, but also to support ecosystems, economic development, community well-being, and cultural values. Water no longer can be taken for granted. It is one of the most challenging tasks to ensure adequate water and food to our present and future generations. The availability of water resources in our country is highly variable both in space and time. Occurrences of droughts often cause depletion of water availability and lead to significant water stress to regional economic activities and society. Drought is one among the natural disasters that affect the maximum number of people and their livelihood in the world. Drought refers to relative deficiency of available water that injuriously affects the usual crops, causes temporary scarcity of water for human/livestock consumption and influences the economic growth. India is one among the countries that have long-past history of facing drought and famine like situation from time to time. It was reported that GNP had decreased by 7% due to crop loss during 1987-88 drought (36 million tons of food production loss). Areas that have high exposure and low coping capabilities would have the highest risk of losses from a given drought event than those with low exposure and high coping abilities. The occurrence of droughts in India is normally linked with the amount, distribution, and time of onset and withdrawal of monsoon rainfall. Since, the monsoon rainfall is highly erratic and unevenly distributed, drought conditions prevail in almost every year in one or the other part of India. We respond to a drought situation through ad-hoc strategies and more like crisis management approach rather than through proactive, coordinated strategies designed to mitigate the impacts.

Various tools, technologies have been developed to address a wide spectrum of water resource problems. Models are being used for assessment of water resources, water availability and reservoir system operations etc. With more powerful and modern computing systems and tools, a greater number of economical remote sensing tools, radar and satellite imaging, isotopic techniques, hydrological models enable water resources managers to move beyond the conventional techniques. The goal of this symposium is to discuss and improve knowledge on water resources management during drought and other related areas through collaborative information sharing and capability building.

The Indian National Committee on Hydrology (INCOH), as one of its objectives, provides technical support to the Ministry of Water Resources, Govt. of India (MoWR) in evaluating the R&D projects and studies for funding. The National Institute of Hydrology, Roorkee has been providing secretarial assistance to the INCOH. In pursuance of its objectives of preparing and periodically updating the state-of-art in the area of hydrology in the country, INCOH publishes the state-of-art reports on different important topics of hydrology. The INCOH also publishes the 'Journal of Hydrological Research and Development'. The

Committee is involved in the 7th phase of IHP (2008-2013) of UNESCO, which is devoted to water interaction with various systems emphasizing the need to solve social changes ahead and associated risks. Under the auspices of INCOH, this symposium is 14th in the series of National Symposia on Hydrology. The National Institute of Hydrology, Roorkee as a premier research institution in field of hydrology, jointly with MNIT, Jaipur have planned to organize the National Symposium on Hydrology with focal theme on "Management of Water Resources under Drought Situation". Besides the focal theme related aspects of hydrology, management, environmental and social aspects of water shall also be covered in the Symposium.

Researchers/scientists, academicians/scholars, engineers, bureaucrats/ policy makers, planners, managers and non-governmental organizations (NGOs) are invited at MNIT, Jaipur during December 21-22, 2010 to share their experiences and views on various issues.

OBJECTIVE OF THE SYMPOSIUM

The aim of the 14th National Symposium is to bring together water resources professionals, practicing field engineers, decision makers and stakeholders of the different water resources and hydrology enterprises from various parts of India to a single platform to exchange views and share knowledge so as to build a roadmap for achieving improved water resources management to cope with the water scarcity during drought and to minimize/mitigate the impacts of drought on agricultural and other regional economical activities including sustainability of ecosystems. An electronic hardcopy of technical proceedings consisting of accepted papers and invited lectures shall be published.

THEMES

The symposium will focus on the technologies and management principles pertaining to water resources and drought mitigation including the interdisciplinary aspects under the following major themes:

Focal Theme:

- Identification of onset and termination of drought
- Regional drought indices, monitoring and mitigation
- Assessment of frequency and severity of drought in different climatic regions
- Integrated assessment of vulnerability to drought
- Integrated water resources management to improve water availability
- Watershed development and rainwater harvesting
- Drought preparedness and early warning
- Water conservation and rainwater harvesting to mitigate drought
- Application of remote sensing and GIS in drought studies
- Socio-economic aspects of drought

Other Themes :

- Surface water hydrology
- Water resources systems
- Ground water hydrology
- Conjunctive use of surface and groundwater
- Surface and groundwater quality
- Management of hydrological extremes
- Water resources management
- Watershed management
- Urban hydrology
- Application of advance techniques and tools in hydrology
- Environmental engineering and assessment of environmental flow requirements
- Decision support system for water resources development and management
- Impact of climate change on water resources

ABOUT NATIONAL INSTITUTE OF HYDROLOGY (NIH)

The National Institute of Hydrology was established in 1978 as an autonomous organisation under Ministry of Water Resources, Govt. of India, to conduct basic, applied and strategic research in the field of hydrology and water resources development. The Institute is located at Roorkee, District Haridwar, Uttarakhand. Main objectives of the Institute is to undertake, aid, promote and coordinate systematic and scientific work on all aspects of hydrology and to cooperate and collaborate with other national and international organizations in the field of hydrology.

ABOUT MNIT, JAIPUR

The Malaviya Regional Engineering College, Jaipur was established in 1963 as a joint venture of the Government of India and the Government of Rajasthan. It is spread over 325 acres of lush greenery, the campus of the Institute enthralls and inspires students for high learning. Institute was granted the status of a Malaviya National Institute of Technology (MNIT) on June 26, 2002. The Institute is flourishing under the dynamic leadership of Shri Mukul Kashiwal, Chairman S. Kumars Ltd., who is Hon'ble Chairman of Board of Governors and Prof. R.P. Dahiya, Director MNIT Jaipur. Please visit website: www.nihernet.in OR <http://www.mnit.ac.in/> for more details.

VENUE & DATE

The symposium will be held at the Malaviya National Institute of Technology, (MNIT), Jaipur-302 017, Rajasthan, India during December 21-22, 2010.

REGISTRATION FORM

14th National Symposium

with focal theme on

MANAGEMENT OF WATER RESOURCES UNDER DROUGHT SITUATION

December 21-22, 2010

at MNIT, Jaipur, Rajasthan
(Organised by NIH Roorkee & MNIT, Jaipur)

Name :

Designation :

Name of Organization :

.....

Address for correspondence :

.....

Pin : Phone :

Mobile : Fax :

Email :

Accommodation Needed: Yes / No

Paper contributed : Yes / No

Details of Registration Fee:

- | | | |
|---|---|------------|
| (a) Delegate | : | Rs. 2500/- |
| (b) Accompanying Guest / Student/Research Scholar | : | Rs. 1250/- |
| (c) Industries/Others | : | Rs. 5000/- |

Demand Draft for Rs. bearing

No. : Dated:

drawn in favour of National Institute of Hydrology, Roorkee, payable at Roorkee is enclosed / being sent separately.

Date:

Signature:

[Note: The Registration forms and registration fee should be sent to Dr. R.P.Pandey, Organizing Secretary, 14th National Symposium on Hydrology, National Institute of Hydrology, Roorkee-247667 (Uttarakhand)].

IMPORTANT DATES

Submission of abstract	:	November, 25, 2010
Acceptance of abstracts	:	November, 30, 2010
Submission of full papers	:	December, 10, 2010
Symposium Dates	:	December, 21-22, 2010

REGISTRATION FEE

The registration fee for participation in the symposium is as follows:

1. Delegates	:	Rs. 2500
2. Accompanying-guest	:	Rs. 1250
3. Students/Research Scholars	:	Rs. 1250
4. Industries & Others	:	Rs. 5000

The registration fee includes registration material, working lunches, tea during symposium. The accompanying guests will have access to all the technical/cultural programmes and hospitality at par with the delegates except registration materials. The registration fee may be paid in the form of Demand Draft in favour of **National Institute of Hydrology, Roorkee**, payable at Roorkee. Also, cash payment of registration fee will be accepted on spot registration during the symposium days. Prospective participants desirous of attending the symposium are requested to fill in the enclosed Registration Form and mail the same along with Registration Fee at the following address:

Dr. R.P. Pandey, Scientist E1
National Institute of Hydrology
Roorkee-247667, Uttarakhand
Ph. (01332) 276220, 249216 Fax: (01332) 272123
E-mail : mwrds2010@gmail.com, rpp@nih.ernet.in

ACCOMMODATION

Limited accommodation would be made available to the participants on first registered first served basis. Accommodation charges are required to be paid by the participants of the symposium. Due to the tourist season during the symposium period, it would be difficult to arrange accommodation at the last moment. Therefore please confirm your registration in advance.

CLIMATE OF JAIPUR

The climate at Jaipur would be very cold during the month of December. In winters, the city of Jaipur observes bright and pleasant sunny days, though the temperature may reach a low of around 5°C during the nights. Delegates are advised to keep woolens with them for the visit to Jaipur city during the symposium days.

CALL FOR PAPERS

Researchers, technologists, academicians, professionals and field engineers are invited to present their original works, case studies, modeling studies and experimental field work as technical paper in the symposium under the afore mentioned themes. Interested authors are requested to submit abstract by November 25, 2010 and full paper not exceeding 10 pages on A-4 size paper only through e-mail by December 10, 2010. [The abstract of the papers is about 400 words/papers should be submitted to the Organizing Secretary (Email: mwrds2010@gmail.com)].

ORGANIZING COMMITTEE

1. Chief Patron : Shri A.K. Bajaj, Chairman CWC & Chairman INCOH
2. Chairman : Shri R.D.Singh, Director NIH
3. Convener : Dr. Rakesh Kumar, Scientist F, NIH & Member Secretary, INCOH
4. Organizing Secretaries : Dr. Rohit Goyal, Prof., MNIT, Jaipur
: Dr R.P. Pandey, Scientist E1, NIH Roorkee
5. Joint Secretaries : Dr. Sanjay Mathur, Assoc. Prof., MNIT Jaipur
: Smt. Archana Sarkar, Scientist C, NIH Roorkee
: Dr. Manohar Arora, Scientist C, NIH Roorkee
: Shri Sumit Khandelwal, Asst. Prof., MNIT Jaipur

MEMBERS OF ORGANIZING COMMITTEE

- Prof. A. B. Gupta, MNIT Jaipur
- Prof. Y.P. Mathur, MNIT Jaipur
- Prof. B.L. Swami, MNIT Jaipur
- Prof. Guriwant Shama, MNIT Jaipur
- Prof. A.K. Vyas, MNIT Jaipur
- Prof. Sudhir Kumar, MNIT Jaipur
- Sh. J.K. Jain, MNIT Jaipur
- Dr. Urmila Brighu, MNIT Jaipur
- Dr. A.S. Jethoo, MNIT Jaipur
- Prof. M.L. Kansal, IIT, Roorkee
- Sh. C.S. Mathur, CWC, New Delhi
- Sh. R.S. Ram, MoWR, New Delhi
- Prof. U.C. Chaube, IIT, Roorkee
- Prof. N.K. Goel, IIT, Roorkee
- Prof. K. Srinivasan, IIT Madras
- Dr. Bhisim Kumar, NIH, Roorkee
- Dr. V. K. Choubey, NIH, Roorkee
- Dr. N.C. Ghosh, NIH, Roorkee
- Dr. V.C. Goyal, NIH, Roorkee
- Dr. D.N. Pandey, RPCB, Jaipur

TECHNICAL COMMITTEE

Sh. R.D. Singh, Chairman, NIH, Roorkee
Dr. Rakesh Kumar, INCOH, NIH, Roorkee
Sh. C.P.Kumar, NIH, Roorkee
Dr. Sanjay K. Jain, NIH, Roorkee
Dr. M.K.Goel, NIH, Roorkee
Dr. Sudhir Kumar, NIH, Roorkee
Dr. A.K.Lohani, NIH, Roorkee
Dr. R.P.Pandey, NIH, Roorkee
Prof. Rohit Goyal, MNIT Jaipur
Dr. A.S. Jethoo, MNIT Jaipur
Sh. A.K. Kharya, CWC, New Delhi
Sh. Bhopal Singh, CWC, New Delhi
Sh. N.N. Rai, CWC, New Delhi
Dr. M.K.Jain, IIT, Roorkee
Dr. Ashish Pandey, IIT, Roorkee
Sh. Omkar Singh, NIH, Roorkee
Dr. Anupma Sharma, NIH Roorkee
Dr. Sanjay Kumar, NIH, Roorkee
Prof. Gunwant Sharma, MNIT Jaipur
Mr. Sumit Khandelwal, MNIT Jaipur

CONTACT ADDRESS

Organizing Secretaries

Prof. Rohit Goyal, Professor
Dept. of Civil Engg., MNIT
Jaipur 302 017 (Rajasthan)
Ph.: (0141) 2713263
Fax: (0141) 2529062, 2529029
E-mail: mwrds2010@gmail.com, rgoyal_jp@yahoo.com

Dr. R.P. Pandey, Scientist E1
National Institute of Hydrology
Roorkee-247667, Uttarakhand
Ph. (01332) 276220, 249216
Fax: (01332) 272123
E-mail: mwrds2010@gmail.com, rpp@nh.emet.in