

# Water Insecurity and Climate Variability in India: Theoretical understanding and practical programing

February 25 - March 1, 2013  
Hyderabad, India

A training workshop organized by

Institute for Resource Analysis and Policy (IRAP), Hyderabad, India  
&  
SaciWATERs Cap-Net Network(SCaN), Hyderabad, India

## The Context

Climate change poses a grave challenge to the developing world. Scientific studies have established significant impacts of a potential change in climate on the natural resources and consequently on the lives and livelihoods of people. It is often said that such impacts will be more on people in the developing countries due to their high

rising per capita income, fast urbanization and high growth in the manufacturing sector are resulting in exponential growth in water demand for competitive use sectors in India and more in the naturally water-scarce arid and semi- arid regions. This, compounded by indiscriminate disposal of municipal and trade effluents from fast growing cities into freshwater bodies and return flows from intensively irrigated crop land. All these are causing enormous stress on freshwater resources. The growing water resource related problems in India are manifested by groundwater depletion, quality deterioration, widening gap between water demand and supplies, environmental water stress in rivers, growing inequity in access to water, and increasing competition and conflicts over water use. Extreme variations in climate adds newer challenges to already aggravated water management problems in India.



dependence on the natural resource base and lower resilience to environmental shocks. The poor are more vulnerable to such changes. Climate change will have different implications for India due to the variations in topography, bio-geographic features, and spatial and temporal variability in climatic characteristics. Extreme variations in climate from year to year cause unprecedented changes in almost all major ecosystems. However, the type, nature and degree of impacts vary across different regions.

The question is – how does climate variability impacts on water insecurity? The problem is gigantic. Population growth, long term economic growth and

What is the training expected to achieve?

The training will:

- Help the water sector professionals to deepen their understanding of issues related to climate variability and change and the manner in which they can affect water security in different regions of the country.
- Provide specific skills to analyze the impact of climate variability and change on water resource availability, access to water, demand for water, water-related livelihoods and human health.

- Familiarize the participants about adaptive water management approaches, particularly the specific technical, economic and policy instruments to deal with the stresses on water resources, socio-economic and environmental systems.



### The Training Themes and Topics

The training-workshop will be organized around the following five themes:

- Climate variability and its impact on water resources in India
- Water Resources Development and Management in India: The Past and Current Trends
- Institutional and policy context of water sector in India
- Socio-economic and health Impacts of hydrological extremes
- Understanding Water Management under Climate Variability from Gender, Equity, and Sustainability Perspectives

academic/research institutions

- Middle level managers of donors which are working in water sector.
- The participants can be from disciplines as varied as hydrology and water engineering, agricultural economics, natural resource economics, sociology, political sciences, environmental engineering and natural resources management.
- Candidates with at least 5-6 years of experience in the water sector would be preferred.
- The training is open for Indian Nationals or anyone who is interested in Indian case.

### Who Should Participate in the Training?

- Officers of government agencies in the water resource sector, including planning, development and management
- Senior professionals from NGOs which are actively involved in water resource management projects and advocacy
- Young researchers from

### Program Overview

The program will be for 25-30 participants. The training program would be of five day duration. It would include class room lecture sessions, group work and field visits. Around 12-15hours would be allocated for lecture sessions, and 8-10 hours for group discussions and presentations. One day would be slotted for field visits. The lecture sessions would be handled by well-known water resource

experts, academics and professionals.

### Course Fee

The course fee will be Rs. 16,000 per participant, and will cover the charges for course materials, class room sessions, field visits, boarding and lodging expenses, but will not include the cost of travel by outstation participant for attending the training. A few scholarships are available for deserving and needy candidates preferably women to attend the program. However, the organizers encourage institutions to support their staff to participate in the program. For details, kindly contact the program coordinator.

### About the Organisers

Institute for Resource Analysis and Policy (IRAP) is a non-profit organization undertaking research, consultancies and training in the field of natural resources management. Its goal is to promote sustainable systems for management of natural resources and their related services, particularly land and water resources, for improved food security, livelihoods and environment. Its administrative office is located in Hyderabad, India and has a branch office in New Delhi.

The SaciWATERS-CapNet Network (SCaN) is a platform for partnership towards capacity building in Integrated Water Resources Management (IWRM) across the South Asia region. It comprises of autonomous regional and national institutions and individuals committed to capacity building in the water sector. The network has been conceptualised by SaciWATERS in partnership with Cap-Net, an international network for capacity building in IWRM. The SaciWATERS hosts the network and acts as its legal, administrative and financial umbrella.

### Profile of Course Coordinators

Dr. Dinesh Kumar is Executive Director of the Institute for Resource Analysis and Policy, which he founded in 2008. He has 22 years of experience in research, consulting and training in water resources. His areas of expertise include: management of river basins, groundwater and water demand in agriculture; water harvesting & recharge; water-energy nexus; and economic valuation of water uses. He has authored three books: "Managing Water in River Basins: Hydrology, Economics, and Institutions", by Oxford University Press; Water Management in India: What Works, What Doesn't by Gyan Books; and Groundwater Management in India: Physical, Institutional and Policy Alternatives, by Sage. He is the lead editor of the new book 'Water Management, Food Security and Sustainable Agriculture in Developing Economies', by Routledge. He is also Associate Editor of Water Policy.

Dr. Anjal Prakash is the Executive Director at SaciWATERS, South Asia Consortium for Interdisciplinary Water Resources Studies based at Hyderabad in Southern India. He has worked extensively on the issues of groundwater management, gender, natural resource management, and water supply and sanitation. Having advance degree from Tata Institute and Social Sciences (TISS), Mumbai, India and PhD in Social Sciences from Wageningen University, The Netherlands, Dr. Prakash have been working in the area of policy research, advocacy, capacity building, knowledge development, networking and implementation of large scale environmental development projects. Dr. Prakash is the author of The Dark Zone: Groundwater Irrigation, Politics and Social Power in North Gujarat, published by Orient Longman. His recent edited book is - Interlacing water and health: case studies from South Asia published by Sage in 2012.





### Program Coordinators

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### How to Apply ?

Interested candidates can send a letter of motivation with their resume to the Programme Coordinator, Dr. Dinesh Kumar at [dinesh@irapindia.org](mailto:dinesh@irapindia.org).

### Important Information and Dates:

Date of the training workshop –  
February 25 – March 1, 2013

Place: Hyderabad, India  
Last date for receiving application:  
January 20, 2013  
Communication on selection of  
candidates: January 31, 2013



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