



India Water Forum

Water Security and Climate Change: Challenges and Opportunities

13-15 April 2011 | Stein Auditorium, India Habitat Centre, New Delhi



Tentative Agenda

April 13

DAY 1: Inaugural Session

Time	Event	Speaker
1000-1005	Welcome address and setting the note	Mr. Ashok Jaitly TERI
1005-1015	Special Address	Dr. R.K. Pachauri TERI
1015-1025	Presidential Address	Shri. P.K. Bansal Hon'ble Minister for Water Resources
1025-1045	Address by Chief Guest and inauguration	Shri Mohammad Hamid Ansari Hon'ble Vice President of India (Invited)
1045-1050	Vote of thanks	Dr. Leena Srivastava TERI

DAY 1: Session-I: Challenges and Opportunities for Global Water Security: An overview (11:45 - 13:30)

Climate change is the most severe long-term threat to development for the present and future generations. The changing climate will exacerbate water management problems worldwide through its impact on melting glaciers, rising sea levels, variable rainfall and extreme events like floods and drought. The consequences of climate change are a major challenge to the management of natural resources and barriers to the transition from poverty to prosperity. The session will address these issues from a global perspective and identify the broad parameters for sustainable adaptation strategies.

DAY 1: Session-II: Water Vulnerabilities, Resilience and Adaptation (14:30-17:45)

This session will focus on vulnerabilities and resilience of natural ecosystems to climate extremes, associated risks and uncertainties. The objective of the session is to build upon the existing knowledge and to learn from successful adaptation strategies that could lead to informed policy for planned adaptation. Some of the questions to be deliberated include;

- ❏ What is the state-of-the-art in the region for assessing climate extremes and hydro-meteorological disasters and how can the gaps be met?
- ❏ How can a better understanding of the impacts, better predictability and informed policy help in disaster risk reduction and disaster management?
- ❏ What are the institutional mechanisms for better inter-agency coordination, both horizontally and vertically, to ensure disaster resilient development in vulnerable regions?
- ❏ How can dialogue and cooperation be promoted amongst the scientific community, policymakers, developmental practitioners and vulnerable communities for disaster risk reduction and adaptation?

April 14

DAY 2: Session-III: Regional Water Security, Resource Use & Allocation (09:00- 11:15)

The session will focus on the challenges in water resource use and allocation in view of the increasing water scarcity and regional water stress combined with the prospective risks of climate change. Discussions would provide insights to various scenarios on competing water demand amongst the agriculture, industry and domestic sectors. It shall highlight the mechanisms and prospects on water use, allocation and sharing in different hydro-geological regimes. Some of the issues to be deliberated include

- ❏ The present and prospective scenarios of water stress in the global and regional perspective in light of changing climate.
- ❏ The existing coping mechanisms for the competing water demand amongst various sectors.
- ❏ The challenges and benefits through joint management of trans-boundary water resources.
- ❏ The mechanisms for optimal use and allocation of water resources in river basin systems.

DAY 2: Session-IV: Climate Change Impacts on Natural Water Systems (11:15-13:30)

Climate change will continue to have a significant impact on water resources, particularly in the South Asian region, by virtue of its influence on natural water systems and the hydrological cycle. This session will focus on various components of natural water systems like melting glaciers and their influence on river flow patterns, rainfall variability and impacts on monsoon system affecting water availability and sea level rise. The discussions shall deliberate on existing capacities, limitations and knowledge gaps in modeling and prediction scenarios.

- ❑ The current and future scenarios of climate predictions and variability in different hydro-geological systems and the downscaled scenarios in the region.
- ❑ Current status of glaciers in the region and their influence on the river basins and flows.
- ❑ Developments and bottlenecks in the science of climate predictions and the options available to address them.

Day 2: Session-V: Water Quality and Health (14:30-17:30)

Water contamination due to geo-genic and anthropogenic sources continues to be one of the critical challenges adversely affecting the natural ecosystems, agriculture, human health and productivity. Climate change is anticipated to exacerbate the prevailing pressures on water quality and availability through salinization, aquifer depletion and disrupted flows. The objective of this session shall be to discuss and share experiences on the current status and issues that pose substantial risk to the water quality and human health in the region. The deliberations shall consider solutions to address the gaps and barriers responsible for deteriorating water quality and health. Some of the key questions intended to be investigated during the session and derive feedback on includes

- ❑ What are challenges to improve water quality in natural systems (surface and groundwater), agriculture and drinking water supply?
- ❑ What are the emerging challenges and concerns on water borne diseases affecting human health and productivity?
- ❑ What is the current level of understanding about the linkages of climate change on human health?
- ❑ What are the R&D gaps and constraints that need to be prioritised to identify and address water quality challenges?

- What are the recent global approaches/best practices towards tackling the geo-genic and anthropogenic contamination of water resources?

April 15

DAY 3: Session-VI: Water and Food Security (09:00- 11:15)

Food security in the developing nations across the globe is a major challenge. It is a complex phenomenon which comprises of range of factors from access to utilization of the food products .The session will identify the key challenges in managing water for food security and specifically deliberate on regional disparities in crop-water productivities as also the trade dimensions of food and water security. It would enable discussion on regional perspectives on water governance for food security including the following key questions

- What are the known implications of impacts of climate change on agricultural water security in the river basins of South Asian region?
- What are the innovations and mechanisms to enhance crop productivity under prospective climate change scenarios?
- How the current water and food policies are ensuring 'food for all' in South Asia?

DAY 3: Session-VII: Sustainable Cities, Water Supply & Distribution (11:15-12:15)

This session will focus on the impacts of climate change on cities with a focus on equitable access and sustained delivery of urban services in water supply and distribution. The session shall also showcase some of the successful innovations from various cities for sustainable water management, and highlight the policy and institutional drivers that enable effective service delivery. Some of the issues to be deliberated include

- How is climate change likely to impact the quality and delivery of urban services?
- What are the current efforts by city governments to promote sustainability and build climate resilience in terms of management of water resources?
- Given the financial, technical and institutional constraints what are the additional policy entry points that can be leveraged?
- What are the possible measures to improve water efficiency through water conservation and demand management?
- What are some best practices from cities for water management and effective service delivery that could be models for replication?

DAY 3: Session-VIII: Role of Science and Technology in Water Security (12:15-13:30)

Application of science and technology in improving water use efficiency has a major role in complementing the efforts to ensure water security of a region. This session shall bring in the latest technological developments and innovations in tackling water contamination, improving water use efficiency and water conservation. It will also explore the avenues of technological interventions needed to respond to challenges in water security. Some of the issues to be deliberated include

- What are the available options for effective technological intervention to improve water use efficiency?
- What are the innovations and constraints in development of cost effective technologies?
- What role can science and technology play in improving the water security of the region?

DAY 3: Session-IX: Policy, Governance and Regulatory Framework (14:30-15:45)

Effective governance and responsive policies are of paramount importance in defining the course of sustainable water management. The issue of governance is multidimensional and a holistic institutional framework that encompasses the social, economic, political, and legal structures is essential. Developing an appropriate and responsive policy framework for governance is essential for ensuring water sustainability and adaptability to climate change. Some of the issues to be deliberated include

- To understand the policy implications of climate change and identify measures for innovative adaptive governance that reduces vulnerability and increases capacity.
- To emphasize the significance of mechanisms like climate-centric development, mainstreaming climate change into institutional reforms and strategic development activities.
- To recommend renewed policy priorities in response to water security under changing climate.

DAY 3: Valedictory Function

Time	Event	Speaker
1545-1630	Way forward	R K Pachauri TERI
1610-1625	Valedictory Address	Mr. Montek Singh Ahluwalia Dy Chairman, Planning Commission
1625-1630	Vote of Thanks	Ashok Jaitly TERI