

Climate Services in India – Moving the Needle

TERI and NOAA Cooperative Institute for Climate and Satellites

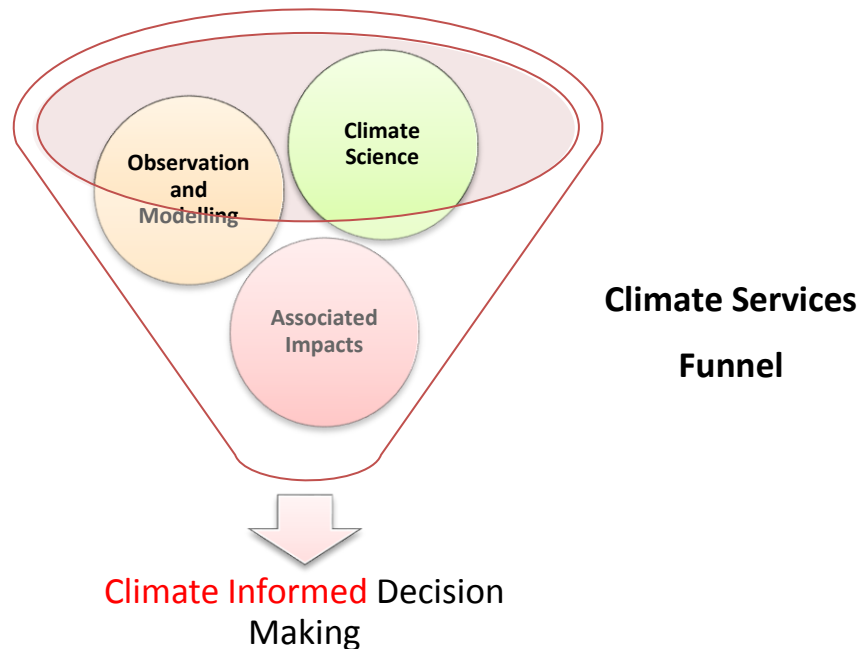
Variations in the climate system (both natural and induced) have affected nature, humans and the earth's ecosystem for millennia. Recent changes in climatic systems have raised significant challenges and opportunities worldwide. The IPCC reports and the scientific community have established changes in climate patterns, their associated variability, and the corresponding global and regional impacts. Changing patterns are increasingly attributed to human activities, affecting the environment we live in. This has impacted the economy, health, food and fresh water availability, air quality, etc. The timely and relevant communication of climate information is imperative to address setbacks, potentially avert disasters, and provide opportunities for innovative solutions in light of the changing conditions.

Climate information plays a crucial role in managing risks, cultivating opportunities, for adaptation, policy initiatives, and national level development through planning and infrastructure investment. Decision-makers and stakeholders globally are increasingly becoming aware of the impacts and opportunities associated with climate change. This has raised the demand for climate information services, which includes data, reports, solutions and value added capabilities. However, limitations in data availability and transferability impacts information sharing and user accessibility. Additionally, the user-base of climate-related information and their respective decision-making contexts are wide ranging, spread across sectors, industries and different developmental contexts. This poses specific challenges for each user base and raises the need for customised climate information to inform decision-making.

To integrate this information into climate smart decisions and policy planning, climate services need to become an essential component of action. Climate Services¹ is defined as “*A mechanism to identify, produce, and deliver authoritative and timely information about climate variations and trends and their impacts on built, social-human, and natural systems on regional, national, and global scales to support decision making.*”

Leading global climate research centres, including the World Meteorological Organization (WMO), have identified the need for climate services, especially in countries where impacts due to climate extremes and risks are high. One such initiative is the Global Framework for Climate Services (GFCS). The overarching goal of the GFCS is to: “*Enable better management of the risks of climate variability and change and adaptation to climate change at all levels, through development and incorporation of science-based climate information and prediction into planning, policy and practice*”.

¹ NRC (V. Ramanathan Chair), 2009: Restructuring Federal climate research to meet the challenges of climate change. The National Academic Press, Washington DC, 13



The main process in climate services is to produce, translate, transfer and create easy, decision-relevant and timely information to assist required user groups. It also ensures strong partnerships among various user groups and providers. This includes engaging the national meteorological and hydrological centres, government departments (agriculture, water, health, nutrition, etc.), NGOs, humanitarian organisations, academia, and the private sector (insurance firms, power industries, media, etc.) in applying and improving user specific climate information. Well-established climate services can help any society cope with current climate variability, limit its climate related socio-economic damage, and build resilience to future climate change.

TERI has an existing network with various international research centres, national and international government agencies and departments, NGOs, and the private sector. TERI's current capacity lies in climate modelling, climate data analysis and interpretation. The aim of this session is to generate ideas and opportunities, to understand and develop additional insights for climate services capabilities across its partners. This session explores examples of: how others globally have established a user engagement strategy on climate information; challenges faced by decision-makers in using historical and future climate information; and an India-based case study on developing action plans using best available climate information. Panel discussions will further explore perspectives on how climate services activities could be further developed in India through both public and private partnerships.

Questions:

Session 2 (Panel Discussion):

The underlying objective of the panel is to define the current state of progress of climate services in India and to **identify the pathways and challenges** faced in constructing an effective value chain of climate services in India, recognizing the global role and opportunities.

The panel would try to foster a collaborative discussion upon following questions:

1. What is the current appetite for (and the usage of) climate information and climate services in India? What is needed to catalyze this market?
2. What are the challenges and opportunities in the supply and utilization of climate services and tools in India? Are they being accessed by national government agencies, sub-national governments, NGOs, and the private sector?
3. What roles can regional Stakeholders and entrepreneurs play in the delivery and utilisation of climate services in India?
4. Climate information has been supply-driven thus far. What are the mechanisms to capture user-needs, and grow the market for climate services in India?
5. Is climate information currently available in a form that can ultimately bridge science and practice?
6. From the international perspective: How can the international experience of data access and decision making under climate uncertainty be applied to India?
7. Forums like this aim to strengthen the engagement of providers and users of climate services. How can we build upon this engagement to enable greater knowledge exchange and foster collaborative opportunities?