## IPCC AR5 – what it means for a stronger, more inclusive India

### 6 August 2014, New Delhi, India



Photo: Shailesh Nayak and R K Pachauri

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On 6<sup>th</sup> August 2014, the Intergovernmental Panel on Climate Change (IPCC) launched its Fifth Assessment Report (AR5) in India, at an outreach event on "IPCC AR5 – what it means for a stronger, more inclusive India" with a view to communicate the report's findings effectively to India's public and decision makers. The event focused on the implications of the AR5 findings for India and South Asia in order to increase the accessibility of the report and promote discussion and connections between diverse stakeholders.

This event formed one of a series of outreach events taking place in Africa and Asia in the second half of 2014, to present the AR5. In the context of the release of the AR5, the Climate Development Knowledge Network (CDKN) produced easy-to-read summaries of the AR5 specific for South Asia and Africa. They also produced tool-kits for journalists as well as trainings and briefings for them so that they can appropriately report on the findings. This outreach event was designed to put forward the work of the IPCC and CDKN.

This event was organized by The Energy and Resources Institute (TERI) in co-operation with the IPCC and CDKN, and in partnership with the Ministry of Earth Sciences, Government of India and the TERI-Business Council for Sustainable Development. This event was funded by the Department of International Development, Government of the UK. The event featured IPCC authors from the three working groups in a morning session, who presented an overview of the report with an emphasis on special topics of interest to the region. An afternoon Hard Talk session on "How should India respond to IPCC's findings" featured leading practitioners, academics, and policy makers.

**Opening Session** 

Speakers:	Dr R K Pachauri, Director General, TERI and Chairman, IPCC; Mr Rana Kapoor, President, ASSOCHAM and Managing Director & CEO, YES BANK;
	Shri Jitendra Singh, Hon'ble Minister of State for Science and Technology (Independent Charge), and for Earth Sciences (Independent Charge), Government of India;
	Shri Prakash Javadekar, Hon'ble Minister of State for Environment, Forests, and Climate Change (Independent Charge), for Information and Broadcasting (Independent Charge), and for Parliamentary Affairs, Government of India; Mr Sam Bickersteth, CEO, CDKN; Mr Dipankar Sanyal, Director, TERI-BCSD.

#### Key points from the speakers:

Dr R K Pachauri presented the findings of the AR5 and underlined India's vulnerability to many impacts of climate change, as well as India's responsibility to take appropriate action. He stressed the importance of awareness creation as the basis for responding to climate change and identified this event as one of the steps towards this.

Shri Prakash Javadekar expressed his faith in science and human talent to bring about solutions to climate change. He said that while development in the context for a growing population would lead to

increased energy demand and consumption, India was committed to green growth. In his words: "We all walk the green walk, we all talk the green talk, and we will go forward with our green economy".

Shri Jitendra Singh said that if India is to realize its dream of becoming a world power by 2020, investments in science and technology will be necessary as these will be the basis for change. He also urged and encouraged the youth of India to become part of the global scientific community.

Mr Rana Kapoor said that this event came at an opportune time when India faced a delayed monsoon, decreasing crop yields and flash floods. He recalled that the vulnerable agricultural sector accounts for 15% of India's economy and that 2/3rds of India's population lives in rural areas, dependent on climate-sensitive resources. He said that the AR5 should drive urgent action individually and collectively as a country, to ensure holistic sustainable development and growth.

Mr Sam Bickersteth said that there is a compelling case for urgent action, as the AR5 finds that we have already used up half of our global carbon budget. He acknowledged Indian leadership in responding to climate change at the local, state and national levels, but added that action needs to be scaled up to all sectors and regions in order to benefit the most vulnerable.



Dr Pachauri and Shri Prakash Javadekar



Sam Bickersteth, R K Pachauri, Shri Jitendra Singh, Rana Kapoor, Dipankar Sanyal

#### Panel Session 1 – Implications of the Major Findings of the AR5 for India

# Speakers:Ambassador Ajai Malhotra, Distinguished Fellow, TERI (chair);<br/>Dr Krishna K Kanikicharla, Coordinating Lead Author, IPCC Working Group I;<br/>Dr Purnamita Dasgupta, Coordinating Lead Author IPCC Working Group II;<br/>Dr Shobhakar Dhakal, Coordinating Lead Author IPCC Working Group III.

Dr Krishna K Kanikicharla presented the highlights from the Working Group I Report on *The Physical Science Basis of Climate Change*. As an illustration of the implications for India, he gave the example of the study of monsoons. As the total volume of monsoon rains would increase, it is important to note that the number of rainy days would likely decrease while their intensity would increase. There could be impacts on rice yields in India by 2081-2100, as the benefits of good rainfall would be cancelled out due to higher night time temperatures. Hence it is crucial to develop adaptation measures such as water conservation and flood management.

Dr Purnamita Dasgupta presented the highlights from the Working Group II Report on *Impacts, Adaptation and Vulnerability*. She said that India has numerous non-climate stressors such as a large, poor, natural resource-dependent rural population, to which climate change acts as a threat multiplier. However there are opportunities for looking at development as part of an ambitious adaptation agenda. The many available options however require incentives.

Dr Shobhakar Dhakal presented the highlights from the Working Group III Report of *Mitigation of Climate Change*, focusing on low-carbon development opportunities for India. India is a major driver of emissions yet a great provider of opportunities, as emissions are increasing with economic growth but per-capita emissions are still low. Options for India include low-carbon strategies for a new economic paradigm, decarbonization of the energy supply system, adopting low-carbon technologies, greening and urbanizing cities.

Q&A: the interaction with the audience was dynamic and probing mainly for further details on the content of the AR5. Participants enquired on WGI, asking about variability of El Niño and on increasing droughts and simultaneous increasing floods in India; on WGII with questions on adaptation strategies for species, and human health impacts; and on WGIII with questions on REDD + and on the viability of Carbon Capture and Storage.



Krishna K Kanikicharla, Purnamita Dasgupta, Ajai Malhora, Shobhakar Dhakal

Panel Session 2 – Hard Talk on "How should India respond to IPCC's Findings?"

Speakers:Dr Prodipto Ghosh, Distinguished Fellow, TERI (chair);<br/>Dr Ashok Khosla, Founder and Chairman, Development Alternatives;<br/>Dr Navroz Dubash, IPCC Lead Author, WGIII and Senior Fellow, Centre for<br/>Policy Research;<br/>Dr Satnam Ladhar, Additional Director, Environment, Punjab State Council for<br/>Science and Technology;<br/>Dr. Joyashree Roy, IPCC Coordinating Lead Author, WGIII and Professor of<br/>Economics, University of Jadavpur;<br/>Mr Saurabh Kumar, Managing Director, Energy Efficiency Services Limited.

Mr Saurabh Kumar focused on the importance of energy efficiency and flagged the lack of capacity, documentation, and financing of this effort. Dr Joyashree Roy argued instead that energy efficiency is a medium to a goal, and that an absolute reduction of emissions would require demand to ultimately reduce. Dr Satnam Lagar advocated the use of Carbon Capture and Usage over Storage, and highlighted the importance of climate financing reaching the common man, citing the example of distress migration from Bihar to Punjab on account of flooding. Dr Navroz Dubash observed that despite mitigation efforts, carbon emissions are still increasing. This is because many policies are in the nascent stage and still need to take effect. He also talked about the interaction of mitigation and sustainable development, and the ensuing co-benefits. Dr Ashok Khosla spoke about environmental implications of large scale infrastructure projects such as the interlinking of rivers or the Delhi-Mumbai Industrial Corridor project, and the serious lack of analytical tools to gauge such implications or undertake EIAs.

Dr Roy was challenged by Dr Ghosh who recalled a statement of hers that India would lose \$4.3 trillion in GDP if a carbon price of \$80 per tonne of CO<sub>2</sub> was adopted. She clarified that if the carbon price was a global one, an economic adjustment would take place and India would gain overall from innovation and new investment opportunities. Dr Ghosh also challenged Dr Ladhar on the removal of diesel and electricity subsidies to farmers. Dr Ladhar responded that he supported subsidies for farmers who are vulnerable to climate change as they would have no capacity to adapt to climate change without these. He also flagged that removing rural subsidies would be unfair as urban areas continue to contribute to increasing GHGs.A short but lively discussion with the audience followed, with questions revolving around the content of the AR5, international climate negotiations and developments in science and technology to respond to climate change.



Photo: Joyashree Roy, Navroz Dubash, Prodipto Ghosh, Ashok Khosla, Satnam Ladhar, Saurabh Kumar

**Closing Session** 

Speakers:

Dr Shailesh Nayak, Secretary, Ministry of Earth Sciences; Dr Pachauri, Chairman IPCC and Director General, TERI.

Dr Shailesh Nayak gave the Valedictory Address, and presented many of the initiatives that are being developed and implemented by the Ministry of Earth Sciences, to conduct research on impacts of changes in the Arctic on the monsoons, data collection in the Antarctic regions, paleoclimate research, measurements of ocean warming and of chemical rates in oxygen minimum zones, causes of sea level rise, and on the retreat of Himalayan glaciers. They are also developing a climate services programme to deliver sector-wise information such as precipitation indexes. He said that implications of changes in the climate system are serious and that India is already and should continue to prepare, for example to changing water cycles which will become a major issue. Spreading awareness is the basis and the key to the solution.

R K Pachauri closed the event by saying that climate change is a global commons problem, and dealing with it requires the involvement of all stakeholders. He emphasized that adaptation as well as mitigation are necessary, as thresholds will be crossed beyond which adaptation will no longer suffice. He urged India to seize this unique opportunity of taking a technological lead, thanks to its size and resources. "The future will not wait for us", he said.

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