

IPCC Fifth Assessment Report



What's in it for South Asia?

IPCC's AR-5: What it Means for a Stronger and More Inclusive Pakistan

11 August 2014
Islamabad

**IPCC AR-5 Young Leaders' Event
Developing a Critical Mass of Researchers in Pakistan**

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IPCC's AR5: YOUNG LEADER'S EVENT
DEVELOPING A CRITICAL MASS OF CLIMATE CHANGE
RESEARCHERS IN PAKISTAN
11 AUGUST 2014
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Speaker list

Welcome address:

Mr. Arif Rahman, Coordinator Climate Change Program, LEAD Pakistan

Presentations:

- Dr. Edwin Aldrian (Lead Author-Working Group I): Director of the Center for Climate Change and Air Quality – Agency for Meteorology Climatology and Geophysics (BMKG), Jakarta, Indonesia
- Dr. Koko Warner (Lead Author-Working Group II): Head of the Environmental Migration, Social Vulnerability and Adaptation Section, United Nations University, Bonn, Germany
- Dr. Mohsin Iqbal (Lead Author-Working Group II): Head of the Agriculture Section, Global Change Impact Studies Centre (GCISC), Islamabad, Pakistan
- Dr. Joyashree Roy: (Coordinating Lead Author-Working Group III): Professor of Economics, Jadavpur University, Kolkata, India

Discussion Chair Person:

Dr. Anwar Baig, Director Institute of Environmental Sciences and Engineering (IESE), National University and Sciences and Technology (NUST)

Concluding address:

Mr. Ali T. Sheikh, CEO of LEAD Pakistan

Welcome Address

Mr. Arif Rahman opened the event by introducing the Intergovernmental Panel on Climate Change (IPCC) and the latest

Assessment Report (AR5). In his welcome address, he pointed out that Pakistani researchers' work was not finding its way into the IPCC report which alluded to an ignorance of procedure rather than their ability to produce world class research. He encouraged young researchers to take this opportunity of understanding the working of the IPCC to make sure that future reports come with appropriate representation of their work.

Presentations

The invited authors of the AR5, through their presentations, informed young leaders of their research and contributions as part of the 3 IPCC Working Groups.

Dr. Aldrian detailed the role of Working Group I in assessing the physical and scientific aspects of climate change. He presented evidence of changes in temperature, precipitation, and other climatic factors worldwide. He emphasized that it is extremely likely that human action is the dominant cause for climate change, and that cumulative emissions largely determine global warming.

Speaking at length about the science and policy nexus that exists within the climate change discourse, Dr. Warner outlined the consequent threats Asia faced to freshwater resources and systems, terrestrial ecosystems, coastal and marine systems, food production systems, and human health. Voicing her concern that at the end of the century, our capacity to adapt to climate changes will diminish, she felt that research informing policy and subsequently leadership were key determinants of the future. She encouraged the audience of young leaders to take responsibility for publishing research to influence policy and action.





knowledge. She felt that developing countries were doing their part for climate change mitigation and adaptation, but their efforts were unseen by the global community due to lack of published research.

Discussion

The presentations were followed by a short but healthy round of discussion moderated by Dr. Baig. Questions were asked regarding the NIPCC that is a body that rejects IPCC projections and also challenges the validity of anthropogenic causes of climate change. Another query explored the potential benefits of Climate Change. Specific questions about Pakistan were also discussed and action points were noted e.g. making an enabling environment for renewable energy in Pakistan through tax incentives.

Explaining the drivers of climate change; incoming radiation and human influence, Dr. Iqbal warned of impending Climate Change consequences, both globally and on Pakistan. He alluded to the fact that variability of monsoon rains, recession of the Hindu Kush Himalayas glaciers, increased risks of extreme events (floods, droughts, cyclones, extreme high/low temperatures), and indirect health risks would be highly significant in the years and decades to come.

Noting that 80% of Green House Gas (GHG) emissions come from the energy and industry sectors, Dr. Roy instructed the students on the importance of energy economics. She opined that every day societies and countries are presented with choices to take the high-carbon or low-carbon routes. However, substantial reductions in emissions require large changes in investment patterns which makes environment-friendly choices difficult for certain industries. She encouraged curbing GHG emissions, adopting waste management and other measures to alleviate the climate change crisis. She also emphasized the current gaps in knowledge and how young leaders should deploy current technologies in their local contexts and formulate models, which would then translate into global

"The first thing I will do after this event is to introduce a course on climate change for students at the university."



In his concluding speech, Mr. Ali Tauqeer Sheikh, motivated the youth to conduct quality research and get published in similar reports in the future.

IPCC's AR5: WHAT IT MEANS FOR A STRONGER & MORE INCLUSIVE PAKISTAN

Speaker list:

Keynote address:

- Dr Adil Najam: Dean, Pardee School of Global, Boston University & Chairman Board of Governors, LEAD Pakistan

Session 1

- Dr. Edwin Aldrian: Director, Agency for Meteorology Climatology and Geophysics, Lead Author-WG I, on Projections of How Might Pakistan's Climate Look in the Future?
- Dr. Koko Warner: Academic Officer, United Nations University, Lead Author-WG II, on Implications of Pakistan's Exposure and Vulnerability to Climate Change for Livelihoods & Poverty
- Dr. Mohsin Iqbal: Head, Agriculture Section at Global Change Impact Studies Centre (GCISC), Lead Author-WG II, on Measures to Ensure National Food Security in a Changing Climate
- Dr. Joyashree Roy: Professor, Jadavpur University, Lead Author-WG III, on

Emission Trends and Opportunities for Low Carbon Development

Session 2:

- Maj. Gen. Muhammad Saeed Aleem: Chairman, National Disaster Management Authority
- Dr. Kausar Abdullah: Professor, Foreman Christian College University
- Dr. Ghulam Rasul: Chief Meteorologist, Pakistan Meteorological Department
- Dr. Akmal Hussain: Distinguished Professor of Economics, Forman Christian College University
- Dr. Amir Muhammed: Rector, FAST University
- Ms. Shehnaz Wazir Ali: Former MNA and Member, Board of Governors, LEAD Pakistan
- Dr. Qamar-Uz-Zaman Chaudhry: Vice Chair, WMO & Senior Advisor Climate Change, LEAD Pakistan

"Climate change is not just a matter for climate scientists, it is a matter for everyone."- Participant





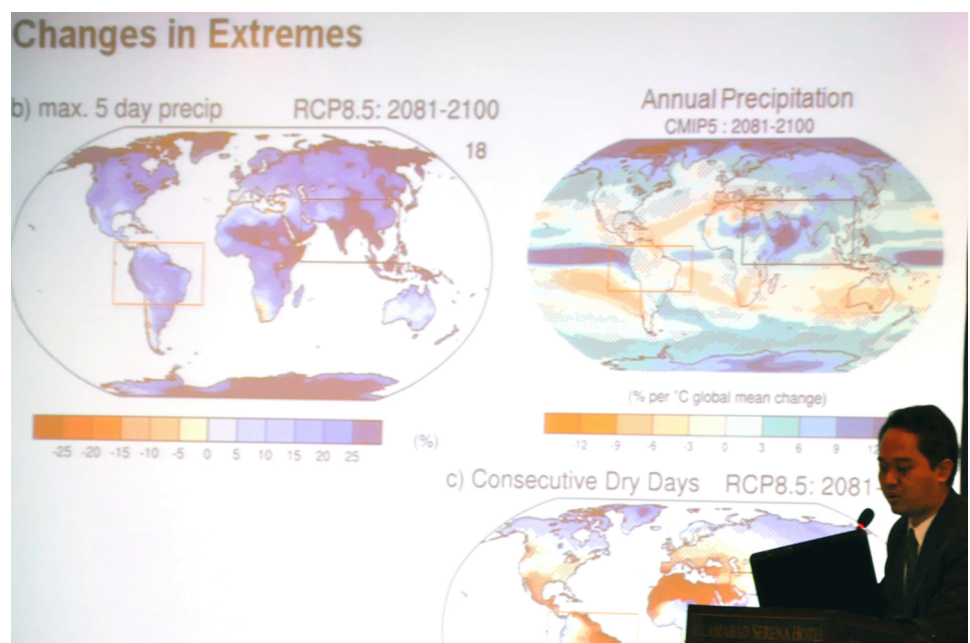
Keynote Address: Implications of IPCC’s AR5 for Sustainable Development in Pakistan

In his introductory keynote address to the audience, Dr Adil Najam highlighted some of the implications for growth and development in Pakistan in the face of Climate Change. He was of the view that more than science, Climate Change is now wreathed in issues of Policy and Politics.. If forced to describe the world as one country, Dr. Najam would describe it as a poor, divided and degraded country with a changing climate and environment. The world in his words would be "just like a third world country". Dr. Najam was critical of the approach of tackling Climate Change from a carbon management point of view alone. This has been overly emphasized by the more developed countries where action has centered around energy and hence carbon management. As recent impacts have centered around water such as rising sea levels, floods, melting glaciers and droughts, Dr. Najam emphasized the need to integrate water management in adaptation strategies. While adaptation is critical in coping with impacts of climate change, it is necessary to

mitigate as failure to do so will result in a greater need for adaptation. Moreover, he stressed the need to recognize people as active agents of change and to include communities in policies dealing with climate change.

Session 1: Major Findings of AR5 for Pakistan

The session on presenting main findings from the AR5 involved Lead and Coordinating Lead authors of the IPCC AR5. Dr Aldrian from WG-1 explained the state of science on Climate Change by elaborating how new and more accurate global climate models were used to project future climate impacts in terms of temperature and precipitation changes. Dr. Warner shed light on the severe threats posed by climate change to sustainable development including risks for food production, health and livelihood. She further elaborated that lifestyle and consumption choices contribute to a changing climate and environment. While stressing the role of humans as active agents in the process, she also warned that delayed action is likely to reduce options for climate-resilient pathways. The risks associated with climate change were further elaborated in Dr. Iqbal’s presentation who emphasized the need to adopt





multi-sectoral adaptation measures. Crop yields, livestock and marine systems are likely to suffer greatly from climate-related events if appropriate adaptation measures are not adopted. He described improved fertilization, direct seeding of rice and improved irrigation as potentially effective adaptation strategies in the context of climate change in Pakistan. Dr Roy appreciated the active role of policymakers and countries in taking action to reduce emissions and regarded it unfair to place policymakers at the centre of the problem. She reiterated the interlink between the climate and development discourse as low energy building codes, architectural designs and lifestyle choices can significantly reduce emissions. While the policymakers have nevertheless an important role to play in mitigation strategies, the private sector also presents significant opportunities in contributing to carbon management and climate finance.

Session Chair, Dr. Hussain added an insightful comment on the dangers faced by Pakistan in terms of water availability. He pointed out that Pakistan was fast moving towards becoming a water scarce country. While agreeing that it was a governance issue, he stressed that people needed to change the way they live through behavioural adjustments which can be helped by introducing new policy regimes, starting with putting a price on water..

Session 2: HARD TALK: How Should Pakistan Respond to the IPCC's Findings?

Mr. Ali Tauqeer Sheikh chaired a lively session with eminent

scholars, practitioners and the government on how Pakistan needs to respond to findings of the IPCC AR5 in a Pakistani context. The discussion centered around specific risks posed by climate change for Pakistan and potential response strategies and recommendations. Glacial Lake Outburst Floods (GLOF), food security and water scarcity were highlighted as key concerns for Pakistan in the context of changing climate. Precision agriculture, water-saving techniques and increased regional cooperation over resources such as water were

pointed out as key areas of response.

Ali Sheikh concluded that the costs and frequency of climate-induced disasters are on the rise, hence an urgency to respond by mainstreaming climate change in national planning and priorities. Given serious capacity issues in the developing countries and the shared global impact of climate change, it would be best to respond through encouraging global cooperation and leadership. This would enable the developing world to overcome capacity constraints while also effectively responding to climate risks. He also pointed to the huge gap in the knowledge economy in Pakistan that needs to be filled to be able to contribute to future assessment reports.

"It is extremely likely that human action is the dominant cause of climate change." - Dr. Aldrian (IPCC Author and Speaker)

