



## Five Days Program on Low Carbon High Growth Pathways

For Officials of Bihar State government  
At the TERI RETREAT Facilities in Gual Pahari

24<sup>th</sup> – 28<sup>th</sup> June, 2013

### Agenda

Day 1, Monday, 24 <sup>th</sup> June	
09:00-09:30	Registration
<b>Introductory Session</b>	
09:30-10:00	Welcome to the Participants, Ms. Suruchi Bhadwal, Associate Director – Earth Science & Climate Change Division, TERI
10:00-10:15	Program Introduction, Ms. Neha Pahuja, Associate Fellow, TERI
10:15-10:30	Introducing TERI: a short film
10:30-11:00	Keynote address, Dr. R. K. Pachauri, Director General, TERI
<b>11:00-11:15</b>	<b>Tea Break</b>
11:15-11:45	Climate change and developmental challenges for India, Dr. Prodipto Ghosh, Distinguished Fellow, TERI
11:45 - 12:30	<p><b><u>Panel Discussion</u></b></p> <p><b>Chair:</b></p> <ul style="list-style-type: none"> <li>• Dr. Prodipto Ghosh, Distinguished Fellow, TERI</li> </ul> <p><b>Discussants:</b></p> <ul style="list-style-type: none"> <li>• Mr. K Ramanathan , Distinguished Fellow, TERI</li> <li>• Dr. Ritu Mathur, Associate Director- Modeling and Scenario Building, TERI</li> </ul>
<b>12:30 - 13:30</b>	<b>Lunch Break</b>
<p><b>Technical Session I: Introduction to Global Warming and Climate Change-</b> The IPCC Fourth Assessment Report concludes that the global surface temperature increased by <math>0.74 \pm 0.18</math> °C during the 100 years ending in 2005 primarily due to anthropogenic greenhouse gases (GHG) emissions. This session aims to introduce to the participants the concept, causes and effects of human induced global warming. The session will explain the dangerous and inevitable impacts of climate change, along with explaining their scientific basis. Possible response strategies and options to combat climate change in terms of mitigation and adaptation will also be discussed.</p>	
13:30 - 14:30	Introduction to Climate Change: Physical Science Concepts, Mr. Saurabh Bhardwaj, Associate Fellow, TERI
14:30 - 15:30	Impacts of climate change, Ms. Suruchi Bhadwal, Associate Director, TERI
15:30 – 15:45	<b>Tea/Coffee Break</b>
15:45 - 17:00	Group Activity (Led by Ms. Suruchi Bhadwal and Ms. Sambita Ghosh)

**Day 2, Tuesday, 25<sup>th</sup> June**

**Technical Session II: Global Response to Climate Change: International Climate Policy and Indian Perspective-** The UNFCCC is the overall framework guiding intergovernmental efforts to tackle the challenges posed by Climate Change and has the Kyoto Protocol as an international treaty linked to it. This session will inform the participants about the status of international negotiations, and discuss the main points of the Bali Action Plan, Copenhagen Accord, Cancun Agreements, Durban Platform and Doha Climate Gateway. India is a key non-Annex I party to the Convention and international negotiations. Given its developmental imperatives and recognizing the principles of the Convention, particularly the principle of equity and common but differentiated responsibility (CBDR), India, along with other developing countries does not have a mandatory target to reduce emissions. However, the pressure from developed countries has been increasing for the same. This session, therefore, will also explain India's position and role in international climate negotiations.

09:30-10:15	State of play in international climate negotiations, Ms. Neha Pahuja, Associate Fellow, TERI
10:15-10:45	<b>Special Remarks:</b> Amb. Chandrashekhar Dasgupta, Distinguished Fellow, TERI
10:45-11:30	<b>Film:</b> 'Negotiating Justice' followed by discussion <b>Moderator:</b> Mr. Manish Shrivastava, Associate Fellow, TERI
<b>11:30-11:45</b>	<b>Tea/Coffee Break</b>

**Technical Session III: Domestic Response to Climate Change-** Although India does not have any treaty obligation to reduce emissions it has come up with its own National Action Plan on Climate Change (NAPCC) and a voluntary pledge of achieving 20-25% reduction in its emissions intensity. The NAPCC released by the Prime Minister on 30th June 2008 identifies 8 National Missions that outline a national strategy that aims to promote development objectives while yielding co-benefits for addressing climate change effectively and enhancing the ecological sustainability of India's development path. In August 2009, the Hon'ble Prime Minister of India urged each State Government to create its own state action plan on climate change (SAPCC) consistent with strategies in the National plan. The SAPCCs are expected to build on the existing policies of State Governments by taking into consideration the on-going programmes and schemes being implemented at the state level. The SAPCCs will also have to be integrated into the state level planning process so that the resource allocation for the implementation of the identified adaptation/mitigation measures can be made with an objective to achieve the development goals of the state governments. This session will explain the vision and goals of the eight strategic missions, the approach for their implementation, progress so far and challenges faced in the implementation of the NAPCC.

11:45-13:00	India's domestic mitigation policy, Ms. Neha Pahuja, Associate Fellow, TERI <b>Special Remarks:</b> Mr. Sanjay Garg, Ministry of Power
<b>13:00-14:00</b>	<b>Lunch Break</b>
14:00 - 15:30	Water Auditing, Mr. Anshuman – Associate Director – Water Resources Policy and Management, TERI
15:30 – 15:45	<b>Tea/Coffee Break</b>
15:45 - 17:00	Water use efficiency measures, Mr. Anshuman – Associate Director – Water Resources Policy and Management, TERI

### Day 3, Wednesday, 26th June

**Technical Session IV: Introduction to Mitigation Options and Co-benefits-** Many mitigation options have clear development co-benefits for countries like India. These synergies, if realized, can turn the challenge of climate change into opportunities for sustainable development. Promotion of clean energy technologies and energy efficiency would mitigate greenhouse gas emissions and at the same time also address energy security challenges of the country. This session would discuss integrated approaches to examine climate and sustainable development issues. This session will discuss options for achieving low carbon development along with the co-benefits that are associated with actions needed to deal with climate change.

9:30-10:00	Low carbon development pathways for India, Dr. Atul Kumar, Fellow, TERI
10:00-10:30	Introduction to Sustainable Development Framework, Dr. Shilpi Kapur, Fellow, TERI
<b>10:30 - 10:45</b>	<b>Tea/Coffee Break</b>

**Technical Session V: Renewable Energy Options for Bihar-** Bihar has huge potential for generating renewable energy especially from the solar and biomass resources. With the target to achieve per capita consumption of energy, at least, equal to the national average, viable solutions are needed which not only ameliorate the energy situation in the state, but also contribute to green electricity in the grid. The session delves into several case studies and technologies currently being developed needed to deal with energy challenges in the country.

10:45-11:15	Renewable energy: Options and opportunities, Mr. Amit Kumar, Director- EETD, TERI
11:15- 12:15	Case study: Solar and Smart grid, Ms. Parimita Mohanty, Fellow, TERI
12:15-13:00	Biomass and other case studies, Mr. Paltu Acharjee, Associate Fellow, TERI
<b>13:00-14:00</b>	<b>Lunch Break</b>

**Technical Session VI: Energy Access, Energy Efficiency and Renewable Energy-** Energy demand is continuously increasing while supply remains a challenge both in terms of the quantum and in terms of equitable spread. In this session participants will be sensitized to the issue of energy access, opportunities for energy efficiency improvements and potential of renewable energy in the state. They will be familiarized with the initiatives that are being undertaken globally and the technological and financial challenges faced while making a transition to a low carbon economy.

14:00- 15:30	Decentralized energy options: prevailing approaches and concepts, Mr. Vivek Jha, Fellow, TERI
<b>15:30-15:45</b>	<b>Tea Break</b>
15:45-16:30	Business models and up scaling/case study on cook stoves, Mr. Abhishek Kar, Fellow, TERI
16:30-17:15	Short lived carbon pollutants, Mr. Sumit Sharma, Fellow, TERI

### Day 4, Thursday, 27th June

**Technical Session VII: Energy Efficiency in Power Distribution-** This session aims to provide an understanding of the importance of Demand Side Management (DSM) measures for improving energy efficiency

in electricity distribution. Power sector being one of the major GHG emitting sectors, DSM has an important role in mitigation of GHG emission. It is also a very useful intervention in bridging the gap between demand and supply of electricity by decreasing the peak demand and related aspects. Apart from developing an overview of the existing regulatory regime mandating implementation of various DSM initiatives, the session also aims to develop an understanding of the approach for developing a DSM plan.

9:30-10:30	Demand Side Management – Tool for Promoting Energy Efficiency, Mr. Saurabh, Associate Fellow, TERI
10:30-11:30	DSM – Regulatory Perspective and Options, Mr. Gurudeo Sinha, Senior Fellow, TERI
<b>11:30-11:45</b>	<b>Tea/Coffee Break</b>
11:45 - 13:00	DSM implementation – Case Studies, Mr. Saurabh, Associate Fellow, TERI
<b>13:00-14:00</b>	<b>Lunch Break</b>

**Technical Session VIII: Sustainable Agriculture-** Agriculture is one of the most significant sectors of the Bihar state economy. This session will focus on the ways and means by which sustainable agriculture can be put into practice for Bihar's advantage. The session explains the latest concepts and opportunities available for sustainable and resilient agricultural with the help of case studies.

14:00 – 15:00	Impacts on Agriculture, Ms. Sambita Ghosh, Associate Fellow, TERI
<b>15:00 - 15:15</b>	<b>Tea/Coffee Break</b>
15:15-16:15	Case study: Stressed hilly agriculture, Dr. Nidhi P. Chanana, Fellow, TERI
16:30 - 17:15	Role of mycorrhiza in soil fertility, Dr. Shanuja Beri, Fellow, TERI

### Day 5, Friday, 28th June

**Technical Session IX: Global Carbon Markets: Opportunities Offered by Carbon Trading Mechanisms-** This session will describe the global carbon markets and help in identifying opportunities for carbon credits. The session will also elaborate on voluntary markets and various standards (CCB, Gold Standard etc.)

09:30-10:30	Reducing Emissions from Deforestation and Forest Degradation (REDD) Plus, Ms. Priyanka Batra, Research Associate, TERI
10:30-11:30	Clean Development Mechanism, Ms. Neha Pahuja, TERI
<b>11:30-11:45</b>	<b>Tea/Coffee Break</b>
11:45-12:45	Kyoto and non-Kyoto mechanisms, Ms. Nimisha Pandey, Associate Fellow, TERI
<b>12:45-13:45</b>	<b>Lunch</b>

**Technical Session X: Sustainable Habitat: a Way Forward for Bihar-** The session will focus on issues related to sustainable urban development, transportation systems, and habitats to understand the opportunities and challenges under the Sustainable Habitat Mission for Bihar. The session will elaborate the best practices for carrying out a range of energy-environment analyses, for improving urban service provision and governance approaches to policy and planning and ways to carry out sustainability assessments. The intention is to build capacity of various stakeholders, all in the context of transport and urban development to mainstream



sustainable habitat/building practices in the planning processes of Bihar's sustainability mission.	
13:45-14:45	Buildings: GRIHA, Ms. Priyanka Kochhar, Sr. Programme Manager, TERI
<b>14:45-15:00</b>	<b>Tea/Coffee Break</b>
15:00-15:30	<b>Film:</b> 'Tales of Gorakhpur' followed by discussion
15:30-16:30	Cities: Building resilience, Dr. Divya Sharma, Fellow, TERI
<b>16:30-17:00</b>	<b>Closing Remarks</b> , Mr. S. K. Karn, Advisor, MoEF (Bihar) <b>Vote of Thanks</b> , Ms. Neha Pahuja, Associate Fellow, TERI