



The Energy and Resources Institute

# WORLD SUSTAINABLE DEVELOPMENT SUMMIT

## Beyond 2015: People, Planet & Progress



SUMMIT BULLETIN | DAY 2

October 5–8, 2016 | India Habitat Centre, New Delhi, India

### INAUGURAL SESSION

**Welcome Address:** Mr Ashok Chawla, Chairman, TERI

**Inaugural Address:** Hon'ble President of India, Shri Pranab Mukherjee

**Vote of Thanks:** Dr Ajay Mathur, Director General, TERI

**M**r Ashok Chawla expressed his gratitude to the Hon'ble President of India, delegates, and participants and said that 'never before has the nexus between people, planet & progress been as critical for the Earth's ecosystem as it is today'.

In his Inaugural Address, Shri Pranab Mukherjee congratulated Sikkim for winning the Award and extending its efforts in the domain of environmental protection. He also congratulated TERI for bringing thought leaders together through the WSDS. He described climate change as an imminent threat, particularly for developing economies, such as India, owing to their dependency on climate-sensitive sectors. He put forward the need for countries to work together



LEFT TO RIGHT: Dr Ajay Mathur, Director General, TERI; Shri Pawan Chamling, Hon'ble Chief Minister of Sikkim; Shri Pranab Mukherjee, Hon'ble President of India; Mr Ashok Chawla, Chairman, TERI; Dr Annapurna Vancheswaran, Sr Director, TERI

towards reducing the impact of climate change and said that the action we take now would be the key to protect the planet tomorrow.

Dr Ajay Mathur expressed his gratitude to Shri Pranab Mukherjee, Shri Pawan Chamling, international delegates, and TERI colleagues, for being a part of WSDS. He hoped that the example set by Sikkim will trailblaze in India and the world. He described WSDS as a platform that will accelerate sustainable development through exchange of experiences and formation of partnerships.



**SHRI PRANAB MUKHERJEE**

Hon'ble President of India

“We are only trustees of resources and we don't have a right to waste them.”



### PRESENTATION OF THE 2016 SUSTAINABLE DEVELOPMENT LEADERSHIP AWARD

**S**hri Pawan Chamling, the Chief Minister of Sikkim, received the 2016 Sustainable Development Leadership Award and dedicated it to the people of Sikkim. He took pride in the policies of the state that focus on conservation and protection of nature. He acknowledged the Award as a responsibility to work for betterment of the environment.



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## Ministerial Session—People's Aspirations and Sustainability: New Governance Paradigm

**Chair:** Amb. Ajai Malhotra, Distinguished Fellow & Senior Advisor (Climate Change), TERI

**Speakers:** HE Mr Karmenu Vella, Commissioner for Environment, Maritime Affairs and Fisheries, European Commission; Mr Anil Madhav Dave, Hon'ble Minister of State (I/C) of Environment, Forest and Climate Change, India; HE Mr Lars Andreas Lunde, Deputy Minister of Climate and Environment, Ministry of Climate and Environment, Norway; HE Mr Slawomir Mazurek, Deputy Minister of Environment, Poland; HE Mr Ibrahim Baylan, Minister for Policy Coordination and Energy, Sweden; HE Mr Erik Solheim, Under Secretary General of the United Nations & Executive Director of UN Environment

Climate change is a subject of global significance. It is important to think about green responsibility beyond individual CSR funding at a more global and macro scale. The 2030 Agenda has introduced a new governance paradigm which witnessed the participation of people. The Paris Conference was different because businesses actually came to the fore, recognised and embraced the Paris Agreement as a pathway to reduce their carbon footprint, and increase their profitability. We need to build a regulatory framework, enable appropriate carbon

pricing, and develop instruments that mitigate risks in investment.

The SDGs need to become a reality and so, must be entrenched in all policies and strategies of the government. Implementing the SDGs is not about trade-offs but about maximising collaborations and opportunities and we must recognise that we cannot do this without the people. The EU is introducing this in their policy framework and is committed to supporting non-EU nations to achieve their SDGs as well. There is an urgency to act now and turn national policies



into actionable strategies. The production of energy is important but how we use and distribute this energy is the measure of success. While we address climate change, it is equally important to address the social inequalities; the morally and economically sensible thing. It is possible to couple economic growth and social prosperity in a way that does not harm the climate.



## Plenary I: Air Pollution is a Solvable Problem

**Chair:** Prof. V Ramanathan, Distinguished Professor and UNEP's Champions of Earth, Scripps Institution of Oceanography, University of California, San Diego

**Speakers:** Mr Kamal Bali, Managing Director, Volvo India Pvt Ltd; Ms B Abubakar, Federal Ministry of Environment, Nigeria; Dr Carlos Dora, Coordinator - Public Health, Environmental and Social Determinants of Health Department, WHO; Dr Dirk Fransaer, Managing Director, VITO; Dr Sunday Leonard, Science Programmes Officer, UNEP-CCAC; Dr Ajay Mathur, Director General, TERI

The 'Breathing Clean' Air report was officially released at the beginning of the session.

The speakers in this session highlighted that while air pollution does not hinder economic development of a city, the city cannot alone solve air pollution problem. There needs to be collaboration from city to state and state to state level to curb the problem. Dr Ajay Mathur stressed on formation of inter-state council to mitigate the air pollution problem in India. He further

added that there is no regulation to control dust from construction sites and suggested that ministries should change the way they work at present to curb the menace of air pollution. Poverty and agricultural productivity are linked to short-lived climate pollutants (SLCPs). Mr Kamal Bali highlighted that Volvo is going to stop manufacturing fossil fuel-powered vehicles in Europe while Volvo India is already manufacturing Euro VI vehicles.



The voting from the audience indicated that transport sector (45.6%) is the biggest polluter in Delhi, followed by outside Delhi-NCR source (25.8%). It also indicated that agricultural residue burning (6%) was the least contributing sector to the air pollution problem in Delhi.



## Plenary II: Climate—Water—Energy—Food Nexus

**Chair:** Mr Ajay Shankar, Distinguished Fellow, TERI

**Panellists:** Amb. Jonathan Addleton, Mission Director, USAID-India; Mr Anindya Chatterjee, Regional Director, Asia, International Development Research Centre (IDRC); Mr Klas Eklund, Senior Economist Sustainability, SEB; Dr Keywan Riahi, Director- Energy Program, IIASA; Mr Ravi Singh, Secretary General & CEO, WWF-India

The nexus between climate, water, energy, and food needs to be examined holistically. Agriculture is important in India; however,

it is mostly supported by unsustainable trends. Being already a water-stressed nation, climate change adds even greater pressure.

Need for increasing food production has a huge impact on groundwater. Innovative techniques are needed to make agricultural sector more climate resilient.

An economical solution is to try and calculate the long-term effects of policies and alter them. Relative price change would be much more profitable in the long run. In this nexus, integrated systems approach that tries and evaluates all options are needed. Water, energy, and food ranks higher than other problems.



In this inter-dependency, there has to be a biodiversity component. With regard to the role of the industry, production and consumption are increasing. Also, environmental behaviour in terms of consumption needs to improve.



## Special Addresses

**Speakers:** Mr Suresh Prabhu, Hon'ble Union Minister of Railways, India; Mr Pawan Chamling, Hon'ble Chief Minister of Sikkim

**Chair:** Dr Ajay Mathur, Director General, TERI



### MR PAWAN CHAMLING

Hon'ble Chief Minister of Sikkim

“If we are able to replicate some of our green initiatives on a global scale, it will definitely make a positive impact on finding solutions to global environmental challenges.”



### MR SURESH PRABHU

Hon'ble Union Minister of Railways

“Sustainability should not be a peripheral activity but should become a mainstream movement.”



# THEMATIC TRACKS @ VIGYAN BHAWAN

## Workshop on Resource Efficiency and the Circular Economy (EU)

**Speakers:** Dr Suneel Pandey, Director, TERI; Mr Karmenu Vella, Commissioner for Environment, Maritime Affairs and Fisheries, European Commission; Mr Venkatesh Valluri, Chairman and Managing Director, Valluri Technology Accelerator; Mr Himanshu Shekhar, YES Bank; Dr Sadhan K Ghosh, Professor and HOD, Department of Mechanical Engineering, Jadavpur University, Kolkata; Dr Malini Balakrishnan, Sr Fellow, Energy and Environment Technology Division, TERI; Mr Frank Samol, Senior Project Manager Indo-German Environment Partnership for Urban and Industrial Development; Mr K D Bhardwaj, Head – Environment, National Productivity Council, Ministry of Commerce, Govt. of India; Mr Lucas Marmo, EU; Mr Ravindra More, Sr Manager, Sustainability, Mahindra & Mahindra

The session began with an articulation of the finite nature of resources and their sensible use. Stress was laid on the surmounting

need for secondary resource management to decouple economic growth from resource use. It was argued that the traditional linear economy approach results in massive waste generation at all stages of a product life cycle. Thus, resource efficiency is at the core of economic development. In order to close the loop, we need to contextualise the circular economy package for India via structuring the informal sector.

The deliberations of the session highlighted the two ways of sustaining production and consumption— first, minimising waste generation, and second, converting waste into value-added products. However, there are inabilities on account of minimising the resource use while producing, processing waste, and recycling. The speakers highlighted case studies in different sectors which need to be upscaled



or replicated to ensure that waste gets converted into resource. Technological intervention could put in place a resource-efficient perspective in the short run but there is a need of behavioural intervention for feeding in resource efficiency in the long-term policy action. In this regard, the EU-India resource initiative sees 'resource efficiency as an agenda of high hope which will bring in mutual benefits'.

## Lifestyles, Production, and Consumption: Key Challenges for Sustainable Development

**Moderator:** Ms Urmi Goswami, *The Economic Times*

**Speakers:** Mr Cyrille Bellier, Deputy Executive Director, AFD; Dr Ajay Mathur, Director General, TERI; Dr P G Dhar Chakrabarti, Distinguished Fellow, TERI; Mr Bertrand Charrier, Researcher, AFD; Ms Laura Brimont, Research Fellow, IDDRI; Ms Eva Alfredsson, Senior Analyst, Swedish Agency for Growth Policy Analysis; Dr Shilpi Kapur, Fellow, TERI

The three main ideas behind the sustainability are: (i) the sustainable development goals (SDGs), (ii) the institutional framework



(including financial), and (iii) the processes and transitions. The key focus is on the process and transition towards achieving it.

It is responsibility of government as well as private stakeholders to provide financial and technical knowledge. Sustainable consumption is a process of changing lifestyles to adopt eco-

friendly and less energy-intensive products, focussing on social, demographic, territorial, governance, and state transition. Political will and media also plays a vital role in changing behaviour.

There are many challenges and constraints in achieving sustainability—business needs, geography, individual desires, levels of development, religious, and cultural aspects. To slowdown climate change, managing sustainable development and consumption are essential. We need to find solutions through methods, such as carbon tax, sectoral strategies, a zero emission strategy, efficient transport sector (public transport, electric vehicles), etc., which may prove effective.

## Energizing Agri-Food Value Chain through Clean Energy—Investing in Entrepreneurship and Sustainable Solutions

### Session 1

**Chair:** Mr Nagaraja Rao, CTI-PFAN

**Speakers:** Mr Himanshu Mishra, Co-founder, Sustain Earth; Mr Kartik Wahi, Co-founder & Director, Claro Energy Pvt. Ltd; Mr Tushaar Shah, Senior Fellow, IWMI-India

### Session 2

**Chair:** Mr Martin Hiller: Director General, REEEP

**Speakers:** Mr K P Philip, IREDA; Mr Hari Natrajan, CLEAN Network; Dr Klas Eklund, Senior Economist, Sustainability of SEB; Dr Keywan Riahi, Director- Energy Program, IIASA

The theme was set by discussions on issues pertaining to agri-food value chain and the lack of inter-linkages throughout the value chain. The first session comprised of entrepreneurs who work in providing clean energy solutions to the rural community in India through various green business models. These models include decentralised biogas production from cattle dung to cater to the thermal and electrical needs of the farmers and rural community throughout the milk value chain. The second session focussed on the investment challenges and opportunities in agri-food value chain. Mr K P Philip discussed various schemes initiated in collaboration with KfW and UNIDO, for



entrepreneurs working to provide energy access to rural community. Mr Keywan Riahi emphasised that the availability of right tools and data are the challenges faced during scaling up of green solutions in this sector.

## MEDIA COLLOQUIUM

### HOW TO CREATE NEWS REPORTS THAT GRAB THE ATTENTION OF THE READER

Anita Pratap, the international journalist who has covered wars and crises, said that news reports should be humanised, with the facts right and written in simple language with no jargon to make it readable. This approach is important for stories that are heavy on statistics and complex information, said the former reporter for CNN, Time, and India Today. Speaking at the Media Colloquium on 'There Are No Boring Stories, Only Boring Story-Tellers', she said, "When a story is written, people's emotions should be conveyed. The emotions should reflect sensitivity and not sensationalise. Tell the people's version, not yours."

Experts from TERI also spoke at the colloquium about the 'Great Peril' of climate change. "Decades from now, we may see a rise in temperature by 6–7°C", said Ms Suruchi Bhadwal. Governments lack resources to implement policies to deal with the impending crisis, she opined, but cited the Indian government's cess on coal that is allocated for agricultural adaptation as a measure that both raises resources and makes the fuel less attractive. Mr Mihir Mathur said that the problem is that people are mal-adapting rather than adapting to climate change.





## Clean Energy Nexus: The Way Forward in India

**Speakers:** Mr Lars Andreas Lunde, Deputy Minister of Climate and Environment, Ministry of Climate and Environment, Norway; Dr Ajay Mathur, Director General, TERI; Mr Shirish Garud, Director, Energy Environment Technology Development Division, TERI; Mr Rohit Bajaj, Vice President, IEX; Mr Sushanta K Chatterjee, Joint Chief (Regulatory Affairs), Central Electricity Regulatory Commission; Ms Pooja Malhotra, Vice President, Statkraft; Mr Arun Kumar, Head of Advanced Hydro Energy Centre; Mr Rahul Varshney, Director (Business Development), Statkraft

**Moderator:** Mr K Ramanathan, Distinguished Fellow, TERI

**Panellists:** Mr A G West, CMD, North Eastern Electric Power Corporation Ltd; Dr Amarpal Singh, Chief Executive, Punjab Energy Development Agency; Mr Rahul Varshney, Director (Business Development), Statkraft; Ms Minaxi Garg, POSOCO; Mr S K Sharma, Chairman, Bhakra Beas Management Board; Mr Sanjeev Mehra, Managing Director, TATA Power Trading; Mr Anil Razdan, Former Secretary, Ministry of Power, Government of India

There is a shift in global energy mix from conventional sources to clean energy sources. Hydropower can play a crucial role as a balancing power in the growing capacity of variable renewable energy (RE) (wind and solar) in India. Hydropower plants should give priority to drinking water, irrigation, and power. Energy-efficient devices and digitalisation would help meet growing electricity demand and reduce emissions.

De-regulation is important for efficient use of investment and equal price distribution as well as to create a market. Main drivers for development of RE are energy security and climate change. Commitment to build robust policy and regulation for RE growth in India is tremendous.

TERI successfully completed Phase I of Framework Agreement with the Norwegian Ministry of Foreign Affairs (MFA) which addresses



knowledge gaps in three strategic areas: clean energy options, climate change, and energy security and climate change interfaces.

In conclusion, Indian power sector is going through a transformation; it is really important to understand how to manage and achieve RE grid integration. 🌍



## Air Pollution in India: A Problem with Scalable Solutions—Roundtable

**Chair:** Prof. V Ramanathan, University of California, San Diego

**Participants:** Dr P Gargava, Central Pollution Control Board; Dr Sunday Leonard, CCAC, UNEP; Dr Henk Bekedam, WHO Representative to India; Ms B Abubakar, Federal Ministry of Environment, Nigeria; Mr Sumit Sharma, TERI; Dr Carlos Dora, WHO; Dr S Ghude, IITM; Dr R Krishnan, IITM; Dr G Beig, IITM; Dr I H Rehman, TERI; Ms T Ramanathan, Nexleaf; Prof. C Venktaraman, IIT-B; Mr S Jannesen, VITO, Belgium

The roundtable stressed on the adverse effects of air pollution on health of the people as well as the economy. Air



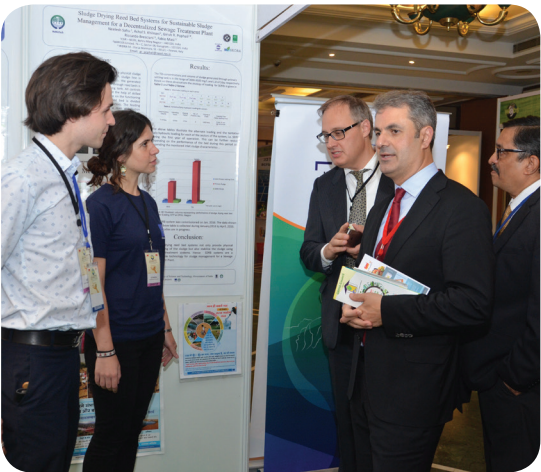
pollution is the fourth leading cause of mortality in the world and, in India, is responsible for weakening of monsoon as well as has adverse

effect on rice pollution through tropospheric ozone concentration.

Mitigating air pollution is essential, and clean air should be added to programmes such as Swachch Bharat Abhiyan. Solving climate change can be utilised as to develop new job and economic opportunities. Air quality management should be backed by simulation that answers critical questions of when, where, and type of measures to be deployed.

In conclusion, air pollution is a multi-dimensional problem and needs both government and private sector to address the issue in an integrated manner. 🌍

## GREENOVATION 2016: GLIMPSES



## CULTURAL EVENING

