teri | Council for Business Sustainability

Leadership Summit for Sustainable Development

2016

Translating India's NDCs to Business Actions

June 7, 2016 | **Hyatt Regency, Mumbai**

Conference Snapshot

The developing world is doing much better through their INDCs than their fair share and the developed world now requires to do up their ambitions.

— Shri Prakash Javadekar,
Minister of State (IC) for Environment, Forest and Climate Change

Innovation. Investments. Collaboration. These three factors need to work in sync for sustainable development.

— Dr Jaco Cilliers,
Country Director, UNDP in India

Any future efficiency depends on building models that fit the parameters set for sustainable development.

— Dr Ajay Mathur,
Director General, TERI

LSSD 2016

Inaugural Session

DR ANNAPURNA VANCHESWARAN, Senior Director, Sustainable Development, Outreach, and Youth Education Division, welcomed the distinguished guests, esteemed speakers, and other attendees to the Leadership Summit for Sustainable Development 2016 organized by TERI Council for Business Sustainability. She started her welcome speech by mentioning about TERI-CBS, calling it a platform for corporate leaders to address issues related to sustainable development and to promote leadership in environment management, social responsibility, and its economic performance. She informed everyone that last year, with support of the member companies, TERI Business Council tabled a vision document on climate change during the COP21 Paris, reinforcing Government of India's commitment towards the issue. She further added that the business sector could play a pivotal role in achieving this vision. She said that the day's agenda is to prelude to the series of Business consultations on the theme – 'Translating India's NDCs to Business actions' in the next three months, which will convene at the BUSINESS DAY during TERI's Flagship event World Sustainable Development Summit. She pleasantly informed everyone that a total of 19 organizations registered for the summit. She applauded the student participants from IIT and encouraged them to participate in the discussions and deliberations ahead. She also thanked Mahindra & Mahindra for lending their support to CBS for organizing the summit. She extended her thanks to the outreach partner—All India Association of Industries.

SHRI PRAKASH JAVADEKAR, Minister of State (IC) for Environment, Forest, and Climate Change, addressed the participants through a video message. He informed everyone about the three pillars of India's Intended Nationally Determined Contributions: (i) Reducing emission intensity by 35 per cent by 2030; (ii) Increasing non-fossil share of energy mix by 40 per cent; and (iii) Increasing carbon sink by 2.5 billion tonnes. He further added that these targets were set after due consultations with businesses. He said that the government has already distributed 100 million energy-efficient LED bulbs in the last one year, and after completing this LED programme, a total of 22 thousand MW power will be saved. He further added that approximately 40 GW bidding has already happened for renewable energy. He informed that the Government has put a cess on coal of INR 400 and has also created a Clean Energy Fund that supports clean actions. He urged all businesses to start investing in the same, adopting new, low-carbon, and use of energy-efficient technologies. Mr Javadekar mentioned that an emerging business opportunity for Indian businesses is to innovate in the field of energy, water, and emission efficiency. Towards the end of his speech, he expected Indian industries to look at available opportunities from India's commitments and scope for new profits. And, he concluded his address saying 'We all can work together to fulfil our promises to the future generations'.

DR JACO CILLIERS, Country Director, UNDP in India, at the outset, congratulated TERI for providing a platform for bringing together top Indian companies to create a path towards Climate-Resilient Sustainable Development. He said that the key to achieve this developmental path is to INTEGRATE the following four pillars. Firstly, development needs to be socially inclusive, benefiting people from all walks of life. Secondly, growth should focus on prosperity/profit of the economically disadvantaged. Thirdly, growth should be environmentally sustainable. Forth, developmental agenda should focus on working in partnerships and synergies. He shared his ideas on localizing the solutions to communities, cities, states, and countries, while targeting to solve the global challenges. This, he said, can be done through joint efforts of governments, civil society organizations, and the business community. While governments can effectively pitch in where monitoring and policy push is needed, the corporates can play a crucial role around innovation, investment, and collaborations. To strongly work in this collaboration, a mindset change is the need of the hour. Dr Cillers quoted examples of Darwin saying, 'not the strongest or brightest of the species that survived, but the one that was most responsive to change' and of Einstein saying, 'You cannot change a situation with the same mindset, which created it'. While citing the development agendas of India for last five decades with UN, he emphasized the need for creating a sustainable path for the next 15 years under the new SDGs agenda in synchronization with businesses. He spoke about the four most common hurdles that come in the path of development and suggested solutions for them. He mentioned cognitive, resource, political, and motivational hurdles and suggested to solve them through the cognitive and integrated efforts of businesses and government. At the end, he quoted an inspiring statement from Nelson Mandela, 'A little bit of head and a little bit of heart will go a long way in solving problems anywhere in the world'.

DR AJAY MATHUR, Director General, TERI, while addressing the participants said Sustainable Development Goals (SDGs) can be looked at as a global action for the betterment of everyone. He suggested that industry and Government act together in order to work for the furtherance, from top to bottom of the pyramid. He also talked about the challenges in adaption of SDGs, such as to operationalize the SDGs and climate goals. He talked about the project UJALA. He said that national LED Programme is a great example of collaboration for technology, outreach, and business, which has delivered outcomes, such as creating a comfort for consumers to buy, enabling suppliers to produce LED bulbs at large scale, helped creating a local industry, and created awareness. He informed that the total number of LED bulbs sold since January 2014 till now is 11.3 crores. He also spoke about the achievements of perform achieve and trade (PAT) scheme which looks at enhancing specific energy consumption in most energy intensive sectors in India and envisions towards the goal of achieving 6.6 mt per year by 478 industries. He informed that the target was overachieved by 1.4 mt. He added that an ambitious solar tendering programme and investment in newer and efficient technologies is in focus. He stated that energy, water and urban development are three areas where investments are most important. While talking about CBS, Dr Mathur said that the focus is to help industries as a whole in capturing technology of the future and to share best practices. He emphasized the need to harmonize actions of the industry to achieve India's NDCs. He informed that 2/3rd of infrastructure is yet to be built by 2030 and every investment made today towards energy efficiency, water management, will lead to meeting the targets. Ending his speech, he urged the industries to take steps that are in sync with the Paris Goals.

Session I:

Expanding the Share of Renewable Energy in Energy Mix-Policy, Financing, and Technology

Moderator: DR AJAY MATHUR, Director General, TERI

MODERATOR: **DR AJAY MATHUR, Director General, TERI,** highlighted that India is running one of the largest renewable energy programmes in the world and the scale of our ambition is breath taking. He further added that this feeds into both the energy technology requirements and associated energy security concerns, as well as into larger issues of sustainability. Underlining the role of corporates in order to achieve set goals for renewable energy, Dr Mathur urged that there is a need of huge amount of technology and investments particularly in solar rooftop and need of business models to support this development. He highlighted India's renewable energy targets includes installation of 100 GW solar by 2020 (including 60 GW from grid connected and 40 GW from solar rooftops). This further adds to 60 GW wind, 15 GW of biomass, and small hydro each by 2022. He pointed out the need of looking at how this target could be achieved, what are the kind of business models, driving forces, and requirements in order to accelerate actions in this area.

DR CHAKRADHAR BYREDDY, DNV GL, shared his views on the technology and financing side of renewable energy. He urged on the need to look at the levelized cost of energy (that includes the grid and market). Dr Byreddy emphasized the importance of certification processes for the levelized cost of energy due to upcoming reverse-bidding tariff in the country, specifically for solar projects. He elaborated the need of looking at the project viability not only in terms of power production but also on the ability of projects to have a fatigue life of 20–25 years, because that is when the Power Purchase Agreement (PPAs) has been signed for. He further pointed out the need of quality checks of these projects.

In the areas of R&D, Dr Byreddy shared DNV's work on a project named as 'For Wind' for facilitation of offshore wind in India. He emphasized on industry partnership with academia, which will help in facilitating new research and technology. Talking on the innovation, Dr Byreddy highlighted the need to have a good ecosystem in terms of venture capitalism in renewable energy space. He insists to look at the issue in terms of not only developing new products but what are the products that already exists. He urged for the need of using available big data to ensure the effectiveness of the grid and looking at the project as whole as wind/solar park. He finally pointed out that there are opportunities for academia to come out with solutions/joint projects for industries.

MR ARDESHIR CONTRACTOR, Kiran Energy, shared his company's experience of building plants in Rajasthan and Gujarat and serving the large Government PPAs. He shared the advantages of working with companies by giving an example of their project in Maharashtra, in which Kiran Energy generate power in the central part of Maharashtra and Baramati and then supplies power to different stakeholders. He revealed that the company is supplying power to Godrej & Boyce campus in Vikhroli. Mr Contractor enumerated that internationally, 7 per cent of the world is on renewable energy and India is lagging behind in this share. He urged on the need of inclusion of private sector companies in order to achieve India's commitment and learn by examples from how America, Japan, and others have pulled renewable energy. He pointed out that large project should not have only government as the sole buyer; business models should also include corporate partnerships. He pointed out that companies in India are keen to do Corporate Social Responsibility projects on agriculture, etc. Moreover there is a strong need to upscale these efforts for the promotion of renewable energy

Commenting on the financing side, he shared that wind/solar energy technologies need to work for 25 years or else its value decreases for the person concerned. He opined that the asset value of a project should be on the increasing side or at least remain the same but should not decrease. He revealed that currently, the banking sector is very positive as renewable energy companies are doing well.

DR PAWAN SINGH, PTC India Financial Services Ltd, enumerated that there is a need of US$200 billion (which is about 10 per cent of prime budget) in order to achieve 175 GW target by 2022. He appreciated the government's move on Clean Energy Fund and insisted that it should be used for developing renewable energy (RE) technologies. Moreover, he mentioned that the sector itself needs to become commercially viable such that we can attract conventional capital (both equity and debt). He revealed that the gestation period for renewable projects is less as compared to conventional thermal power projects. However, RE projects have challenges of their own because it's a dynamic sector, certainty/sustainable tariff rates would be critical for long-term financing of the project. He further mentioned that unlike conventional energy, in which variable cost is about 70 per cent and fixed cost is 30 per cent, in case of renewables (except biomass), 90 per cent cost is fixed cost hence financing has to be efficient apart from the tariffs. He emplnaized a for strong need of financing for a long period, that is, 20–25 years matching with the PPA that would help in sustaining tariffs. He pointed out that the cost of financing in India vis-à-vis abroad is high since interest rates here are high.

Sharing inputs on how National Clean Energy Fund (NCEF) could be better utilized for RE projects, Dr Singh mentioned that the NCEF could be used for leveraging, by creating hedge fund to attract more investors. He further added that NCEF can also chip in the Partial Guarantee fund introduced by IFC and ADB. He finally urged for the need of bringing down tariffs in order to make projects financially viable.

Lt. Col. MONISH AHUJA (Retd), Managing Director, PRESPL, introduced his company which functions in the niche field of biomass. He revealed that a country like India produces millions of tonnes of agri-waste, which could be used for burning in a gasifier to produce energy/gas at a cost where the technology cost have been higher. He pointed out that the focus needs to shift towards harnessing the energy potential of biomass in the 80 industries that work globally.

Lt. Col. Ahuja proudly shared that his company is the first in the world to develop a model to convert 100 per cent rice husk into ethanol/biofuel. He urged for the need of industry partnership for promotion and scaling up of biomass projects in India. He further enumerated that India has made its commitment to achieve 10 per cent of energy need renewable energy resources. He pointed out that so far India has achieved only 4–4.5 per cent of this target and use of agricultural residue route can help fulfil this requirement. He urged for the need of a financial model that supports prices for a certain duration, which would help increase value. Talking about the technology improvements, Lt. Col. Ahuja shared that more the efficiency of the technologies utilizing biomass, lower the cost of energy imports, and 60 per cent import bills can be reduced using biomass.

Take-away points shared by Dr Ajay Mathur

I. Appropriate business models to be developed
II. Justified financing required: Need for risk management
III. Technology development required.

Key Questions:

» How can corporate India contribute in preparing a detailed strategic document on making domestic manufacturing competitive in the international market?
» How can corporate India contribute in effective knowledge and technology transfer between the Indian and international community?
» In what way can the corporates contribute in building R&D facilities, partnerships with academic and research institutions for development of renewable energy technologies?
» What kind of projects can corporate India demonstrate to derive benefit from National Clean Energy Fund (NCEF) and similar international funds?
» What role can the financial sector play in increasing investments/financing to renewable energy?

Session II:

Promoting Energy Efficiency

Moderator: AMB. AJAI MALHOTRA, Distinguished Fellow, TERI

MR SANKAR BANDYOPADHYAY, General Manager, CenPEEP, NTPC, highlighted how NTPC views energy efficiency being driven by environmental concerns. He elaborated the key focus areas of work as efficiency, reliability, energy conservation, and water conversation. Mr Bandyopadhyay revealed that 50 per cent of energy efficiency target under the PAT (Perform, Achieve, and Trade) Scheme of Bureau of Energy Efficiency was ascribed to the power sector; of which 10 per cent was to be fulfilled by NTPC. He indicated that all inefficient plants were shut down. He pointed out that renovation and modernization will take a back seat. More efficient plants will replace the old plants—not by age but by performance. Mr Bandopadhyay emphasized that to sustain business, one has to adopt new technologies but innovation can take place in existing plants as well. Urging that sustainable technology will only be viable in the coming days, he pointed out that the research on supercritical, ultra super critical, and advanced supercritical technologies will soon be commercially available. He opined that new environmental norms will demand newer efforts towards technological innovation.

MR BHUSHAN L PATIL, Chief Mechanical Engineer, Central Railways, Ministry of Railways, highlighted how India is focussing on low carbon infrastructure and its public transport systems. He revealed that since the time of independence, nearly 95 per cent of freight goods were transported by rail whereas it has now shrunk to 1/3rd; whereas passenger traffic has shrunk to 15 per cent. However, he pointed out that in last 15–20 years, there has been increased focus on ensuring that the mode of transport should be energy efficient. Commenting on India's INDCs for the transport sector, Mr Patil pointed out several business opportunities. He enumerated that the annual consumption of High Speed Diesel (HSD) by Railways is 3 billion litres annually, which is 3 per cent of India's total consumption and 15 billion units of electricity which is 3 per cent of the nation's total consumption. He shared Railways vision of adding biofuel to HSD by 5 per cent comes to an annual requirement of 150 million litres of biodiesel. With its mission of providing bio-tanks and bio-toilets in all trains over the next four years, the Railways would need 50,000 bio-toilets every year. Mr Patil urged for the need to innovate for achieving efficiency through introducing common rail direct injection system for all 5,000 locomotives which improves fuel efficiency by 6–7 per cent and provides a payback time of six months.

MR AALOK A DESHMUKH, General Manager—Energy Efficiency, Global Operations, Schneider Electric, pointed out that one of the challenges with energy efficiency is that how to ascribe a value to energy (which is invisible) in value terms. He agreed that there is a surge in the demand for building energy management system; however, he cautioned that a lot of noise and information clutter exists. He pointed out that energy management systems generate a lot of data, and the challenge is to decipher the same to make it meaningful and actionable. He suggested that energy efficiency should be introduced as a Key Performance Indicator for key decision makers in an organization. Mr Deshmukh suggested that energy efficiency has a mindset and language problem. He opined that energy efficiency is a source of energy—the cheapest, cleanest, and abundant source of energy. When considering office buildings, Mr Deshmukh revealed that the gap between business-as-usual and best-in-class is 70–75 per cent and at no added costs; whereas for hospitals the gap is 50 per cent. He urged that energy efficiency potential for new buildings ranges from 50–70 per cent, whereas through retrofitting, efficiency of around 30 per cent could be achieved.

MR ARUNAVO MUKHERJEE, Director, TATA Cleantech Capital, pointed out that financing energy efficiency is challenging from the perspectives of a financial institute, particularly when it is through the route of project financing. The biggest inherent challenge is visibility of revenue, which unlike a renewable energy plant (solar and wind), does not require a physical infrastructure and the revenue flow is invisible. In terms of enforcing security mechanisms, Mr Mukherjee pointed out that in situations where the assets of a company are hypothecated to a particular financial institution and then in the same facility when energy efficiency equipment are installed, the agency does not have charge on the extra piece of equipment that they have financed. Mr Mukherjee narrated some key challenges as well. With more evolved industrial customers, low hanging fruits have been exhausted. Like many have exceeded their Perform, Achieve, and Trade target. Hence, they would need more advanced technologies—for example, in the process industries such as steel and aluminium capturing heat. Energy-efficient payback period calculations are done largely based on capacity utilization, but as we have seen, utilization level will impact financial viability of such projects. The concept of Energy Service Companies (ESCO) in the Indian context—third party owning an asset in the plant is still an alien concept. Such concepts need more evangelism. ESCOs are financial arbitrage. Cost of borrowing for Tata Steel at 8 per cent versus that of an ESCO at 12 per cent is higher. Profit sharing with ESCOs should be looked at more closely. Institutions, such as BEE would play an important role in diffusing the mysteries revolving around the concept of financing ESCOs and making the users comfortable. Mr Mukherjee opined that regulators should take into account the feasibility. He narrated that the concept of zero discharge is not well understood in India as this renders to be more energy inefficient as liquid is converted to salt are using the evaporization process, which is energy intensive.

MR DAMANDEEP SINGH, Director, CDP India, pointed out that India has shown the world its leadership through the Perform, Achieve, and Trade scheme on energy efficiency. Mr Singh pointed out that CDP results reveal that two-third of the measures that a company takes is on energy efficiency. He pointed out that over the period of 2012–15, there were over 20 companies that went beyond the regulatory requirements, which resulted in huge savings—ITC, Dr Reddy, IOCL were some of the leaders in this regard. Mr Singh applauded Mahindra to become the first company to sign up to a programme to double their energy productivity by 2030. Mr Singh urged that CDP's collective aim to work for a greater ambition for the companies and help them realize these targets. Mr Singh shared at COP21 in Paris, an initiative was launched along with UNEP and some Pension Funds called Portfolio Decarbonization Coalition. As part of the initiative, some of the investors are working on a methodology by which each of the mutual fund will have a climate rating—articulating how does it respond to climate. The Coalition has a corpus of €620 billion that indicates the amount of money that's following in towards cleaner technology and cleaner companies. Mr Singh opined that to make policies and processes should be made clearer and cleaner to attract these kinds of special funds.

Key Questions:

- What have been the achievements and challenges for Tata Cleantech Capital on ESCO Financing for implementation of energy efficiency projects?
- Energy efficiency and resource use efficiency are of competitive interest for all businesses, and lead to sustainability. How has the climate performers under the Carbon Disclosure Leadership Index (CDLI) brought about a change in the Indian industry?
- While making a choice for new capacity addition for power plants, how is NTPC evaluating the four factors viz. availability of fuel domestically, affordability, grid stability and its impact on the climate and environment to arrive at an optimal mix?
- In the endeavor towards a low carbon economy, India is focusing on low carbon infrastructure and public transport systems like Dedicated Freight Corridors and energy efficient railways to reduce their environmental impact. What has been the achievement of Indian Railways to improve specific fuel consumption for freight and coaching service locomotives?

Session III:

Financing climate Action to Accelerate India's NDC targets

Moderator: AMB AJAI MALHOTRA, Distinguished Fellow, TERI

MR JAYDEEP SRIVASTAVA, NABARD, was asked about the ways in which Green Climate Fund and the adaptation fund board enabled NABARD to play a major role in financing climate change adaptation and mitigation projects in India. In response to which he informed, the NABARD has got accredited to the adaptation fund of the United Nations Framework Convention on Climate Change and then to the Green Climate Fund and National Climate Change Fund of the Government of India. He further added that NABARD is focussing on adaptation fund majorly, specifically by utilizing the country cap of 10 million dollars for five projects. He informed that National adaptation fund focussed on adaptation front and they have 12 projects from state government and eight are in pipeline, which are worth US$78 million.
He informed that the developing countries are not getting much from Green Climate Fund though.
He further added that 40 projects notes have been approved by NABARD, of which two are from Government of India and four more concept notes is there to put across Green Climate Fund, three from Ministry of Renewable Energy, and one from Telagana government. Mr Srivastava informed that the major focus of Green Climate fund is Adaptation, therefore one should pitch project notes according to that only. He also added that NABARD is focussing on eight missions of National Action Plan on Climate Change and state Action plan on climate change. He also stated that if a project is beyond the threshold limit of ₹25 crore (threshold limit of SAPCCs), then it is directed towards Green Climate Fund. He concluded by inviting private sector to summit projects, which can be posed to Green Climate Fund.

MR RAJESH MIGLANI, Senior Climate Business Specialist, International Finance Corporation (IFC), suggested that every organization should have a strategic plan and then he informed about the objectives of IFC's implementation plan.

- To scale up climate investments from 22 per cent to 28 per cent by 2020
- To catalyse US$13 billion private sector capital
- To maximize the impacts of their projects by investing in high GHG emission reduction opportunities and resilient
- To look for associated risks: Physical and carbon asset risks.

He informed that currently, they are active in renewables. Further, he revealed about IFC's future plans by saying that they want to explore the green bond capital market, energy efficiency aggregation, green buildings, value budget housing, etc.
He said they have subscribed to green bond issued by Punjab National Bank. On capitalizing private sector investment, he said that IFC would like to leverage four times by developing new instruments, such as credit enhancements, partially sharing facilities, etc.
He further added that IFC is currently interested in resilient and mitigation projects on adaptation. He also announced about the forthcoming carbon prizing leadership collation led by the World Bank President, Jim Kim, and Cristine Laggard and named the five groups who have joined this collation: Mahindra & Mahindra, YES Bank, Tata Group, Dalmia Cement, and Arvind Group. He concluded by saying that internalizing the carbon prizing is important.

MR ALIND RASTOGI, IFS, Chief Forest Officer; Executive Director, Environment Management Group, NTPC, said that in order to be an environment friendly industry, they have started focussing on adapting cleaner technologies. He announced that they want to change the energy mix portfolio by 2032 by reducing coal dependence by 44 per cent. As part of creating carbon sink, he informed that the company has pledged to plant one crore trees all over the country every year, which will have 2 lakh tonnes of CO_2 sink. He emphasized that a roadmap needs to be built wherein all the cities can put in their collaborative inputs. He further added that all the new norms developed by their organization are in sync with environment conservation. Mr Rastogi concluded by informing that NTPC aims at bringing down their Carbon intensity from 970 gm/kWhr to 670 gm/kWh by 2032.

MR ANIRBAN GHOSH, Vice President—Group Sustainability, Mahindra Group, mentioned that energy efficiency and water are the important areas. He highlighted that 67 per cent of the emissions are through the world corporations. He added that corporations do not have funds, and if they do, they are unaware of its proper management. He suggested the use of global climate fund to solve this global problem in time. He pointed out that a competition can be thought off as a part of solution, to ask public entities to come up with projects related to energy efficiency and water worth funding. Mr Ghosh also recommended that people should avoid buying carbon intensive products, start investing in clean energy, reducing the carbon footprint.

MS ALKA UPADHYAY, General Manager—Environment Services, Tata Sustainability Group, indicated that at Tata, they have created a low carbon culture at all the levels of management. She informed that her company is doing small initiatives for environment, such as celebrating June as environment month and Think Smart, Think SDGs, etc. She also believed that sustainability is anything from making short-term profit to long-term profit. She suggested that this is the time when National Social Capital Valuation should change to assess the business risks.

MR VIVEK ADHIA, Head—Business Engagements, WRI India, started his speech by revealing that there is a clear dearth of projects to fund and they are in process of creating a platform, where the projects and proposals can be posted. He admitted that since the finances are limited, the innovation mechanisms, such as financial transaction taxes can be explored. He also stated that carbon pricing is different for different organizations and different country. Mr Adhia informed the audience that carbon pricing can be done on the basis of trade scheme and tax schemes. He called carbon pricing as a means of shifting investment into low carbon projects.

MR A K KAPUR, Deputy Managing Director, SIDBI, at the outset, mentioned that about 30 million SMEs in India are lacking technology solutions. He called globalization as a driving force for all businesses in India to act global. He insisted on bridging the gap between demand and supply. He informed that only energy intensive industries are targeted primarily. Mr Kapur also warned that if not thought over and taken care of, we will be discussing survival and not sustainability by 2030. Then, he discussed about SIDBI's green actions citing the examples of Green Finance offered by them and creation of new innovative technologies. He added that they favour financing creation of green and energy efficient equipment.

Key Questions:

- As a global development finance institution how is International Finance Corporation (IFC) leveraging its close ties with the private sector in the efforts to combat the negative effects of climate change? How has been IFC's experience in India regarding the showcasing climate leaders from emerging markets, growing green buildings, scaling green bonds and carbon pricing and markets?
- What role does responsible investment play to accelerate climate actions? How has been the momentum in the Indian context?
- NTPC's Vision Statement on Environment Management reads as: "Going Higher on Generation, lowering GHG intensity". What have been the challenges and opportunities that NTPC harnessed in realizing its vision?
- What has been the motivation for the Tata Group to formulate its climate policy? What have been the opportunities and challenges to use internal carbon pricing?
- How increased carbon control has galvanized the Mahindra Group towards innovation?

Valedictory Session

DR AJAY MATHUR thanked everyone at the outset of Valedictory Session and repeated that the programme sessions were aimed at finding solutions for accelerating actions in the corporate sectors towards meeting the Nationally Determined Contributions decided by India.

MR VENKATESH VALLURI invited all corporate leaders to build an executive business plan to tackle the existing problem. He gave the example of six sigma plan during his days with General Electrics and said that business and industry leaders should start creating products in India. He suggested that technology and finance should be developed in sync with the basic requirement of life. Mr Valluri insisted that cost-effective and innovative technologies should be developed that can deliver value to the society, fulfilling their basic requirements sustainably. He focussed on integrating multiple technologies to bring a change in society. As part of Business Council, he urged to build a platform to bring all the technologies and converge them to build solutions. At the end, Mr Valluri invited everyone to develop technologies that are innovative, energy efficient and can be a landmark in the field of sustainability.

MR ULHAS N YARGOP, Director, Mahindra & Mahindra Group, while praising the quality of sessions, said that he has learned a lot from the deliberations during the event. He suggested that while designing a technology, one should consider the aspirations of all sections of population in India. He emphasized upon building a more efficient future for the citizens of India. While citing about the earlier discussions, he repeated that top 100 companies have 70 per cent impact on the carbon footprint of the society. Therefore, he recommended the use of techniques such as carbon pricing while trading. He also talked about few simple environment friendly measures to reduce our footprint in the end.

MR ASHOK CHAWLA, Chairman, TERI; Chairman, National Stock Exchange, called the participants 'Friends of Environment'. He said world leaders and heads of government have begun the journey by signing the Paris agreement, and now it's us who have to drive it. He said, although this will be challenging to bring down the global temperature by 2°C, but with the cumulative efforts, change can be brought. He suggested that the use of new efficient technologies to achieve the same kind of productivity with the less intense use of resources.

DR AJAY MATHUR while concluding the summit, promised that the Council for Business Sustainability and other consultations from all around the world would provide their input during the Business Day, planned as part of World Sustainability Development Forum in October 2016.

Afterwards, **MR ARUPENDRA NATH MULLICK** on behalf of TERI Council for Business Sustainability thanked their partners Mahindra & Mahindra and outreach partner All India Association of Industries. He also showed gratitude towards Dr Ajay Mathur and Mr Chawla for helping them trigger council member to bring out the transformative impact in society. He also extended his thanks to executive committee members Mr Venkatesh Valluri and Mr Ulhas N Yargop. At the end, he thanked all the session moderators, speakers, and participants present there at the summit.