Confederation of Indian Industry

CII ITC Centre of Excellence for Sustainable Development

Sustainable and Inclusive Solutions: Summit & Exhibition

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The Lalit, New Delhi, India

Day 1: 15 October, 2012

SPEAKERS: **Kamal Nath** Union Minister for Urban Development, Government of India
Yeshey Zimba Minister for Works & Human Settlement, Royal Government of Bhutan
Pavan Sukhdev Founder & CEO, GIST Advisory
Steen Riisgaard President & CEO, Novozymes
Y C Deveshwar Past President, CII, Chairman, CII-ITC Centre of Excellence for Sustainable Development Advisory Council, and Chairman, ITC Limited
Chandrajit Banerjee Director General, Confederation of Indian Industry

The world today is facing myriad challenges related to poverty, food security, income disparity, unemployment, loss of biodiversity, damage to the ecosystem, climate change, GHG emissions, depleting natural resources, unplanned development, sanitation, energy, to name a few. The Summit addressed these challenges and deliberated on the possible solutions and the path that we would have to follow to ensure a sustainable future.

2 billion people globally and more than 600 million people in India live in multidimensional poverty. According to Y C Deveshwar future growth has to be inclusive and equitable – 'The only way is to give up the old model and adopt triple-bottom-line model. Measuring social and environmental value is difficult because tools are still being developed. But measuring sustainable value creation and not only shareholder or financial value is the future of business.' Adopting a triple-bottom-line model however does not imply compromising on economic gain. 'Inclusive growth and sustainable development is a huge business opportunity for emerging countries like Brazil, China and India', argued Steen Riisgaard.

It is imperative to look beyond GDP when we measure sustainable development. Yeshey Zimba advocated the assessment of Gross National Happiness to measure holistic development. The primary pillars of GNH are equitable social and economic development, environment conservation, good governance and cultural values. Giving the example of his country he said, 'Bhutan's success with Gross Happiness Index (GHI) provides solution to measuring sustainable development beyond GDP. GHI has been recognised by the UN and has declared 20 March of every year as the world happiness day. The key components of GHI are economic equity, ecological conservation, culture, thus measuring growth in a holistic manner.'

Closer home, Kamal Nath declared that 'India is committed to sustainable development and inclusive growth even when economic conditions are challenging.' He added that", in the next ten years, more than 600 million people will live in Indian cities. More than 53 cities have a population of more one million and will grow 60 times in these ten years. Also, 70 percent of

is put together, is an incredible growth immense sustainability and inclusive frastructure solutions that tackle several cological conservation.

Supporting the need to measure growth beyond GDP, Pavan Sukhdev, advocated The Economics of Ecosystems and Biodiversity (TEEB) as a useful tool. He said, 'Developed and developing countries will have to use different approaches to sustainable development. Also called the Common But Differentiated Responsibilities, developing countries would have to take the approach of green development, whereas developed countries would have to tremendously reduce their ecological footprint.'

Novozymes uses bio-technology to enable its customers to improve resource use, reduce raw material input, reduce waste, reduce energy input and use renewable input. It conducts life cycle conduct assessments for its products. Last year Novozymes achieved 45 million tons

(~Denmark's annual CO2 emissions) reduction through use of its products by its customers. Talking about Novozymes in India, Steen Riisgaard says the company 'has identified second generation use of ethanol by the use of biomass for energy which would also create jobs in rural areas.' There is scope for huge amounts of agricultural waste to be converted to biogas. In the current global scenario, inequality is bringing social unrest and uprisings. The writing on the wall is that growth has to be sustainable and inclusive. Sustainable value creation should become integral part of economic activity and policy making. Sustainable livelihood creation and augmentation of natural resources are an integral part of a sustainable future.

CII, as Chandrajit Banerjee said, is committed to sustainable development and was working with all stakeholders through its Centres of Excellence, including the Centre of Excellence for Sustainable Development.

Sustainable Agriculture and Food Security

MODERATOR: **Rakesh Bharti Mittal,** Chairman, CII Agriculture Council and Vice Chairman & MD, Bharti Enterprises

SPEAKERS: **Ashok Gulati**, Chairman, Commission for Agricultural Costs and Prices, Ministry of Agriculture, Government of India
S Sivakumar, Chief Executive – ITC Agri Business & Vice Chairman – ITC Infotech Limited
James V Griffiths, Managing Director – Ecosystems, Forest Solutions and Water, WBCSD
Raj Ganguly, Agriculture Water Specialist, IFC

As the world's population continues to grow, and natural resources – including land and water – are diminishing in supply and quality, the global food industry is focused on implementing sustainable agricultural practices. This not only ensures their own prosperity into the next

century, but also the health of the environment and communities on which their businesses rest.

Food security is one of the gravest challenges that developing countries like India are facing today. Every day about 1.02 billion people go to bed hungry and about half of them live in South Asia. All this is happening despite the availability of world class infrastructure and path breaking technologies. Agriculture including meat, horticulture and milk put immense pressure on already scarce resources like water and the situation is worse in developing countries like India. This has led to social discontent and as a result, unsustainable agricultural practices. More than 40 per cent of world's population is employed in agricultural sector and the percentage is even more (60 per cent) in developing countries like India. Furthermore, a very large part of the world's food is produced in the developing countries. Therefore, there is a great need for sustainable agricultural practices which can solve the issues like water scarcity, soil degradation, energy inefficiency, etc.

But there are many challenges related to this such as climate change and energy insecurity. Indian farmers growing crops in their conventional ways will not be able to cope with these emerging challenges. Energy is needed for every activity related to agriculture and irrigation is one of the most energy consuming areas. Thus, to be energy secure and sustainable in the agriculture sector, developing countries like India have to look for alternative means of energy. Agricultural policies should promote private sector investment so that the costs are minimized and efficiency could be maximized. There should also be a great focus on crop diversification which can act as an insurance mechanism in case of crop failures. These can be some of the ways in which the crises can be converted into great opportunities.

Rakesh Bharti Mittal gave suggestions that include the entry of private sector at various stages like procurement, storage and distribution which can wipe out middle men and costs and inefficiencies related to them. This can bring economies of scale and can add great value to farmers in terms of increased productivity and profit margins.

There is a lot to learn from China. Ashok Gulati said, "China's agricultural sector is almost 3.5 times more effective than that of India." For the past 20 years, India has been witnessing a tremendous growth in terms of GDP but this growth has predominantly been at the cost of the agricultural sector. In India, the reforms focus mainly on the industrial and services sector due to which agricultural sector has been neglected. On the contrary, China gave more emphasis at agricultural sector and hence has been able to reduce its poverty from 30 per cent to 15 per cent since the 1990s.

There are three main points to focus on in order to make agriculture sustainable and the nation food secure. First, the emphasis should be given to food 'Availability'. As 60 percent of the food requirements are met by staples, long term projections should be made (such as 2016 – 2017) and it should be made sure that the projected food demand is met. Also, there is a great need to look at exports of agricultural commodities. At present, about $37 billion worth of agricultural products are exported and only $17 billion worth of them are being imported. This increases the domestic prices for agricultural products and makes them unaffordable for a large section of the society. This point leads to the second important issue that Mr. Gulati highlighted related to agriculture, i.e. 'Affordability' which can be tackled with innovation.

The third point that he mentioned was 'Absorption'. It means that the people at the bottom of the pyramid or the lower strata of the society may have access to food but they don't have the ability to absorb it. A few of many reasons cited by him are - lack of clean water; improper sanitation and hygiene and lack of proper education especially female literacy. The problems are further aggravated by global issues like climate change.

To cope with these challenges, large countries like India and China need to have large buffer stocks which can save these countries from future uncertainties like supply shocks while minimizing the costs and ensuring stable food supply. Also, the agricultural taxation policies in case of India need to be more rationalized. The emphasis should be given on various conflicts arising out of agriculture such as government versus private sector conflict; conflict between producers and consumers; today and tomorrow conflict; me versus my neighbour conflict; quality versus quantity conflict; and food versus fuel conflict. These conflicts arise out of the growing scarcity of resources due to which the access to these resources by various entities and stakeholders is not equitable. For instance, the private sector will only invest in a sector where there are incentives to grow and make profit. It can only be done with preliminary infrastructure in place which is the governments' job to provide.

Similarly, a common land without any entitlement is prone to unnecessary degradation as everyone will try to maximize their output with that limited piece of land which is often described as tragedy of the commons. Co-creation can be a solution to tackle these issues. ITC's E-Choupal is a great example to depict that. It gave emphasis to community leadership and is today a very successful model in marketing agricultural commodities and forecasting weather.

Agricultural sustainability means producing more output from fewer inputs such as water, land, etc. Water is one of the biggest challenges faced by most developing countries, including India, today and the agricultural sector consumes almost 85 percent of the available water. A very important issue is the export of water when we, ourselves, are a water scarce country. By exporting water, we don't mean directly exporting water but exporting agricultural commodities that are very water intensive like rice. A kilogram of rice requires almost 500 litres of water to produce. Thus, countries like India have to think more holistically while designing its policies esp. related to sectors like agriculture.

The agricultural sector is also affected greatly by labour wages. As wages go up, the cost of cultivation goes up. As a result, the price of agricultural products rises leading to inflation and a vicious circle is created. Some of the solutions to this issue could be to connect this sector to the market directly and promoting R&D in this sector. India's demographic dividend can also play a very big role in sustaining India's agriculture. However, Raj Ganguly said, "If we are to take the advantage of our demographic dividend, we will have to focus strongly on skill building and vocational training. Education will be the key in this area." Getting right prices for various inputs will also be an important enabler of growth in this sector. For instance, family labour is not counted in the cost calculations which lead to the lower pricing of the agricultural commodities. As a result, it also depicts a wrong picture about returns in the sector.

The question is how to get the prices of agricultural commodities right. Subsidy in agriculture is very inequitable and benefits mostly the large land owners. 80 per cent of the inputs in agriculture like water, electricity and fertilizers are on subsidies due to which investments by the farmers are only 20 per cent which is again not reflected in market prices. Mr. Gulati argued that

the figures should be the other way around, that is, 20 per cent subsidies and 80 per cent investments.

Thus, in order to sustain agriculture and maintain food security in a developing country like India, we need to look at the entire sector holistically and focusing on the various points mentioned above.

Innovation for a Sustainable Tomorrow

MODERATOR **Seema Arora** Executive Director, CII-ITC Centre of Excellence for Sustainable Development

SPEAKERS **Dennis Pamlin** Entrepreneur and Foudner, 21st Century Frontiers
GS Krishnan Regional President, Novozymes
Anand S Narayan Head, SELCO India Labs
Paparao Kodali Vice President and Had Ingersoll Rand Engineering & Technology Centres

Recent years have seen a growing range of economic, social and environmental challenges. While most sustainability challenges such as income disparity, loss of biodiversity and associated impacts are not new, globalization has directly or indirectly exacerbated many problems to a degree where many of these questions are now dealt with as matters of national security, for example, climate change and food prices.

India poses huge sustainability challenges for businesses. A third of our country's population is still under the poverty line, is amongst the countries most vulnerable to climate change impacts, and also has one of the highest incidences of diseases such as HIV/AIDS, TB and diabetes. The session on Innovation for a Sustainable Tomorrow recognized how the world, and India, is dealing with resources strain and challenges of poverty, healthcare, sanitation, energy, etc.

In the past the issue of sustainability was seen as one that entailed risk elimination, cost reduction and was reactive in nature. Innovation is the buzzword these days. However, while we always need new things we must also go back into history and relearn things. Most of the media coverage in recent times has been about those who are creating problems and not about those who are creating and innovating solutions. According to Dennis Pamlin, we need to consider two things. First, these solution providers also need to be given space. Second, if innovation is to be meaning full there has to be some global reference point. This reference point is the simple fact that there is 1 planet and 9 billion people who will inhabit it. In the west there is what is understood as incremental improvement or what they innovation. There is a need to shift from products to services and understand what it is that we really need. We need to look at innovations in terms of policy. According to Mr Pamlin, thenew generation of entrepreneurs will look at the challenges from a solutions perspective and not only a problems perspective.

The world today is talking about water shortage, water pollution, food for all, energy security, etc. Novozymes, is a world leading biotechnology company and through its innovations is finding sustainable bio solutions to many of the world's problems. One such innovation is efficient enzymes that convert biomass into ethanol. Novozymes has also developed biotech solutions for conservation of water, both in terms of pollution of water and for the conservative use of it, in the textile and detergent industries. G S Krishnan explained how biotech has solutions for grains rotting in godowns too. When applied, these solutions can regain the nutritional value of the grains.

Paparao Kodali pointed out some of the misconceptions and assumptions that are attached to sustainability. These misconceptions are that sustainable solutions translate to low tech and low quality. He highlighted one significant problem that we face in terms of food storage and transportation. What is required is cold chain infrastructure in the country. Ingersoll started work on this based on the concept of 'First mile, last mile'. Refrigerated food containers on low horse power vehicles tend to suffer as whenever the drivers turn off the ignition the refrigerator also goes off. A refrigeration technology needs to be developed that can be mounted on a small vehicle and works irrespective of whether the engine is running or not.

Sanitation is another major problem that the country faces. Sanitation is dependent on the availability of water. Water is scarce and is getting scarcer. One solution is to use a system that combines compressed air with water. By combining these two the problem of sanitation can be addressed to some extent.

SELCO India is a private company that provides solar solutions to households. Till date they have successfully encouraged around 150,000 households to take up solar energy. For SELCO, sustainability is a combination of economic, environmental, and social sustainability, keeping in mind people at the bottom of the pyramid. Economic sustainability is important because unless people pay for they are providing they will not be able to sustain themselves. Environmental conservation and protection is equally important. According to Anand Narayan, the private sector is the only thing that can bring efficiency.

Why is it that we need innovations? The major reasons are that our current business models and policies are failing. There are many broken linkages in areas of sanitation, waste and energy. SELCO Labs works in the areas of water, livelihoods and energy. Mr. Narayan pointed out that

need assessment of what is required in a community is very important. Too often we make the mistake of ascribing needs to people which we later realize are not actually needs. They found that while there is very low willingness to pay for clean water the opposite is true for cable TV and alcohol. Those willing to pay for light are not willing to pay for their children's education.

SELCO, as mentioned, has convinced 150,000 households to use solar power. This has been made possible through rural and corporate banking. Quoting Harish Hande, founder of SELCO, Mr. Narayan said that solar energy is expensive for the rich and affordable for the poor. Today there is no excuse for using kerosene for lighting purposes. There are many things which people are ready to pay for and should be made to pay for.

There are however several barriers to innovation that Mr. Narayan pointed out. First is in terms of human resources. It is difficult to find Indian who have the requisite skills and are also willing to come and work in such areas. Therefore SELCO has to resort to hiring people from institutions like MIT and Cambridge. Another problem is the ecosystem that is unable to translate ideas into actual outcomes. It is imperative to create linkages between government, society and private sector.

Sustainable and Inclusive Innovation

MODERATOR **Sachin Joshi,** Director, CII-ITC Centre of Excellence for Sustainable Development

SPEAKERS **Manfred Haebig,** Programme Director – Private Sector Development, GIZ
Saloni Malhotra, Founder, DesiCrew
Niraj Subrat, India Country Director, Waste Ventures
Sashi Priya, Faculty, LAICO, Aravind Eye Care Systems

The current global economic growth is fraught with the twin challenges of resource use constraint and a widening economic gap between communities. This scenario calls for innovations which are not just technological or market breakthroughs but carry the potential to make a positive impact on society. The session on Sustainable and Inclusive Innovation, also known as SI2, brought together people who have made significant efforts towards creating exactly such innovations. The session was based on the SI2 project that the Centre is currently working on in partnership with GIZ. Having selected ten social ventures in India and Africa, the Centre is writing case studies which will be compiled in a report by the end of 2012.

Manfred Heabig observed how in the last 10-20 years there has been a dysfunctional pattern of industrialization in India. 15 million people enter the labour market every year and we need to follow a strong industrial development path that will lead to more jobs. According to Mr. Haebig, 'we create jobs for engineers but we don't create enough jobs for simple people.' He added that 'there is something not matching between the basic demographic challenge the country has and the path of industrial development it is pursuing. It is experiencing more or less a jobless growth.' SI2 alone, according to him, cannot tackle this challenge, but is definitely part of the solution. The frontiers that SI2 needs to cross are market penetration and job creation. To cross the frontier, he argued that we need a business and investment climate and an ecosystem that enables massive up-scaling. The market needs to work for SI2.

Saloni Malhotra, and the rural BPO - DesiCrew Solutions – she set up in 2005, is creating what Mr. Haebig called – jobs for simple people. DesiCrew hires the local educated people in the areas where their centre's operate. The idea of a rural BPO came about when Ms. Malhotra identified the main problems that an urban BPO was facing. These BPO's were situated in cities like Delhi, Bombay and Bangalore and were recruiting people from villages and rural areas and would live in the suburbs. The commute to work for these employees was at least 1-1.5 hours one way. After 4-5 months of working they would realize that they were not making enough to sustain themselves. Employees would leave jobs even if they liked it if they were getting Rs 1000 more in some other place. Due to these reasons the attrition rate in urban BPOs is very high. This results in a situation where companies are unwilling to invest in the training of employees as they are unsure of how long they will stay and in turn employees argue that why should they stay if the company is unwilling to invest. This according to Ms. Malhotra is a vicious cycle that needs to be broken.

To address this issue she set up a rural BPO. The challenge however, was how to marry the concept of rural with the concept of BPO. Ms Malhotra asked the audience what were the first thing that came to their mind when they heard rural. 'Poor', 'educational background', and 'not smart' were some of the responses. Similarly when asked what they thought when they heard BPO – 'night shift', 'good communication', and 'good infrastructure'.

Knowing all these conceptions and challenges she would have to face, Ms Malhotra set up her first BPO centre in Tamil Nadu. She went the extra mile to ensure that she would never have to tell a customer that their work is stalled because there is no internet or there is no power. In terms of infrastructure and in terms of the service they offer DesiCrew made sure it was at par with any urban BPO.

Aravind Eye Care is a good example of converting a challenge into an opportunity. The Aravind Eye Hospital was founded in 1976 by Dr. G Venkataswamy popularly known as Dr. V. The main

challenges that he faced when he set out on this venture were lack of money and lack of human resources. He had a passion to serve the communities and people in villages and remote areas and provide them with good eye care. How to go about doing that was the big question. The other fundamental questions before him were: How to ensure that the quality of the service was good? How to make it affordable for the people? Given a bad experience he had had, he did not want to go the usual route of raising funds. Initially he got help from his friends but for the most part the capital came from donations.

To reach out to the community he came up with an innovative plan where he set up rural eye camps. Now they hold eye camps every year thanks to the community participation. The cataract surgeries were earlier performed for around $100-$150 dollars as they could not do it for free. They set up a manufacturing facility that produced the lens required for the surgery which brought the cost of the surgery down to $2 as they no longer had to import the lens. Dr V was certain that the eye care needs to be affordable he came up with a pricing model where those who can afford to pay the cost pay, those who can only pay a little pay as much as they can, and those who cannot afford it at all can get the treatment for free and those who can pay more than the original cost are free to do that too. He ensured that all segments of the population had eye care available.

For India, which is home to 1/3 of the world's population with eye problems, this is a remarkable service and Aravind Eye Care hopes to transfer their knowledge to other eye care programmes and providers in the country. They work with 280 eye hospitals in India and other developing countries. Due to such an intervention there are nearly half a million eye surgeries performed every year. LAICO (Lions Aravind Institute of Community Ophthalmology) provides training to eye care providers in many developing countries. Ms Sashi Priya pointed out that LAICO alone cannot cater to all the countries and they hope to develop similar organizations who could emulate them in parts of the world like Africa, Latin America and the Middle East, so more and more people will have access to affordable healthcare.

The session proceeded to explore the issue of waste management in urban areas with Niraj Subrat discussing the service started by Waste Ventures. There are still many intricacies related to waste management that they are trying to understand. While there are many private companies, government and non government bodies that deal with the issue of waste management, Waste Ventures works with the waste pickers to deal with the issue. Their entire operation is market based dependant on household fees and they are not paid by the government. This is the difference that drives their whole business.

In most urban areas it is the municipality that is responsible for garbage collection and disposal in residential areas. Most often the waste that is collected ends up being dumped. According to Mr. Subrat, 'there is no complete end-to-end solution being provided.' What Waste Ventures does is that it collects the garbage from the household (which is how they earn their revenue), recycle what they can or alternatively give it to other recyclers. The organization is currently working on getting carbon credits.

Waste Ventures employs local waste pickers. These waste pickers are not the sweepers we see on the roads that are employed by the municipality and are handsomely paid. The local waste pickers are continuously harassed by the police and the municipality as waste is considered municipality property. The organization recruits them and provides them with permanent jobs.

For every 1000 households that Waste Ventures caters to, they employ 7-7.5 people for door-to-door collection. Waste Ventures is highly environmentally sustainable as it provides an end-to-end service right from picking to processing. They only dump around 30 per cent of the garbage that they collect from households. However, this venture is not without its challenges. To begin with many households are not always receptive initially when it came to paying for this service. The government also proved to be a hindrance as they try and monopolize this sector. There is, according to Mr Subrat, an attitude of – I won't clean it, I won't let you clean it. He argues that this sector needs to be opened up and the restrictions removed which will ensure that people get better service. Another challenge is dealing with the mafia.

In the future Waste Ventures is looking to serve B and C type towns and townships. By 2013 they expect to be serving 20 towns and 60 in the year after. While they don't yet have the capacity to treat e-waste it is on their agenda. These three organizations are leaders in innovating solutions that address the challenges of poverty, employment and healthcare that our country faces.

Biotechnology for Sustainability

MODERATOR **Steffen Danielsen,** R&D Head, Novozymes South Asia

SPEAKERS **Shyam Ramakrishnan,** Chief Scientist – Bio Sciences, ITC R&D Centre, Bangalore, ITC Ltd
Divakar Rao Member, Karnataka State Biofuel Development Board
Rakesh K Trivedi Director, STEP-HBTI, Harcourt Butler Technological Institute

A growing population is putting increasing pressure on the worlds natural resources, and innovation is required if we are to continue to meet even the basic needs of a global population

of 9 billion people. On the route to these solutions Biotechnology offers some unique answers to the challenge of sustainable growth.

Biotechnology solutions like enzyme engineering offer practical and viable avenues for use in industrial operations, processing and reducing waste materials, food security and green energy. Biotech interventions can tackle a varied spectrum of problems ranging from public health to pollution. For example, in the sphere of public health, the fight against malaria and chronology of one of the most important drugs in the fight against the disease – Artemisinin. The drug first discovered by Chinese scientist was put to shelf due to its significantly high cost of use [$100 per day]. The breakthrough in the mass production of the drug came about when pathways used by plants to make the drug was discovered and synthetically engineered. Another example of the possible uses of the biotech is in the case of Bio luminescent bacteria to detect pollution, engineering algae to detect arsenic in water and engineering bacteria to produce biodiesel from biomass 100 times more efficiently than presently possible.

Biotechnology is a great tool for manipulating living systems. Biotechnology is not however a modern invention, in its earlier avatar it was as simple as the processes of making wine. Modern biotechnology however, took roots in the discovery of the double helix structure, and then by decoding of human genome. In this regard understanding genome has been a key element of synthesizing biological processes.

On the topic of energy and biofuels, Divakar Rao elaborated that there is no silver bullet to solve the entire energy problem and it's imperative that all available sources like bio energy, wind, solar be used in combination. Here emphasis needs to given to providing energy access to rural areas, where biogas has a great potential in becoming an important source of localized power generation. On the horizon are a number of breakthrough solutions like 3rd generation bio fuels where algae are used to produce bio fuels. In this regard one of the significant challenges towards algae based bio fuels lie in finding a suitable microorganism which can with stand varied environments and a variety of substrates.

Biotechnological processes can also be used in industrial processes to enhance energy efficiency and decrease waste output. Much of the progress in this field can be attributed to the research & development and the subsequent supply of key enzymes by companies like Novozymes. In terms of daily use, biotechnology has numerous applications like home care products, in India for example enzyme technology has led to significant reductions of surfactants in the production of detergents.

Seeing the potential inherent in biotechnology there is a unanimous agreement on the need for more regulatory push and support for introducing biotech enhanced technologies one that is not focused on specific species of organisms but rather a multi-species approach. Underpinning such frameworks needs to be an accurate understanding of inaction in terms of environmental costs and loss of biodiversity. The coming generation of revolutionary biotech holds great potential to fundamentally change industrial processes and the functioning of modern society.

Sustainable Supply Chain: Transforming Markets

MODERATOR **Bhavna Prasad,** Director – Sustainable Business, WWF – India

SPEAKERS **Ishteyaque Amjad,** Director – Corporate Affairs, Cargill
H D Kulkarni, Vice President (Plantation) – Paperboards & Speciality Paper Division, ITC Ltd
Suneel Pandey, Vice President – BILT and Damandeep Singh, Carbon Disclosure Project, India
Damandeep Singh, Director, Carbon Disclosure Project

More and more companies are extending their commitment to responsible business practices to their value chains, from subsidiaries to suppliers. They do so not only because of the inherent social and environmental risks and the governance challenges the supply chain poses, but also because of the many rewards supply chain sustainability can deliver.

The major point of discussion regarding supply chain sustainability includes the availability of natural resources and the business cases related to that. Another important aspect to look at is the impact of these businesses and their operations on the environment and how it can be minimized. The way population has been growing and the way it has been consuming natural resources, we are going to require about 1.5 earths to meet everyone's consumption demand. One of the ways businesses can help is by becoming more sensitive to environmental degradation. Since procurement is one of the critical areas where businesses end up impacting environment and natural resources, they can go for making their supply chains more sustainable. One of the ways of doing this could be by procuring materials that have least impacted the environment and natural resources while sourcing and manufacturing.

Cargill is essentially a supply chain company dealing in a plethora of products ranging from grain and oilseeds to sugar, cotton and metals. According to Ishteyaque Amjad, "In order to survive in long run, the companies have to be sustainable at all points such as production, supply chain and consumption." Since supply chains have become very long these days, each stakeholder (consumer, producer and the supplier) has to be responsible. Sustainability is not a niche market where all sustainable products are sold at a premium price. Sustainability should be a norm

where producers and suppliers not operating in a sustainable manner are thrown out of the market. Just like financial commitments, companies should make commitments about the sustainability status of their products and services. Mr. Amjad illustrated with an example from his own company that all the palm oil that it procures would be RSPO (Roundtable on Sustainable Palm Oil) certified by 2020.

H D Kulkarni gave the example of the pulp, paper and other wood based industries. He emphasised that today, wood based industries cannot operate the way they used to be in past. The forests worldwide are depleting at a very fast pace and hence, wood based industries have to look for sustainable timber production in order to survive. At present, about 70 percent of timber demand in India is met by imports. ITC has been engaged in sustainable forestry since 1990s but recently got certified by FSC.

Forest Stewardship Council (FSC) Certification is a voluntary, market-based tool that supports responsible forest management worldwide. FSC certified forest products are verified from the forest of origin through the supply chain. The FSC label ensures that the forest products used are from responsibly harvested and verified sources. By becoming FSC certified, ITC PSPD displays commitment to sustainable growth, concern for the environment and good management practices.

ITC has pioneered a farm and social plantation programme supported where they have developed high yielding, site-specific, disease-resistant clones of various tree varieties like eucalyptus, subabul and casuarinas. These are distributed to farmers and are supported by a comprehensive package of plantation and management practices. Through this programme, they have greened more than 100,000 hectares of land till 2009. When sourcing pulp from third-party sources, ITC gives additional weightage to pulps which use wood from known and licensed areas; which are credibly certified to FSC/similar labels, or from sources actively pursuing credible certification.

For BILT, sustainability is defined as the long term survival of the business. In order to accomplish this objective and to cater to growing demand from various stakeholders, BILT has got its entire supply chain of wood certified with FSC. It is quite similar to what ITC has done. The company procures wood only from plantations that are not grown on forest land so that it doesn't harm any conserved area. BILT also doesn't buy any genetically modified species of wood. All these measures have generated a lot of efficiency within the company and have also made it easy to track down its supply chain. BILT will follow a similar mechanism in its recently acquired, Sabah Forest Industries, in Malaysia.

Business resilience is the most important factor to recognise in today's uncertain world. This was not always the case. Businesses must act towards meeting the growing demands and expectations of various stakeholders otherwise slowly and gradually, they would be thrown out of the market. According to Damandeep Singh the emphasis should be given at driving actions. CDP is the largest repository of carbon disclosures in the world and recently forest disclosures have also got merged with CDP. The company has voluntarily come up with these assessments and it has been realised that nearly 20 per cent of the global GHG emissions are from forestry industry such as wood, pulp and paper.

One of the most effective ways to drive sustainability and innovation in these kinds of industries is the disclosures and more effective management of supply chains. As mentioned above, disclosures would become more and more prominent with increased pressure from investors and other stakeholders which will drive company to resort to more sustainable supply chain alternatives. One question to consider is the cost effectiveness of green procurement. As generally conceived, it is very expensive.

According to Suneel Pandey, "It will obvioussly be expensive as industries have to spend additional resources to make a particular product more sustainable and green." However, as more and more people demand such products, industries would invest more in them and hence, would be able to bring economies of scale which would definitely drive the prices down.

Mr. Amjad argued that in order to be sustainable, we will have to shake up the government as is evident from the Indonesian Palm Oil example. The government cannot afford to overlook the issue due to the growing pressure from the stakeholders.

TEEB for Business

MODERATOR **Aditi Haldar,** Director, Global Reporting Initiative Focal Point India

SPEAKERS **Eric Solheim,** Former Minister for Environement & Development, Norway
Pavan Sukhdev, Founder & CEO, GIST Advisory
Bhaskar Charterjee, Director General & CEO, Indian Institute of Corporate Affairs
PS Narayan, Vice President & Head – Sustainability, WIPRO Ltd

Green growth, i.e. growth which seeks to better sustain economic activity by minimizing its impact on natural resources, is certainly the definitive challenge of the present century. One of

the key challenges towards scaling up frameworks for green growth is the prevailing understanding of profits and costs in business as the costs due to impacts on environment and society are largely ignored. It is in this context that the session on The Economics of Ecosystem and Bio Diversity or TEEB was based. Although the traditional model of economics does not take this into consideration, the natural ecosystem and its biodiversity are significant contributors of services or 'value' to human communities – both urban and rural.

These services that natural systems provide are diverse, encompassing water and air purification, flood protection, pollination of crops, etc. For industries and businesses too, these natural systems supply essential raw-materials, for which with little or no substitutes are available. The process of quantifying the cost of the environmental damage was initiated when lord stern published the book
on the economics of climate change. The current challenge is to capture the information regarding the services provided by nature. TEEB was formed with the intent to measure the extent to which nature contributes to economy, the extent to which we are using nature and affecting its ability to support the same. TEEB also challenges the concept of one sided measurement of profit.

While the average human being is living in substantial affluence, enjoying more peace and security and longer lives than ever, the number of people living in poverty is also more than ever. In this context the profit of destroying nature is normally privatized while costs are normally externalized. While it may not be easy to calculate the cost of services provided by nature it shouldn't mean that efforts to do so never start. There is also an urgent need to understand that measures to protect the environment do not necessarily translate to low economic growth. The destruction of rain forests is one good instance in this regard, a case in point being Brazil – where the deforestation rate in the region has been brought down by more than 70 per cent while at the same time the investment climate in the country has improved significantly adding substantially to the economic prosperity of the region.

The phrase "Private profits but Social Costs" captures the concept of TEEB very well - Pavan Sukhdev, one of the pioneers of the TEEB movement further elaborated on the concept of TEEB and its relevance to transformational growth by analyzing the prevailing perspectives to **Profit and Loss**. At the present everything that is manufactured is sold cheaper than the cost of its inputs, inputs here refer to not only raw material but in fact the costs of externalities or costs of damage to environment and social systems.

The shrimp farms in Thailand illustrate the case for including the costs of environment and ecosystems into formulating business models and taking. At present one hectare of shrimp farming leads to a revenue stream of about $9,000 per year in contrast however if the land were left to remain a mangrove forest the earnings seem to significantly less i.e around $584. On analyzing the profit dynamics more closely one finds that $9,000 around $8,000 came from government subsidies. There are also hidden costs such as those emerging from chemical deposition in the shrimp farm and the value of mangroves as a protection against storms. The conclusion thus reached revealed the profits and value emerging from mangrove forests were many fold more than those from shrimp farming and while the former presented a sustained contribution to livelihood the later was extremely short term. This difference in profits emerges solely due to the lens of externalities. Similar also is the case for the construction sector in China

where if externalities were taken into consideration the costs of timber would be at least 3 times higher than the current price.

At the present the first step which needs to be taken is measurement i.e developing systems and dedicating resources to measure the cost of externalities in the value chain of the product. In this context it is important to understand that a company is not only a financial factory but rather a capital factory which both uses and influences capital like human resources and the environment. Moreover leaders in terms of organisaitons need to emerge which can blaze a trail in the space of ecosystem valuation. In this regard PUMA became the first organization globally to assess and report its impact on the ecosystem, amongst the many facts the assessment revealed that 54% of its footprint comes not from factory operations but from tier 4 inputs. It is also important to understand the business value which can be derived from understanding the costs of externalities and not seeing the process as an added financial strain on the enterprise. Although a number of corporates are taking up the issue voluntarily, however for the framework to be mainstreamed in the corporate world – a definitive push from the government is required. In this space the role of the accounting community is of great significance as the company accountants can substantially influence strategy direction of the organization.

WIPRO is considered to be amongst the forerunners of sustainability in India. According to P S Narayan it is important to develop a road map or a sustainability vision based on ecosystem valuations and extending the triple bottom line approach towards the same. WIPRO has made significant efforts in measuring externalities like GHG, water, natural resources, etc and the footprints of its products. The organization has also included biodiversity in its “Charter on Sustainability” and is actively integrating bio diversity into its campuses throughout the country – developing Biodiversity hot spots. The key towards measuring externalities lies in a company integrating stewardship in its vision.

The need of the hour is not just to build solutions towards sustainable development it is more importantly to change how indices like growth and GDP are measured. The concept of TEEB therefore will be vital in ushering an economic system which values the contributions of ecological and social systems to the economy and towards re-orienting growth patterns from a consumer centric culture to one which is centered on human development.

Day 2: 16 October, 2012

Value Creation with Good Corporate Governance

SPEAKERS **Veerappa Moily,** Union Minister for Corporate Affairs and Power, Government of India
YC Deveshwar, Past President, CII, Chairman, CII-ITC Centre of Excellence for Sustainable Development and Chairman, ITC
Bhaskar Chatterjee, Director General and CEO, Indian Institute of Corporate Affairs

Companies and the financial market are at the centre stage, and success will depend on their ability to place society, environment and the economy at the core of corporate strategies. It is a pivotal moment with enormous opportunity and challenge – a moment that demands excellence in corporate leadership, vision and innovation. Business success requires placing sustainability at the epicentre of business models. The entire integration, planning and vision rest on the governance of the company. However, corporate scandals and the current economic crisis have heightened demands for new approaches to governance. In the wake of these shareholders, consumers, employees, civil society leaders and policy makers are all demanding greater accountability and transparency. Considering this and also taking into account a company's perspective of delivering long-term value creation to its stakeholders companies need to integrate sustainability in corporate governance.

Our society today is threatened by growing inequity that is compounded with environmental degradation and global warming. The manner in which we define value is responsible for this situation. The social inequity is reflected in the growing unrest the world is witnessing. It is difficult to calculate and quantify social and environmental capital. The main problem today is the way value has been traditionally defined, and is limited to the interests of only the consumers and shareholders. The resulting social inequity and the environmental cost from the pursuit of capital creation have led to the current global state of affairs. The top 10 per cent of the global population own 85 per cent of the total household assets whereas the bottom 50 per cent owned only 1 per cent. This pointed to the need for incentives for the corporate sector as it is encouraged to unleash its power to create value in multiple dimensions through enhancing social, economic and environmental capitals.

According to Y C Deveshwar, business needs to adopt the triple bottom line approach. One way of ensuring this is through regulation but history tells us that this is not always a successful mechanism. Another possible method is to institute a reward system that would not only recognize the economic achievements of business but also the social and environmental ones. For this to work however, it is vital that society and people recognize and give importance to

companies that, in addition to their products, also create significant social and environmental capital. Till date, auditors have been given the task of measuring the financial aspects of business. In order to integrate the social and environmental aspects in our measuring system we need to create new auditing guidelines.

Mr Deveshwar argued that instead of asking corporate a certain percentage of their revenue in the name of CSR, greater value can be derived from corporate by mobilizing their governance capabilities. Philanthropy and CSR, as Michael Porter and Kramer had argued, done in the context of business can create great shareholder value. ITC for example has done that with their paper business. Forests were depleting and the paper business experienced raw material shock. Land was also in short supply. Local people depended on the forests for their livelihood. While most paper businesses sourced raw materials from abroad, ITC set up an R&D programmes to develop a sustainable forestry mechanism that would convert barren land into tree-growing areas. The collateral benefits of doing this were many – it generated employment (60 million person days); top soil was conserved; ground water was recharged; land utilization improved; greater productivity; and carbon sequestration. Today, ITC is a carbon positive company. By choosing a particular business model a company can create a whole chain of values. Another example from ITC is the E-choupal service for farmers.

Bhaskar Chatterjee argues that value creation and corporate governance are intertwined, and forms a triad when combined with sustainability. For this to develop, value and trust go hand in hand. Merely creating value may not be of use if a company cannot share it with society. There is a trust deficit between the consumers and the companies that can only be eliminated by creating a shared value. There is no arguing that financial sustainability is an important aspect of the larger sustainability question. After all a company needs to exist before it can give to others. Enlightened and good corporate governance can help companies to achieve social and environmental stability. In the short term there is a J curve, that is, you go up before you go down. But the steep upward curve that will follow should be the motivation to endure the short term downward curve. The actual price of any product is far less when compared to the environmental and social damage. It is only when we measure those that we realize the true cost of a product.

"The days are not far off when every corporate body will come out and say sustainable development is good business. Today, corporate governance is a strategic necessity, and research has revealed companies which demonstrate good governance practices are able to secure investments and talent", said Veerappa Moily.

Corporate governance today is a strategic necessity. Research has shown that corporations that demonstrate good governance practices are able to secure investments and talent. There is growing realization today that business is not separable from society, there are deeply and dynamically interdependent. The current Companies Bill is essential for an enlightened corporate governance process and is expected to be introduced in Parliament. The government has also set up the Damodar Committee to remove procedural bottle-necks. The vision is to make India among the top five nations where doing business is the easiest.

There is also the ethical component of corporate governance – ethical values are not seen an imperative by the corporate sector. It is only inclusive economic institutions that can create a sound economic market. Sound economic and democratic institutions enable the citizens and

people to live to their potential and thus lead innovations that contribute to the economy and society. According to Mr. Moily, we must have inclusive institutions which cut across various boundaries and will help create value.

Sustaining the Environment: Protecting the Climate

MODERATOR **P Ram Babu,** Chief Executive Officer, General Carbon Advisory Services

SPEAKERS **Mack Farland,** Global Environment Fellow, DuPont
SH Kapoor, Technical Chief-Climate Control, Tata Motors
J M Bhambure, Executive Vice President (R&D and Technology), Blue Star India Ltd
Akhilesh Gupta, Sceintist G, Department of Science & Technology, Government of India
Dr. Subodh K Sharma, Advisor, Ministry of Environment & Forests

Climate Change is one of the most pressing concerns facing the global community today and has emerged as a challenge demanding unified action by countries, institutions and businesses world over, cutting across the commonly understood boundaries of geography, economy and culture. Climate change in spite of its urgency has become closely associated with the politics of responsibility and P Ram Babu asserted that the challenge of climate change is a task for business corporations of the world rather than governments. There is a unique opportunity that is available with the developing nations to take leadership for a low carbon economy and not the responsibility for the problem.

The role of business and governments is crucial and there are certain issues which have emerged as key aspects for addressing climate change (a) Commercial deployment of clean technologies and (b) Building national institutional frameworks for climate change assessment. There are several challenges related to low carbon technologies which can be illustrated by the current phasing out of phasing out of CFCs and HCFs. The 2013 freeze and 10 percent reduction

in 2015 of the accelerated phase out schedule for HCFCs presents significant challenges, especially in emerging economies like India where there is high growth in the use of these chemicals in refrigeration, air-conditioning, foam blowing and other fields to meet the needs of the fast growing consumer goods industry.

HCFs which will replace CFCs have global warming potentials thousands of time more than CO2. There are, currently, R&D efforts to evolve fluids which can meet guidelines for both low GHG impact and low ozone impact. Increasing number of countries are already putting in place regulations which will require refrigerants to meet requirements detailed above, this stands to especially impact the exports of a number of Indian companies, vying to establish themselves in international markets.

Further adding to the risk and opportunity paradigm represented by the difficulties of introducing low GHG technologies like in the case of HCFCs with low global warming potential, SH Kapoor mentioned how Tata Motors is approaching the situation as an opportunity and has preemptively developed technologies which will meet such requirements. The company has also developed new cooling systems which run without a refrigerant and has initiated a voluntary labeling of the energy efficiency levels of its vehicles. While the impact on environment and climate change is a long term phenomenon the pressures on businesses are short term and very dynamic. There are certain pitfalls of developing climate friendly solutions. In terms of using low GWP gases as refrigerants, alternatives which are readily available have issues like toxicity and flammability associated with them while HCFCs on the other hand have very high GWPs. The need of the hour is a policy push towards increasing energy efficiency of products while on the other hand introducing new systems which are low energy. With the introduction of energy efficiency standards the efficiency of products has increased by 25% in the last two years. Also on the anvil are systems which rely on nature for lighting and cooling such architecture needs to given importance and offers pertinent solutions to the task of climate change mitigation.

In discussion with the audience on the topic of efforts which can be taken by the private sector both J M Bhambure and S H Kapoor emphasized the need for infrastructure in scaling up renewable energy solutions in the areas of cold chains and hybrid vehicles. When we talk about building national frameworks Akhilesh Gupta stressed the importance of decoupling the anthropogenic changes on the road to a balanced and sustainable growth of India needed to elevate the human development index of the country. This approach is also the fundamental aspect of NAPCC and is based on the fact that India can choose its developmental path.

In this regard under the Mission for strategic knowledge the government of India is in the process of establishing the global technology watch groups, a framework that will enable the emergence and nurturing of clean technologies and a better understanding of the technology spectrum. In this space the Department of Science & Technology in order to enable research efforts across the country to become widely available and accessible is also formulating a national data sharing framework.

Addressing climate change requires a coordinated effort globally as well as nationally. Dr. Subodh K Sharma described the efforts by GoI in setting up frameworks for understanding the problem of GHG emissions and climate change impacts. He emphasized particularly on the Environment ministry's efforts in aggregating country wide GHG emissions. The official framework for estimating national inventories for India is in place since the 90s, further after the

release of India's inventory estimates till 2007, India became the first developing country to provide such updated GHG data. Now as India prepares to submit its inventories biennially the challenge now will be to sustain the inventory creation process in form of creating institutions, develop country specific emissions factors and understand avenues for reducing emissions.

The session giving important stakeholders a definitive overview on how the Indian industry and the government of India are striving together to develop a low carbon economy was an important milestone towards building awareness and promoting collaboration in the space of climate change mitigation.

Stakeholder Engagement

MODERATOR **Shikhar Jain,** Senior Counsellor, CII-ITC Centre of Excellence for Sustainable Development

SPEAKERS **Y K Saxena,** Chief Sustainability Officer, The Tata Power Co Ltd
Niyati Sareen, General Manager – CSR, Hindustan Construction Company Ltd
Shagufta Kamran, Executive Officer, CII-ITC Centre of Excellence for Sustainable Development

The corporate sector today is increasingly called upon to take significant responsibility for providing solutions to some of the world's greatest challenges – from climate change, to community impacts of business operations, and the health of employees. With this increased talk on corporate environmental and social responsibility signaling a new perspective on the interaction between business and society, progressive business are moving beyond reacting to core financial issues. They are more aware of the complexity as well as the dynamics of the interplay between environmental, social and economic issues. It is widely acknowledged that one company/sector alone cannot take the onus of generating solutions and that there is a greater need to call upon more and more stakeholders for developing sustainable solutions. As a result, today businesses across the world acknowledge and appreciate stakeholder engagement

as a vital method that would enable the development of an understanding of sustainable business and the way in which it can lead to enhanced commercials as well as reputational viability.

The term 'stakeholder' is increasingly becoming a buzzword. This is because companies are realising that one of the most important components of sustainability is to engage with the stakeholder. We are witnessing a shift from shareholder value to stake holder value. While shareholder value implies the financial aspect the stakeholder value implies the right of the concerned stakeholders to be heard. Stakeholders can range from suppliers to customers and encompasses the entire value chain.

Stakeholder engagement is about building trust. The origins of Stakeholder Engagement can be traced back to the public hearings that companies would hold in the areas where they had operations. In its early days public hearings used to be a more informal meeting of the concerned people in the ommunity and often at short notice. Today the nature of this engagement has changed. Y K Saxena gave the example of Tata, who met with some difficulties when acquiring land in Kutch. Cattle owners were wary of giving away their land as that is where the cattle grazed for food. Tata set up Gaushalas (animal shelters) that provide the cattle with food. By doing this they effective dealt with and found a solution for their stakeholders.

For companies like Hindustan Construction Company, stakeholder engagement is a bit more complicated. As it is a company that provides a service, that is, building of infrastructure, once a project is over, it moves on. Engaging with stakeholders in this scenario is slightly different. For HCC there are two stakeholders. The first is the customer or the client, in this case, the government. HCC is a signatory to the UN Water Mandate. Niyati Sareen gave an example of how HCC and its stakeholder, that is, the Government of India interacted with respect to water.

The Government is building large strategic caverns in different parts of the country to store fuel in case we experience any shortage in the event of a third World War. These caverns will be locked and in case there is ever a war India will be not dependant on other countries for fuel. One such cavern was being built by HCC near Vishakapatnam. As the cavern was underground there was some amount of seepage that was taking place. HCC was paying a lot of money every day to procure water for construction. HCC suggested that they should recycle the seepage water and use that instead. It took them 6 months to convince the Government that this was a feasible alternative and that the quality of water will be good. HCC would not be paid for this and would do it at its own cost. When the government finally agreed HCC implemented the method. The equipment for it cost 30 lakhs. Within a month they had recovered the cost and were saving money by not having to buy water for construction. Now this process is insisted upon by the Government at the other locations at which the caverns are being built.

The other stakeholder that HCC engages with is the supply chain or the workers on the construction site. Ms. Sareen describes the chain of events when a construction project begins. Any construction site has around 5000-10,000 workers. Within a week of construction a paan-beedi shop would open. In fifteen days it becomes a tea shop and in three weeks a brothel. HIV/AIDS becomes a potential problem. One of the initiatives that HCC undertook was to raise awareness amongst the workers about this. The impact studies indicated that making one worker aware would means 7 people were protected. According to Ms. Sareen, stakeholder engagement has to be such that it has maximum impact. Very often, they face opposition or

resistance from the community which is averse to openly discussing issues like HIV. This is a major challenge that has to be overcome. The community has to be explained that it is for their benefit and their protection.

Ms. Sareen argued that stakeholder engagement has to be a two-way engagement – hear what they have to say and plan your strategy accordingly.

Shagufta Kamran gave the example of a leading IT company which in early 2006 was subject to the accusations of a leading environmental activist. The activist collected all the e-waste generated by the company and dumped it outside their office claiming it was the company's responsibility to clean up the mess and not society's. Today this company is a leader in e-waste management and is actively ensuring it. Another example is of two companies one of which had a major issue with acquiring land and was eventually ousted due to community unrest. Another company on the other hand was successful in acquiring land in the same location as they were able to provide a stakeholder engagement package that was acceptable by the community. Many global companies have been pulled for their operations particularly in their supply chain in areas such as working conditions and adherence to minimum wage.

What needs to be understood is that if companies don't follow stakeholder engagement in a systematic manner it will result in damage. To this end, the Centre has developed a manual of guidelines for stakeholder engagement that companies can follow to ensure that they do not do more damage than good.

Sustainability Rating

MODERATOR **Seema Arora**, Executive Director, CII-ITC Centre of Excellence for Sustainable Development

SPEAKERS **Vipul Arora,** Managing Director and Co-Founder, Solaron Sustainability Services
Rohtas Handa, Managing Director, FTSE India
P. S. Narayan, Vice President and Head, Sustainability, Wipro Ltd

Environment, Social and Corporate Governance (ESG) rating or 'Sustainability Rating' is a sustainability based practice for investment analysis and corporate decision making. Various corporate governance and environmental issues leading to erosion of shareholder values, along with other concerns, have increased value of management of ESG issues for long-term business sustainability.

The Confederation of Indian Industry (CII) and an independent ESG rating firm, Solaron, in a first of its kind partnership, have made award winning ESG ratings available in India. This partnership allows Indian companies to access their ESG rating reports to gauge their Sustainability/ ESG performance as per globally accepted benchmarks. The context of the session was set by raising a few questions about what exactly is ESG rating, how is it important, what will it mean to the entire industry, what is the future of such a rating and what value do the industry see in this kind of rating.

Seema Arora said, "We clearly see emerging trends that there is a great need to look at investors, consumers and regulators' viewpoints." Unless the businesses understand their performances, they will not be able to cope up with the risks attached to them. And they will not be able to take their performances many steps forward.

ESG rating is a rating to assess good stock and bad stock just like financial ratings. It looks at parameters like environmental, social and corporate performance of the company. Environment includes carbon procurement, materials used, recycling policies, etc; Social includes employees, suppliers, customers, etc.; and governance which, if assured, guarantees the success of every framework. According to Vipul Arora, "If a company is doing well on these parameters, you can be sure that it will catch up very soon in future." For instance, if a company takes good care of its employees then it is sure that it will get more profits and market value in that sense.

Recently, United Nations Principles for Responsible Investment (UNPRI) has been set up. It is not like a usual UN entity but an initiative taken by several investors worldwide to integrate ESG

issues into the investment decision making. There are six underlying principles that essentially speak of the ESG framework. Over 1000 companies representing over US$ 32 trillion (one-sixth of the global capital) have signed up the principles. FTSE is one of the companies having an ESG rating. There is a vast potential in India for this kind of rating framework because we see a plethora of challenges of non-inclusive growth like labour issues, human right, etc. These challenges are not recognised in the financial reports but are very important with respect to the long term sustainability of the company. Middle-east has exploded with this kind of one dimensional growth path and India has a lot to learn from that.

There is a need to grow awareness and demand from investors for the frameworks like ESG. Today, global investors want to know about the potential risks in a company which can affect their decisions to invest in the company or future growth of the company. Companies are going to face big challenges in future if they only go for financial assessments with regards to investment decisions. DuPont and ITC are companies that have managed to look outside just financials and have incorporated various aspects of ESG framework to make their operations more effective and sustainable.

There should also be a process of continuous improvement. The risk assessment in terms of supply chain and employee related activities should be a very important part of the operations of any business. It helps companies to keep on track and also ensures the long term sustainability of the company. According to P S Narayan, “Good governance is equivalent to good leadership.” Disclosure plays a very important role in ensuring the long run sustainability of a corporate entity. If a company discloses, it has to assess its performance and risks attached to its activities. This will lead the company to identify various hidden aspects that can reduce these risks drastically and can enhance their performance manifolds.

For example, in China, there are risks associated with the employee’s human rights which can be a very big issue in future. Similarly, if companies start assessing their impact on biodiversity, there is a high possibility that they will take adequate measures in that direction to minimize their impacts. Thus, once companies start to disclose, it becomes very difficult for companies to stop just there. The ESG framework can be looked at like a long term business continuity plan. It is just like thinking of mega trends. How does the ESG framework work? Is it like the compounded factor for investors while assessing a particular project or is it something over and above the financial aspects which we usually look for? According to Vipul Arora “Investors are increasingly getting sensitized to the risks related to other factors than just financials. We certainly see increasing trends towards this. There is a process in ESG where we go and interview communities in order to measure the actual impact of companies on them. Thus, we do take care of all the stakeholders involved in the project or process.”

A pilot has already been run on top 100 companies in India (Wipro is one of them). The Centre will launch a sustainability label which would be a kind of measure for the consumers and not for the producers. This label will act as an additional incentive for companies as well as investors to go for their ESG assessments. It will help investors to demarcate between good and bad companies. It can also be an additional factor to impact their investment decisions and sometimes can even be the deciding factor.

Does this kind of rating lead to handing the company’s control to investors? Mr. Arora gave the example of the Fortune 500 companies. Companies are very fast phasing out and investors are

trying to make sure that companies last for long time as it is in their interest. However, it is still an open debate. ESG is about a sound strategy and long term horizon. It also depends on the awareness among various stakeholders and media plays a very important role in that. One factor to take into consideration with ESG is whether or not government endorsement of this rating is required. “We don’t intend that government enforce such a framework, it is just for the companies to see what they can do and benefit out of this kind of framework”, said Ms. Arora.

ESG is an iterative process and is based on key performance indicators which can be different for different companies in different parts of the world. The difference between other ratings such as S&P ESG index and the CII-Solaron proposes one is that in case of the latter products are based on certain goals which are different for different indexes in different parts of the world. Here, the goals are multi-dimensional. Thus, ESG can be the game changer in today’s scenario as it can bring out many significant facts that investors are not able to see in a financial statement. It will also lead to more transparency and an optimised structure where both, society and businesses gain.

Public Procurement & Transformative Solutions

MODERATOR **Dennis Pamlin,** Entrepreneur & Founder, 21st Century Frontiers

SPEAKERS **Jeanette Hemmingsson**, Project Leader Transformative Procurement National Procurement Services, Sweden
Siva Periasamy, Vice President & Chief Procurement Officer, Wipro Ltd
Suryanath Gudidevuni, AVP & Head - Healthcare Services at Apollo Tele Health Services
Suchendra Misra Director (PPD), Ministry of Fiannce, Government of India
Sachin Joshi, Director, CII-ITC Centre of Excellence for Sustainable Development

Transformative solutions are defined as solutions that contribute to at least 80% reduction of natural resources and/or GHG reductions in relation to how a function/ service is provided in today's society. Although the west may be viewed as having achieved sustainable development to great extent in reality the problem has only been shifted to the emerging economies by virtue of off-shoring manufacturing and raw materials inputs.

Public procurement has the potential to driving green solutions, products and technologies, and the estimated combined current procurement power of the United Kingdom, India and China is 5,000 billion Euros. Public procurement thus is one of the most significant tools available in driving sustainable development.

Jeanette Hemmingsson shared her experience in deploying frameworks for green procurement practices in Sweden. One of the key points in taking the concept forward in public departments is the common understanding that environment friendly products are more expensive and often times the life cycle cost is not considered by the purchasers.

The need for fast tracking transformative solutions is only increasing. We are witnessing a rapid depletion of natural resources on account of increasing urbanization contributing to two thirds of the energy and 70 per cent of the GHG emissions of the world. Green procurement isn't a tool available only to the governments; large corporations and businesses also occupy an important role in the procurement paradigm.

Apollo Tele Health Services has taken initiatives to address per cent of medicine needs are of a nature which doesn't require people to meet doctors and come to hospitals. The initiative has small clinics in remote places operated by trained professional (not doctors) with instruments which can communicate clinical data to the hospital. This has led to significantly reducing costs and travel associated with medical treatment for patients from remote and rural areas, the initiative also allows for a better quality of treatment due to connectivity with experts from across the country.

For increasing the availability of ICU beds to critical patients the initiative has developed a remote patient monitoring system. Under the system patients who are post operative and can spend less time in the hospital are given devices to monitor vital health parameters and communicate the same in real time to monitoring stations, enabling vital beds to be made available for more critical patients. In order to increase the availability of such frameworks - government support in terms of directing purchasing will is crucial, currently the Gujarat state government has initiated a procurement process for the
tele-medicine services.

In India, the department of expenditure has coordinated and drafted the public procurement bill 2012. The bill addresses concerns for transparency and increased management through a portal (open to public) set to contain data pertaining to all tenders, contracts etc. In addition to this all procurement activities pegged above Rs. 10 lacs will be done electronically. In the space of sustainability the bill includes the important aspects of environmental considerations and life cycle costs of products.

Additionally in terms of measures being taken directly by the government - the central public works dept has decided to go green and directed all construction activities to adopt the GREHA

norms while ministries for both Finance and Power are considering issuing guidelines on procurement of energy efficient appliances.

The sheer scale of public procurement is what makes it an impor tant catalyst for transformative growth. Governments spend almost half of their budget on procurement. A recent estimate by the Planning Commission, Government of India, puts the scale of public procurement between 15 and 20 per cent of GDP or about Rs. 12 to 15 lakh crore per annum.

The Centre under the mandate of the Ministry of Environment & Forests, GoI initiated work on formulating the country's green public procurement policy. According to Sachin Joshi, Director CII-CESD - India is at the stage of developing its (GPP) policy, driven by its national plans on sustainable development and voluntary commitment on climate change. GPP will be important to create aggregate demand for environment-friendly goods and services, trigger private sector demand, improve supply chain processes, and create opportunities to innovate.

Green procurement stands poised to become one of the most vital pillars of an oncoming sustainable revolution and promises to establish a route more far reaching and sustainable than that of subsidies in nurturing green products and services. An important component to how quickly GPP can take routes will depend not only on regulations but most importantly on partnerships between the government and the private sector. The session marked an important beginning towards such a partnership of shared responsibility and a shared vision.

Next Generation Infrastructure

MODERATOR Ajay Mathur Consultant, Planning Commission, Government of India

SPEAKERS **Giles Dickson**, Vice President, Environmental Policies & Global Advocacy, Alstom
Ashish Bhatt, Managing Director, Infrastructure and India Infrastructure Partnership, Xynteo
Arunabha Ghosh, Chief Executive Officer, Council on Energy, Environment & Water
Tapan Kumar Mozumdar, Divisional Manager, Central Projects, ITC Limited

No building, infrastructure, public space or place can be considered genuinely well designed, or sustainable, if it doesn't contribute to the triple bottom line of environmental, social and economic sustainability. Thus, mobilizing resources for infrastructure development remains a considerable challenge for governments, and therefore, efforts should be made to leverage financing from private sector partnerships, FDI, and country cooperation.

What is so different about tomorrow's infrastructure as compared to today's - is it financially different or does it meet different needs for different people; what are the pitfalls and what can be done about that; and what kind of approach we want to have in order to deal with these issues. Ajay Mathur suggested that nimbleness of policy and regulation and the resilience of the infrastructure should be an important point of discussion.

The European Union between now and 2050 will be investing 50 billion euros in infrastructure. About 40 per cent (2 per cent of US GDP) of the Marshall Plan's total allocated fund goes into infrastructure. In the case of India, the government over invests in road transportation and under invests in rail transportation and hence, today's status quo is unsustainable. When there is fiscal deficit in the public sector then it is automatically reflected in the private sector. According to Giles Dickson, "India needs innovative instruments which involve low amount of public money and large amount of private sector investment. However, it will only happen if the political and economical structures are stable.

Ashish Bhatt argues that "The kind of infrastructure we have will define the kind of growth we will have in future as cited in draft 13th FYP." There are huge savings to be made by fixing the massive inefficiencies that prevail in the system. We just have to find out ways to capitalize on these opportunities. According to him, the reforms process should be continuous and must be supported by the industry. However, he also mentioned that the growth in the infrastructure sector is faced by many challenges and most of them are external. This makes it more vulnerable to the huge uncertainties that prevail in terms of climate change, resource scarcity, recent power blackouts and inadequate basic infrastructure. Policy makers also face the same challenges. He suggested that resilience is the key component. We should find ways to

collaborate effectively in order to make infrastructure more sustainable and inclusive in its broader sense.

According to Anurabha Ghosh there are five pressure points when we talk about infrastructure. First, it is industries that are the largest consumers of energy. It is going to have to compete with various other sectors like transportation and services unlike other countries where the government complements private sector's efforts. Second, is the competition within the industrial sector. Since coal is still the major source of energy and is getting scarce, there will be an increased competition among companies to maximize their return from that particular resource. Third, there will be pressure from new development activities. New development activities should be planned more carefully. Since most of the projections are made based on the historical data, there is a high possibility of making an error in the growing uncertainties nowadays. For instance, agriculture growing at 2 per cent is not good for the economy and not good for food security. However, there are high chances that agriculture would grow at a faster rate and at that time it's going to demand more energy. Thus, these factors should also be given due consideration while designing policies. Fourth, the production activities also pose additional pressure. As more and more stakeholders are getting sensitised to environmental and social impacts of the companies, they are exerting pressure on them to make their production and supply chains more sustainable and effective. The fifth pressure point is the increasing imports. At present, 40 – 80 per cent of the infrastructure requirements are met through crude oil which is a scarce resource and will become scarcer in future.

Also, there are three ways to make Public – Private financing of infrastructure more cost effective. First, there should be direct purchase just like reverse auctioning in case of solar. In this case, the public sector sets a price and then the private sector comes in for auctioning. Second, there should be a mechanism for top up costs. The public sector puts in some initial money and then the private sector puts in the remaining sum. Last, and most importantly according to Mr. Bhatt is that there should be tradable options that would create markets for these projects and the government only pays off in case of the execution of the project. In this manner, there would be a lot of savings because infrastructure requires large investments. Also, if a particular company is not able to meet the demands, then there should be an option of transferring the project to other players.

T K Mozumdar compares the situation to a scene from the movie Wall Street 2. A character in the movie had asked, "What is insanity?" The response to which was, "Insanity is doing the same things again and again and expecting different results." Correlating this with the prevailing problem he argued that we need new perspectives to solve known problems.

In recent decades, many Asian countries have come up in a big way in terms of infrastructure. However, it would not be right to that Mumbai becomes Shanghai, as we have different realities and different value system all together. Another significant problem faced is that there are a lot of people with lots of opinions and this makes the decision making and policy making a very tough process. Mr. Mozumdar suggested three key points for sustainable infrastructure and growth. First, buildings should be structurally sustainable, i.e. in terms of design, peer review, compliance, etc. Also, cost effectiveness should be one of the key parameters. Second, functional sustainability - which means that the infrastructure should be flexible for the functions it has been built for because different people have different preferences. Thus, for long term sustainability it should be flexible enough to change according to the changing needs

and preferences of the people. Last, it should be aesthetically sustainable because it is very uncertain whether the future people would like what the present generation likes.

Take the Delhi BRT for example. How can a decision like that be based on 10 per cent of the car owners in South Delhi for 40 per cent of Delhi's population. Mr. Mathur suggested that due consideration should be given to the planning of large infrastructure projects like BRT. All the stakeholders should be represented in the planning process and only then, projects like this would be sustainable in the long term.

One of the major problems faced in urban cities is that of sanitation and sewage. We don't give enough emphasis to sanitation as it is given to the issue of water. According to Mr. Bhatt, this is because in most parts of India, water is a free commodity and hence is not managed properly. Thus, it gets wasted more and creates more problems related to sewage and sanitation. The only answer to this kind of question is proper pricing which will bring efficiency to the system and minimize wastage.