



The Energy and Resources Institute



World Sustainable
Development Forum

DSDS 2013



The Global Challenge of Resource-Efficient Growth and Development

13th DELHI SUSTAINABLE DEVELOPMENT SUMMIT

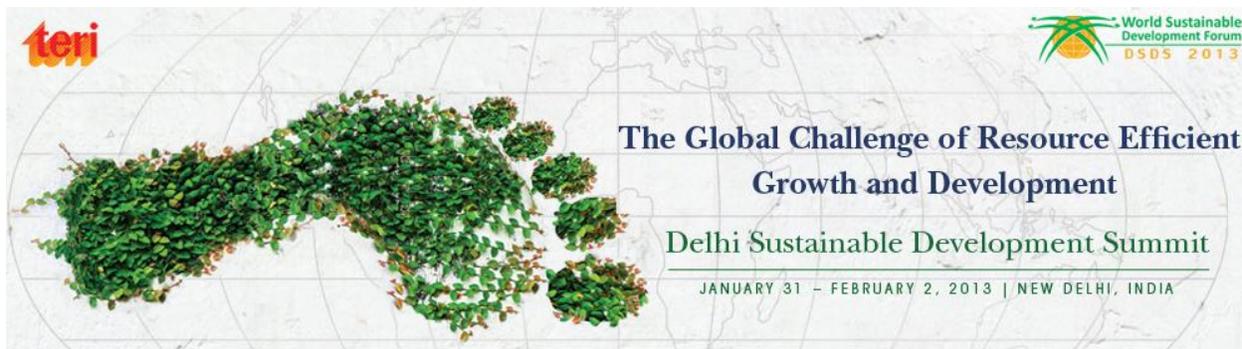
January 31 – February 2, 2013
Hotel Taj Palace, New Delhi, India

EXECUTIVE SUMMARY

The DSDS Secretariat
The Energy and Resources Institute (TERI)
Darbari Seth Block, India Habitat Centre,
Lodhi Road, New Delhi 110003

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PREFACE

The 13th edition of the Delhi Sustainable Development Summit was convened under the aegis of *'The Global Challenge of Resource-Efficient Growth and Development'* at Hotel Taj Palace, New Delhi, India between January 31 and February 2, 2013.

DSDS 2013 discussed and deliberated the resolutions of the Rio+20 Conference defined in the document entitled *'The Future We Want'*, which envisions inclusive and equitable economic growth, greater opportunities and reduction of inequalities across the globe.

Heads of State and government, corporate, media, and thought leaders, and members of civil society at DSDS 2013 expressed their views and insightful thoughts through the following and other plenary sessions:

- *Defining the Future We Want*
- *Ensuring Energy, Water and Food Security*
- *Employment and Growth Potential of a Green Economy*
- *Choices Before the BRICS and a New Economy Construct*
- *Sustainable Development and a New Knowledge Economy*
- *Adapting to the Impacts of Climate Change and Mitigating Emissions of Greenhouse Gases and Associated Co-benefits*

The 2013 edition of the Summit witnessed the introduction of Thematic Tracks. These parallel break away sessions on myriad aspects of the overarching theme of the Summit allowed for discussions of considerable depth and detail and drew favourable comment from all present. The tracks discussed wide ranging issues from *'Global Trends in Sustainable Production, Procurement and Sourcing of Edible Oils'* to *'Making Individual Mobility Low Carbon and Sustainable'*. The sessions, populated by area experts and actors, aimed at highlighting the possible and most feasible solutions to the many challenges of resource-efficiency faced by the global community. A total of nine tracks were hosted at the Summit and the same contributed handsomely in

enhancing the intellectual spread and content of the Summit. A complete list of the Thematic Tracks, with brief reports on the proceedings, is included in this Summary.

At DSDS 2013 over 30 countries were represented by their political heads, lead thinkers and delegates, with a total of over 1,200 delegates attending the DSDS 2013 plenaries and thematic tracks. A string of Special Events were also hosted on the side-lines of the Summit.

The Summit also had on board this year *The Wall Street Journal Asia* – Asia’s leading Business Newspaper; *The Hindu* – South India’s leading English daily; *CNN-IBN* – India’s leading English News Channel; *Governance Now* – India’s pioneering governance magazine; and *OneWorld South Asia* – prominent social and sustainable development knowledge portal – as media partners.

Forum for the Future – a renowned international forum for sustainability – partnered with TERI for the India: Innovation Nation initiative, which celebrates India’s success stories in sustainable innovation, encouraging them to scale up their operations. The Innovation Nation CEO Roundtable was held ahead of the 13th DSDS, highlighting Indian success stories, sharing lessons learned, and identifying opportunities for businesses to win through sustainable innovation. *India: Innovation Nation*, a special edition of *Green Futures* magazine, was launched at the World CEO Sustainability Summit (WCSS) 2013, held on 30th January, 2013.

The very first ‘Dinner of Hope’ at the Summit, in support of TERI’s Lighting a Billion Lives (LaBL) Campaign, witnessed a scintillating display of the finest of the Indian performing arts by the Ministry of Culture. The evening was much applauded, as were the efforts of the students of Delhi Private School, Sharjah, who raised funds to spread hope, light and cheer in un-electrified villages across the globe.

The evening prior to the Summit (January 30, 2013) engaged leaders and eminent personalities from the world of business and politics at the 10th World CEO Sustainability Summit themed ‘*Resource Revolution – A Global Imperative and How Business Can Shape It*’. The Summit engaged the captains of industry in active discussions that will encourage action to usher in change – of developing sustainable business practices.

DAY 1: JANUARY 31, 2013

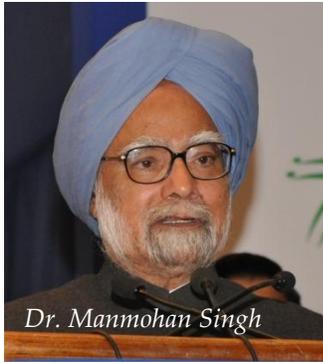
Inauguration by Dr Manmohan Singh, Hon'ble Prime Minister, Government of India



L-R: Dr R. K. Pachauri, Director-General, TERI, India; Ms Jayanthi Natarajan, Hon'ble Minister of State (I/C) for Environment and Forests, India; H.E. Mr Donald Ramotar, President of Guyana; Dr Manmohan Singh, Hon'ble Prime Minister of India; H.E. Mr Anote Tong, President of Kiribati; Dr Farooq Abdullah, Hon'ble Minister of New and Renewable Energy, India; Mr Arcot Ramachandran, Chairman, Governing Council, TERI

The 13th Delhi Sustainable Development Summit was inaugurated by the Hon'ble Prime Minister of India, Dr Manmohan Singh, in the presence of Ms Jayanthi Natarajan, Hon'ble Minister of State (I/C) for Environment and Forests, India; Dr Farooq Abdullah, Hon'ble Minister of New and Renewable Energy, India; H.E. Mr Donald Ramotar, President of Guyana; H.E. Mr Anote Tong, President of Kiribati; Mr Arcot Ramachandran, Chairman, Governing Council, TERI; and Dr R K Pachauri, Director-General, TERI.

The inaugural session began with an introduction to the Delhi Sustainable Development Summit, by Mr Arcot Ramachandran, Chairman of the TERI Governing Council, as an important global event focusing on discussions for arriving at solutions to crucial challenges.



The Hon'ble Prime Minister of India, Dr Manmohan Singh referred to the Rio+20 Summit as a poignant reminder that the ambitious goals set in 1972 remain unrealized due to lack of meaningful consensus. The world today must work towards global growth models – both inclusive and sustainable – by building a resource-efficient and resilient economy. He emphasized that the priorities of developing nations cannot be side-lined and there is common, but differentiated responsibility towards emissions reduction. India is committed to low-carbon growth and has targeted a reduction of 20-25 per cent in emissions by 2020, compared to 2005 levels. It is time for industrialized countries to show that they are committed to low carbon growth. He highlighted the achievements of the Lighting a Billion Lives campaign, which is not only benefitting 2,000 villages in India by using clean lighting solutions, but has also been extended to other parts of Asia and Africa. Inviting foreign partners to participate in developing the vast renewable energy potential in India, Dr Singh emphasized on the importance of biological diversity as an important environmental resource and referred to the commitment made by India (\$50 million) to strengthen institutional mechanisms for biodiversity conservation. He highlighted the importance of transparent and accountable regulatory regimes and focused on the need for green national accounting so that goods and services are produced with minimal environmental impacts.

Dr R K Pachauri, in his concluding remarks, spoke about the challenges towards a resource-efficient path of development, highlighted by the Prime Minister and announced that the 14th Delhi Sustainable Development Summit will take place from 6–8 February 2014, focusing on *'Attaining Energy, Water, and Food Security For All'*.

Leadership Panel 1: Defining the Future We Want



L-R: Ambassador C Dasgupta, HE Mr Donald Ramotar, HE Mr Anote Tong, Dr R K Pachauri

Chair: **Ambassador C Dasgupta**, Distinguished Fellow, TERI, India

Setting the Theme: **Dr R K Pachauri**, Director-General, TERI, India

Panellists:

HE Mr Donald Ramotar, President of Guyana

HE Mr Anote Tong, President of Kiribati

HE Mr James Alix Michel, President of Seychelles (video message)

Dr R K Pachauri set the theme of the panel and referred to 'The Future We Want' outcome document of the Rio+20 Conference where leaders of the world acknowledged that green economy in the context of sustainable development and poverty eradication would lead to environmental sustainability and better management of resources. He summarized findings of a study on material flows by The United Nations Industrial Development Organization (UNIDO), which found that material consumption is also correlated to increasing carbon emissions. TERI's recent initiative on low-carbon development with China's National Centre for Climate Change Strategy and International Cooperation (NCSC) was also highlighted.

HE Mr Donald Ramotar reaffirmed climate change as the most challenging issue of today, which would play an instrumental role in defining the future we want. He also highlighted Guyana's Low Carbon Development Strategy, which places strong emphasis on saving Guyana's forests. The President highlighted the need to tackle social issues along with

ecological issues. HE Mr Anote Tong strongly argued that the only way to address global challenges is to resolve them together as a global community. Leaders of the world must not come to global debates only with individual and national priorities, said President Tong. He highlighted Kiribati's initiative in ocean conservation where 400 sq. km of the marine zone has been dedicated for conservation and is a UNESCO World Heritage Site. HE Mr James Alex Michel, through a video message, highlighted that many delegations left the Rio+20 Summit disappointed. The President highlighted that Seychelles has increased their protected area by more than 50 per cent. He also acknowledged India's proactive role in the recent Convention on Biological Diversity. Ambassador C Dasgupta summarized the panel and emphasized on the important role of international cooperation.

Ministerial Session 1: Ensuring Energy, Water, and Food Security



L-R: HE Dr Sultan Ahmed Al Jaber, HE Mr Marcin Korolec, HE Dr Mariyam Shakeela, Mr Nitin Desai, Mr Arvinn Eikeland Gadgil, The Hon'ble Jean-François Lisée, and Dr Robert D Hormats

Chair: Mr Nitin Desai, Distinguished Fellow, TERI & Former Under-Secretary General of the United Nations, India

Panellists:

- **HE Dr Mariyam Shakeela**, Minister of Environment and Energy, Maldives
- **Mr Arvinn Eikeland Gadgil**, Hon'ble Deputy Minister for International Development, Norway
- **HE Mr Marcin Korolec**, Minister of the Environment, Poland
- **The Hon'ble Jean-François Lisée**, Minister of International Relations, La Francophonie and External Trade, Québec

- **HE Dr Sultan Ahmed Al Jaber**, Assistant Minister of Foreign Affairs & Special Envoy for Energy and Climate Change, Ministry of Foreign Affairs, UAE

Concluding remarks: **Dr Robert D Hormats**, Under Secretary, Economic Growth, Energy and Environment, U.S. Department of State, USA

The session began with the question of how to cope with the challenges of energy, water, and food security. Mr Nitin Desai highlighted that water and energy must be seen as key strategic resources, with food security as the final goal for sustainable development for any nation. HE Dr Mariyam Shakeela highlighted the challenge of fast depleting resources and increasing dependence on fossil fuels aggravating environmental challenges faced by island countries like Maldives. She suggested inter-sectoral, international, and inter-cultural collaboration as imperatives for climate protection and energy security. Stressing on the need for international dialogue and cooperation, Mr Arvin Eikeland Gadgil also focused on the increasing inequality between nations and the need for bridging the gap between those who care about nature and those responsible for policy-making. While HE Mr Marcin Korolec discussed how indigenous knowledge and local wisdom needs to be complimentary to technology and innovation, the Hon'ble Jean-François Lisée focused on the challenge of energy and climate change, particularly the various national and collaborative projects that have been initiated in Quebec. He also stressed on the difficulties faced by nations heavily dependent on fossil fuels, in reducing their GHG emissions. HE Dr Sultan Ahmed Al Jaber stressed on the interrelated challenges of water, food, and energy, which have been underestimated and undermined until now. He emphasized on direct financial instruments and solutions driving investments in human capital, large-scale technologies, and public-private partnerships.

In his concluding remarks, Dr Robert D Hormats highlighted three key messages – high environmental standards in key sectors like transport and infrastructure in developing countries; simultaneous emphasis on reducing GHG emissions and efficient utilization of water and energy resources; and holistic assessment of the water-food-energy nexus.

Leadership Panel 2: Defining the Future We Want



L-R: The Rt. Hon'ble Lord John Prescott, HE Mr Bharrat Jagdeo, Ambassador C Dasgupta, HE Ms Tarja Halonen, The Hon'ble Jean Charest, and The Hon'ble Charles Crist

Chair: Ambassador C Dasgupta, Distinguished Fellow, TERI, India

Panellists:

- **HE Ms Tarja Halonen**, Former President of Finland
- **HE Mr Bharrat Jagdeo**, Former President of Guyana
- **The Hon'ble Jean Charest**, Former Premier of Quebec
- **The Rt. Hon'ble Lord John Prescott**, Former Deputy Prime Minister & Member of Parliament, House of Lords, U.K.
- **The Hon'ble Charles Crist**, Former Governor of Florida, USA

The session focused on the document titled 'The Future We Want', which was agreed upon at the Rio+20 Summit. The Chair, Ambassador C Dasgupta, urged the discussants to share opinions on how the international community should approach sustainable development goals (SDGs). SDGs are objectives towards achieving sustainability that have been set out including and in addition to the Millennium Development Goals (MDGs) for 2015. Achieving these objectives requires committed and urgent action to be undertaken by the global community. The first speaker, HE Ms Tarja Halonen, emphasized the critical role that women's empowerment can play in meeting the SDGs. She highlighted the role of the large population of poor people and young citizens as potential human capital resources that are currently under-utilized and can be major drivers of development.

HE Mr Bharrat Jagdeo said that better organizational frameworks are important for improving resource efficiency and knowledge dissemination, especially for poorer countries like Guyana. The Hon'ble Jean Charest highlighted the increasing importance of local, regional, and sub-national governments in driving action on climate change mitigation and adaptation towards meeting the SDGs.

Delivering an impassioned speech, Lord John Prescott stressed that while the international community knows what needs to be done, the lack of political will must be overcome if any real action is to be taken. He stressed the criticality of common, but differentiated responsibilities and good governance parameters, which give developing countries the scope to grow in a sustainable manner.

Rounding up the discussion, Hon'ble Charles Crist talked about his radical initiative in prioritizing climate change mitigation research and action. However, he also warned that politicians are often more comfortable with incremental change and cannot deal with big steps required to address a global problem like climate change.

Corporate Perspectives for Resource-Efficient Growth and Development



L-R: Mr Zubin Irani, Mr Peter Bakker, Mr Krishan Dhawan, Ms Bahar Dutt, Mr Michael Christiansen, Mr William Hammink, Prof. Godfrey Boyle, and Mr Mahesh Makhija

Moderator: Ms Bahar Dutt, Environment Editor, CNN-IBN, India

Panellists:

- **Mr Michael Christiansen**, Chairman of the Board, Danish Cultural Institute, Denmark

- **Mr Krishan Dhawan**, Chief Executive Officer, Shakti Sustainable Energy Foundation, India
- **Mr William Hammink**, Mission Director, USAID, India
- **Mr Zubin Irani**, Senior Managing Director – Commercial Companies, United Technologies Corporation (UTC), India
- **Mr Mahesh Makhija**, Director, Business Development (Renewables), CLP India Pvt. Limited, India
- **Mr Peter Bakker**, President, World Business Council for Sustainable Development, Switzerland
- **Prof. Godfrey Boyle**, Professor of Renewable Energy, The Open University, U.K.

The plenary session '*Corporate Perspectives on Resource-efficient Growth and Development*' emphasized the importance of businesses adopting resource-efficient practices, both for improving their bottom-line impact and for consumer demand. The speakers in the session emphasized on setting limits on growth by subscribing to the Gandhian principle – “Earth has enough for everyone’s need, but not for a single man’s greed”.

The categorical changes required to achieve sustainable growth can be brought about by circular transition involving reduction in emissions, developing new systems at microeconomic levels, and sharing of knowledge and technology. In the absence of strong political will, there is a need for business houses to lead by example and strive for green growth. For sustainability, recycling is an economical and desirable option. The middle class, being the major consumer of goods, should be educated about the importance of recycling and reusing instead of throwing the goods away.

The speakers spoke about several instances where with right determination and support a positive impact was seen. The incentive to make a transition to greener lifestyles is to show the companies as well as consumers the economic benefit that accrues over time by adopting energy-efficient measures. Furthermore, it was emphasized that renewable energy is a business opportunity in this country as 400 million people live in energy poverty.

For transition towards green growth, the golden triangle comprising governments with clear goals, corporates with ethical wisdom, and consumers with human way of living life, needs to be synergized. The business houses should be evaluated on the basis of not only their financial performance, but also on their natural capital and social returns.

Accelerating the Transition to a Sustainable Economy



L-R: Mr Seethapathy Chander, Prof. François Mancebo, Mr Donald Kaberuka, Mr Haruhiko Kuroda, Mr Roland Lance Ignon, Mr Dipak Dasgupta, Ms Mary Barton-Dock, and Mr Rémi Genevey

Chair: Mr Roland Lance Ignon, Co-Director, New York Office, Sitrick and Company, USA

Keynote addresses:

- **Mr Haruhiko Kuroda**, President, Asian Development Bank, Philippines
- **Mr Donald Kaberuka**, President, African Development Bank, Tunisia

Panellists:

- **Mr Rémi Genevey**, Executive Director, Agence Francaise de Developpement (AFD), France
- **Prof. François Mancebo**, Full Professor (Planning & Sustainability), Rheims University and Head of the International Research Center on Sustainability (IRCS) of Rheims, Rheims University, France
- **Mr Dipak Dasgupta**, Principal Economic Adviser, Ministry of Finance, Government of India
- **Mr Seethapathy Chander**, Director General, Regional and Sustainable Development Department concurrently Chief Compliance Officer, Asian Development Bank, Philippines
- **Ms Mary Barton-Dock**, Director, Climate Policy and Finance, The World Bank, USA

The session on accelerating the transition to a sustainable economy emphasized the need for economic growth coupled with inclusive development. The keynote speakers spoke about their

regions' perspective on sustainable development and highlighted some of the key challenges facing their respective regions.

Mr Haruhiko Kuroda highlighted the need for a transition to a more resource-efficient economy, which would not only improve the environment, but also lead to spill-over effects in terms of job creation. He also highlighted the need to build institutional capacity. Mr Donald Kaberuka, while lamenting over the fact that nothing has changed in the last 21 years (since the Earth Summit in Rio, 1992), highlighted that Africa, with the lowest carbon emission as well as the lowest adaptive capacity, is the most vulnerable continent, especially to issues relating to agriculture, land, and biodiversity. He proposed a structure, which focused on inclusion and resilience building to address some of Africa's challenges. Ms Mary Barton-Dock highlighted the need to create incentives and disincentives that lead to a change in the behaviour of both consumers and private companies to be able to transition towards a greener economy.

Mr Dipak Dasgupta spoke about the need to have a cross-purpose conversation between the concerns of developed and developing countries. He spoke about the need for collective public action to fund true public goods and governance that focused on reducing inequality. Mr Rémi Genevey spoke about official development aid and explained how it has outlived its usefulness in the context of Millennium Development Goals. Mr François Mancebo elucidated that environmental and social objectives cannot be dealt through the invisible hands of markets and would require more polycentric approaches including informal institutions. Mr S Chander highlighted the need for translating words into specific actions for addressing global challenges by channelizing resources towards renewable assets.

Creating a Sustainable Asia through Disaster Resilience and Green Growth



L-R: Mr Haruhiko Kuroda and Dr Bindu N. Lohani

Panellists:

- **Mr Haruhiko Kuroda**, President, Asian Development Bank, Philippines
- **Dr Bindu N Lohani**, Vice President, Knowledge Management and Sustainable Development, Asian Development Bank, Philippines

The session highlighted the fact that the prospects for emerging Asia's low-carbon emission growth remains strong, but the opportunity to shift to low-carbon growth must be sought sooner than later or else the mitigation costs could be as much as 2-5 times more.

Mr Haruhiko Kuroda discussed the importance of a multi-governmental, multi-sectorial, and multi-disciplinary collaboration for attaining a disaster-resistant state. He said that while many developing economies are adopting development models based on competitive green industries and green technologies, these experiences can be scaled up, replicated, and adapted further. Dr Bindu N Lohani raised the question on whether actions that we know are required to strengthen disaster reliance are actually being taken? Highlighting the magnitude of the problem, he said that between 1970 and 2010, 1.7 million hazard-related deaths occurred in Asia. Disaster losses are rising more rapidly than the region is expanding economically. A number of man-made factors like the demographic pressures of urbanization, informal settlements, and climate change are also significant in this regard. He said that pricing carbon alone is not sufficient to generate the needed flows of technology and finance across the border and nations of Asia should work together to make low-carbon products and services even more cost-effective.

DAY 2: FEBRUARY 1, 2013

Sustainability Challenges across Sectors



L-R: Sir Jonathon Porritt, Mr Venkatesh Valluri, Mr Glenn Schmidt, Mr Roland Lance Ignon, Mr Ali Tauqeer Sheikh, Mr Bittu Sahgal, and Mr Finn Andersen

Chair: Mr Roland Lance Ignon, Co-Director, New York Office, Sitrick and Company, USA

Panellists:

- **Mr Finn Andersen**, Secretary General, Danish Cultural Institute, Denmark
- **Mr Glenn Schmidt**, Head of Steering Government Affairs, BMW AG, Germany
- **Mr Bittu Sahgal**, Editor, Sanctuary Asia and Sanctuary Cub Magazines, India
- **Mr Venkatesh Valluri**, Chairman & President, Ingersoll Rand, India
- **Mr Ali Tauqeer Sheikh**, Director Asia, Climate and Development Knowledge Network, Pakistan
- **Sir Jonathon Porritt**, Co-Founder, Forum for the Future, U.K.

“Debate, Discuss, Decide” were the three Ds, based on which deliberations on Day 2 of DSDS 2013 began. The question proposed to the session panellists was “Are we consumers fully aware of sustainability?”, to which the session Chair, Mr Ronald Lance Ignon swiftly replied by saying that people are often reduced to the category of consumers, but in terms of sustainability we need to adopt a broader perspective. Mr Finn Andersen demonstrated cross-cultural influences on sustainable development through cities, and took Copenhagen as a case study, a city aiming to be the first carbon-neutral city by 2025. Mr Bittu Sahgal spoke of the geographic colonization of the past and inter-generational colonization of the ill-effects of environmental damage and

emphasized on the lack of a mechanism to calculate ecosystem cost in the context of resource efficiency, intergenerational equity, happiness, etc.

Mr Ali Tauqeer Sheikh spoke about the seven challenges of sustainability – carbon budget, physical impact, economic costs, time frame, more adaptation and less mitigation, and people and institutions. He stressed on the need for sectorial studies at the national and sub-national levels. Mr Glenn Schmidt focused on how sustainability could be looked at in terms of new revolutions with regard to technologies. He cited how from 1995 to 2012, BMW had been able to reduce its carbon output by over 30 per cent.

Mr Venkatesh Valluri broadly covered three general aspects of sustainability – the convergence of technology, innovation and industry, and collective ownership. He also emphasized on the need to perform by creating value by finding climate solutions that deliver. Sir Jonathon Porritt stated that government plays a critical role in enabling businesses and engaging people towards adopting sustainable undertakings. He also stated that the sum effect of civil society and government is not sufficient and innovative measures need to be undertaken.

In Conversation with Mr Thomas L. Friedman



L-R: Mr Nitin Desai and Mr Thomas L. Friedman

Mr Nitin Desai, Distinguished Fellow, TERI and Former Under-Secretary General of the United Nations, India

In conversation with

Mr Thomas L. Friedman, Foreign Affairs Columnist, The New York Times, USA

The session chair, Mr Nitin Desai, set the tone for the session by talking about Mr Thomas Friedman's latest book on globalization titled *That Used to Be Us*. Mr Friedman pointed out that the world, in the era of connectivity in the form of social networking (Facebook, Twitter, Skype, etc.), has transformed from being a connected world to being a hyper-connected world, and from being an inter-connected to inter-dependent world. Further, he referred to this phase as the one where "friends can kill you much faster than your enemies" and where "rivals falling are considered much more dangerous than rivals rising". He further pointed out that in today's world, the problems cannot be solved independently, but by aligning with other countries. He also mentioned, especially with regard to India, that a key derivative of the hyper-connectedness is the burgeoning virtual middle class. Further, when asked about the state of politics today, Mr Friedman pointed that we are trapped in a corrupt duopoly. In the case of the US, where legalized bribery is rampant, the government can neither take the right decisions nor set the right incentives. He further pointed towards the need for a third party to ensure that right decisions are made and incentives set.

Furthermore, Mr Friedman stressed the point that the world is shaped by two main forces – Markets and Mother Nature. In this context, the key accounting principles being applied in the Markets and Mother Nature are, "under-pricing the risk, privatizing the gains, and socializing the losses". Mr Friedman further stressed on massive shifts in values where, the past generations focused on sustainable values, the present generations on the situational values, and so the future should be on re-generation values, i.e. bringing sustainable values back to the Market and Mother Nature!

Ministerial session 2: Ensuring Energy, Water, and Food Security



L-R: Ms Annika Markovic, The Hon'ble Marcelo Ebrard Casaubón, The Hon'ble Marie-Hélène Aubert, Mr Siddharth Varadarajan, Lyonpo Dr Pema Gyamtsho, Dr Ryutaro Yatsu, and H.E. Mr Jean-Paul Adam

Moderator: **Mr Siddharth Varadarajan**, Editor, The Hindu, India

Panellists:

- **Lyonpo Dr Pema Gyamtsho**, Hon'ble Minister for Agriculture & Forests, Bhutan
- **The Hon'ble Marie-Hélène Aubert**, Adviser to the President of French Republic for International Negotiations on Climate and Environment, France
- **Dr Ryutaro Yatsu**, Hon'ble Vice-Minister for Global Environment Affairs, Ministry of the Environment, Japan
- **The Hon'ble Marcelo Ebrard Casaubón**, Former Mayor, Mexico City Government, Mexico
- **H.E. Mr Jean-Paul Adam**, Minister for Foreign Affairs, Seychelles
- **Ms Annika Markovic**, Environment Ambassador, Ministry of the Environment, Sweden

The panel identified best practices to bring a global dimension to resource efficiency. Lyonpo Dr Pema Gyamtsho said Bhutan has been successful in providing 95 per cent clean water and 80 per cent electricity to its population and stressed on the need for a diversified energy portfolio. Coping mechanisms for water saving measures, investment in water storage capabilities, mix of renewable technological options, and funding mechanisms to conserve and preserve forest areas were some of his suggestions for climate protection and energy security. The Hon'ble Marie-Helene Aubert highlighted the need to raise global awareness to follow a sustainable

path and renew the green revolution initiative to help the poor communities. She emphasized that lifestyle changes need to be more sustainable.

Dr Ryutaro Yatsu said that there is a need for a low-carbon leap frog development pathway. Japan faced severe energy crisis due to the recent nuclear disaster, but since then has been trying to widen the scope of renewable energy options in the country through Nationally Appropriate Mitigation Action (NAMA) and Joint Crediting Mechanism (JCM). He focused on collaboration and partnerships between institutes, companies, and academia for sustainable development. The Hon'ble Marcelo Ebrard Casaubón proposed the need for globally effective action and focused on transfer of resources and technologies between cities as a measure to bridge the gap between developed and developing nations. Ms Annika Markovic focused on education, international cooperation, and political will to resolve issues related to resource security. She stressed on capacity building, integrating sustainability into small and large scale farming, and developing market based mechanisms as key aspects.

Mr Jean-Paul Adam gave a small island perspective of climate change and impact of action in these areas, highlighting the need for wider renewable energy options in small islands through knowledge sharing. He focused on the Blue Economy – protecting the oceans, which is otherwise a neglected resource.

Employment and Growth Benefits of a Green Economy



L-R: H.E. Mr Nassir Abdulaziz Al-Nasser, Mr Heherson T. Alvarez, Mr Dirk Fransaer, Mr Mik Aidt, Mr Martin Hiller, Ms Lise Grande, Dr Bindu N. Lohani, and Dr Richard L. Sandor

*Moderator: **Mr Mik Aidt**, Journalist, Danish Centre for Arts & Interculture, Denmark*

Panellists:

- **Mr Martin Hiller**, Director General, Renewable Energy and Energy Efficiency Partnership (REEEP), Austria
- **Mr Dirk Fransaer**, Managing Director, VITO, Belgium
- **Ms Lise Grande**, UN Resident Coordinator & UNDP Resident Representative, India
- **Mr Heherson T. Alvarez**, Commissioner, Climate Change Commission, Office of the President, Philippines
- **Dr Bindu N. Lohani**, Vice President, Knowledge Management and Sustainable Development, Asian Development Bank, Philippines
- **H.E. Mr Nassir Abdulaziz Al-Nasser**, President of the Sixty-Sixth Session of the United Nations General Assembly and UN High Representative for the Alliance of Civilizations
- **Dr Richard L. Sandor**, Chairman & CEO, Environmental Financial Products LLC, USA

The session began with the moderator asking the panel where the business opportunities lie when it comes to tackling the challenges of climate change and achieving green growth. Key initiatives undertaken in India enumerating a green approach were highlighted for their benefits, such as improved social equity, greater job opportunities, and a smaller carbon footprint. Due emphasis was laid on the need to have greater transparency and accessibility to government data to facilitate better analysis and insights into the energy sector with initiatives, such as the Open Government Partnership being mentioned. The panel felt the need for a rapid transformation of the energy market by encouraging new players. The speakers agreed that the role of technology in achieving green growth is critical, and that bigger opportunities lie in resource efficiency. However, the new challenges are to improve the efficiency of older industries and the creation of new jobs with the goal of inclusiveness in mind.

Key initiatives of the Philippines government in the context of a 'green economy' and employment were highlighted with a focus on climate-smart agriculture. While greater employment opportunities would be created by shifting to a green economy, currently there exists a mismatch between jobs and skills and the education sector needs reforms to resolve this mismatch.

It was agreed that financing is the key to achieving green growth and that markets should be allowed to develop. There is a need to further evaluate existing programmes to bring out possibilities for the future, and while optimism is good, the panel felt that it has to blend with realism. The panel concluded by highlighting the need for affordability as a goal and on the subject of whether new institutions, such as Green Banks were a necessity, the panel felt we could do better by further enhancing the existing institutions.

Keynote Addresses



L-R: Prof. Jeffrey D. Sachs, Mr Chetan Sharma, and Dr Larry Brilliant

Moderator: Mr Chetan Sharma, Senior Journalist and Consultant, India

Keynote Addresses:

- **Dr Larry Brilliant**, President & CEO, Skoll Global Threats Fund, USA
- **Prof. Jeffrey D. Sachs**, Director, Earth Institute & Special Advisor to the Secretary-General of the United Nations, USA

Regional Climate Security: Dr Larry Brilliant

Dr Larry Brilliant built a case for global governance to act on the challenges posed by climate change. He highlighted the relation between humans, vectors, lands, and diseases through his presentation. He illustrated the impact of climate change on local populations through the example of the 1970 Bhola cyclone. Over the years, Bhola islands, located in Bangladesh, have been partially submerged with many being displaced and countless lives lost. In his session, he highlighted the vulnerability of lower riparian countries to climate change. In the case of Bangladesh, he illustrated two possible scenarios of sea level rise. In the 20 metres scenario, almost the whole of Bangladesh could be submerged. Dr Brilliant pointed out the consequent problem of increase in the numbers of climate refugees and the conditions they may have to face. He ended the session with an appeal to work together at a global level to address these challenges.

A Global Framework for Sustainable Development: Prof. Jeffrey D. Sachs

Prof. Jeffrey Sachs started the session with a comparison between a frog and the human race. Quoting studies, he said that a frog was likely to jump out of the water if heated fast enough.

However, through gradual increase in the temperature of water, it was possible to kill the frog. His question then was – how fast will the human race jump? This analogy formed the basis of the session. Using the example of USA, he pointed to the weather extremities and natural disasters experienced in just the last year. However, the politicians have been slow to respond. He pointed out that the three landmark treaties addressing climate change, biodiversity, and desertification, while brilliantly crafted have failed to be implemented. Highlighting the paradox of technological innovations, Prof. Sachs mentioned that the problem contains within itself the solutions to those problems. Risks are the counterparts of technological know-how. Using the example of MDGs, he emphasized on the need for clear plans of action and defined goals to address the problem of climate change with the active participation of civil society.

DAY 3: FEBRUARY 2, 2013

Adapting to the Impacts of Climate Change and Mitigating Emissions of Greenhouse Gases and Associated Co-benefits



L-R: Dr Naoko Ishii, Dr Ugyen Tshewang, The Hon'ble Greg Selinger, Dr Subho Banerjee, Mr John Vidal, Dr Shuzo Nishioka, and Mr Carl Pope

Moderator: Mr John Vidal, Environment Editor, The Guardian, UK

Keynote Address: The Hon'ble Greg Selinger, Premier of Manitoba, Canada

Panellists:

- **Dr Subho Banerjee**, Deputy Secretary, Adaptation, International & Regulatory Group, Department of Climate Change and Energy Efficiency, Australia
- **Dr Ugyen Tshewang**, Secretary, National Environment Commission, Bhutan
- **Dr Shuzo Nishioka**, Senior Research Advisor, IGES & Secretary-General, LoCARNet /LCS-RNet Secretariat, Japan
- **Dr Naoko Ishii**, CEO & Chairperson, Global Environment Facility, USA
- **Mr Carl Pope**, Senior Strategic Advisor, The Sierra Club, USA

Commencing the session, Mr John Vidal spoke on the urgency to address the issues of climate change. "It's no longer in the future; it's now. It's no longer something for the poor countries; it's for the rich countries too", he emphasized.

Hon'ble Greg Selinger highlighted the need for approaches to be region specific and communities to be resilient. He revealed that to generate awareness, environment education has been included in the school curriculum of Manitoba. He also stressed on the need to involve local communities by providing them jobs in development projects.

Dr Subho Banerjee stated that there is a pressing requirement to have a right baseline, where climate change is included in the baseline itself. He also highlighted the necessity to map a new path that would integrate costs and benefits in both adaptation and mitigation measures.

Dr Ugyen Tshewang focused on Bhutan's vulnerability to climate change due to its dependence on glacier lake-based hydropower and livelihood based on agriculture. He also spoke about the policies and legislations being framed to protect the environment. "All countries should take the moral responsibility to absorb their own carbon", he underlined.

Dr Shuzo Nishioka described the three key development-related efforts that have affected the emission levels in Japan: introduction of the Tokyo Metro, clean engines, and rapid infrastructure investments. He presented the idea of future compact cities with modern infrastructure and accessible public transport based on lower GHG emissions.

Dr Naoko Ishii discussed the current status of information on adaptation, lessons learned, and the way forward. She pointed out the need for systemic response to mainstream climate risks and adaptation and also stressed on the requirement of an ecosystem or community-based adaptation model.

Mr Carl Pope stressed that humans need to use ecosystems to build resilience. He cited several examples of extreme climate conditions from around the world, and provided ecosystem-based mitigation measures to protect communities.

Choices before the BRICS and a New Economic Construct



L-R: Mr Khalid Malik, Ms Amina Mohamed, Dr Prodipto Ghosh, Ms Suhasini Haidar, Dr Anindya Chatterjee, Mr Peter Kenmore, Mr Adam Koniuszewski, and Mr Walter Vergara

Moderator: Ms Suhasini Haidar, Senior Editor, CNN-IBN, India

Panellists:

- **Dr Anindya Chatterjee**, Regional Director, Asia, International Development Research Centre (IDRC), India
- **Dr Prodipto Ghosh**, Distinguished Fellow, TERI, India
- **Mr Peter Kenmore**, Representative in India, Food and Agriculture Organisation (FAO), India
- **Ms Amina Mohamed**, Deputy Executive Director, United Nations Environment Programme, Kenya
- **Mr Adam Koniuszewski**, Chief Operating Officer, Green Cross International, Switzerland
- **Mr Khalid Malik**, Director, Human Development Report Office, United Nations Development Programme, USA
- **Mr Walter Vergara**, Chief, Climate Change and Sustainability Division, Inter-American Development Bank, USA

Dr Anindya Chatterjee spoke about persistent and growing inequalities as part of the problem and innovation systems as being the solution for the BRICS, while Dr Prodipto Ghosh linked the use of energy and the process of development, stressing upon the solutions for a more sustained growth and highlighted the need for responsible consumer

choices and the importance of technological development in consumption and production. Mr Peter Kenmore highlighted the differences between BRICS countries in achieving food security and the inherent problems faced by each country in moving towards achieving it. Ms Amina Mohamed elucidated that the BRICS, with their high levels of GDP and population growth, have a significant say in achieving a sustainable collective future. She emphasized that the current levels of development are not at the scale that could reverse the environmental changes that have already occurred.

Mr Adam Koniuszewski said that the BRICS need to be at the core of the solution to climate change and resource security. He highlighted some of the efforts being made in each of the countries to deal with some of the environment and resource-related challenges. Speaking of human development, Mr Khalid Malik said that if we continue on the current path of environmental degradation, human society would actually collapse. He also focused on the need for intergenerational equity and fundamental or systemic change. Mr Walter Vergara emphasized on the financial implications of the damages caused to the environment with a specific focus on Latin American countries (LACs). He highlighted the “Three Zero Strategy” the LACs should adopt by 2050, i.e. zero deforestation, zero carbon power generation, and zero carbon transport system.

Sustainable Development and a New Knowledge Economy



L-R: Mr Brice Lalonde, Dr S Wasaka, Ms Helen Mountford, Dr Leena Srivastava, H.E. Dasho Paljor Jigmie Dorji, Prof. Hironori Hamanaka, Dr Lee Yee Cheong, and Prof. Stephen Mulkey

Chair: Dr Leena Srivastava, Vice-Chancellor, TERI University & Executive Director (Operations), TERI, India

Panellists:

- **H.E. Dasho Paljor Jigmie Dorji**, Special Advisor, National Environment Commission, Bhutan
- **Ms Helen Mountford**, Deputy Director, Environment Directorate, OECD, France
- **Prof. Hironori Hamanaka**, Chair of the Board of Directors, Institute for Global Environmental Strategies (IGES), Japan
- **Dr S Wasaka**, Executive Director, New Energy and Industrial Technology Development Organization (NEDO), Japan
- **Dr Lee Yee Cheong**, Chairman, UNESCO International Science, Technology and Innovation Centre, Malaysia
- **Mr Brice Lalonde**, Executive Coordinator of United Nations Conference Rio+20, USA
- **Prof. Stephen Mulkey**, President, Unity College, USA

The session began with the thought of how a new knowledge economy was important for sustainable development. Dr Leena Srivastava highlighted that in order to deal with the numerous challenges faced by the society today such as food security, energy security, and climate change we need to bring in transformational changes in the way we produce and consume. Such a transitional change will not only require knowledge of 'what to do', but most importantly 'how to do'. In this regard, HE Dasho Paljor Jigmie Dorji emphasized the role of youth and grass-root level organizations and their involvement in low-carbon development and green growth.

Ms Helen Mountford stated that although a range of new technologies are being developed, they are not being deployed properly. She stressed that income gains from removal of subsidies on unilateral fuel consumer could be diverted to other programmes such as education and research.

Collaboration for exchange of knowledge was underlined by Prof. Hironori Hamanaka as well. He added that there is a need to gain experience from the current practices, international research, and industrial development and disseminate it to the government, civil society, and concerned stakeholders. Dr S Wasaka reiterated the need to promote research and development and disseminate knowledge especially in the area of renewable energy.

Mr Brice Lalonde pointed that we must use our wisdom to utilize knowledge efficiently. Innovations must not be spurred by competition but cooperation. Focussing on the transitions required in the higher education system, Prof. Stephen Mulkey highlighted three core competencies – synthetic building, verbal literacy, and management skills – to be integrated within the present pedagogy of education.

Dr Lee Yee Cheong stressed on the need to bring about a change in the behaviour of young people as the communities today are more consumption driven.

In Conversation with Nobel Laureate Prof. Carlo Rubbia



L-R: Dr R K Pachauri and Prof. Carlo Rubbia

Dr R K Pachauri, Director General, TERI

In conversation with

Prof. Carlo Rubbia, Scientific Director, Institute for Advanced Sustainability Studies, Germany

Dr R K Pachauri commenced the session by emphasizing that sustainable development requires an interdisciplinary approach – one that results from an “amalgamation of a number of disciplines”. He pointed out that development organizations and government departments are today functioning in silos whereas problems facing the world are transcending boundaries. Prof. Carlo Rubbia opened his remarks by providing an insightful analysis of options to tackle the multiplicity of challenges that hinder the path of sustainable development. He mentioned a number of transformational technologies to reduce GHG emissions. Amongst the major options highlighted were techniques, such as Carbon Capture and Sequestration (CSS), hydrogen-based fuels, and scaling-up use of renewable energy resources.

Furthermore, he highlighted cost, availability, and storage as the key issues that need to be addressed for scaling-up the use of renewable energy resources. He stressed the importance of finding immediate solutions to store various forms of energy, especially solar energy. He also

advocated the introduction of coherent energy policies to reconcile the sustainability path. On being asked about the future of nuclear energy, he mentioned that nuclear energy based on uranium is not a long-term solution. We need to ensure the generation of nuclear energy through thorium as it leads to less waste and is more efficient. He concluded by highlighting the need to catalyse innovation in the area of science and technology to fuel resource efficient growth and development.

Chalking the Resource-Efficient Path for Africa



L-R: H.E. Prof. Daniel Samba Mukoko, Dr Ligia Noronha, Dr Pradeep Monga, and Mr Mahama Kappiah

Chair: Dr Ligia Noronha, Executive Director (Research Coordination), TERI, India

Panellists:

- **Dr Pradeep Monga**, Director, Energy and Climate Change Branch, United Nations Industrial Development Organization (UNIDO), Austria
- **H.E. Prof. Daniel Samba Mukoko**, Vice Prime Minister & Minister of Budget, Democratic Republic of Congo
- **Mr Mahama Kappiah**, Executive Director, ECOWAS Regional Centre for Renewable Energy and Energy Efficiency (ECREEE), Cape Verde

Dr Ligia Noronha opened the session with a presentation on the current status of Africa in terms of commodity extraction, resource potential and energy access. The key problems highlighted in the presentation included, low per capita energy consumption, water scarcity, and deforestation. The issues of physical trade imbalance and low Human Development Index (HDI) were also discussed. Panellists were requested to focus their discussion on reducing dependency on natural

resources for growth; think of suitable ways to increase productivity; and choose the right attributes for a resource efficient path. Illegal exploitation of land and prominent use of biomass and charcoal as major sources of energy were other concerns raised during the discussion.

Prof. Mukoko in his presentation mentioned that mining, forestry, and oil will be the main driving sectors for growth in the coming years. He also mentioned that regional development will require focus on areas of low carbon emission, urban transportation, waste management, and energy efficiency.

Dr Pradeep Monga discussed the role of UNIDO in Africa's development. UNIDO's focus lay on green industry, energy access to poor, carbon efficient technologies, flagship programme for building local capacities and market transformation for promoting renewable energy. The policy targets include the preparation of Renewable Energy (RE) and Energy-Efficient (EE) programmes. The panellists concluded that though it may be early for Africa to think towards reducing resource consumption, it could still continue to work towards institutional capacity-building along with human capacity-building for the betterment of the nation.

Global Green Growth Institute (GGGI)-TERI Initiative for Green Growth and Development in India



L-R: Dr Bharathi S Sihag, Mr Suresh Kumar, HE Mr Bharrat Jagdeo, Dr R K Pachauri, Dr Jason Eis, Dr S S Negi, and Dr Karan Avtar Singh

*Guest of Honour: **HE Mr Bharrat Jagdeo**, Former President of Guyana*

*Chair: **Dr R K Pachauri**, Director-General, TERI, India*

Panellists:

- **Mr Suresh Kumar**, Principal Secretary, Department of Science, Technology and Environment, Government of Punjab, India
- **Dr S S Negi**, Director, Department of Environment, Science and Technology, Government of Himachal Pradesh, India
- **Dr Bharathi S Sihag**, Principal Secretary, Forests, Environment and Scientific Technology, Government of Himachal Pradesh, India
- **Dr Karan Avtar Singh**, Principal Secretary, Department of Industries and Commerce, Government of Punjab, India
- **Dr Jason Eis**, Deputy Director – London Office, Global Green Growth Institute, U.K.

The event started with Dr R K Pachauri introducing the TERI-GGGI initiative for Green growth and Development in India. A sectorial assessment at the state level would be carried out to identify opportunities that would lead to a sustainable development pathway. Dr Pachauri stressed on the fact that a country like India needs to adopt and move towards resource efficient pattern of development. The Guest of Honour Mr Bharrat Jagdeo, member of the Governing Council of GGGI, appreciated TERI for being at the forefront of developing a path of green growth in India. He mentioned the need for various strategies consistent with green growth to be based on local circumstances. Dr Jason Eis talked about the work done by GGGI, primarily devoted to developing strategies towards a green growth paradigm. According to him, the policy design for these strategies needs to be appropriated at the national, state, and local levels.

Mr Suresh Kumar mentioned about the MoU that the Govt. of Punjab has already signed with TERI. Although Punjab is one of the fastest growing states of India and has one of the highest per capita income rates, they are facing challenges in terms of deteriorating quality of land, depleting groundwater level, soil degradation etc. Dr Bharathi S Sihag mentioned about the various steps that have already been taken by the Himachal Pradesh government to facilitate green growth in the state. Dr Karan Avtar Singh emphasized on the micro perspective of the investment policy in Punjab. In order to facilitate green growth in the state, the government is taking steps to increase the access to technology and markets for green growth. The session concluded with the signing of MoU between TERI and GGGI in presence of Mr Montek Singh Ahluwalia.

Valedictory Session and Presentation of the First Georgescu-Roegen Awards



L-R: Dr R K Pachauri, Mr Salman Khurshid, Mr Montek Singh Ahluwalia, and Dr V Rajagopalan

Chair: **Dr V Rajagopalan**, Secretary, Ministry of Environment and Forests, India

Special address: **Mr Salman Khurshid**, Hon'ble Minister of External Affairs, India

Valedictory address: **Mr Montek Singh Ahluwalia**, Hon'ble Deputy Chairman, Planning Commission, Government of India

Vote of thanks: **Dr R K Pachauri**, Director-General, TERI, India

The session started with the opening remarks of the Chair Dr V Rajagopalan. He focused on conservation of forests as exploitation of natural resources leads to ecological imbalance.

The session then moved to the presentation of the first *Georgescu-Roegen Awards*. Prof. Kozo Mayumi was presented the award for Unconventional Thinking *in absentia*, followed by the award for Bio-economic Practice, which was presented to *Accion Ecologica*, Ecuador and *Oilwatch*, Nigeria.



Ms Esperanza Martinez of Accion Ecologica, Ecuador, accepting the first Georgescu-Roegen Award for Bio-economic Practice

Mr Montek Singh Ahluwalia and Dr Pachauri also presented the ninth *Sustainable Development Leadership Award* to HE Mr James Alix Michel, President of Seychelles, in absentia which was accepted by HE Mr Jean-Paul Adam, Minister of Foreign Affairs, Seychelles, on behalf of the President.



Mr Jean-Paul Adam receiving the Sustainable Development Leadership Award, on behalf of President Michel, from Mr Montek Singh Ahluwalia and Dr V Rajagopalan

Mr Salman Khurshid stressed on the importance of growth with resource-efficient development. Mr Khurshid stressed that security of food, water and livelihood is the key concern. He also talked about access to energy for everyone. He spoke in terms of legislation on food security by 2014. Mr Montek Singh Ahluwalia informed the guests that the slogan of the 12th Plan document is “Faster, more inclusive, and sustainable growth”. He focused on “change” – behavioural, regulatory, and technological – and a change in mindset. The Summit came to a close with a Vote of Thanks being proposed by Dr Pachauri.

THEMATIC TRACKS

Making Individual Mobility Low Carbon and Sustainable

A BMW and TERI Co-Presentation



L-R: Mr Glenn Schmidt, Mr M F Farooqui, Mr Martin Wright, Mr Drew Kodjak, Mr Vishnu Mathur, and Mr Sohinder Gill

Chair: Mr M F Farooqui, Secretary (HI), Ministry of Heavy Industries and Public Enterprises, GoI

Moderator: Mr Martin Wright, Editor-in-Chief, Green Futures

Panellists:

- **Mr Drew Kodjak**, Executive Director, International Council on Clean Transportation
- **Mr Vishnu Mathur**, Director General, Society of Indian Automobile Manufacturers
- **Mr Sohinder Gill**, Chief Executive Officer, Global Business for Hero Eco Group and Director-Corporate Affairs, Society of Manufacturers of Electric Vehicles
- **Mr Glenn Schmidt**, MBA, Head of Steering Government Affairs, BMW Group

The thematic track on *Making Individual Mobility Low Carbon and Sustainable* highlighted the challenges and opportunities in the transport sector with the advent of new technologies. Speakers focused on growth in economic prosperity leading to an increased need for individual mobility and a consequential need for better urban and infrastructure planning. The deliberations also emphasized on the necessity to increase vehicle efficiency, use of quality engines, small and lightweight vehicles, and stringent standards in the Indian automobile industry. The nature and importance of the role played by government policies and regulations in reducing emission levels and energy consumption were stressed upon, along with

discussions on the penetration of electric vehicles and related challenges as well as sustainable product lifecycles and the value chains.

Thematic Consultation on Energy: Post 2015 Development Agenda and Energy Future We Want For All

A UN Foundation and TERI Co-Presentation



L-R: Mr Arvinn Eikeland Gadgil, Mr Minoru Takada, Ms Lise Grande, The Hon'ble Marie-Hélène Aubert, Ms Jyoti Shukla, and Dr R K Pachauri

Moderator: Mr Minoru Takada, Senior Policy Advisor on Energy, United Nations

Panellists:

- **Mr Arvinn Eikeland Gadgil**, Hon'ble Deputy Minister for International Development, Norway
- **Dr R K Pachauri**, Director-General, TERI
- **Dr Kirit S Parikh**, Chairman, Expert Group on Low Carbon Strategies for Inclusive Growth, Planning Commission
- **Ms Jyoti Shukla**, Senior Manager, Sustainable Development, World Bank
- **The Hon'ble Marie-Hélène Aubert**, Adviser to the President of French Republic for International Negotiations on Climate and Environment, France
- **Ms Lise Grande**, UN Resident Coordinator & UNDP Resident Representative, India

The consultation on energy aimed to facilitate an open dialogue with stakeholders on how energy may be appropriately integrated into a post-2015 global development agenda. In particular, it aimed to mobilize a wider range of relevant stakeholders to build a shared vision

on a set of priority areas and global energy goals that may be integrated within the post-2015 development agenda.

The five framing issues raised at the Consultation were best ways to ensure universal access to modern energy; efficient use of energy resources; increasing universal access from public and private industry; clean technology access to the industry; and public private coordination in energy. The stress of the Consultation was on access, systems approach, technology transfer, innovation, Public Private Partnership, and capacity building. The findings and deliberations of this thematic consultation on energy will serve as inputs for the post-2015 development agenda towards 2025, including the Sustainable Development Goals (SDGs).

Global Trends in Sustainable Production, Procurement, and Sourcing of Edible Oils

An RSPO, WWF, CGF and TERI Co-Presentation



L-R: Mr Nitin Paranjpe, Mr Prakash Chawla, Mr Ishteyaque Amjad, Mr Adam Harrison, Mr Dave Challis, and Mr Bob Norman

Opening remarks:

- **Mr Nitin Desai**, Former Under Secretary General of the United Nations and Distinguished Fellow, The Energy and Resources Institute;
- **Mr Ravi Singh**, Secretary General and CEO, WWF India

Keynote address: Mr Darrel Webber, Secretary General, Roundtable on Sustainable Palm Oil

Moderator: Mr Adam Harrison, Senior Policy Officer – Food and Agriculture, WWF

Panellists:

- **Mr Ishteyaque Amjad**, Director Corporate Affairs, Cargill India
- **Mr Dave Challis**, Director-Global Sustainability, Environment, Health, and Safety, Reckitt Benckiser
- **Mr Prakash Chawla**, Managing Director, Kamani Oil Industries Pvt. Ltd
- **Mr Bob Norman**, General Manager, Book & Claim Ltd
- **Mr Nitin Paranjpe**, CEO and Managing Director, Hindustan Unilever Limited

This thematic track saw speakers from across the industry spectrum debate on ways to make the supply chain of Palm Oil sustainable. The major challenges facing this sector are to seek sustainability along the entire supply chain “from farm to fork”, which can be achieved by way of creating sustainable and strong alliances of farmers with the processors, conserving the respective oil belts diversity, developing standards of sustainability in collaboration with sustainable agriculture networks, further increasing the stakeholders might be a probable solution for checking the price volatility existent in the market.

Given that India is one of the largest importers of Palm Oil, there was unanimous consensus amongst the speakers that it is imperative for us to focus on sustainable production, procurement, and sourcing of the same. Other key challenge areas discussed in the process of securing sustainable production and procurement of palm oil included deforestation, traceability, forcible land acquisition for cultivation, and connecting sustainable users and producers. On this occasion, a report titled ‘*Palm Oil Market and Sustainability in India – 2013*’ was launched by World Wildlife Fund.

Low Carbon Sustainable Mobility for All

A BMW and TERI Co-Presentation



L-R: Dr R K Pachauri, Ms Stephanie Draper, Mr Glenn Schmidt, Prof. Geetam Tiwari, Mr B I Singhal, Mr Martin Wright, Prof. Dinesh Mohan, and Mr Drew Kodjak

*Moderator: **Mr Martin Wright**, Editor in Chief, Green Futures*

*Chair: **Mr B I Singhal**, Director General, Institute of Urban Transport, India*

Panellists:

- **Mr Drew Kodjak**, Executive Director, International Council on Clean transportation
- **Ms Stephanie Draper**, Executive Director, Forum for the Future
- **Prof. Dinesh Mohan**, Volvo Chair Professor Emeritus, IIT Delhi
- **Mr Glenn Schmidt**, Head of Steering Government Affairs, BMW AG
- **Prof. Geetam Tiwari**, Department of Civil Engineering, IIT Delhi

Urban transport situation in many developing countries, including India is heading towards a crisis. Lack of mobility options for a significant part of the population living in the cities raises the issues related to equity in our transport systems. An urgent need for providing adequate and quality choices for 'Mobility for ALL' is being recognized as a solution for our cities. Improving and enhancing the mass transport systems, non-motorized transport systems, and the intermediate and informal transport systems are the key solutions that need to be adopted by the cities in the developing countries.

Panellists talked about motorized transportation and where India stands in this regard. Deliberations at the Track highlighted road safety and crime prevention while considering low carbon transport and encouraging pedestrian and bicycle use. The panel emphasized on the need for non-motorized transport and revolutionizing mobility beyond products. The panel also discussed megacities on the move and emphasized integration, prioritizing the poor, switching to IT networks, change in behaviour, and joint problem solving efforts.

Mindset of Green Growth

A Danish Cultural Institute and TERI Co-Presentation



L-R: Ms Mili Majumdar, Mr Kasper Guldager Jørgensen, Mr. Olaf Gerlach-Hansen, Mr. Finn Andersen, Ms Mette Morsing, and Mr Denis Leclerc

Moderator: Mr. Finn Andersen, Secretary General, DCI

Panellists:

- **Mr. Olaf Gerlach-Hansen**, Culture/Futures Director, DCI
- **Ms Mili Majumdar**, Director, Sustainable Habitat Division, TERI
- **Ms Mette Morsing**, Professor, Copenhagen Business School and Co-Director, CBS Sustainability Platform
- **Mr Kasper Guldager Jørgensen**, Architect MAA, Partner, Director of GXN
- **Mr Denis Leclerc**, President and CEO, Ecotech Quebec

The change of mindset and behaviour at all levels are essential in order to build resource-efficiency and green growth. The session aimed to address different approaches and angles to tackle green growth and focus on new modes of thinking and action. The session focus was in line with the aim of the international network – ‘Culture/Futures – the transition to an Ecological Age’ – which focuses on how mindset and behaviour can be changed through new practices.

The discussions at this session stressed upon various issues, such as green architecture as an alternative to energy intensive buildings and suggested the use of biological ecosystems in

them. The development of clean technology and training of future managers with a focus on business and sustainability was also recommended. The session gave weight to ideas, such as algae ecosystems in green buildings. The speakers also talked about focusing on ensuring executive training on sustainability issues in business school curriculums. They concluded with recommendations on the use of clean technologies with aggressive targets for carbon-neutral growth based on the Quebec model.

Governance and Management Challenges in Water-Use Efficiency

A UNDP, Ministry for Foreign Affairs of Finland, Embassy of Switzerland and TERI Co-Presentation



L-R: Mr Andreas Carlgren, Dr Srinivasan Iyer, Dr Prodipto Ghosh, Mr Crispino Lobo, and Mr Russell Rollason

Chair: Dr Srinivasan Iyer, Assistant Country Director, UNDP

Panellists:

- **Mr Andreas Carlgren**, Board Member, Stockholm Environment Institute, and Former Minister for the Environment, Sweden
- **Dr Prodipto Ghosh**, Distinguished Fellow, TERI, India
- **Mr Crispino Lobo**, Managing Trustee of Watershed Organization Trust (WOTR), Embassy of Switzerland
- **Mr Russell Rollason**, First Secretary, Climate Change and Energy Security, AusAID, Australian High Commission, India

More than 700 million people in 43 countries in the world presently live in water-stressed conditions. The water resource endowment and distribution across the world varies spatially and temporally. The problem of inequitable resource endowment is as much an issue as water scarcity. The variations in intra- and inter-regional vulnerabilities are often on account of geographical location, with greater runoffs in high latitudes and wet tropical regions and lower runoffs in the mid-latitudes.

Ironically, nearly two thirds of the world's population resides in areas receiving only one-quarter of the world's total annual rainfall. Water resource endowment and water-use efficiency determine the water security of the region. Resource-use efficiency is a function of good governance. Indiscriminate use of water by stakeholders can be attributed to distorted sectoral policies, such as irrigation subsidies, nil/low water tariffs, etc. Since many economic sectors are water dependent, inter-sectoral policy implications assume significance. Policies for interlinked sectors should be devised after evaluating sectoral implications in its entirety and this can be achieved only through good governance practices at micro, meso, and macro levels for efficient management of natural resources.

Dr Iyer's introductory remarks described India's water resource scenario and highlighted aspects like water loss, irrigation potential, and variability in spatial and temporal distribution of water.

Dr Carlgren offered strategies from Sweden's experience, including using system approaches, and financial investments. Mr Rollason compared the Murray-Darling river and Ganga basins, stating that both have multiple stakeholders, and discussed water management strategies during scarcity. Dr Ghosh explained Nobel Laureate Elinor Ostrom's eight principles with applicability in common property resource management. Mr Lobo described integrated approaches for Watershed Management in rain-fed semi-arid areas, recommending groundwater recharge and involvement of users and technologies. Finally, the panel strongly recommended enhancement of water-use efficiency through partnerships, economic instruments, better technologies, education, and participatory management.

Reducing Inequalities: A Sustainable Development Challenge

An Agence Française de Développement (AFD) and TERI Co-Presentation



L-R: Mr Pierre Jacquet, Mr Rémi Genevey, Ms Laurence Tubiana, Mr Raphael Jozan, and Ms Aude Flogny

Welcome remarks: **Dr R K Pachauri**, Director-General, TERI

Panellists:

- **Mr Rémi Genevey**, Executive Director, AFD
- **Mr Raphaël Jozan**, Associate Editor of A Planet for Life Series / Sustainable Development in Action, AFD
- **Ms Laurence Tubiana**, Director, IDDRI
- **Ms Aude Flogny**, Regional Director for South Asia, AFD

A key component of sustainable development policies, the alleviation of inequalities within and between countries also stands as a policy goal, and deserves to take centre stage of the Sustainable Development Goals, agreed during the Rio+20 Summit in 2012.

The seventh edition of 'A Planet for Life' series – *Reducing Inequalities: A Sustainable Development Challenge* – was launched during DSDS 2013 and a track session was also conducted on the theme of the book. The track examined the question of reducing inequalities, both within and between nations in the quest towards sustainable development. The book, a result of a partnership between The Energy and Resources Institute (TERI) and Institute for Sustainable Development and International Relations (IDDRI), includes 30 contributions from 53 authors from across the world. This unprecedented collection of works proposes a solid empirical approach, rather than an ideological one, to inform future debate. The case studies collected in this volume demonstrate the complexity of the new systems required to accommodate the

country specific realities and introduce sustainable development policies from a global perspective.

Learning from Green Growth Initiatives in Asia

A CDKN, Asia LEDS Partnership, and TERI Co-Presentation



Clockwise from top left: Mr Orestes Anastasia and Dr Doddy Sukadri giving the Welcome Remarks and Introduction; Presentations by India and Thailand; Dr R K Pachauri and Mr Ali Tauqeer Sheikh; and Presentations by Nepal and Vietnam.

Welcome address:

- **Mr Orestes Anastasia**, Co-Chair, Asia Low Emission Development Strategies (LEDS) Partnership, US Agency for International Development Regional Mission for Asia
- **Dr Doddy Sukadri**, Co-chair, Asia Low Emission Development Strategies (LEDS) Partnership, Indonesia National Council on Climate Change

Closing remarks:

- **Mr Ali T Sheikh**, Asia Director, Climate Development Knowledge Network (CDKN)
- **Dr R K Pachauri**, Director-General, TERI

The objective of this thematic event jointly presented by the Climate Development Knowledge Network (CDKN) and the Asia Low Emission Development Strategies Partnership was to showcase innovative initiatives that enable low-emission climate-resilient growth and development in the region. The session featured a unique market-place format, with separate displays for the four countries showcasing their experiences and best practices in designing and implementing LEDS and green growth policies and programmes. Representatives from India, Vietnam, Thailand and Nepal highlighted their green growth policies and initiatives and key

institutions. Participants were divided into four groups which rotated among the four displays over the course of the session.

Representatives from TERI, India, briefed the gathering about initiatives like Lighting a Billion Lives and Green Rating for Integrated Habitat while those from the Alternative Energy Promotion Centre, Nepal, spoke about the District Climate Energy Plans (DCEP). Representatives from the Greenhouse Gas Management Organization, Thailand, elaborated about their focal programme – Thai Low Carbon City. Officials from the Ministry of Planning and Investment, Vietnam, detailed the proposed Green Growth Strategy and its various components.

This unique track session was well appreciated, with participants gaining many insights into the green growth initiatives in Asia.

Improving Long-distance Passenger Transport Systems: Introducing High Speed Rail in India

An ITPS and TERI Co-Presentation



L-R: Mr Sarbojit Pal, Mr Yosuke Takada, Mr Shri Prakash, Mr Vinay Mittal, Mr R Sivadasan, Mr Anupam Khanna, and Mr Jitendra Sondhi

Welcome remarks: Mr Shri Prakash, Distinguished Fellow, TERI

Presentation by TERI and ITPS:

- **Mr Sarbojit Pal**, Associate Fellow, TERI
- **Mr Yosuke Takada**, Director of International Affairs Office, ITPS

Panel Discussion:

Chair: **Mr Vinay Mittal**, Chairman Railway Board, Government of India

Moderator: **Mr Shri Prakash**, Distinguished Fellow, TERI and Former Member (Traffic), Railway Board, Government of India

Panellists:

- **Mr R Sivadasan**, Former Financial Commissioner, Railway Board
- **Dr Anupam Khanna**, Chief Economist and Director General (policy), NASSCOM & Principal Adviser, National Transport Development Policy Committee
- **Mr Jitendra Sondhi**, Consultant, World Bank

Rapid economic growth and urbanization has led to an explosive increase in the demand for long-distance mobility in India. The current passenger transport systems for long-distance transport will not be able to support the high levels of demand in the future, thus calling for an urgent need to look at solutions for high capacity, energy efficient, and state of the art passenger transport systems for the country.

While high speed rail systems hold potential to lower carbon imprint and provide high speed mass transport, an India-centric business model is required. The track focused on the various issues and challenges surrounding the introduction of high speed rail systems in India. A national policy for high speed rail is currently lacking in India and certain changes in the current framework or an entirely new policy would be required in order to develop and promote the new mode. Examples from Japan and China were discussed, where government-funded high speed rail is a very popular mode of travel and has been very beneficial in moving people more efficiently at faster speeds. Successful high speed rail would also include implementation of various other supporting measures – efficient location of stations and easy accessibility being the two most important ones among others.

Despite the high potential and need for HSR in India, certain issues were identified, most important being the high capital costs involved in developing the basic infrastructure for high speed rail. Also, initially constant technological inputs would be required from abroad, though India might be able to develop its own technology with time. Development of this system would require a long term vision and commitment from policy makers as well as planners. It was realized that government will have to play a very vital role in developing the system. However, operations of the system can be later done on private partnerships.

SOCIAL EVENTS

Dinner of Hope



Clockwise from Top-Left: Sangeet Natak Academi dancers performing the Indian Classical Dance Bharatanatyam; Sangeet Natak Academi dancers performing the traditional Kathakali dance of Kerala; students of DPS Sharjah performing a special LaBL dance drama; and Dr R K Pachauri, Ms Chandresh Kumari Katoch, and Mr Digvijaya Singh.

The Dinner of Hope, hosted on 31st January as part of the 13th edition of Delhi Sustainable Development Summit, was dedicated to TERI's Lighting a Billion Lives (LaBL) initiative, a Campaign launched at the Clinton Global Initiative in New York in the year 2007. **Ms Chandresh Kumari Katoch**, Hon'ble Minister of Culture, Government of India and **Mr Digvijaya Singh**, Former Chief Minister of Madhya Pradesh & General Secretary, Congress (I) were the Guests of Honour.

The Campaign aims at dissemination of solar lanterns, which are charged from a solar panel located at a central station in each village; operated by women specially trained for the purpose.

The Campaign has covered over 1,900 villages in India, and several in Africa, Indonesia, and Myanmar.

The Dinner of Hope was an attempt to help illuminate 1.3 billion lives who continue to live in darkness across the globe. The illumination from LaBL efforts will provide them an opportunity to lead better, healthier, and happier lives.

Dr R K Pachauri narrated the growth story of the LaBL campaign. The students of Delhi Private School (DPS), Sharjah presented a cheque of INR 3.07 lakh raised by them to Dr Pachauri in support of LaBL. **Ms Chandresh Kumari Katoch** and **Mr Digvijaya Singh** focused on the importance of electricity in people's lives in their addresses.

The Dinner of Hope featured a glittering display of the finest of the Indian performing arts by the Ministry of Culture, with performances of *Kathakali*, *Bharathnatyam*, and *Odissi* set to live music. The students of DPS Sharjah performed a thrilling dance drama based on the LaBL initiative.

The evening was much applauded, as were the efforts of the students of DPS Sharjah who raised funds for the 'Lighting a Billion Lives' Campaign.

Danish Cultural Institute Awards Ceremony



L-R: Mr Claus Resen Steenstrup, Vice President of Holck-Larsen Foundation; Mr Olaf Gerlach-Hansen, Culture/Futures Director, Danish Cultural Institute; Award winners Ms Priyanka Raju, Ms B. Nambu Priya Dharshini, Mr Priyam Johry, Ms. Anne Camilla Auestad; Dr R K Pachauri, Director-General, TERI; HE Freddy Svane, Ambassador, Embassy of Denmark, India; and Mr Michael Christiansen, Chair of Board of Directors of Danish Cultural Institute

The Danish Cultural Institute Awards Ceremony on day two of the Summit felicitated young students from educational institutes in India and Denmark for their path-breaking ideas towards implementing sustainable development. The Awards symbolize the cooperation between the two countries in search of sustainable solutions for a healthier future. The Awards were sponsored, among others, by the Danish Cultural Institute, Denmark and Larsen and Toubro, India. On this occasion, the Chairman of the Danish Cultural Institute briefed the audience about the idea behind the initiative and its evolution till date. The Awards at the Summit were given in four categories and awardees selected from 42 shortlisted candidates. The recipients included Mr Priyam Johry (Business), Ms Nambu Priya Dharsini (Technology), Ms Priyanka Raju (Urban Development), and Ms Anne Camilla A Auestad (Design/Culture).

Lunch hosted by the Ministry of Environment and Forests, Government of India



Mr Hem Pande, Joint Secretary, Ministry of Environment and Forests, Government of India, speaking at the lunch hosted by the Ministry with Dr R K Pachauri, Director-General, TERI

Lunch on the third day of the Summit (February 2nd) was hosted by the Ministry of Environment and Forests, Government of India. The Ministry has been an integral part of the growth of the Delhi Sustainable Development Summit over the years. Ms Jayanthi Natarajan, Hon'ble Minister of State (I/C) for Environment and Forests, graced the inauguration of DSDS 2013 with her presence.

LAUNCHES

Launch of *Knowledge x-change on Sustainable Development Portal*



L-R: Ambassador C Dasgupta, HE Mr Donald Ramotar, HE Mr Anote Tong launching the Knowledge x-change on Sustainable Development portal

The portal on "Knowledge x-change on Sustainable Development" was launched at the Delhi Sustainable Development Summit 2013 by the first *Leadership Panel*, comprising H.E. Mr Donald Ramotar, President of Guyana; H.E. Mr Anote Tong, President of Kiribati; Ambassador C Dasgupta, Distinguished Fellow, TERI; and Dr R K Pachauri, Director-General, TERI. Mr Phil Marker, Counsellor, Energy, Climate & Growth Unit, British High Commission-DFID India, also briefly addressed the delegates.

The portal, supported by the UK Government, is an effort towards synergizing experiences and knowledge exchange on diverse sectors related to sustainable development. The KxSD portal focuses on three main dimensions of sustainable development – policy imperatives, technology & innovations, and community partnership. The portal showcases research and innovative practices, knowledge resources and success stories targeted at policy-makers and the wider research community.

Launch of the 'Asia Leadership Program on Sustainable Development & Climate Change'



L-R: Ms Sally Pedersen, Dr R K Pachauri, Mr Haruhiko Kuroda, and Mr Bindu N Lohani

The Asian Development Bank (ADB) and TERI collectively launched the '*Asia Leadership Program on Sustainable Development and Climate Change*' on the first day of DSDS 2013. Mr Haruhiko Kuroda, President of the Asian Development Bank, Philippines, said that the programme aims to inspire leadership and look for practical and realistic options for sustainable growth. Dr Pachauri emphasized that the opportunity for sustainable development is here in Asia with its growth rate and the potential it holds. He commended ADB for its initiative and commitment. In conclusion, Dr Bindu N Lohani, Vice President, Knowledge Management and Sustainable Development, Asian Development Bank, Philippines, emphasized on integrating sustainable development into the growth story. The programme aims to bring in experts across Asia to work together to further this objective.

Launch of Reducing Inequalities: A Sustainable Development Challenge - A Planet for Life Series



L-R: Prof. Jeffrey Sachs, Dr. R. K. Pachauri, Dr Laurence Tubiana, and Mr Rémi Genevey

Reducing Inequalities: A Sustainable Development Challenge, part of the 'Planet for Life' Series, was launched at the Summit. Edited by Mr Rémi Genevey, Executive Director, Agence Francaise de Developpement (AFD), France; Dr Laurence Tubiana, Director, Institute of Sustainable Development and International Relations (IDDRI); and Dr R K Pachauri, Director-General, TERI; the book focuses on the issue of reducing global inequalities as an imperative for sustainable development.

SPECIAL EVENTS

The following table lists the special events held alongside and in the run-up to the 2013 Summit:

Event	Partners	Date
YUVA Meet 2013: Green Growth – Preparing Youth for Sustainable Living	Ministry of Youth Affairs and Sports, Government of India; Tetra Pak India Pvt. Ltd.; United Nations University; RCE-Delhi	28 - 29 January
'The Animals' Climate Panel Exhibition	Norwegian Embassy	28 January – 2 February
TERI-Rockefeller International Workshop on “Resilient Cities – Experiences from ACCCRN in Asia and Beyond”	Rockefeller Foundation	29 January
Biomass Based Decentralized Energy Solutions	REEEP; Swiss Agency for Development and Cooperation (SDC)	29 January, 2013
International Conference on Agriculture & Climate Change	Department of Biotechnology; Council of Scientific and Industrial Research; National Board for Agricultural Development; Defence Research Development Organization	29 – 30 January
Designing Sustainable Development Goals: A Brainstorming Session	DFID	30 January
Forest Governance in the Context of FRA and PESA	Ministry of Environment and Forests, Government of India	30 January
World CEO Sustainability Summit	World Business Council for Sustainable Development (WBCSD), BP	30 January
Media Colloquium	World Bank, The Third Pole	
REDD+ : South Asia Perspective	ICIMOD	31 January

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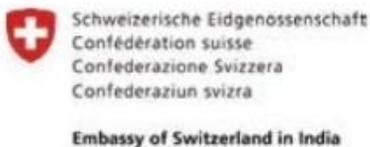


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RSPO
Roundtable on Sustainable Palm Oil

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Embassy of Switzerland in India





Mark your calendar!

6–8 February 2014
New Delhi

Delhi Sustainable Development Summit 2014

Theme:

ATTAINING ENERGY, WATER, AND FOOD
SECURITY FOR ALL



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