



World Sustainable
Development Forum

DSDS 2012

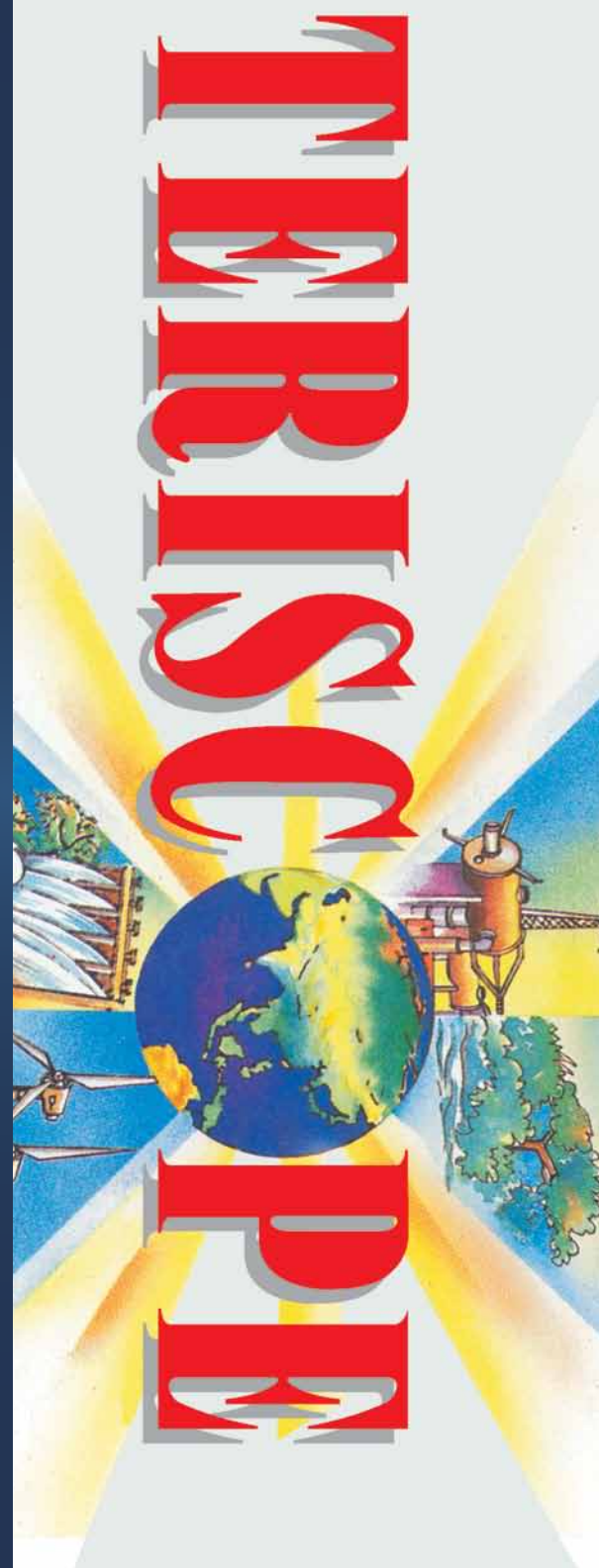
12TH DELHI SUSTAINABLE DEVELOPMENT SUMMIT

Protecting the global commons:
20 years post Rio

2–4 February 2012
New Delhi



The Energy and Resources Institute



January–February 2012

From the Director-General's desk...

The Delhi Sustainable Development Summit has now become the most prominent gathering, held annually anywhere in the world to focus on issues of sustainable development. The Summit itself was launched in 2001, and has gained momentum and relevance because there is now a growing awareness across the globe and on the part of all stakeholders to see that the concept of sustainability is translated into action on the ground and into policies that bring about a transition to a sustainable pattern of development.

DSDS 2012 focused on protecting the global commons and this is a subject, which has been receiving great attention over the last 50 years, but has not really aroused the social conscience of policy-makers in different countries, who predictably focus on narrow and short-term priorities that seem to dominate politics rooted in elections and the normal practice of democracy. Typically, therefore, the global commons, which by definition are really nobody's direct property or responsibility, are neglected both in private decisions and those of governments that represent narrow national interests. Yet, the benefits and services we derive from the global commons are of incalculable value and to that extent as we continue with depletion, degradation, and damage to these commons, so also are we reducing the potential benefits that human society has been thriving on since time immemorial. If we do not bring about a reversal in our responsibility for protection and conservation of the global commons, humanity will have to pay an increasingly heavy price in the years ahead. A very pertinent example of the implications of damaging the global commons is related to the increased concentration of greenhouse gases in the earth's atmosphere. Since the atmosphere of this planet benefits all, but is the direct responsibility of no single entity, we have continued with indiscriminate dumping of these gases into the earth's atmosphere. This has led to climate change, which not only has an impact on all economic activities across the world, but also on the ecosystems essential for the survival of species across the length and breadth of our planet.

DSDS as an annual event can really not solve, in any effective way, any of the major problems that we have in the world linked with unsustainable use of natural resources and their progressive degradation and depletion. However, by collecting some of the finest minds drawn from various countries of the world and by convening an assembly of decision makers at the highest level, DSDS is able to bring into the consciousness of the world's foremost policy-makers knowledge that would perhaps otherwise be ignored in dealing with the challenge of sustainability. The fact that both the magnitude and the quality of participation in successive Summits has been on the increase, it can be concluded that DSDS is now looked on as an essential part of the global calendar for people who are not only concerned with issues of sustainable development, but can actually make a difference in implementing the concept of sustainability in real life conditions. We now know that the world is seriously engaged in assessing the feasibility of patterns of growth that are greener and embody a large component of sustainability. Consequently, the Summit theme for next year would be "The Global Challenge of Resource Efficient and Low Carbon Development". For us as organizers of DSDS, it is a source of gratification and pride that TERI has launched this Forum, which has the potential for redefining the concept of development for the betterment not only of the current generation, but also of generations yet to come.



R K Pachauri
Director-General, TERI

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North-Eastern Regional Centre

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DSDS

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World Sustainable Development Forum

World Sustainable Development Forum (WSDF) is a conduit to identify, analyse, and disseminate policy interventions to enhance human well-being in the present and create conditions for a sustainable future. It was established in 2005 as a platform to create awareness of and ensure action towards meeting the objectives of sustainable development. This Forum has been inspired by the success of the DSDS and the need for spreading the message from each annual summit to different parts of the world. In its endeavour, the WSDF has been able to secure patronage of a group of highly distinguished global leaders drawn from government, industry, and the academia, as well as opinion-makers in a world characterized by locale specific socio-economic and environmental priorities. Given diverse developmental imperatives across regions, WSDF conducts Regional Sustainable Development Summit (RSDS) annually, to focus on sustainable development issues regionally.

The first regional summit held under the WSDF-RSDS series was held in Shirakawa, Japan in 2006 as a Policy Forum on Science and Technology for Sustainable Development. This was followed by the second WSDF summit in 2007, held in Tunisia, focusing on Climate Change Strategies for the African and Mediterranean Regions. The year 2009, witnessed two regional summits, one held in Athens, Greece, with the emphasis on 'Climate Change and Challenges for Future Generations' and the other in Manila, the Philippines focusing on Climate Change in the Asia Pacific Region.

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- **Mr Georges Valentis**, Managing Director, The Institut Veolia Environnement, France
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The WSDF Patrons and Advisory Group members meet annually, providing an opportunity for the Secretariat to submit an update of activities under the Forum for each year and to stimulate discussions on the Forum's way forward.

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9th WORLD CEO Sustainability Summit 2012

**Doing Business:
While Protecting the Global Commons**



12TH DELHI SUSTAINABLE DEVELOPMENT SUMMIT
Protecting the global commons: 20 years post Rio

Inaugural Session

**Inauguration by Mr Anand Sharma, Hon'ble
Union Minister of Commerce and Industry and
Textiles, Government of India**

Welcome and opening Dr R K Pachauri, President, TERI-BCSD and Director-General, TERI
Special remarks Mr Peter Bakker, President, World Business Council for Sustainable Development, Switzerland ■ Mr Sudhir Vasudeva, Chairman and Managing Director, ONGC Ltd
Keynote address Dr Sam Pitroda, Chairman, National Innovation Council, Government of India & Advisor to the Prime Minister on Public Information Infrastructure & Innovations
Vote of thanks Ms Annapurna Vancheswaran, Director – Sustainable Development Outreach, TERI



This session was initiated by Dr R K Pachauri; who spoke about the impact of climate change and greenhouse gas emission on global commons, and the effects of their

destruction on society. As an example of these effects,

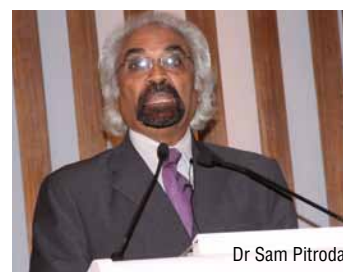
Dr Pachauri mentioned the impact of climate change on sea-level rise in coastal areas. Mr Peter Bakker revealed how in India, a greater number of people are being made aware of sustainability. Mr Bakker also stated that business has a clear role to play in ensuring sustainability. Mr Sudhir Vasudeva shed light on



Mr Anand Sharma

sustainable development in terms of his work in the hydrocarbon sector. He illustrated a five-point agenda; dealing with a company's carbon footprint, the role of small businesses, initiation of outreach for sustainability, global citizenship, and issues of ethics and morality.

Dr Sam Pitroda emphasized that developmental modules based on 20th century experiences are not sustainable or desirable, and we need to critically analyse them. According to Dr Pitroda, sustainability is a buzz word that everybody is concerned about. He also illuminated Gandhi's thoughts on sustainability. Mr Anand Sharma spoke about the role of Intellectual Property Rights (IPR) in relation to sustainable development, and the potential of green and clean technology in the cause of sustainability. Ms Annapurna Vancheswaran delivered the vote of thanks. ■



Dr Sam Pitroda

As they said it



Sustainability 2050 - 9+ billion people who all live well within the boundary of the world.

Mr Peter Bakker

President, World Business Council for Sustainable Development, Switzerland

Panel Discussion I

Doing Business while Protecting the Global Commons: Case studies and lessons learnt since Rio 1992

Chairperson and Moderator Mr Nitin Desai, Chairman, TERI-BCSD and Former UN Under Secretary General

Panelists Ms Aimee Christensen, Founder & CEO, Christensen Global Strategies, LLC and Strategic Adviser, Prince of Wales's Business & Sustainability Programme ■ Mr Ajit Gulabchand, Chairman and Managing Director, HCC Ltd ■ Mr Anil Jain, Chairman and Managing Director, Jain Irrigation Ltd ■ Mr Philippe Joubert, Deputy Chief Executive Officer, Alstom ■ Dr Bindu N Lohani, Vice-President, Knowledge Management and Sustainable Development, Asian Development Bank ■ Dr Ajay Mathur, Director General, Bureau of Energy Efficiency ■ Mr Nitin Paranjpe, CEO and Managing Director, Hindustan Unilever Ltd ■ Mr Venkatesh Valluri, Chairman, India Region, Ingersoll-Rand (India) Limited



Former Under Secretary General for Economic and Social Affairs of the United Nations, Mr Nitin Desai, chaired and moderated the first panel discussion at the World CEO Sustainability Summit. As 2012 has been designated the International Year of Sustainable Energy for All by the UN; it was appropriate that the Special Advisor to the United Nations High Level Group of Sustainable Energy for All, Ms Aimee Christensen, emphasized the roles and responsibilities of business development, and the necessity to internalize externalities for sustainability. Ms Christensen subsequently spoke about the requirement of mutual cooperation between businesses and government as an essential pre-requisite for sustainable development.



Mr Nitin Paranjpe



Mr Venkatesh Valluri



Mr Nitin Desai

Mr Ajit Gulabchand, the Chairman and Managing Director of the Hindustan Construction Company, drew upon his vast experience in the areas of sustainable development and disaster resource management to describe how water resource management is an essential part of the movement towards sustainability. Mr Gulabchand also spoke about ensuring the reusability and recyclability of water resources. Mr Anil Jain emphasized the role of irrigation in food and water management, and spoke about the impact of water recycling; which is a form of renewable energy in the realm of sustainable agriculture.

Mr Philippe Joubert talked about carbon emissions and carbon footprints as major issues related to sustainability, and mentioned the kind of research and development that is needed to address this problem. Dr Bindu N Lohani talked about the role of policy-makers in sustainable development; in addition, he also addressed the need for forest conservation as a crucial component of sustainability.

Dr Ajay Mathur shed light on energy efficiency and sustainability, while Mr Nitin Paranjpe addressed the role of water resources as sources of renewable energy. Mr Venkatesh Valluri spoke about the use of conversion strategies as one of the possible solutions for sustainable development; expanding this idea to cover business conversion, technology conversion, and social conversion. ■



Ms Aimee Christensen



Mr Ajit Gulabchand



Mr Anil Jain



Mr Philippe Joubert



Dr Bindu N Lohani



Dr Ajay Mathur

Panel Discussion II

Business Challenges and Opportunities in a Transition Towards a Green and Inclusive Economy: Helping change happen

Chairperson and Moderator Mr Yvo de Boer, Special Global Advisor, Climate Change and Sustainability, KPMG; Former Executive Secretary of UNFCCC

Panelists Mr Raghupathi N Cavale, Vice-President – India Business, Infosys Ltd ■ Dr Joseph Fiksel, Sustainability Advisor, US EPA; Executive Director, Center for Resilience, The Ohio State University ■ Mr Girish Aivali, Country Head, Development and Sustainability Banking, YES Bank ■ Mr M S Mehta, Group CEO, Vedanta ■ Mr Rajiv Ranjan Mishra, Managing Director - India, CLP Power India Pvt. Ltd ■ Mr Noel Ryan, President, Danfoss India ■ Mr Arun Seth, Chairman, BT India & Alcatel – Lucent India & Vice-Chairman, TERI-BCSD



Mr Yvo de Boer chaired and moderated the session invoking Gandhiji's words—"Our planet can accommodate our need, but not our greed." Mr Raghupathi N Cavale emphasized on inclusive and sustainable growth and focused on the IT, telecom, and automation industries with regard to energy efficiency. He also talked about energy saving in the agriculture and banking sectors, and how progress was being made in the right direction. Dr Joseph Fiksel raised concerns about the rapid and rampant consumption of the existing pool of natural resources as a result of which the pool was fast depleting. He also stated that India could be a laboratory for innovation and provision of concrete and workable solutions in sustainable development,



Mr Rajiv Ranjan Mishra



Mr Noel Ryan



Mr Arun Seth

and mentioned about "dematerialization" as a solution for a sustainable environment. Talking about the role of banking in environment, Mr Girish Aivali emphasized on the need for adopting sustainable practices and excellent management systems. Mr M S Mehta focused on food security and energy security as well as conservation of natural resources. The main focus of the deliberations moved to the power sector where Mr Rajiv Ranjan Mishra spoke about the role of the power sector in maintaining a sustainable environment and the progress made thus far. On a different note, Mr Noel Ryan talked about the acceleration of the process of urbanization in India, which is proving to be a challenge to the restoration and maintenance of the ecological balance. In his address, Mr Arun Seth focused on the business ecosystem in the telecom sector and the move towards a sustainable environment. ■

As they said it



Policy-making goes hand in hand with strategy to build the atmosphere for sustainable development.

Mr Raghupathi N Cavale

Vice-President – India Business, Infosys Ltd



Mr Yvo de Boer



Mr Raghupathi N Cavale



Dr Joseph Fiksel



Mr Girish Aivali



Mr M S Mehta

Regional Rollout of the International year of Sustainable Energy for All (SEFA)

High Level Panel Discussion

Co-Moderators Dr Kande K Yumkella, Director General, United Nations Industrial Development Organization, Austria ■ **Dr R K Pachauri**, Director-General, TERI, India
High Level Panelists ■ **HE Mr Erik Solheim**, Hon'ble Minister of the Environment and International Development, Ministry of the Environment and International Cooperation, Norway ■ **Dr Farooq Abdullah**, Hon'ble Union Minister of New and Renewable Energy, Government of India and Member of the UN Secretary General's High Level Group on the Sustainable Energy for All Initiative ■ **Nobel Laureate Dr Elinor Ostrom**, Professor, Indiana University, USA ■ **Mr Peter Bakker**, President, World Business Council for Sustainable Development, Switzerland ■ **Mr Patrice Coeur-Bizot**, UN Resident Coordinator and UNDP Resident Representative, India ■ **Dr Bindu N Lohani**, Vice-President, Knowledge Management and Sustainable Development, Asian Development Bank, Philippines ■ **Mr David Sandalow**, Assistant Secretary for Policy and International Affairs, US Department of Energy, USA

The high level session was introduced by Dr Kande K Yumkella where he set the theme for the discussion by highlighting three targets that need to be achieved by 2030, namely; ensuring universal access to modern energy, doubling the rate of improvement in energy efficiency, and doubling the share of renewable energy in the global energy mix. Mr Erik Solheim stressed upon the public-private partnership where the grants/funds should lead to leveraging investments towards technology-neutral modern energy access programmes. Dr Farooq Abdullah suggested measures towards cutting down subsidies on kerosene and diesel so as to mobilize resources for renewable energy promotion and environmental protection. Dr R K Pachauri urged the proactive participation of big corporates in the field of research and development to cater to the needs of the society at large. He further emphasized the need for awareness creation at the household level to adopt clean and energy efficient technologies. Mr David Sandalow also stressed on taking energy efficient products to the market and up-scaling them.

The session also witnessed interesting discussions on recognizing traditional local knowledge and skills, where Dr Elinor Ostrom identified some of the best practices in Africa and Asia. Mr Peter Bakker mentioned the importance of stable policies and regulatory regimes to support the initiatives taken by the private sector. Dr Bindu N Lohani raised some pertinent issues like modalities of leveraging private money, difficulties in taking projects to remote and far flung rural areas, and linking energy projects with income generating activities. Mr Patrice Coeur-Bizot advocated the importance of capacity building to strengthen the energy security projects. ■



Dr Kande K Yumkella



Dr R K Pachauri



HE Mr Erik Solheim



Dr Farooq Abdullah



Mr Patrice Coeur-Bizot



Dr Bindu N Lohani



Mr David Sandalow



Mr Peter Bakker



Nobel Laureate Dr Elinor Ostrom



Concluding Remarks/Way Forward

- **Mr Nitin Desai**, Chairman, TERI-BCSD and Former UN Under Secretary General
- **Mr Peter Bakker**, President, World Business Council for Sustainable Development, Switzerland

Mr Peter Bakker delivered the vote of thanks and also mentioned that “dematerialization” could be a solution for a green future and sustainable environment. According to Mr Bakker, the first panel focused on technical perceptions of sustainability while the second panel emphasized on the role of business leadership for

a move towards sustainability. Mr Nitin Desai used the keyword “Optimus” for the World CEO Sustainability Summit and mentioned about the integration of technologies for achieving the goal of sustainable development. ■





12TH DELHI SUSTAINABLE DEVELOPMENT SUMMIT

Protecting the global commons:
20 years post Rio

The Delhi Sustainable Development Summit (DSDS)— organized each year by TERI since 2001—brings together the world's finest minds and leading thinkers on one platform to deliberate over the challenges of sustainable development. The eleventh edition of the annual summit was held during 2–4 February 2012. As in previous years, DSDS 2012 also engaged heads of governments, Nobel laureates, corporate CEOs, academics, and representatives of bilateral and multilateral organizations and research institutions. TERIScope brings to its readers an overview of the proceedings of DSDS 2012.

Day 1, 2 February 2012

Inaugural Session

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

Dr R K Pachauri welcomed the august delegation to the 12th Delhi Sustainable Development Summit, highlighting the environmental and water sectors and referring to the “tragedy of the commons”. He reflected on the progression of international talks, from Stockholm, to Rio, and finally looking ahead to the upcoming Rio+20. According to Dr Pachauri, energy security would be the biggest challenge in times to come.



Dr Manmohan Singh

Hon'ble Prime Minister of India Dr Manmohan Singh reminded the audience about the United Nations Conference on Sustainable Development in June 2012 that marks the twentieth anniversary of the landmark 1992 Earth Summit. He reiterated poverty eradication as the overarching objective of India's approach towards sustainable development and commended India for playing an important role in the climate change negotiations at COP17, where the agreement on the second commitment period to the Kyoto Protocol was reached. Dr Singh stressed that India has believed in moving forward with focus on equity, but differentiated responsibilities as central dimensions. He expressed satisfaction that the National Action Plan on Climate Change and the eight national missions under it were making satisfactory progress and stated that the Twelfth Five-Year Plan would be designed to ensure sustainable development and inclusive growth. He seemed delighted to report that the tiger population is on the rise in India, as is the forest cover.

Concluding the session, Dr Arcot Ramachandran thanked the Prime Minister for his presence and his encouraging inaugural address. He highlighted the urgent need to set standards. ■

THE SUSTAINABLE DEVELOPMENT LEADERSHIP AWARD



The Sustainable Development Leadership Award, instituted by TERI in 2005, is given away every year in recognition of significant contribution towards the cause of sustainable development.

HE Ms Tarja Halonen, President of Finland was conferred the Sustainable Development Leadership Award by the Hon'ble Prime Minister of India, Dr Manmohan Singh. In her acceptance speech, she highlighted the crucial linkages between sustainable development, human resources development, and the empowerment of women.

Leadership Panel I

Leading to Preserve the Global Commons

Chairperson Dr Prannoy Roy, Founder and Executive Chairperson, NDTV, India
Speakers HE Ms Tarja Halonen, President, Finland ■ HE Mr Anote Tong, President, Kiribati ■ HE Mr James Alix Michel, President, Seychelles



Dr Prannoy Roy, chair and moderator of the session, emphasized on the importance of global summits like DSDS. Opening the session, HE Mr Anote Tong, President, Kiribati emphasized on the need for global focus on sustainable development and pointed out that human beings are central to the process. Mr Tong also

said that carbon tax was the need of the hour, even though it is likely to face criticism. He also reiterated that multi and bilateral organizations should assess what they are doing for sustainable commons.

HE Ms Tarja Halonen, President, Finland, emphasized on the need for social justice. She stressed on the importance of keeping the people who are part of the biodiversity of a country or region in mind. Talking about resources, she quoted Mahatma Gandhi in saying that “there is enough for everyone’s need, but not for everybody’s greed”. Pricing models for products was an important thrust of her address. Sustainable agriculture was the other major focus area of Ms Halonen’s address. Actions and not words was the call given by HE Mr James Alix Michel, President, Seychelles. He pointed out that we have to address these problems through not only G7 and G20, but also G193 where all nations of the world can come together. President Michel stressed that time has come to develop strong political will to come together and work towards sustainable development. In his concluding remarks, he called upon citizens to put pressure on their respective governments to become responsible and move towards sustainable development. ■



HE Mr James Alix Michel



HE Ms Tarja Halonen



HE Mr Anote Tong

Keynote Addresses

Chairperson Mr Yvo de Boer, Special Global Advisor, Climate Change and Sustainability, KPMG International, UK and Former Executive Secretary, United Nations Framework Convention on Climate Change (UNFCCC)

Speakers HE Ms Patricia Espinosa Cantellano, Minister of Foreign Affairs, Government of Mexico ■ Mr Haruhiko Kuroda, President, Asian Development Bank, Philippines ■ Nobel Laureate Dr Elinor Ostrom, Professor, Indiana University, USA



Mr Yvo de Boer

HE Ms Patricia Espinosa Cantellano was concerned that even after 20 years of Rio, the world is still struggling to make sustainable development a part of social and economic planning. She stressed that the need of the hour is to take right

political decisions and argued that with the support of NGOs, academia, local communities and other organized civil societies, the government can be more effective. She also mentioned that we have to use our financial and technological resources to bring together the Millennium Development Goals and climate change initiatives. Ms Cantellano emphasized on the need for a common goal and called for uniting all efforts with a genuine political will under a proactive leadership, which will pave the way for strong initiatives and carry on the spirit of Rio, Cancun, and Durban.

Mr Haruhiko Kuroda urged for corrective action that needs to be taken as regards climate change and preserving the global commons. He added that the ADB was playing an important role in inculcating green growth in the Asia-Pacific region. Arguing in favour of international cooperation to combat the global problem of climate change, he prescribed a green growth with a perfect network of regional cooperation and links with global partnerships for going ahead. He concluded by adding that the green energy development initiative is making a noticeable change in the Asia-Pacific region and hoped for the development of the Green Climate Fund by 2020. Professor Ostrom called for a polycentric approach. She added that the problem



HE Ms Patricia Espinosa Cantellano



Mr Haruhiko Kuroda



Nobel Laureate Dr Elinor Ostrom

As they said it



Green economy means achieving three dimensions of sustainable development – environmental, social and economic.

Mr Haruhiko Kuroda
President, Asian Development Bank, Philippines



Whether we have taken action or not, we should remember that we are running out of time.

HE Mr James Alix Michel
President, Seychelles

with the global change is that everyone wants to focus only on the international level; but we actually need to look regionally and locally at policies to enhance possibilities. She also added that effective monitoring by resource users can mitigate the problem of commons and categorically emphasized the need for a more interdisciplinary approach for a sustainable solution. ■

Leadership Panel II

Leading to Preserve the Global Commons

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

Speakers HE Mr Festus Mogae, Former President of Botswana and Chairperson of CODA, Gaborone, Botswana ■ HE Mr Bharat Jagdeo, Former President, Guyana ■ HE Dr Gro Harlem Brundtland, Former Prime Minister of Norway and Member of the UN Secretary General's Global Sustainability Panel, Norway ■ The Rt. Hon. Lord John L Prescott, Former Deputy Prime Minister & Member of Parliament, House of Lords, UK

The panel members agreed that leadership to preserve the global commons is fraught with challenges. These include the fact that the 'middle class' is expected to rise by 3 billion by 2030; and the realization that despite Copenhagen, Cancun, and Durban, there have been few encouraging signs. Moreover, unlike Kyoto, when





HE Mr Festus Mogae



HE Mr Bharat Jagdeo



HE Dr Gro Harlem Brundtland



The Rt. Hon. Lord John L Prescott

a handful of countries participated; today, 190-odd nations are vying to reach a similar agreement. For so many countries to reach consensus will itself be a huge challenge.

The skeptics tend to overlook that the issue of sustainability is being increasingly reflected in politics. It is now up to politicians to judiciously balance short-term political compulsion with long-term sustainability requirements. Simultaneously, it needs to be understood that leaders, in their efforts toward guiding the world towards sustainability, need public support. Hence, NGOs and the media have extremely important roles to play. In developing countries, such as those in Africa, people burn wood and damage forests to survive, simply because they have no other alternative. Since African nations also face serious challenges regarding adaptation, their ability to contribute to environmental mitigation is rather limited. However, such a situation does not exempt leaders of Africa from leading responsibly. It is indeed encouraging to notice that some of them have already taken the initiative in motivating their countrymen to plant trees. This brings us to the point of devising the correct performance indices that will reflect true commitment to the environment.

The time has come to change the way we use our resources, including human resources. Our leaders need to recognize that since half of the people in the world are women, it is necessary to motivate them to realize

their full potential. Only then can the goal of sustainable development be reached. ■

Dialogue with Leaders of States and Provinces

Co-moderators Dr R K Pachauri, Director-General, TERI, India ■ Mr Terry Tamminen, Founder and President, Seventh Generation Advisors, USA

Keynote Address HE Mr Arnold Schwarzenegger, Founding Chair, R20 - Regions of Climate Change & Former Governor, California, USA

Speakers Ms Marie-Hélène Aubert, Former European Parliamentarian, France ■ HE Dr Yves Bolduc, Minister of Health and Social Services, Government of Quebec ■ Prof. Prem Kumar Dhimal, Hon'ble Chief Minister, Government of Himachal Pradesh, India ■ Ms Sheila Dikshit, Hon'ble Chief Minister, Government of NCT of Delhi, India ■ Mr Tarun Gogoi, Hon'ble Chief Minister, Government of Assam, India ■ Hon. Mr Mike Rann, Former Premier of South Australia, Australia ■ Capt. Ajay Singh, Hon'ble Minister for Power, Forests and Environment, Government of Haryana, India



HE Mr Arnold Schwarzenegger

The session was chaired by Dr R K Pachauri and moderated by Mr Terry Tamminen. In his keynote address, Mr Arnold Schwarzenegger reiterated two key messages, which are important for managing the global commons. First, he reiterated that it was possible to have sustainable development action in an economically viable environment. Second, he urged all stakeholders not to wait for international agreements, but initiate local action to the extent possible. He gave the example of California, where he was till recently the Governor, and cited that most people were skeptical about very

As they said it



We must recognize that we cannot reach the goal of sustainability without involving half of humanity, i.e., women.

HE Dr Gro Harlem Brundtland

Former Prime Minister of Norway and Member of the UN Secretary General's Global Sustainability Panel, Norway



HE Dr Yves Bolduc



Prof. Prem Kumar Dhimal



Ms Sheila Dikshit



Ms Marie-Hélène Aubert



Mr Tarun Gogoi



Hon. Mr Mike Rann



Capt. Ajay Singh

“radical” steps. But, California now has a vibrant green economy, and has achieved energy efficiency and large-scale renewable energy deployment. Mr Schwarzenegger also suggested that it was important not only to have top-down approaches for sustainable development, but also bottom-up initiatives.

The panelists concurred that climate action must start at the provincial level. The panel highlighted the importance of a body like R20, which promotes interventions at the local level. Ms Sheila Dikshit, Chief Minister of Delhi, emphasized on the human resource, health, and education dimensions. Dr Pachauri

concluded by saying that new innovations are decisive in transitioning to a sustainable development pathway. ■

ADB - Asia 2050 Panel

Moderator Dr Iwan Azis, Head, Office of Regional Economic Integration, Asian Development Bank, Philippines

Speakers ■ Ms Frances Beinecke, President, Natural Resources Defense Council, USA ■ Mr Hon Cheung, Regional Director, Official Institutions Group, SSgA –Singapore ■ Mr S (Kris) Gopalakrishnan, Executive Co-Chairman, Infosys Limited, India ■ HE Dr Naoko Ishii, Deputy Vice Minister for International Affairs, Ministry of Finance, Government of Japan ■ Dr Bindu N Lohani, Vice President (Knowledge Management and Sustainable Development), Asian Development Bank, Philippines ■ Dr R K Pachauri, Director-General, TERI ■ Dr Kandeh K Yumkella, Director General, United Nations Industrial Development Organization (UNIDO), Austria

Dr Iwan Azis chaired the panel and informed the participants that the panel discussion would revolve around ADB’s recent publication – the Asia 2050 report. Dr Bindu N Lohani provided a comprehensive overview of the study and mentioned that it was commissioned to examine the possible scenarios for 2050 for Asia and to draw the attention of policy-makers.

Ms Frances Beinecke emphasized on taking action as urbanization was taking over Asia and there was a need to deal with issues at an early stage. Dr Kandeh K Yumkella reiterated that shared global affluence could reduce poverty and create wealth pockets. Growth in Asia is linked to global prosperity. Mr S (Kris) Gopalakrishnan mentioned the need for new holistic models of development, employment, job creation, and social development.

Dr Naoko Ishii stated that action on climate change is in our interest. Asia is uniquely positioned to make a difference through policy interventions. Mr Hon Cheung focused on debt financing as an interesting instrument to finance projects on sustainable technologies and models. Dr R K Pachauri said that an ideal pattern of growth should include health, education, and disaster management, and highlighted the importance of culture and innovation. ■

As they said it



Don’t wait, never stop moving. Our future will become a green future and our vision will become a reality.

HE Mr Arnold Schwarzenegger

Founding Chair, R20 - Regions of Climate Change & Former Governor, California, USA



Ms Frances Beinecke



Mr Hon Cheung



Mr S (Kris) Gopalakrishnan



HE Dr Naoko Ishii



Dr Bindu N Lohani



Dr R K Pachauri



Dr Kandeh K Yumkella

Day 2, 3 February 2011

Special Session on Biodiversity

Moderator **Dr Ashok Khosla**, President, International Union for Conservation of Nature (IUCN), Switzerland

Setting the Theme **Mr M F Farooqui**, Additional Secretary, Ministry of Environment and Forests, Government of India

Keynote Address **Ms Jayanthi Natarajan**, Hon'ble Minister of State (I/C), Ministry of Environment and Forests, Government of India

Speakers **Dr P P Bhojvaid**, Chief Conservator of Forests, Government of Haryana, India ■ **Prof. Timothy Gregoire**, J P Weyerhaeuser Jr Professor of Forest Management, School of Forestry & Environmental Studies, Yale University, USA ■ **Dr Abdul Rahim Nik**, Deputy Secretary General, Ministry of Natural Resources and Environment, Malaysia ■ **Prof. Paavo Pelkonen**, University of Eastern Finland, Finland ■ **Prof. Kazuhiko Takeuchi**, Vice-Rector, The United Nations University & Director of Institute for Sustainability and Peace, Japan



Dr R K Pachauri introduced the panel and emphasized that increase in global temperature would endanger biodiversity. The session was chaired and moderated by Dr Ashok Khosla who emphasized that the present level of degradation of natural resources is beyond the regenerative capacity of the earth. Setting the theme for the session, Mr M F Farooqui stated that biodiversity and issues of global commons were closely interlinked. Ms Jayanti Natarajan, in her keynote address, stressed on the fact that interlinking the interest of global commons and economics is required in the day-to-day lives of common persons. She also emphasized that the global regime for

protecting biodiversity should be rooted in the principle of the Rio Declaration. Prof. Kazuhiko Takeuchi focused on the Satoyama Initiative, which focuses on issues, such as resilience of society equipped with traditional knowledge and the need for a new business model for sustainable exploitation of resources.

Dr Abdul Rahim Nik emphasized challenges, such as inventory of biodiversity and proper law enforcement in managing biodiversity in Malaysia. Dr P P Bhojvaid stated that forests are responsible for creation and sustenance of soil, water, and all flora and fauna, and the interaction of all these externalities are important in protecting forest resources. Prof. Timothy Gregoire stated that innovations like standardization in measurement procedures is needed for the conservation of biodiversity. Prof. Paavo Pelkonen stressed that sustainable forest management is the need of the hour along with the promotion of the concept of bio-economy. ■

Corporate Dialogue on Global Commons

Moderator **Prof Jeffrey A Sonnenfeld**, Senior Associate Dean for Executive Programs & Lester Crown Professor in the Practice of Management, Yale School of Management, Yale University, USA

Speakers **Dr Bhaskar Chatterjee**, Director General & CEO, Indian Institute of Corporate Affairs, India ■ **Mr Sai Ramakrishna Karuturi**, Founder & Managing Director, Karuturi Global Limited, India ■ **Mr Mahesh Makhija**, Director - Renewables Business Development, CLP Power India Private Limited, India ■ **Mr Pasi Rousu**, Partner and Co-founder, President, Chempolis Asia & Pacific, Finland ■ **Mr Björn Stigson**, Former President, World Business Council for Sustainable Development, Switzerland ■ **Ms Hilde M Tonne**, Executive Vice President and Head of Group Industrial Development, Telenor, Norway ■ **Mr Venkatesh Valluri**, Chairman, Ingersoll-Rand (India) Limited, India

Prof. Jeffrey A Sonnenfeld started the session by explaining the notion of corporate social responsibility (CSR). Mr Sai Ramakrishna Karuturi talked about his company's initiatives in developing the land and food production of Ethiopia by investing in rainwater harvesting and supporting organic mode of farming. Mr Mahesh Makhija pointed out that they entered the



Mr M F Farooqui



Ms Jayanthi Natarajan



Dr P P Bhojvaid



Prof. Timothy Gregoire



Dr Abdul Rahim Nik



Prof. Paavo Pelkonen



Prof. Kazuhiko Takeuchi



renewable energy space in 2001 not just because of environmental consciousness, but because it is also a lucrative business opportunity. Mr Stigson emphasized on the partnership between businesses and society for addressing today's sustainability challenges. Mr Pasi Rousu discussed his company's initiatives in finding new ways of addressing sustainability by using byproducts of bio-refining in India and China. Ms Hilde Tonne called for exercising CSR as a win-win approach. She underscored the role of (1) developing technology by opening up new business avenues and focusing on energy efficiency; (2) adopting a project-based approach towards CSR; and (3) cleaning up the supply chain by eradicating child labour and exercising zero tolerance to corruption. Mr Venkatesh Valluri delineated the role of converging business, technology, and society as



Prof. Jeffrey A. Sonnenfeld

an emerging strategy to stay in business. Dr Bhaskar Chatterjee focused on the Indian government's two important CSR policies: (1) Reporting all CSR activities should be mandatory and (2) large business corporations are expected to put at least 2% of their profit after tax into CSR activities. ■

Ministerial Session I Sustainable Management of Global Commons in South Asia

Moderator Dr Kandeh K Yumkella, Director General, United Nations Industrial Development Organization (UNIDO), Austria

Moderator HE Lyonpo Dr Pema Gyamtsho, Minister of Agriculture and Forests, Ministry of Agriculture and Forests, Bhutan ■ HE Mr Mohamed Aslam, Minister of Housing and Environment, Maldives ■ HE U Win Tun, Union Minister, Ministry of Environmental Conservation and Forestry, Myanmar ■ Mr Hemraj Tater, Hon'ble Minister for Environment, Nepal ■ Mr Malik Amin Aslam, Former Minister of State (Environment), Senior Climate Policy Advisor to UNDP in Pakistan and Senior Member of Climate Core Advisory Group to Government of Pakistan



HE Lyonpo Dr Pema Gyamtsho



HE Mr Mohamed Aslam



HE U Win Tun

Starting the session, Dr Kandeh K Yumkella emphasized that for Asia to account for 50% of the global GDP by 2050, sustainable management of global commons will be crucial. Mr Malik Amin Aslam said that despite being one of the lowest greenhouse gas emitters, Pakistan is highly vulnerable to climate change and that the country's cost of adaptation could be 3%–5% of the GDP.

HE Dr Pema Gyamtsho mentioned about the importance of common properties of natural resources across territorial boundaries. He said that the region should not wait for global agreements and should take action towards minimizing the impacts of climate change. Pointing at the enormous diversity of the region, HE Mr Mohamed Aslam said that there are several common

As they said it



We should try to integrate business opportunities while addressing global commons.

Mr Björn Stigson

Former President, World Business Council for Sustainable Development, Switzerland



Mr Pasi Rousu



Mr Björn Stigson



Ms Hilde M Tonne



Mr Venkatesh Valluri



Dr Bhaskar Chatterjee



Mr Sai Ramakrishna Karuturi



Mr Mahesh Makhlaja



Mr Hemraj Tater



Dr Kandeh K Yumkella



Mr Malik Amin Aslam

problems related to resource management. He added that countries like Maldives are at the front line of bearing the impacts of climate change and that there is a moral duty of the global community to protect them. He further said that since faith plays an important role in the region, religious scholars should be involved in the process.

HE Mr U Win Tun highlighted the challenges faced by the region in addressing environmental problems and stressed the role of technology and capacity building for resolving these issues. Mr Hemraj Tater underlined that poor people are the worst affected by climate change and that a green economy can provide an important paradigm for resource management. In this session, the speakers highlighted that although countries in South Asia have to formulate domestic action plans to address climate change, there is a need for regional cooperation in research and development and data sharing. The potential for South–South cooperation needs to be harnessed. ■

As they said it



Regional cooperation is not a luxury, but an imperative.

Mr Malik Amin Aslam

Former Minister of State (Environment), Senior Climate Policy Advisor to UNDP in Pakistan and Senior Member of Climate Core Advisory Group to Government of Pakistan



Sustainable development is important for the economic development of Myanmar.

HE U Win Tun

Union Minister, Ministry of Environmental Conservation and Forestry, Myanmar

Global Commons and Challenges in Africa

Moderator Mr Abdoulie Janneh, Under Secretary-General and Executive Secretary, United Nations Economic Commission for Africa, Addis Ababa, Ethiopia

Setting the Theme Mr Gurjit Singh, Additional Secretary (East & Southern Africa), Ministry of External Affairs, Government of India

Moderator HE Mr Ogunlade Davidson, Former Minister of Energy & Water, Sierra Leone
 ■ Mr Hama Arba Diallo, Chair of Global Water Partnership (GWP), Ouagadougou, Burkina Faso
 ■ HE Mr Henri Djombo, Minister of Sustainable Development, Forestry and Environment, Brazzaville, Republic of Congo
 ■ Dr Tewolde Berhan Gebre Egzabiher, Director General Environment Protection Authority, Addis Ababa, Ethiopia
 ■ Mr George J. Gendelman, Cofounder, Planetworkshops, Paris
 ■ Dr Youba Sokona, Coordinator, African Climate Policy Centre, United Nations Economic Commission for Africa, Ethiopia



Mr Abdoulie Janneh



Mr Gurjit Singh



HE Mr Ogunlade Davidson

The session highlighted that Africa must take adaptation measures to address the impacts of human-induced climate change. Adaptation measures will also demand a change in lifestyles of the common middle-income section of the people of Africa. While addressing those challenges, it is important to maintain a balance between present and future use of natural resources. In the current context, Africa does not have a strong voice in the global forum and, hence, requires support from international organizations. The support can come through strong South–South cooperation between India and Africa. In addition to these challenges of adaptation, issues such as food security, role of science and technology, and renewable energy have to be addressed while charting out a growth and development pathway for African nations. In order to grow and develop, Africa has to address the challenges of desertification, land



Mr Hama Arba Diallo



HE Mr Henri Djombo



Dr Tewolde Berhan Gebre Egzabiher



Mr George J Gendelman



Dr Youba Sokona

degradation, food security, and biodiversity, including preservation of wildlife, forest cover, and availability of water and energy. Developmental goals of the continent have to be achieved by addressing the challenges facing them due to the exploitation of two resources—petroleum and minerals. The empowerment of women, education, and community-based resource management are the key to achieving developmental goals. Renewable energy resources like solar, hydro, wind, and agri-waste have already been tapped for fostering green growth in Africa. The energy potential in these resources needs to be enhanced through basic infrastructure creation and partnerships between the government and the private sector as well as the civil society. However, the implementation of all of these will require a strong political will. ■

Water – Our Vital Commons

Moderator Mr Ashok Jaitly, Distinguished Fellow & Mentor, TERI, India

Speakers Dr Don Blackmore AM, Chair-eWater CRC & Chair-Water for a Healthy Country, Australia ■ Mr Henry Saint Bris, Senior Vice President Strategy, SUEZ Environment, France ■ Mr Serge Lepeltier, French Ambassador for Climate Change negotiations, Mayor of Bourges, France ■ Dr David Molden, Director General, International Centre for Integrated Mountain Development (ICIMOD), Nepal ■ Mr Suresh P Prabhu, Chairperson, Council on Energy, Environment and Water, India ■ Prof Johan Rockström, Executive Director, Stockholm Environment Institute, Sweden ■ Dr Shiv Someshwar, Director Climate Policy, CGSD & Senior Advisor Regional Programs, IRI, The Earth Institute, Columbia University, USA

Mr Ashok Jaitly chaired and moderated the session and put forth a few critical issues concerning water. Dr Dan Blackmore emphasized on the human aspect of water management. Mr Henry Saint Bris emphasized the significance of decentralized alternatives of water management to overcome water stress in

urban areas. He expressed concern that the traditional infrastructure arrangements were inadequate leading to about 40% of the loss of water. He stated that large future cities need to invent new solutions through decentralized water management, involving all stakeholders, thus, reflecting a new vision. Mr Serge Lepeltier shared the significance of the expectations from the forthcoming 6th World Water Forum being organized in France in March 2012 and emphasized on the need for collective action in the water and sanitation sector. Dr David Molden spoke about the ambiguity over the quantity of water available in the Himalayan region. Mr Suresh Prabhu stressed the need to customize innovative water-related technologies with traditional knowledge.

Prof. Johan Rockström reiterated that if mitigation to climate change is about the gases, then adaptation to climate change is about the water. Dr Shiv Someshwar discussed the knowledge related dynamics between micro- and macro-level of water management. Mr Ashok Jaitly concluded the session by emphasizing the need for good governance to manage global and local commons. This session also discussed issues relating to productivity and efficiency of water, virtual water, the mismatch between demand and supply, and strategies and solutions to resolve local conflicts, and enhancement of regional cooperation. ■



Mr Ashok Jaitly

AFD book launch – A Planet for Life Series



The latest book in A Planet for Life series, *Development, Food and the Environment: towards agricultural change*, published by Agence Française de Développement (AFD) and Institute for Sustainable Development and International Relations (IDDRI), in collaboration with TERI, was unveiled by (left to right) Dr R K Pachauri, Director-General, TERI; Dr Laurence Tubiana, Director, IDDRI; and Mr Pierre Jacquet, Chief Economist, AFD, the co-editors of the book. Mr Jacquet commended the role of the associate editors as well as TERI Press in the successful publication of the book.



Dr Don Blackmore AM



Mr Henry Saint Bris



Mr Serge Lepeltier



Dr David Molden



Mr Suresh P Prabhu



Prof Johan Rockström



Dr Shiv Someshwar

Sustainable Development and Consumption

Moderator Dr Ligia Noronha, Director, Resources, Regulation and Global Security Division, TERI, India

Keynote Address Ms Connie Hedegaard, European Commissioner for Climate Action, European Commission, Denmark

Speakers Mr Peter Bakker, President, World Business Council for Sustainable Development, Switzerland ■ Mr Warren Evans, Senior Advisor, Sustainable Development Network, The World Bank, USA ■ Mr Pierre Jacquet, Chief Economist, Agence Française de Développement (AFD), France ■ Mr Bittu Sahgal, Editor, Sanctuary Asia and Sanctuary Cub Magazines, India ■ Prof. Petteri Taalas, Director-General, Finnish Meteorological Institute, Finland

Dr Ligia Noronha chaired and moderated the session and highlighted the importance of looking at not just issues of over consumption, but also issues of under consumption in the context of the sustainable development discourse. Ms Connie Hedegaard, in her keynote address, emphasized on the importance of redefining growth characterized by efficient use of resources and optimum pricing. Mr Peter Bakker

defined the vision of sustainable consumption as better products and services, enlightened consumers, maximized total value, new measures, and a cohesive and responsive market place. Mr Warren Evans urged rich countries to take a lead in making consumption sustainable through an appropriate regulatory framework. Mr Pierre Jacquet mentioned that we need to focus on under-consumption in developing countries the way we focus on over-consumption in developed countries. He also emphasized the need to address problems of food security, energy, and involvement of local people.

Mr Bittu Sahgal communicated the need to care for Nature and to take urgent action to protect it. He emphasized on the role of children in bringing about a change. Prof. Petteri Taalas shared meteorological data, which indicated the significant changes in temperature, hydrosphere, snow cover, glaciers, and so on and highlighted the need to recognize these changes and take appropriate actions. ■



Dr Ligia Noronha



Mr Peter Bakker



Mr Warren Evans



Mr Pierre Jacquet



Mr Bittu Sahgal



Prof. Petteri Taalas



Ms Connie Hedegaard

Day 3, 4 February 2011

Ministerial Session II

Looking Ahead: Preserving Global Commons

Speakers Hon. Stéphane Dion, MP, House of Commons, Canada ■ HE Ms Heidi Hautala, Minister for International Development, Ministry of Foreign Affairs, Finland ■ HE Ms Heidemarie Wiecek-Zeul, Member of the German Parliament and Former Federal Minister of Economic Cooperation and Development, Germany ■ HE Dr Naoko Ishii, Deputy Vice Minister for International Affairs, Ministry of Finance, Japan ■ Mr Janusz Zaleski, Under Secretary of State, Ministry of the Environment, Poland ■ HE Dr Assunção Cristas, Minister for Agriculture, Maritime Affairs, Environment and Regional Planning, Portugal ■ HE Ms Maria Mutagamba, Minister of Water and Environment, Uganda

Dr R K Pachauri welcomed the panel and informed the audience that the summary of the proceedings of the Summit will be made available for wider dissemination. Chairing and moderating the session, HE Dasho Paljor J Dorji said that to think ahead we need to look back and for this we have to stop and plan our future actions. Hon. Stephane Dion

stated that there is no single solution to attain sustainable development and expressed the need for a global price on carbon, which will generate revenues that could be used to address climate change issues.

HE Ms Heidi Hautala focused on the “Modern Trinity”—economic, environmental, and social goals for sustainable development—and emphasized on bridging the gap between the North and the South. She also spoke of the role of public finances in tackling the economic





Hon. Stéphane Dion



HE Ms Heidi Hautala



HE Ms Heidemarie Wieczorek-Zeul



HE Dr Naoko Ishii



Mr Janusz Zaleski



HE Dr Assunção Cristas



HE Ms Maria Mutagamba



HE Dashedo Paljor J Dorji

crisis. HE Ms Heidemarie Wieczorek-Zeul oriented her talk on the impact of ongoing globalization, power shifts in the world, and climate change and its consequences. HE Dr Naoko Ishii, citing the example of natural disasters, emphasized on the importance of local action on developing resilience in development process. While

Mr Janusz Zaleski emphasized on mobilizing finances for environmental protection and effective policy, HE Dr Assuncao Cristas emphasized on efficiency both in the production and consumption processes and the fact that decarbonizing the economy and empowerment of citizens are the key to sustainable development. HE Ms Maria Mutagamba emphasized on the right to live, including eradication of diseases, water and food security, and access to energy based on the LaBL model. ■

New Frontiers in Combating Climate Change

Moderator Ambassador C Dasgupta, Distinguished Fellow, TERI, India
Speakers Mr Ted Hanisch, Executive Chairman, Enfo Group AS, Norway ■ Mr Ghulam Mohd Malikyar, Deputy Director General, National Environment Protection Agency, Afghanistan ■ Mr Carl Pope, Executive Director, The Sierra Club, USA ■ Dr Halldor Thorgeirsson, Director for Implementation Strategy, United Nations Framework Convention on Climate Change (UNFCCC), Germany ■ Dr Laurence Tubiana, Director, Institute for Sustainable Development and International Relations, France



Ambassador C Dasgupta



Mr Ted Hanisch



Mr Ghulam Mohd Malikyar

The moderator, Ambassador C Dasgupta, set the tone of the session by drawing the attention of the panel on the method to arrive at an international agreement on equity within the international legal framework. Mr Ted Hanisch opined that, although progress had been made in a number of areas, the success of intergovernmental efforts have been limited. He also raised an important question on the need for a smarter differentiation of countries than the present Annex 1 and 2 scenario. Mr Carl Pope stressed that the high carbon pathway is no longer possible, and Latin America, Africa, and

As they said it



Most of the time local needs prevail over global needs and the day-to-day prevails over the future.

HE Ms Heidi Hautala

Minister for International Development, Ministry of Foreign Affairs, Finland



MDGs have to be fulfilled and we have to combine it with climate change and sustainable goals.

HE Ms Heidemarie Wieczorek-Zeul

Member of the German Parliament and Former Federal Minister of Economic Cooperation and Development, Germany



Dr Halldor Thorgeirsson



Mr Carl Pope



Dr Laurence Tubiana

Asia cannot follow the European and the American pathways. These countries have to develop an alternative development trajectory. Mr Ghulam Mohd Malikyar highlighted the vulnerability of Afghanistan to the impacts of climate change and provided an update on the scarce water conditions in the country. While Dr Halldor

Thorgeirsson explained that the basis of all negotiations must be policy and not technology as technology remains static, Dr Laurence Tubiana stressed on the fact that availability of funds is not really the problem in the sustainability arena. The problem is whether these funds are being utilized in the right manner and direction. ■

Keynote Address

The Information Revolution and Sustainable Development

Moderator Dr Prodipto Ghosh, Distinguished Fellow, TERI, India

Speaker Prof. Jeffrey D Sachs, Director – The Earth Institute, Columbia University & Special Advisor to the Secretary-General, United Nations, USA



The session began by a tribute from Dr R K Pachauri to Prof. Sachs. He mentioned that Prof. Sachs has been a great supporter and active participant in DSDS and a patron of the World Sustainable Development Forum, which shows his

unrelenting commitment to the cause of sustainable development.

Dr Prodipto Ghosh set the scene by highlighting that the information revolution has progressed rapidly in the last decade. He mentioned that due to easy access and affordability in current times, the IT revolution has helped in the empowerment of society, the development of skill and capabilities, and greater accountability of all involved.

Prof. Sachs emphasized on the role that technology can play in sustainable development and the need of the hour to overcome deep structural challenges that limit diffusion of technology for sustainable development. He discussed in detail the four pillars of the sustainable development goals, which are ending extreme poverty, ensuring environmental sustainability, social inclusion, and good governance. ■

Action will be at the very centre of the challenge of sustainable development in the years ahead.

Prof. Jeffrey D Sachs

Director – The Earth Institute, Columbia University & Special Advisor to the Secretary-General, United Nations, USA

This Century of Knowledge

Moderator Dr Leena Srivastava, Executive Director-Operations, TERI & Vice Chancellor, TERI University, India

Speakers Dr Lee Yee Cheong, Chairman, UNESCO International Science, Technology and Innovation Centre, Malaysia ■ **Mr Michael Keating**, Deputy Special Representative of the Secretary General, United Nations Assistance Mission in Afghanistan, Afghanistan ■ **Ms Annika Markovic**, Environment Ambassador, Ministry of the Environment, Sweden ■ **Mr Hideyuki Mori**, President, Institute for Global Environmental Strategies, Japan ■ **Prof. V Ramanathan**, Distinguished Professor and Director - Center for Clouds, Chemistry and Climate, Scripps Institution Of Oceanography, University of California, USA ■ **Prof. Perttu Vartiainen**, Rector, University of Eastern Finland, Finland



Dr Leena Srivastava

Dr Leena Srivastava introduced and moderated the session. Dr Lee Yee Cheong highlighted his work in Africa and emphasized the role of Military Engineers in Climate Change Adaptation. Mr Michael Keating sensitized the audience to the challenges faced by people in

Afghanistan viz., poverty, unemployment, drought, and governance challenges. Ms Annika Markovic highlighted Indo-Swedish knowledge-sharing initiatives such as solar-powered GSM to serve the rural population, task force on sustainable lifestyles, and resource-sharing in India and Africa. Mr Hideyuki Mori suggested a three-pronged approach for innovative development: creative knowledge generation, effective knowledge management, and enhancing social capital through human interactions. Dr V Ramanathan reiterated the impact of GHGs on climate change and emphasized the need for translating existing knowledge into actions. He highlighted projects in collaboration with TERI which involved assessing the impact of traditional chullahs on the health of rural women and innovations for reducing emissions from cookstoves. Prof. Perttu Vartiainen opined that knowledge on socio-



Mr Hideyuki Mori



Dr Lee Yee Cheong



Mr Michael Keating



Ms Annika Markovic



Prof. V Ramanathan



Prof. Perttu Vartiainen

political processes is essential to improve sustainable development outcomes. Dr Leena Srivastava wrapped up the session by questioning whether the ever-increasing supply of knowledge was impeding human capacities for absorption and utilization in decision making. She further enquired whether knowledge generation is leading to knowledge imperialism and mistrust or to equitable knowledge sharing? ■

Clean Energy: Improving the Global Commons

Moderator Mr David Sandalow, Assistant Secretary for Policy and International Affairs, US Department of Energy, USA

Speakers Ms Fiza Farhan, Chief Operating Officer, Buksh Foundation, Pakistan ■ Mr Kazuo Furukawa, Chairman, New Energy and Industrial Technology Development Organization (NEDO), Japan ■ Dr Ajay Mathur, Director General, Bureau of Energy Efficiency, India ■ Mr Binu Parthan, Deputy Director General, Renewable Energy and Energy Efficiency Partnership (REEEP), Austria ■ Mr Christof Schoser, Deputy Head of Unit, Directorate-General for Energy, European Commission



Mr David Sandalow chaired and moderated the session. Dr Ajay Mathur stated that India has been working towards addressing market failures through building



Mr David Sandalow



Ms Fiza Farhan



Mr Kazuo Furukawa

codes and energy labeling of appliances. In his view, a natural cooperation exists between governments to improve the energy scenario. Ms Fiza Farhan emphasized the need for action on the field through individual contributions. She gave an overview of the activities undertaken by her organization, which has been working at the grassroots level on energy financing schemes.

Mr Binu Parthan highlighted the need to combine renewable energy and energy efficiency solutions to achieve energy access for all. These solutions need to be linked with the volatile needs of the poor. Mr Kazuo Furukawa informed the audience that the Japanese government has been involved in over 100 projects and signed more than 150 MoUs with several other countries in its effort to conserve energy. Mr Christof Schoser stated that there is a need for a broader approach to reducing GHGs. He also mentioned that country-wise energy policies need to be linked to efficient resource utilization. The panel then deliberated on the cost effectiveness of clean energy technology and the impact of these technologies on the global commons. ■



Dr Ajay Mathur



Mr Binu Parthan



Mr Christof Schoser

Overcoming the Divide: Global North vs Global South

Moderator Mr Suman K Bery, Country Director, India Central, International Growth Centre, London, UK

Speakers Dr Subho Banerjee, Deputy Secretary, Adaptation, International & Regulatory Group, Department of Climate Change and Energy Efficiency, Australia ■ Prof. Hironori Hamanaka, Chair of the Board of Directors, Institute for Global Environmental Strategies, Japan ■ Dr Artur Runge-Metzger, Chief Climate Negotiator, European Commission, Belgium ■ Prof. Luigi Paganetto, President, Centre for Economic and International Studies, University of Rome, Italy ■ Dr Gopa Sabharwal, Vice-Chancellor, Nalanda University, India ■ Dr Tumur-Ochir Sanjbeegz, President, The National University of Mongolia, Mongolia ■ Mr Ali T Sheikh, Asia Director, Climate & Development Knowledge Network, Pakistan



Mr Suman K Bery

The session began with Mr Suman Bery acknowledging that the topic of discussion was designed to be “deliberatively provocative”. Dr Subho Banerjee spoke about the need to recognize the sustainable development agenda and its



Dr Subho Banerjee



Prof. Hironori Hamanaka



Dr Artur Runge-Metzger



Prof. Luigi Paganetto



Dr Gopa Sabharwal



Dr Tumor Ochir Sanjibegz



Mr Ali T Sheikh

challenges within climate negotiations and focused on “more differentiated understanding” of the issue. Mr Hironori Hamanaka emphasized that accelerating the movement towards a low carbon economy is necessary for long-term economic and social development. Dr Artur Runge-Metzger highlighted that reducing emissions and economic growth are compatible goals. He discussed the European Union Emissions Trading Scheme (ETS), which provides for equal treatment of sectors with high risk of carbon leakage. Prof. Luigi Paganetto spoke about the fact that an energy technology revolution is required to foster economic

growth. Dr Tumor Ochir Sanjibegz emphasized that the integration of mitigation and adaptation action, and the improvement in the area of technology transfer are key for sustainable development.

Dr Gopa Sabharwal said that the binaries of North and South are problematic, reductionist, and exclusivist. She highlighted the need for collaboration and cooperation in the areas of education and research. Mr Ali Sheikh insisted that the evidence base for climate change is imperative for good decision making. Thus, there is a need to strengthen linkages between science and policy. ■

Valedictory Session

Protecting the Global Commons: The Future Roadmap

Summit Summary: Dr R K Pachauri, Director-General, TERI, India



Dr R K Pachauri announced the “TERI Georgescu-Reogen Annual Award”, paying tribute to Prof. Nicholas Georgescu-Roegen, the founder of the discipline of ecological economics on his 106th birth anniversary. He summarized the events at the World

CEO Sustainability Summit by emphasizing on the key messages—de-materialisation and integration of technologies for sustainable development. Dr Pachauri then provided a succinct summary of the Summit deliberations referring to the issue of poverty eradication and sustainable development raised by Dr Manmohan Singh, Hon’ble Prime Minister of India. The surprise of the evening was young climate enthusiasts from TERI University providing a fresh perspective on the youth as being the “untapped global common”. At the end of the session, Dr Pachauri announced the next DSDS (30 January–2 February 2013) on the theme “The Global Challenge for Resource Efficient and Low Carbon Development”. ■

SPECIAL EVENTS

Business Solutions for Sustainable Energy for All: Corporate Leadership in Addressing Energy Challenges in India

The TERI-BCSD, in collaboration with the WBCSD organized a special event “Business Solutions for Sustainable Energy for All: Corporate Leadership in Addressing Energy Challenges in India” on 1 February on the sidelines of the 9th World CEO Sustainability Summit. Speaking at the Expert Panel I, Mr Harry Verhaar, Senior Director – Energy and Climate Change, Philips Lighting compared the current status of rural India and Africa to Europe in the 1860s. Dr Pradeep Monga, Director of Energy and Climate Change Branch, UNIDO emphasized that to achieve “energy for all,” we have to keep in mind three goals—achieving energy access to all by 2030; doubling sharing of energy by 2030; and doubling energy efficiency by 2030.



The Expert Panel II discussed the fact that energy access, renewable energy, and energy efficiency are the focus areas for the energy sector for providing sustainable energy to all. It was stressed that business should engage with policy-makers and the process of policy-making should consider that fossil fuel reserves are finite and the present distribution of energy is inequitable. The panelists also emphasized on adequate policy frameworks and innovative financing mechanisms and the need to move beyond dialogue and partnership and address the aspirations of the poor.

The CEO Panel dwelt on the role to be played by business in transforming national energy systems. While environment friendly technologies were the focus, it was also clearly stated that unlike the developed world, renewable energy is a part of

the mainstream energy solution in India and, hence, business should drive the final solutions. ■

Realizing the MDGs: the Forests-Poverty Link



The Forestry and Biodiversity Group, in partnership with the Uttar Pradesh Forest Department, organized a Special Event on the theme “Realizing the MDGs: the Forests-Poverty Link” on 1 February 2012. In his opening remarks, Dr P J Dilip Kumar, Director General Forests, and Special Secretary, Ministry of Environment and Forests, Government of India, said that forests should be used to maintain ecological services while reducing people’s dependence on forests and developing alternative livelihood opportunities. He stressed on the importance of cross-fertilization of ideas among scientists and practitioners, and the need for forest services to develop allies outside the department, who could represent their views adequately. Mr Ashwini Kumar, Additional Chief Conservator of Forests, Uttar Pradesh provided an overview of forestry and poverty, and alleviation programmes in the state.

The technical sessions focused on the poverty reduction potential of participatory forestry approaches and the Forest Rights Act 2006. Speakers in these sessions included high level representatives from central and state governments, international agencies, research institutes, and grassroots organizations. Special presentations were made by officials of states (West Bengal, Chhattisgarh, and Madhya Pradesh), where the Forest Rights Act is being implemented. ■

Special Luncheon session with HE Mr Arnold Schwarzenegger

On 2 February 2012, Mr Arnold Schwarzenegger, Former Governor of California and Founding Chair, R20 - Regions of Climate Change interacted with a select group of Indian CEOs over working lunch hosted by TERI-BCSD. With a vision to create synergy for the corporate sector as a whole to move towards sustainability, TERI BCSD (Business Council for Sustainable Development) was set up by TERI in 2001. The council has evolved into a strong industry body with membership of more than 100 companies from diverse sectors including PSUs, MNCs and private companies from across India with a market-cap of over 13.8 trillion Indian rupees.

The luncheon session witnessed the presence of eminent dignitaries like Dr R K Pachauri, Director-General, TERI; Mr Terry Tamminen, Founder and President, Seventh Generation Advisors, USA; and Mr Prem Kumar Dhumal, Hon'ble Chief Minister, Government of Himachal Pradesh, India. The interaction was moderated by Dr Jeffrey Sonnenfeld, Senior Associate Dean for Executive Programs and Lester Crown Professor in the Practice of Management, Yale School of Management, Yale University, USA.

Over 65 Indian and global CEOs and senior representatives from businesses and Indian government discussed the challenges and opportunities pertaining to "Business Leadership

for Sustainability". The participants represented the manufacturing and services sectors which overall contributes about 82 % in India's GDP.

In course of this candid interaction with the former Governor, the business community voiced their opinions through a voting session where issues like organizational sustainability and effective partnerships were deliberated upon. During the voting session, the group considered "more information sharing of best practices and awareness building" as the most important factor that motivates businesses to actively address the issue of sustainability. The group was of the opinion that "early mover advantage and brand value" and "social responsibility" have been their driving force to respond to sustainability. "Designing and implementing innovative financing mechanisms" was identified as the most critical elements of effective partnerships towards sustainability. "R&D of low-carbon technologies" was identified as a leading area in which businesses should play a leadership role to advance the action on climate change in India. Addressing the gathering, Mr Schwarzenegger said, "No one can tell if there will be an energy future. If there is no energy policy in place, there will be no environment." He urged that the business community should "never wait for the federal government or any international treaties to take actions" and "ensure that the cost comes down so that people can afford renewable technologies". ■



LAUNCH OF THE REPORT OF UN SECRETARY GENERAL'S HIGH-LEVEL PANEL ON GLOBAL SUSTAINABILITY

The session was chaired by HE Ms Tarja Halonen, President, Finland. The session marked the regional launch of the report, which elicited an invigorating discussion on the key recommendations of the report. It was pointed out that the road to sustainable development had changed track, and the panelists reflected on the lack of success in achieving the objectives. The two main reasons cited were discrimination against women and lack of access to resources and energy. Another key message that was highlighted was that the global community cannot carry on with the “business as usual” scenario, and a change is required in the growth narrative. ■



Green Globe Foundation Awards Ceremony

The 4th Green Globe Awards ceremony felicitated the efforts of those unsung heroes who have contributed towards sustainable development in India in several categories. Introducing the event, Dr Pachauri said that the Green Globe Awards were important to recognize the initiatives of those who were working towards saving the planet. While the Gujarat Cooperative Milk Marketing Federation won the award in the Manufacturing category, IndusInd bank received the award in the Business category for running ATMs on solar power. The Centre for Research on Environment and Development from Meghalaya was the big winner in the NGO sector, and the state government of Madhya Pradesh won the award for Outstanding Contribution to Sustainable Development by a State Government. Husk Power Systems was the winner in the Product, Innovation, and Design category, while Mr Joydeep Gupta was the recipient of the Green Globe Award 2012 in the Media category. A special award was presented to the Royal Bangalore IPL cricket team for neutral. The Lifetime Achievement presented to Mr Bjorn Stigson, President of WBSCD. While Mr Rahul Saini won the Yuva category, the Salwan

Public School was the winner in the Outstanding Contribution by an Educational Institution category. The award for Outstanding Contribution by a Celebrity was presented to Mr Abhishek Bachchan for his initiative to save paper, and reducing energy consumption during film shootings and his contribution towards LaBL. Receiving the award, Mr Abhishek Bachchan, also the chief guest of the event, said that he became more conscious about the environment after having met Dr Pachauri and started taking steps to conserve energy. He said that he tried to lead by example and was even prepared to star in a film which has the minimum carbon footprint provided someone makes it. ■



Workshop on “Large Scale Deployment of Smart Grids: opportunities and strategies”



TERI, in association with Electricite de France (EDF), organized a one-day workshop on “Large Scale Deployment of Smart Grids: opportunities and strategies” on 31 January 2012. The workshop saw participation of experts from the regulatory commissions, public and private sector utilities, project developers, academia, and R&D institutions. The workshop emphasized the need for disseminating the experience (both national and international) and offered a platform to discuss the emerging opportunities in the field of smart grids. The speakers shared their experiences in implementing the smart grid initiatives worldwide. Panelists discussed the huge potential for smart grid initiatives in the country and the emerging challenges. There was consensus on the need of policy and regulatory interventions to accelerate the execution of the smart grid projects, and the need to focus on transition from product to “service” mode of smart grid development. It emphasized on the large scale renewable energy penetration in various grid models. ■

Learning from Emerging Energy Innovations in Asia with a Focus on Energy Access and Clean Energy: contributing to the discourse on an institutional framework for sustainable development

The event was part of a TERI-IGES study supported by the “Energy for All” initiative of the Asian Development Bank. Session I discussed some select Asian case studies that demonstrated innovative practices in energy access and clean energy, providing evidence of bottom-up endeavours and top-down approaches that have enabled policy diffusion. Session II elucidated emerging issues in

energy governance and challenges for institutions involved in providing decentralized energy access. The focus was on IFSD across multiple levels that allow different actors to play different roles as may be required, while contributing to the advancement of the sustainable development agenda. The final session deliberated upon some key aspects of distributed energy governance such as technology, finance, institutional diversity, co-ordination mechanisms, and risk management. ■

Indo-Norwegian Research Collaboration to Address Climate Change Impacts on Selected Indian Hydrological Systems using Earth System and High Resolution Modelling



A special event titled “Indo-Norwegian Research Collaboration to Address Climate Change Impacts on Selected Indian Hydrological Systems using Earth System and High Resolution Modelling” was held on 1 February 2012.

With reference to the current and future, scientists working in the field of climate and hydrological modelling and impact assessment from scientific institutes across Norway and India deliberated on the key issues, gaps, and methods in this field. Discussion were based on the primary objective to study, numerically model, create scenario-based projections, and understand the impacts of climate change and feedback mechanisms on the hydrological processes of the Himalayan-dependent regions in India. This special event brought together stakeholders and scientists to address an integrated climate modelling assessment involving Earth-system, regional-climate, and hydrological models to address climate change and its impact on the hydrological cycle of surface water availability over India. Dr R K Pachauri, Director-General, TERI welcomed Mr Erik Solheim, the Norwegian

Minister for Environment and International Development; Dr Shailesh Nayak, Secretary to Government of India, Ministry of Earth Sciences; and Dr Hans Borchgrevink, Special Advisor, Research Council of Norway, who presented the keynote address, the inaugural address, and the Ind-Nor collaboration perspective, respectively. ■

Low Carbon Pathways for Transport Sector: promoting railways' share in inter-city and regional passenger travel

The special event titled "Low Carbon Pathways for Transport Sector: promoting railways' share in inter-city and regional passenger travel", jointly organized by The Energy and Resources Institute (TERI), New Delhi and the Institution for Transport Policy Studies (ITPS), Tokyo, was held on the sidelines of the Delhi Sustainable Development Summit 2012 on 2 February 2012.

Mr Shri Prakash, Distinguished Fellow, TERI and Former Member (Traffic), Railway Board opened the session by discussing the alarming situation of the rapidly declining share of the railways. This was followed by a set of presentations on the way ahead for increasing the share of railway services in inter-city and regional passenger travel. Key participants included Mr Mukesh Nigam, Executive Director (Coaching), Ministry of Railways; Mr Takeshita Hiroyuki, Dy Director, ITPS; Ms Anjali Goyal, Executive Director (Finance Establishment), Ministry of Railways; Ms Naini Jayaseelan, Member Secretary, NCRPB; Ms Akshima T Ghate, Fellow, TERI; Mr B K Chaturvedi, Member, Planning Commission; Mr S Sundar, Distinguished Fellow, TERI & Former Secretary, Ministry of Surface Transport; Mr Raghu Dayal, Former Managing Director, CCI; and Mr Shanti Narain, Former Member (Traffic), Railway Board. ■

Water: our global common

In view of increasing water demand and decreasing water availability and quality, the special event, Water: our global common was organized on 31 January 2012 to brainstorm on analysing the challenges and issues concerning water, and the role of clean technology in the context of sustainable development and water management. The event was attended by over 70 delegates from around the world from the field of academics, industry, and policy. About 15 speakers presented their views on the theme. Deliberations on the theme started with a presentation on the issue of



water crisis. Representatives of the Max Planck Institute for Meteorology, TERI-IIT Guwahati, and Yale University presented various aspects of waste resource depletion, and the effect of climate change and its consequences. They concluded that changes in precipitation is heterogeneous across regions and difficult to predict. Public awareness about climate change, public trust in the scientific community, and participation of local communities are important factors influencing the world's response for adaptation to and mitigation of climate change and the water crisis. Representatives of Alterra-Wageningen, Anna University, European Business and Technology Centre, the European Union, and the Indian Department of Biotechnology presented forward-looking solutions to water conservation, treatment, and reuse. The need to emphasize on water demand management was highlighted in a presentation of a case study done by TERI in the session dedicated to integrated approach to water management. Concepts adopted by HCC's Lavasa and MARG's PURA were presented as exemplary case studies of integrated water management. The speaker from Waterleau Ion Exchange explained some of its solutions to water recycling into energy and chemical recovery, while VITO presented its innovative vision for water management and reuse. ■

4th India-Japan Energy Forum: Business Opportunities in Energy Efficiency and Renewables

The 4th Indo-Japan Energy Forum (IJEf) commenced with Dr R K Pachauri's observation on the growing importance of this cooperation. Mr Hideo Hato explained NEDO's focus on promoting renewables, energy conservation, smart technologies, and showcasing successful models. Dr Ajay Mathur presented an overview of the energy efficiency potential in India and highlighted improvement in energy efficiency and the reduction of 176,729 tonnes/annum of CO₂. The role of the Regional Task Force initiative for

knowledge creation, financial support, and driving large collaborative renewable energy projects was highlighted, and an insight into financial mechanisms by Japan Bank of International Cooperation (JBIC) to promote renewables in India was also presented. A group of presentations showcasing four smart eco communities along the Delhi Mumbai Industrial Corridor (DMIC) developed with Japanese technical assistance was presented. The session explained innovative approaches for water-recycling, creating eco-transport, solar power, micro-grids, and energy conservation. The forum promoted very crucial and timely collaboration between India and Japan in the areas of energy conservation, low-carbon technologies, and industrial development. ■

Sustainable Mountain Development in the Context of Rio+20



“Sustainable Mountain Development in the Context of Rio+20” was held on 2nd February 2012 at the 12th Delhi Sustainable Development Summit. The discussions were based on the two themes of the Rio+20 conference—green economy and the institutional framework (governance). Presentations were given by Dr David Molden, DG, ICIMOD; Dr B M S Rathore, JS, MoEF; Dr R S Rawal, GBIHED; and Dr JV Sharma, Senior Fellow, TERI. Ministers and policy-makers from across the world attended the session such as Lyonpo Dr Pema Gyamtsho, Minister of Agriculture and Forests, Bhutan; Mr Hemraj Tater, Minister of Environment, Government of Nepal; Mr Tishya Chatterjee, IAS, Secretary, Ministry of Environment and Forests, Government of India; Dr Madhav Karki, Deputy Director General, ICIMOD; and Dr Prodipto Ghosh, Distinguished Fellow, TERI. ■

YUVA Meet



TERI in association with the British Council India, and the Ministry of Youth Affairs and Sports, organized a two-day Youth Unite for Voluntary Action (YUVA) meet under the theme ‘Conserving Global Commons: Transforming Knowledge into Action’, as a special event and a part of TERI’s annual flagship initiative ‘Delhi Sustainable Development Summit 2012’. The event was attended by Dr R K Pachauri, Director-General, TERI; Ms Sindhushree Khullar, Secretary, Ministry of Youth Affairs and Sports; Mr Purab Kohli, Actor and Model; Mr Karma Paljor, Senior Anchor, CNN-IBN; Mr Bharat Chetri, Captain, Male Hockey Team; Ms Asunta Lakra, Captain, Female Hockey Team; and Ms Ranjana Saikia, Director, Educating Youth for Sustainable Development, TERI.

Emphasizing on the youth’s role in sustainable development, Dr Pachauri said, “I believe the only way one could bring about change in the world is by reaching out to the youth and this platform provides the young an opportunity to voice their opinions, concerns related to environmental issues, and their understanding of global commons.” More than 200 students from across 14 nations including China, UK, Thailand, Indonesia, Korea, Netherlands, Canada, Malaysia, South Africa, Bhutan, Bangladesh, Nigeria, and Swaziland participated in the meet. The meet provided the participants with a holistic overview of the emerging environmental challenges. ■

List of Steering Committee Members

- **Nitin Desai**, Former Under Secretary General, UN, India
- **Christiana Figueres**, Executive Secretary, UNFCCC, Germany
- **Deepak Gupta**, Secretary, Ministry for New and Renewable Energy (MNRE), Government of India
- **Stefan Helming**, Country Director, GTZ, India
- **Naina Lal Kidwai**, Group General Manager and Country Head, HSBC, India
- **Rajdeep Lalvani**, General Manager Bennett Coleman & Co Ltd (BCCL), India
- **Ajay Mathur**, Director General, Bureau Of Energy Efficiency (BEE), Under Ministry of Power, Government of India
- **Ann Ollestad**, Ambassador, The Royal Norwegian Embassy
- **Hem Pande**, Joint Secretary, Ministry of Environment and Forests (MoEF), Government of India
- **Prannoy Roy**, Executive Chairperson, NDTV Group, India
- **Jeffrey D Sachs**, Director - Earth Institute & Special Advisor to the Secretary-General of the United Nations, USA
- **Bittu Sahgal**, Editor, Sanctuary Asia and Sanctuary Cub Magazines, India
- **Dilip Sinha**, Additional Secretary (International Organisations & Environmental Diplomacy), Ministry of External Affairs (MEA), Government of India
- **Björn Stigson**, President, WBCSD, Switzerland
- **M K Venu**, Managing Editor, The Financial Express, India
- **Gerolf Weigel**, Head of Climate Change and Deputy Country Director SDC
- **Xianbin Yao**, Director General, Asian Development Bank, Manila, Philippines

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