



The Energy and Resources Institute



World Sustainable
Development Forum
DSDS 2012



Protecting the Global Commons 20 Years Post Rio

12th DELHI SUSTAINABLE DEVELOPMENT SUMMIT

Supported by



Ministry of Environment and Forests
Government of India

PROCEEDINGS



Protecting the Global Commons 20 Years Post Rio

12th DELHI SUSTAINABLE DEVELOPMENT SUMMIT

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FOREWORD



Dr R K Pachauri
Director-General, TERI

Actions to implement the concept of sustainable development, both at the global as well as the local level, require protection and conservation of the global commons. Despite the massive increase in literature and knowledge on the human and economic implications of damage and degradation to the global commons, human society has been largely irresponsible in dealing with this challenge.

The Rio Summit of 1992 was a rallying point for those concerned with the planetary crisis faced on account of mounting neglect in this area. The spirit and substance of Rio in 1992 provided a great deal of hope that human society would finally be able to manage the global commons in such a way that we arrest their depletion and degradation. Sadly, actions since Rio have been far below expectations.

It was, therefore, appropriate that DSDS 2012 focused on this major theme, 20 years since Rio, and endeavour to evolve strategies by which the neglect of the past can be addressed effectively and urgently in the immediate future. The theme was particularly significant given that the UN was to hold a major event later in the year, the Rio+20 Summit or the UN Conference on Sustainable Development, to focus on what has been done and what further needs to be done.

We hope that the deliberations at DSDS were able to add meaningfully to the mainstream of thought and action in this area – therein providing valuable inputs for the Rio+20 process, as well as spilling over into the concerns and consciousness of stakeholders across the world, who may not have a direct involvement in the official Rio+20 process.

Acknowledgements

TERI's Delhi Sustainable Development Summit serves as a vital platform for the nations of the world, to discuss and debate strategies in the realm of sustainable development and explore avenues for synergy. The Summit allows representatives from different walks of life; namely polity, economy, academics and civil society to contribute to the formulation of effective policies that would benefit both the people and the planet.

The 12th edition of TERI's flagship event was inaugurated by the Hon'ble Prime Minister of India, Dr Manmohan Singh for the third time in a row. Eight Heads of states, ministers from 17 countries and over a thousand delegates registered their presence at DSDS 2012. The presence of the former Governor of California, and an ardent green crusader, HE Mr Arnold Schwarzenegger inspired the young and the not-so-young with his words. HE Ms Tarja Halonen, the President of Finland was conferred the eighth Sustainable Development Leadership Award. During the course of her acceptance speech, she highlighted crucial linkages between sustainable development, the development of human resources and the empowerment of women.

DSDS 2012 came at an important juncture. Aptly titled 'Protecting the Global Commons: 20 Years Post Rio', DSDS 2012 was the first important meeting of global leaders preceding the June 2012, Rio+20 Summit. Two decades since the 1992 Rio Summit, the Summit provided an opportunity to:

- Assess the progress made in protecting our planet;
- Examine what has been achieved and how awareness has been created; and
- Set a fresh agenda for the future course of action.

DSDS 2012 also remains a fitting tribute to the late Nobel Laureate Elinor Ostrom. Her inspiring presence at the Summit, which sadly turned out to be her last one, is invaluable and continues to be of great significance to us at TERI. Her life's work dedicated to effective utilisation of common resources through collective action and universal cooperation will undoubtedly steer and guide all future deliberations on sustainable development.

The dignitaries and deliberations at the Summit helped in creating awareness and shaping opinions before the grand meeting in Rio.

I take this opportunity to acknowledge the enthusiastic and magnanimous support of all our Partners who helped in putting DSDS 2012 together.

Needless to emphasise, the success of the Summit owes a great deal to the unstinted cooperation and the untiring support extended by my colleagues at the secretariat and from across all divisions of the Institute.

The following pages provide highlights of the key deliberations of the 12th edition of the Summit held in New Delhi, India from the 2-4 February, 2012 at Hotel Taj Palace.



Dr Annapurna Vancheswaran
Director
Sustainable Development
Outreach Division, TERI

DSDS 2012: Highlights

Over 15 Special Events were organized on the sidelines of the Summit. Consistent with and central to the main theme of DSDS 2012, these were opportunities to listen and interact with distinguished speakers and area experts on niche topics.

Curtain raiser to DSDS 2012, the 9th World CEO Sustainability Summit was organized on February 1, 2012 by TERI-BCSD (Business Council for Sustainable Development) in association with WBCSD (World Business Council for Sustainable Development). The overall focus of the CEO Summit was 'Doing Business: While Protecting the Global Commons'. It was inaugurated by Mr Anand Sharma, Hon'ble Union Minister of Commerce and Industry and Textiles, Government of India in the presence of dignitaries such as Dr Sam Pitroda, Chairman, National Innovation Council, Government of India & Adviser to the Prime Minister on Public Information Infrastructure & Innovations; Mr Peter Bakker, President, WBCSD; and Mr Sudhir Vasudeva, CMD, ONGC. The two panel discussions of the Summit delved into 'business challenges' and 'opportunities' while protecting the global commons. 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. Two key messages for businesses that were uncovered from the deliberations included; dematerialization can be a solution for a green future and sustainable environment and integration of technologies for achieving the goal of sustainable development.

The 12th edition of DSDS also allowed for the enthusiasm of the young to mesh well with the wisdom of the learned. The YUVA (Youth United for Voluntary Action) Meet at DSDS 2012 brought together the brightest young minds from across international and national borders to spin webs exchanging knowledge about the best means to be adopted in preserving the 'global commons'. The YUVA Meet 2012 under the theme of 'Conserving Global Commons: Transforming Knowledge into

Action' engaged the youth, in recognition of the fact that all articulation in the discourse on preserving the environment stands to benefit from the acceptance and action of the young.

Some other key Special Events included the Regional Rollout of the 'International Year of Sustainable Energy for All', a UN endeavour aiming at 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 by 2030. Key points that the discussion highlighted are:

- Public-private partnership where the grants/ funds lead to leveraging investments towards technology neutral, modern energy access programmes;
- Cutting down subsidies on kerosene and diesel to mobilize resources for renewable energy promotion and environmental protection;
- Proactive participation of big corporates in the field of research and development to cater to the needs of the society at large;
- Creating awareness to adopt clean and energy efficient technologies;
- Taking energy efficient products to the market and up-scaling them;
- Recognizing traditional local knowledge and skills; and
- Building capacities and strengthening energy access interventions;

At a Special Working Luncheon Session hosted by TERI-BCSD, a select group of Indian CEOs interacted with HE Mr Arnold Schwarzenegger, Former Governor of California & Founding Chair, R20 – Regions of Climate Change. Over 70 Indian and global CEOs and senior representatives from businesses and Indian government discussed challenges and opportunities pertaining to 'Business Leadership for Sustainability'. At this candid interaction, the business community voiced their opinions through a voting session where issues like organizational sustainability and effective partnerships were deliberated upon.

Women and Green Economy a co-presentation of

Earth Day Network and TERI deliberated on creating a policy agenda for Rio+20 in order to generate relevant national policies that will promote green economy, secure educational and job training opportunities for women, and channel green investment to benefit women.

The complete list of Special Events held during DSDS 2012 is as follows:

- 9th World CEO Sustainability Summit: Doing Business While Protecting the Global Commons
- Adapting to the Changing Climate and water resource availability in Ganges Basin
- Low carbon pathways for transport sector: Promoting railways' share in inter-city and regional passenger travel
- Regional Rollout of the 'Sustainable Energy For All' Year
- Water: Our Global Common
- Large Scale Deployment of Smart Grids: Opportunities and Strategies
- Moving towards alternative energy solutions for addressing rural energy needs
- Indo-Norwegian research collaboration to address Climate Change impacts on selected Indian Hydrological Systems using Earth System and High Resolution Modelling
- 'Environment, Conflict and Cooperation' Exhibition
- Business opportunities in Himalayan Ecosystem Management
- Workshop on "Learning from emerging energy innovations in Asia: Contributing to the discourse on an institutional framework for sustainable development"
- Women and Green Economy
- YUVA Meet 2012 - Conserving Global Commons: Transforming Knowledge into Action
- Business Solutions for Sustainable Energy for All: Corporate Leadership in Addressing Energy Challenges in India
- 4th Indo-Japan Energy Forum: Business Opportunities in Energy Efficiency and Renewables
- Realizing the MDGs - The forests-poverty link
- Room with a View - Film Screening of some of TERI's best productions on Gender & Climate Change, Biodiversity

The following books and reports were launched at DSDS 2012:

- Report of UN Secretary-General's High-level Panel on Global Sustainability.
- 'Plan Nord' presentation by Dr Yves Bolduc, Hon'ble Minister of Health and Social Services, Government of Quebec.
- Book titled 'Development, Food, and the Environment: Towards Agricultural Change?' (A Planet for Life Series).

Background Note

From the beginning of the human race to the 20th century, the entire population of the world has reached 2 billion. But, in the next 40 years, it is anticipated that we would add another 2 billion people to reach a total population of close to 9 billion. Incomes in recent decades have grown substantially, and the prospects for the future, particularly in countries that have in the past been described as developing nations envisage a major expansion of income and wealth, which will have some major implications for the consumption of raw materials and natural resources. At the same time, it would be totally unrealistic and perhaps unethical to expect that the emerging economies would not wish to match the lifestyles and consumption standards of the developed countries of today. One particular study predicts that some 2 billion people in a dozen emerging economies will annually spend \$20 trillion in a decade from now. This added to the high levels of spending and consumption in the developed world has major implications for the exploitation and use of resources and for the sustainability of the global commons across the globe. Increasing consumption and production of fossil fuels will lead to higher concentration of greenhouse gases in the earth's atmosphere resulting in climate change, which would have spiralling impacts on ecosystems, water, human health, agriculture, forests, and biodiversity. At the same time, low lying coastal areas and small island states will be affected by sea level rise as a result of climate change.

The UN Conference on Environment and Development held in 1992 focused on a range of subjects related to sustainable development and the nexus between human actions and the health and conservation of natural resources. A number of global agreements and actions were initiated as a result of that conference, but 20 years have gone by, and the global commons are still under serious threat, in some cases increasingly so. The UN has, therefore, held a major global event in June 2012 called Rio+20. A newsletter issued by the organization responsible for Rio+20 stated that “demographic trends are placing more pressure on water-stressed regions than ever before”. And that “with the global population expected to increase by up to 50 per cent in the next fifty years, sustainable management of water resources will present a significant development challenge”.

A “Special Report on Managing the Risks of Extreme Events and Disasters to Advance Climate Change Adaptation”

produced by the Intergovernmental Panel on Climate Change (IPCC) clearly brings out the growing challenge of extreme events and disasters resulting from climate change, which would be particularly serious for vulnerable communities, which reside in some of the poorest areas in the world. In particular the threat of increase in heat waves, extreme precipitation events, and extreme coastal high water levels resulting from increase in mean sea level would represent major risks particularly for vulnerable communities and societies across the globe.

Given the prospects of increase in population and consumption levels, there is need to evaluate all that has happened, and much that has not happened, in the last 20 years, to draw up an agenda for the future by which the global commons can not only be protected, but perhaps revived and enriched.

The 2012 Summit has served three purposes:

- i) Bringing together leaders from stakeholder groups, including politics, business, civil society, research and academia; a comprehensive view has been developed on how all stakeholders can work together for protection of the global commons.
- ii) Assessing the vulnerabilities of the worst affected communities across the globe, which includes those whose livelihoods are largely dependent on ecosystem services, and seeing how their interests can be protected.
- iii) Providing inputs to the official Rio+20 process, which assisted the UN and the global community in furthering global efforts to protect the global commons.

DSDS 2012 has carried out an objective evaluation of what has been achieved since Rio in 1992, and where the gaps lie currently. It assessed the increased stresses on the global commons that are likely in the future, and came up with strategies by which the world can meet the mounting challenges ahead in this field.

Agenda

Day 1: 2 February 2012	
10:00 – 10:45am	Inauguration by Dr Manmohan Singh, Hon'ble Prime Minister, Government of India
10.45 – 11:30am	Leadership Panel I :Leading to Preserve the Global Commons Chair: Dr Prannoy Roy , Founder and Executive Chairperson, NDTV, India <ul style="list-style-type: none"> • HE Ms Tarja Halonen, President, Finland • HE Mr Anote Tong, President, Kiribati • HE Mr James Alix Michel, President, Seychelles
11:30 – 2:20 pm	Keynote Addresses Chair : Mr Yvo de Boer , Special Global Advisor, Climate Change and Sustainability, KPMG International, UK & Former Executive Secretary, United Nations Framework Convention on Climate Change (UNFCCC) <ul style="list-style-type: none"> • Protecting Our Common Future through Multilateralism HE Ms Patricia Espinosa Cantellano, Minister of Foreign Affairs, Government of Mexico • Asian Actions to Improve Prosperity while Protecting the Global Commons Mr Haruhiko Kuroda, President, Asian Development Bank, Philippines • Thinking About Climate Change: What Can We All Do? Nobel Laureate Dr Elinor Ostrom, Professor, Indiana University, USA
12:20 – 1:15 pm	Lunch
1:15 -2:15 pm	Leadership Panel II: Leading to Preserve the Global Commons Chair: Mr Nitin Desai , Distinguished Fellow, TERI & Former Under-Secretary General of the United Nations, India <ul style="list-style-type: none"> • HE Mr Festus Mogae, Former President of Botswana & Chairperson of CODA Gaborone, Botswana • HE Mr Bharrat 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

2:15 – 3:45 pm	<p>Dialogue with Leaders of States and Provinces</p> <p>Co - Moderators: Dr R K Pachauri, Director-General, TERI, India Mr Terry Tamminen, Founder and President, Seventh Generation Advisors, USA</p> <p>Keynote Address: HE Mr Arnold Schwarzenegger, Founding Chair, R20 - Regions of Climate Change & Former Governor, California, USA</p> <ul style="list-style-type: none"> • Ms Marie-Hélène Aubert, Former European Parliamentarian, France • Dr Yves Bolduc, Hon'ble Minister of Health and Social Services, Government of Quebec • Prof. Prem Kumar Dhumal, 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
3:45 – 4.00 pm	Launch of the Report of UN Secretary-General's High-level Panel on Global Sustainability
4.00 – 5.45 pm	<p>ADB - Asia 2050 Panel</p> <p>Moderator: Dr Iwan Azis, Head, Office of Regional Economic Integration, Asian Development Bank, Philippines</p> <ul style="list-style-type: none"> • 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
5:45 – 6:30 pm	Reception hosted by Asian Development Bank
6.30 – 8.00 pm	Green Globe Foundation Awards Ceremony
8:00 pm onwards	Dinner hosted by Ministry of Environment and Forests, Government of India
Day 2: 3 February 2012	
	<p>Opening Remarks</p> <ul style="list-style-type: none"> • Dr R K Pachauri, Director-General, TERI, India

9:15 – 10:30 am	<p>Special Session on Biodiversity</p> <p>Moderator: Dr Ashok Khosla, President, International Union for Conservation of Nature (IUCN), Switzerland</p> <p>Setting the Theme: Mr M F Farooqui, Additional Secretary, Ministry of Environment and Forests, Government of India</p> <p>Keynote Address: Ms Jayanthi Natarajan, Hon'ble Minister of State (I/C), Ministry of Environment and Forests, Government of India</p> <ul style="list-style-type: none"> • 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
10:30 – 10:45 am	Tea
10:45 – 12:00 pm	<p>Corporate Dialogue on Global Commons</p> <p>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</p> <ul style="list-style-type: none"> • 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

12:00 – 1:15 pm	<p>Ministerial Session I – Sustainable Management of Global Commons in South Asia</p> <p>Moderator: Dr Kandeh K Yumkella, Director General, United Nations Industrial Development Organization (UNIDO), Austria</p> <ul style="list-style-type: none"> • 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
1:15 – 2:15 pm	'Plan Nord' presentation followed by lunch hosted by Government of Quebec
2:15 – 3:45 pm	<p>Global Commons and Challenges in Africa</p> <p>Moderator: Mr Abdoulie Janneh, Under Secretary-General and Executive Secretary, United Nations Economic Commission for Africa, Addis Ababa, Ethiopia</p> <p>Setting the Theme : Mr Gurjit Singh, Additional Secretary (East & Southern Africa), Ministry of External Affairs, Government of India</p> <ul style="list-style-type: none"> • 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
3.45 – 4.00 pm	Tea
4:00 – 5:15 pm	<p>Water – Our Vital Commons</p> <p>Moderator: Mr Ashok Jaitly, Distinguished Fellow & Mentor, TERI, India</p> <ul style="list-style-type: none"> • 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

5:15 – 6.30 pm	<p>Sustainable Development and Consumption</p> <p>Moderator: Dr Ligia Noronha, Director, Resources, Regulation and Global Security Division, TERI, India</p> <p>Keynote Address: Ms Connie Hedegaard, European Commissioner for Climate Action, European Commission, Denmark</p> <ul style="list-style-type: none"> • 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
6:30 pm onwards	Launch of the book “Development, Food, and the Environment: Towards Agricultural Change?” (A Planet for Life series) followed by reception hosted by Agence Française de Développement (AFD)
Day 3: 4 February 2012	
	<p>Opening Remarks</p> <ul style="list-style-type: none"> • Dr R K Pachauri, Director-General, TERI, India
9:30 – 10:45 am	<p>Ministerial Session II – Looking Ahead: Preserving Global Commons</p> <p>Moderator: HE Dasho Paljor J Dorji, Special Advisor - National Environment Commission, Government of Bhutan</p> <ul style="list-style-type: none"> • Hon. Stéphane Dion, MP, House of Commons, Canada • HE Ms Heidi Hautala, Minister for International Development, Ministry of Foreign Affairs of Finland • HE Ms Heidemarie Wieczorek-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
10.45 – 11.00 am	Tea

11.00 am – 12.15 pm	<p>New Frontiers in Combating Climate Change</p> <p>Moderator: Ambassador C Dasgupta, Distinguished Fellow, TERI, India</p> <ul style="list-style-type: none"> • 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
12:15 – 12:45 pm	<p>Keynote Address</p> <p>Moderator: Dr Prodipto Ghosh, Distinguished Fellow, TERI, India</p> <p>The Information Revolution and Sustainable Development</p> <p>Prof. Jeffrey D Sachs, Director – The Earth Institute, Columbia University & Special Advisor to the Secretary-General, United Nations, USA</p>
12.45 – 1.45 pm	Lunch hosted by Telenor
1:45 – 3:00 pm	<p>This Century of Knowledge</p> <p>Moderator: Dr Leena Srivastava, Executive Director-Operations, TERI & Vice Chancellor, TERI University, India</p> <ul style="list-style-type: none"> • 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
3:00 – 3:15 pm	Tea
3:15 – 4:30 pm	<p>Clean Energy: Improving the Global Commons</p> <p>Moderator: Mr David Sandalow, Assistant Secretary for Policy and International Affairs, US Department of Energy, USA</p> <ul style="list-style-type: none"> • 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

4.30 – 5.45 pm	<p>Overcoming the Divide: Global North vs Global South</p> <p>Moderator: Mr Suman K Bery, Country Director, India Central, International Growth Centre, London, UK</p> <ul style="list-style-type: none"> • 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 Sanjbegz, President, The National University of Mongolia, Mongolia • Mr Ali T Sheikh, Asia Director, Climate & Development Knowledge Network, Pakistan
5.45 – 6.15 pm	<p>Valedictory Session: Protecting the Global Commons: The Future Roadmap</p> <ul style="list-style-type: none"> • Summit Summary : Dr R K Pachauri, Director-General, TERI, India • Mr Rahul Saini, Department of Economics, Panjab University, India • Ms Shruti Sayal, TERI University, India • Ms Sudeshna Mayasen, TERI University, India



Prime Minister's Address at the 12th Delhi Sustainable Development Summit

2 February 2012

Dr Manmohan Singh,
Hon'ble Prime Minister, India

I am delighted to be here today at this inaugural session of the Delhi Sustainable Development Summit. I congratulate her Excellency the President of Finland Ms Tarja Halonen for receiving the coveted Sustainable Development Leadership Award for 2012. We wish her well in her important role as co-chair of the UN High Level Panel on Global Sustainability.

This year marks the 20th anniversary of the landmark Rio Earth Summit of 1992, which set out the concept of sustainability and its importance as a critical parameter of human development. The Rio Declaration on Environment and Development of 1992 had stated that the right to development must be fulfilled to equitably meet the needs of present and future generations. It also recognized that eradicating poverty was an indispensable requirement for sustainable development.

The idea of sustainability began as a developmental ideal. Over time, it has become an important focus of policy, particularly

“Eradicating poverty is an indispensable requirement for sustainable development.”

in developing countries as we struggle to reconcile our effort to develop with the compelling need to protect our environment. Air pollution, industrial pollution, increasing quantum of waste, and pollution of our rivers are problems we all face.

There is also growing realization that sustainable development is not something that can be achieved by countries acting individually. The threat of climate change caused by greenhouse gas emissions has brought the world to a critical point where the actions of each and every country affect the planet as a whole. Sustainable development in this environment, therefore, calls for cooperation of all countries both industrialized and developing. That cooperation must be based on the foundation of the right to development and the need for an equitable distribution of burden.

The need for equity is starkly reflected in the fact that the emissions per capita in industrialized countries are ten to twelve times those of developing countries. We know that total emissions in the world must decline, but what does this imply for emissions in individual countries? We must find a way of solving this problem in a way that does not deprive developing countries of their right to develop.

As a developing country in the frontlines of climate vulnerability, India has a vital stake in the evolution of a successful, rule-based, equitable, and multilateral response to issues relating to climate change. The principles of the UN Framework Convention on Climate Change provide the basis for creating a workable framework along these lines. In this context, it is necessary to recognize that currently there appears to be a lack of collective global will to address this problem with the seriousness it deserves. We need to give renewed momentum, therefore, to the global negotiations for cooperative collective action for management of climate change.

The 17th Conference of Parties at Durban did achieve some important gains. The agreement at Durban on the 2nd Commitment Period of the Kyoto Protocol is a significant achievement because there were doubts at one time about whether any agreement could be reached. I am glad that an agreement was reached. We cannot make progress in this difficult area if we allow the commitments of the past to be unravelled.

In the ensuing negotiations, we will need to focus on the substantive nature of arrangements, based on the principles of equity and common, but differentiated responsibilities, more than their legal shape.

“As a developing country in the frontlines of climate vulnerability, India has a vital stake in the evolution of a successful, rule-based, equitable and multilateral response to issues relating to climate change.”

As we go forward, we will need to make progress on all the four pillars of cooperative action that were agreed at Bali, namely, mitigation, adaptation, technology transfer, and development and provision of financial resources and investment. There should be action in all these areas as part of a coherent and organic response to the problem climate change. In that sense, the Durban Platform must build on the Bali Action Plan. I can assure you that India will play a constructive role in the ongoing negotiations and we will certainly live up to whatever obligations fall upon us as part of a fair and equitable agreement.

On our part, we are progressing with our own national strategy for mitigation and adaptation. Our National Action Plan on climate change is progressing satisfactorily and the eight National Missions are moving ahead. We hope to build a strategy for the Twelfth Five Year Plan, which begins in April this year and it will be designed to ensure significant benefits for climate along with inclusive sustainable growth.

Food and energy security and sustainable use of scarce natural resources will constitute important constituents of our strategy for sustainable development. We will seek to reduce the emissions intensity of our GDP by 20–25 per cent by the year 2020 taking 2005 as the reference level.

India is one of the mega biodiverse countries of the world. Our traditional knowledge is both coded as in our ancient texts on Indian systems of medicine, and non-coded, as in oral traditions. With four global biodiversity hotspots, India ranks amongst the top ten species rich nations.

India was one of the first few countries to enact a comprehensive Biological Diversity Act in 2002 to give effect to the provisions of the Convention on Biological Diversity, 1992. Yet India and the world have miles to go before we can claim notable success in fulfilling the three objectives of the Convention, namely, conservation of biological diversity, sustainable use of its components, and the fair and equitable sharing of the benefits.

I am happy that India is hosting the eleventh Conference of Parties to the UN Convention on Biodiversity in Hyderabad later this year. I expect the Conference will bring about global consensus and forward-looking action on such major initiatives like operationalization of access and benefit sharing mechanisms, which will go a long way in promoting community participation in conservation and sustainable use of resources.

I am happy to share with you the heart-warming news that India's tiger population is on the rise. The 2011 tiger census

“Food and energy security and sustainable use of scarce natural resources will constitute important constituents of our strategy for sustainable development. We will seek to reduce the emissions intensity of our GDP by 20–25 per cent by the year 2020 taking 2005 as the reference level.”

showed a 20 per cent increase in the number of tigers over that of the year 2006. We have estimated that there are today around 1,700 wild tigers in India out of a global population of around 3,000. I hope that the lessons learnt will be used to conserve other endangered species as well.

I am also happy to state that India's forest cover had increased by nearly 5 per cent between 1997 and 2007 with a small decrease since then. We hope to see further accretion with the implementation of the Green India Mission, which aims to increase the forest and tree cover by 5 million hectares and improve forest cover on another 5 million hectares. Eventually, these forests will act as a sink that could absorb 50–60 million tonnes of carbon dioxide annually. This would offset about 6 per cent of India's annual emissions.

The Government of India is trying to put in place institutional arrangements and mechanisms to promote policy development and stakeholder engagement on sustainable management of commons. We have recently established a National Green Tribunal under the National Green Tribunal Act, 2010. The Tribunal provides for the effective and expeditious disposal of cases relating to environmental protection and conservation of forests and other natural resources. This includes the enforcement of any legal right relating to environment, including providing relief and compensation for damages.

The National Ganga River Basin Authority is yet another example where we are implementing institutional innovation to protect the sacred River. The objective of the Authority is to ensure conservation of the river Ganga and to maintain environmental flows by adopting a comprehensive river basin approach. We hope that the engagement of all stakeholders and this new approach will yield positive results.

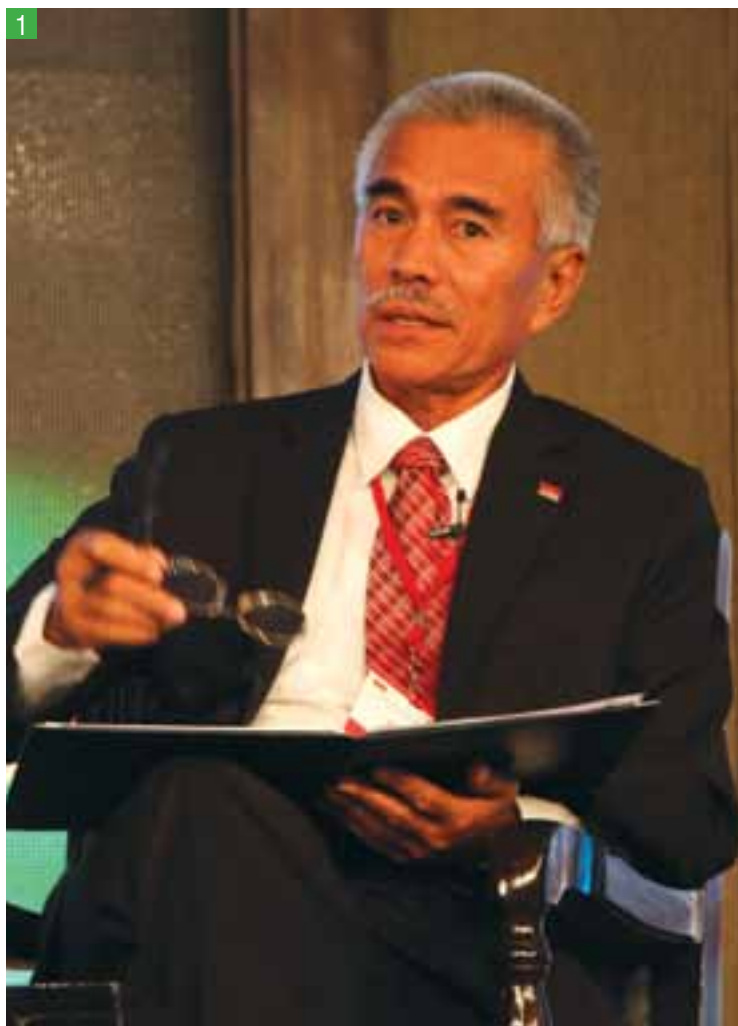
The Rio Declaration of 1992 enunciated 27 far reaching principles that sought to protect the integrity of the global environmental and developmental system. These principles have stood the test of time. I urge all those gathered here today to reflect whether they have been given the importance they deserved in establishing a new and equitable global partnership that was the aim of the Rio Declaration. To the extent we have fallen short of those aims, and objectives we must gear ourselves to do better in years to come. That's the challenge and that's also a great opportunity. With these words I once again thank you for listening to me patiently.

“The Government of India is trying to put in place institutional arrangements and mechanisms to promote policy development and stakeholder engagement on sustainable management of commons.”

LEADERSHIP PANEL I – LEADING TO PRESERVE THE GLOBAL COMMONS

Tragedy of the Commons

The tragedy of the global commons is currently an issue of foremost concern for international leaders and policy-makers. As nations exhaust resources that fall within their own jurisdiction, the temptation to expand their search for energy sources, fresh water, and food sources to places beyond their borders will be inevitable. Motivated by overpopulation or greed or the need to ensure continuous economic growth, the last half-century has borne witness to the overexploitation of the global commons on an unprecedented scale. These actions have consequently brought humanity to the brink of an ecological disaster whose repercussions will be felt in the economic, political, and social spectra of all nations across the world.



“There is an urgent need for the imposition of a carbon tax.”

HE Mr Anote Tong,
President, Kiribati

1 HE Mr Anote Tong,
President, Kiribati

Chair:

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
-



The Global Commons: A Definition

Defining the global commons is a tricky business, and a divide still exists in the perceptions of leaders and policy-makers about what constitutes the global commons. They can roughly be defined as natural assets that do not come under the jurisdiction of any one nation and are crucial to the continued survival and growth of the human species. These include the atmosphere, outer space, the oceans, certain rivers that flow across multiple nations and rainforests that provide a substantial amount of oxygen to the earth's atmosphere.

The global commons debate is plagued with problems from the start. Definitions of what constitutes the global commons is replete with conceptual ambiguity and property rights are either non-existent or unenforced – thus no individual player can be held accountable to their actions. There is no consensus among environmentalists and international leaders on whether areas that are currently defined as the property of a particular nation could be classified as part of the global commons on the basis of the relationship between these natural resources and their impacts on the global climate and environment. For example, the Amazon rainforest in Brazil, the forests of the Pacific Northwest in the USA and Canada, and Antarctica.

L–R: Dr Prannoy Roy, Founder and Executive Chairperson, NDTV, India; **HE Mr James Alix Michel**, President, Seychelles; **HE Ms Tarja Halonen**, President, Finland; **HE Mr Anote Tong**, President, Kiribati

Preserving the Global Commons

At this crucial juncture in human history, global leaders have been tasked with the responsibility of negotiating international policy decisions and treaties that hold nations accountable for their usage of the global commons. The challenge facing global leaders and policy-makers is that of preserving the global commons while still ensuring human development targets as set out by the United Nations Millennium Development Goals initiative.

The prerogative of the first Leadership panel was defined as *'Leading to Preserve the Global Commons'*. The distinguished members of the panel grappled with questions on the nature of the role of global leaders in balancing their responsibilities towards their nation by ensuring economic growth and development while also ensuring that they are fulfilling their obligations towards the global commons. The panel was composed of leaders from highly developed nations that are frequently ranked at the top in indices for human development, GDP per capita, and wealth equality; nations with developing economies that are subject to rampant income inequalities; and nations that are amongst the poorest in the world, struggling with issues of poverty, health, and social instability.

Each nation must learn to navigate the quagmire of its economic and environmental responsibilities. The principle of common but differentiated responsibilities elaborates on the nature of the responsibility of each type of nation towards mitigating the effects of overexploitation on the global commons, but it is the charge of individual nations to find the mechanisms by which to do so, and leadership plays a crucial role in guiding a country on such a path.

The distinguished panel for DSDS 2012's first session was engaging and dynamic and their introductory speeches were crisp and succinct. Questions asked covered the spectrum of consumption, sustainability, and environmental issues. Members of the privileged audience and the moderator for the session invited the members of the First Leadership Panel: Leading to Preserve the Global Commons to offer the opinions and answers on questions such as:

- Is modern society's aversion to short-term sacrifices for the sake of long-term stability and growth a possible factor hindering the preservation of the global commons?
- If so, what is the role of leaders in getting people from a materialistic global culture to change their lifestyle obsession?
- Are the panel members prepared, or willing, to risk an election by campaigning only on sustainability and environment?

3 HE Mr James Alix Michel,
President, Seychelles

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

HE Mr James Alix Michel,
President, Seychelles



- When international economic organizations such as the IMF or the World Bank conduct economic reforms in under-developed or developing nations, are environmental and sustainability issues considered?
- Is it better for developed countries to focus on better – i.e., economically and environmentally sustainable – rather than bigger GDP? Whereas for India, it is better to focus on both: bigger and better GDP?

Enough for Everyone's Need but Not for Everyone's Greed

Discussing such questions and the essential need for inculcating sobriety in human economic ambitions, the panellists invoked the principles of Mohandas Gandhi, stating, "There is enough on this planet for everyone's needs but not for everyone's greed". Distinguished members of the panel characterized the lack of inertia on the issue of the global commons as a possible consequence of the discomfort of individuals within a society with the idea of having to make sacrifices for the intangible betterment of the community as a whole. Rich countries ought to be willing to provide assistance to poorer nations in building up their economic and social infrastructure, a starving man in poverty should not die because of a lifestyle obsession in developed nations. Similarly, there are many poor people in developed nations too and it is important that the concerns of the poor should be voiced to governments in North and South nations.

The opinions of people have evolved substantially, and people are now more understanding and knowledgeable of the concerns of the sustainable development and environmental movement. It is possible for politicians to win elections on issues of the environment and sustainability, something that was not possible twenty years ago. Sustainable development will have greater significance to developing countries – if done right, it will allow them to progress in terms of quality and quantity. Developing and under-developed nations should have a larger voice in matters of sustainable development and the global commons, the panel believed. Some of the poorest nations in the world are also at the forefront of crises caused by climate change and the over-exploitation of the global commons. While individual nations can implement measures to deal with issues that affect the resources under their jurisdiction, it is important for international leaders across political boundaries to develop strong political will in order to tackle these issues.



“ People are part of biodiversity and should be the focus of all policies. ”

HE Ms Tarja Halonen,
President, Finland

4 HE Ms Tarja Halonen,
President, Finland

KEYNOTE ADDRESSES

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 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.



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

Mr Haruhiko Kuroda,

President, Asian Development Bank,
Philippines

Chair:

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

Speakers:

Protecting Our Common Future through Multilateralism

- 2 HE Ms Patricia Espinosa Cantellano**, Minister of Foreign Affairs, Government of Mexico
Thinking About Climate Change: What Can We All Do?
- 3 Nobel Laureate Dr Elinor Ostrom**, Professor, Indiana University, USA
Asian Actions to Improve Prosperity while Protecting the Global Commons
- 4 Mr Haruhiko Kuroda**, President, Asian Development Bank, Philippines

LEADERSHIP PANEL II – LEADING TO PRESERVE THE GLOBAL COMMONS

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 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 the 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 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.



1 L–R: HE Dr Gro Harlem Brundtland, Former Prime Minister of Norway and Member of the UN Secretary General's Global Sustainability Panel, Norway; **HE Mr Festus Mogae**, Former President of Botswana & Chairperson of CODA Gaborone, Botswana; **Mr Nitin Desai**, Distinguished Fellow, TERI & Former Under-Secretary General of the United Nations, India; **HE Mr Bharrat Jagdeo**, Former President, Guyana; **The Rt. Hon. Lord John L Prescott**, Former Deputy Prime Minister & Member of Parliament, House of Lords, UK

Chair:

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

Speakers:

- **HE Mr Festus Mogae**, Former President of Botswana & Chairperson of CODA Gaborone, Botswana
 - **HE Mr Bharrat 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
-

DIALOGUE WITH LEADERS OF STATES AND PROVINCES



Leadership in the Face of Climate Change

Leadership involves not merely being able to solve the problems being faced by a region in the present, but also the foresight to be able to gauge the problems that the region will face in the future and the ability to prevent those problems from reaching fruition. Unfortunately, attempts to prevent climate change over the last few decades hit numerous diplomatic and political roadblocks, a lack of a coherent vision and insufficient political will stopped us from being able to stem the problems of climate change before they could happen. Climate change is now the unavoidable fate of the planet, and the rhetoric has suitably evolved from preventing climate change to adapting and mitigating the effects of it.

In large nations, such as India, Australia, and the United States, the responsibility of helping communities mitigate and adapt to the changes created by changes in the environment and resource depletion (energy, food, and water) cannot fall squarely on the central or federal government. Leaders of a specific region, state or province will be critical stakeholders in the mitigation process. Leaders, governments, and policy-makers at the highest level might be responsible for drafting policies and distributing funds for these tasks, but the successful execution of them will essentially boil down to the leadership skills of local leaders. SWOT analyses of individual states or provinces can be best conducted by the people who have been actively involved in the administrative processes of those states and provinces.

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

Co-Moderators

Dr R K Pachauri, Director-General,
TERI, India, and **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
 - **Dr Yves Bolduc**, Hon'ble Minister of Health and Social Services, Government of Quebec
 - **Prof. Prem Kumar Dhumal**, 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
-

Importance of Local-level Leadership

The questions that face the leaders of states and provinces are numerous, and can vary extremely from the questions that might face the rest of the nation. The demands of a state or province could be counter-intuitive to the demands of the rest of the nation, and yet in this seeming dilemma are the seeds of the solution. Certain states and provinces have the biodiversity or economy or sheer size of a nation. The state of California has the 8th largest economy in the world, and features some of the most ecologically diverse regions in the world. A single environmental or energy policy, formulated by a federal government, could not possibly be implemented successfully without taking into consideration the unique situation that such a state offers.

The role of a leader at this level is thus not merely to actualize the policy-decisions taken by central or federal administrations, but rather to formulate a unique solution that fits the strengths, weaknesses, opportunities, and threats of the state. Sustainable development encompasses issues that were earlier parts of disparate social movements and political ideas. Under the blanket term of sustainable development, it is possible for a state government to simultaneously approach the issue of preserving their local natural assets, help prevent the overexploitation of the global commons, devise solutions to the approaching energy crises and fossil fuel shortage that are tailored to the requirements of the people, and mitigate the effects of climate change in accordance with the projected impacts for a particular region.

Solutions at the Local rather than Central Level

The delegation of the dialogue with leaders of states and provinces featured a wide variety of thinkers, doers, leaders, policy-makers, and even a terminator! The panel was united in its vision for achieving sustainable solutions at the local-level that can have a serious impact on the lives of the people living in their states and regions. A greater understanding of the unique opportunities and problems of the region would facilitate local leadership to generate institutional frameworks that are tailor-made to assist the people of that region. This would allow individuals and communities at the local level to take their climate adaptation and mitigation destinies into their own hands and thus ensure that sustainable development can occur at a level that is conducive to continued economic and social growth.

One of the core ideas shared from the experiences of many of the distinguished members of the panel was that a substantial

2 Ms Sheila Dikshit,
Hon'ble Chief Minister,
Government of NCT of Delhi, India





and significant advantage offered by local-level sustainable development management comes from the consequences of implementing the ideas of sustainable development at the local level by state and provincial leaders, viz., economic growth is not affected by the sustainable development initiatives. Rather, the deeper understanding of the region's potential can aid and abet the economic resurgence of the region.

In the duration of the discourse, state leaders described the issues faced by their provinces, which ranged from such diverse issues as drought, excess rainfall, excess heat, excess cold, high industrialisation, and low industrialisation. The solutions to these problems could not be arrived at by focus groups in the national capital, and the experiences of distinguished panel members bore testament to the resilience needed to be able to conquer the issues faced by local regions, within the larger context of the sustainable development movement. The panel members described the steps necessary for a state to be able to facilitate the emergence of green growth, energy independence, and sustainable development. They vehemently advocated the necessity of local leaders to not be bound by the timetables of their international stakeholders, stating that radical measures are a necessity to be able to initiate sustainable development action that can engender the development of a vibrant and dynamic green economy.

3 Ms Marie-Hélène Aubert, Former European Parliamentarian, France

4 Mr Terry Tamminen, Founder and President, Seventh Generation Advisors, USA



ADB - Asia 2050 Panel

Predictions are abounding about how the 21st century will be known as an “Asian Century”. Of course, a dominant Asia should not appear to be an unheralded idea. Indeed, for most of the history of civilization, Asia was the centre of economic, political, and military power. The advent of the industrial age in Europe, which spread to North America, saw the decline of Asia’s economic influence over the last two centuries. At the start of the eighteenth century, Asia accounted for 60 per cent of the world’s GDP (PPP), falling to 25 per cent by 1900, and hitting a new nadir by the 1950s, where Asia accounted for only around 15 per cent of the world’s GDP by purchasing power parity. The emergence of Asia began with economic resurgence of Japan, which was followed by economic success stories in South Korea, Hong Kong, Taiwan, and eventually, China and India. Asian countries continue to make a mark on the global economic landscape as emerging powers such as Indonesia, Malaysia, and Vietnam continue to develop as vibrant and dynamic economies. Yet, in all the hype and brouhaha surrounding the emergence of Asia, there are unanswered questions. While the models have been mildly appropriated to suit a few local flavours, Asian economies – whether they are industrial giants or evolving powers – still follow a model for development that was developed by, and is ideally suited for European nations.

A study by the Asian Development Bank finds that, by 2050, there are two potential scenarios for the much-vaunted ‘Asian Century’. On one hand it is possible that, driven by growth in the seven major emerging economies of Asia, namely, India, Indonesia, People’s Republic of China, Japan, Republic of Korea,

Moderator

Dr Iwan Azis, Head, Office of Regional Economic Integration, ADB, Philippines

Speakers:

- **Ms Frances Beinecke**, President, Natural Resources Defense Council, USA
 - **Mr S (Kris) Gopalakrishnan**, Executive Co-Chairman, Infosys Limited, India
 - **Mr Hon Cheung**, Regional Director, Official Institutions Group, SSgA – Singapore
 - **Dr Kandeh K Yumkella**, Director General, United Nations Industrial Development Organization (UNIDO), Austria
 - **Dr R K Pachauri**, Director-General, TERI, 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), ADB, Philippines
-



L–R: Ms Frances Beinecke, President, Natural Resources Defense Council, USA; **Mr S (Kris) Gopalakrishnan**, Executive Co-Chairman, Infosys Limited, India; **Mr Hon Cheung**, Regional Director, Official Institutions Group, SSgA –Singapore; **Dr Kandeh K Yumkella**, Director General, United Nations Industrial Development Organization (UNIDO), Austria



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

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

Malaysia, and Thailand; by the year 2050, Asia will account for 52 per cent of the world's total global GDP. Or, it is also likely that given the unsustainable and exclusive nature of economic growth in the region that these Asian economies could get ensnared in the middle-income trap; the consequence of which would be that Asia would provide a mere 31 per cent of the world's GDP. The middle-income trap is a very real possibility for Asian economies; their extensive natural resources and current dominance in the arena of low-cost manufacturing are offset by large populations, a limited industrial economy with insufficient industrial diversification, a poor labour market, and insufficient impetus on technological innovation. Some nations, such as Japan and South Korea, have managed to avoid the middle-income trap by extensively investing in their higher education system, and have managed to successfully create diversified manufacturing industries built on innovation. The key to avoiding the middle-income trap, as demonstrated by the examples of South Korea and Japan, lies in the creation of a highly-educated middle-class and the formulation of economic and social policies that would stimulate innovation and entrepreneurship.

One of the chief priorities for Asian economies in the upcoming decades is to balance their economic growth with their commitments to the environment. Asian economies possess the unique opportunity to be able to setup an economic system that is sustainable from the start, while countries in the first world would have to invest, financially and otherwise, into modifying existing economic models in order to make them sustainable. In the long-term, incorporating the ideas of sustainable development in economic growth models and investing in the establishment of low carbon green economies would allow Asian economies



to be able to compete with first world economies on an even footing. In addition, it is imperative for these emerging Asian economies, as well as developed economies in the Republic of Korea and Japan, to focus on enhance regional cooperation and integration. A major roadblock that has the potential to derail the Asian success story is governance. Asian countries are woefully behind the developed world in terms of government accountability, transparency, and citizen empowerment.

The distinguished members of the Asian Development Bank's Asia 2050 Panel drew from their years of experience in the disparate arenas of economics, sustainable development, policy advocacy, entrepreneurship, government administration, and environmental conservation, to try and chart the future of Asia in the next century. The panel highlighted the necessity for Asia to understand that with its return to prominence in the global economic domain comes the responsibility to act on issues that affect the world in general, and Asia in particular; issues such as climate change; impending shortages in essential resources such as energy, food, and fresh water; natural resource depletion due to exploitation; preservation of the global commons; industrial pollution; and ensuring energy efficiency, among others. A significant theme that emerged at the panel was Asia's



5 **HE Dr Naoko Ishii**, Deputy Vice Minister for International Affairs, Ministry of Finance, Government of Japan

6 **Mr S (Kris) Gopalakrishnan**, Executive Co-Chairman, Infosys Limited, India



responsibility towards Africa. Much like how Asia is looking to the developed world for opportunities for growth and how the developed world has a responsibility to ensure that Asia can continue to enjoy green growth and clean, efficient, sustainable development; similarly Asia has a responsibility to analyse its successes and failures and replicate the process for Africa. With its extensive reserve of natural resources, corporations and governments from across the world are trying to establish links with Africa; here, it is Asia's responsibility to ensure that Africa is able to replicate the Asian success model and its growth is inclusive, clean, and sustainable.

The panel emphasized the need for social development and inclusive growth, stressing on the role played by private-public-people partnerships. Examples were given of the importance of a robust healthcare system once the nation's population starts to age, as is the case in Japan, and as will be the case in India by 2050. Enabling the development strong system of social service in the form of public healthcare, welfare, and employment will be crucial for Asia in the next few decades. The issue of financing sustainable development was also raised and debated by the eminent members of the panel. Panel members spoke of the development of financial instruments that can be developed that are in line with the goals of sustainable development and financial policies that will incentivize social good. In addition, the crucial role played by the private sector was also highlighted, as it will be essential for private stakeholders to find green growth and sustainable development solutions attractive enough to invest in, in order to engender greater research and innovation in clean technologies. The panel believed that while Asia may be at a disadvantage due to centuries of European colonialism causing economic ruin, to repeat those actions in light of the evidence, would be worse than the excessive resource depletion that was undertaken by former colonial masters. Finally, the panel concluded that it is essential for Asian economies in India, PR China, South Korea, Japan, Indonesia, Thailand, Vietnam, and Malaysia to imbibe the values of the sustainable development movement and foster an environment conducive to green growth policy formulation that would allow Asia to overcome problems – present and future – of climate change, financial crises, income inequalities, resource constraints, and governance deficiencies.

The session concluded with the signing of a Memorandum of Understanding between TERI University and the National University of Mongolia.

7 Ms Frances Beinecke, President, Natural Resources Defense Council, USA



SPECIAL SESSION ON BIODIVERSITY



Climate Change and Biodiversity

Life on the planet survives on a critical and very delicate balance evident in nature and different species play a role in the survival of other species. The greater the extent of biodiversity in a particular region, the greater is the extent of the need for that region to maintain a certain level of resource availability and climatic conditions for the circle of the natural world to function effectively. Greenhouse gas emissions over the last century are precipitating changes in the environment which could have a devastating effect on biodiversity around the world, the consequences of which will definitely affect humanity, even if society is unaware of how it will do so at the current moment. In planet earth's 4.5 billion-year history, climate change has been an inevitable process, one which the life-forms on the planet have had no control over.

Different epochs saw the dominance of different animals, based on the natural conditions of those epochs. One of the earliest disasters for biodiversity was the Great Oxygenation Event, where photosynthetic algae and moss released large quantities of oxygen into the earth's atmosphere while depleting it of methane. The introduction of oxygen was to ultimately lead to the extinction of the organisms that caused the great oxygenation event in the first place, and allowed more complex oxygen-breathing life such as ourselves to emerge from the primordial soup. The need for biodiversity is often heralded as a necessity for the planet, which of course is not true. The

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

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
-

biodiversity we see in the world today is critical to maintain the status quo, geologically speaking. The current climatic and environmental conditions on the planet support the survival and flourishing of human beings. Much like the organisms that were responsible for the great oxygenation event, the earth will not be affected by their actions – rather, it will merely abet the evolution of organisms that can flourish in the new environment – while homo sapiens will struggle for its own survival.

Importance of Preserving Biodiversity

Biodiversity is the responsibility of all governments and individuals, it forms a crucial part of a nation's security and ability to deal with the ill effects of climate change. The global commons have seen a significant decline in their biodiversity as more and more nations try to exploit whatever they can possibly find in the commons. The oceans, which form 70 per cent of the earth's surface, have been facing a substantial problem with the over-exploitation of its resources and the lack of responsibility taken by governments while disposing of waste. The great pacific garbage vortex, or garbage patch, is an example of how badly the global common of the Pacific Ocean has been treated. The disposed solid waste of numerous nations that border the Pacific Ocean has been trapped by ocean currents to form a vortex that has earned the legend of the largest man-made object on earth. Thus, the need for us to link biodiversity with the need to preserve the global commons is a non-negotiable priority for all stakeholders who live on the planet.

The distinguished panel on Biodiversity during the Delhi Sustainable Development Summit 2012 featured a diverse

2 L–R: **Prof. Kazuhiko Takeuchi**, Vice-Rector, The United Nations University & Director of Institute for Sustainability and Peace, Japan; **Dr Abdul Rahim Nik**, Deputy Secretary General, Ministry of Natural Resources and Environment, Malaysia; **Dr P P Bhojvaid**, Chief Conservator of Forests, Government of Haryana, India; **Mr M F Farooqui**, Additional Secretary, Ministry of Environment and Forests, Government of India; **Dr Ashok Khosla**, President, International Union for Conservation of Nature (IUCN), Switzerland; **Ms Jayanthi Natarajan**, Hon'ble Minister of State (I/C), Ministry of Environment and Forests, Government of India; **Prof. Timothy Gregoire**, J P Weyerhaeuser Jr Professor of Forest Management, School of Forestry & Environmental Studies, Yale University, USA; **Prof. Paavo Pelkonen**, University of Eastern Finland, Finland.





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

“ *Nature protects if she is protected.* ”

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

range of individuals from an equally diverse cross section of various stakeholders in the global movement for sustainable development and the maintenance and protection of biodiversity. The distinguished members of the panel exhibited a wealth of experience from almost every conceivable walk of life, ranging from government policy-makers, leaders of global think-tanks, academia, and people from a more technical side of biodiversity. The session thus saw the introduction of points that appealed universally across the audience regardless of the vocation in life, some of which are elaborated below.

Close Link between Biodiversity and Preserving the Global Commons

There is a close linkage between biodiversity and issues of the global commons. The global commons possess a biodiversity of their own, which are being adversely affected by the indiscriminate exploitation of the commons. This has led to the dearth of resources that earlier on were not imagined as limited resources. To add to the upcoming energy crisis caused by the depletion of the earth's fossil fuel reserves, there are serious shortages emerging around the world in fresh water required for drinking, cooking, and washing; and the next emerging shortage will be that of food, resulting in a drought that can kill millions.

4 Dr Abdul Rahim Nik, Deputy Secretary
General, Ministry of Natural Resources
and Environment, Malaysia



Role of Law

One of the critical elements in enforcing policies on biodiversity is the law, and discussions held described methods that will empower law enforcement officials to ensure that policies passed to protect biodiversity are enforced and implemented.

The consumption and degradation of natural resources will have a serious impact on planet Earth. While limited resources such as fossil fuels are also nearing an end, other natural resources are over-exploited, which even if they are regenerative from the earth, will take much longer to regenerate than the current rate of resource allocation and consumption and estimates of future resource consumption.

Sustainable Forest Conservation

Distinguished members of the panel agreed that sustainable methods of protecting the forest would involve the incorporation of the ideas of the sustainable development movement in forest conservation projects. Promoting the ideas of protecting biodiversity as critical to the survival of humanity would require a lot of effort due to its counter-intuitive nature, but the consequences of spreading awareness on this topic is evident as we are witnessing the emergence of the first generation of human beings who have been brought up on the ideas of sustainable development and environmental protection, now actively becoming involved in the preservation of biodiversity worldwide.



“Tropical diversity is traded in the international market at the rate, which is less than its replacement cost.”

Dr P P Bhojvaid,

Chief Conservator of Forests,
Government of Haryana, India

5 Prof. Kazuhiko Takeuchi, Vice-Rector,
The United Nations University & Director
of Institute for Sustainability and Peace,
Japan

6 Dr P P Bhojvaid,
Chief Conservator of Forests,
Government of Haryana, India

CORPORATE DIALOGUE ON GLOBAL COMMONS

MNCs: The 'New' Countries

The role of corporations has expanded in the view of recent debates on sustainability and the global commons. While profit still remains the primary objective of any corporate organization, the advent of the sustainable development movement, coupled with shifts in geopolitics, the impending crisis in energy from fossil fuel depletion, and the growth of multinational corporations (MNCs) to the extent that they are now almost countries to themselves (MNCs such as Apple and Wal-Mart have market capitalizations that exceed the GDP of nations such as New Zealand, Sweden, and Pakistan) has added a new dimension to the outlook taken by most modern companies. The advent of globalization implies that modern companies operate with the same business model in diverse countries that are across the spectrum of political alignment, economic policy, and development. As they are some of the largest consumers of natural resources in the world, governments and people are looking to corporations to play their part in alleviating the current environmental and energy situation that we find ourselves in.



1 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

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
-

The Idea of CSR

The idea of Corporate Social Responsibility – or CSR, for short – came into being in the last decades of the 20th century, along with the word ‘stakeholder’. Both these terms, which have since passed into the common lexicon of the world we live in today, are indicative of a radical shift in thought and ideology among large corporations. A ‘stakeholder’ is defined differently from a ‘shareholder’ as someone who may not own shares in the company, but as someone who is affected by the company’s practices or final product. On the other hand, the idea of CSR indicates that corporations are aware of the impact of their actions on people who otherwise have no association with the company or its product whatsoever; and through CSR activities, these companies aim to ensure that they rigidly maintain a responsibility towards their stakeholders that their business activities or final product contribute a positive impact, if any, on the lives of the people they influence. CSR activities have transformed from exercises in public relations to maintain a positive image to the world, to activities that are now viewed as an essential part of a corporation’s business plan. Departments for Corporate Social Responsibility are an inalienable part of the modern corporate hierarchy, and the rise of CSR Consultants indicate that more and more companies are trying to ensure that their primary focus of profit does not harm innocent bystanders.

Engaging the Corporates

During the 2012 Delhi Sustainable Development Summit, business leaders, management experts, and influential

2 L–R: **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; **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; **Mr Venkatesh Valluri**, Chairman, Ingersoll-Rand (India) Limited, India; **Ms Hilde M Tonne**, Executive Vice President and Head of Group Industrial Development, Telenor, Norway; **Mr Sai Ramakrishna Karuturi**, Founder & Managing Director, Karuturi Global Limited, India; **Dr Bhaskar Chatterjee**, Director General & CEO, Indian Institute of Corporate Affairs, India



thinkers in the sphere of corporate activity were accorded the opportunity to share a platform with policy makers, members of global governments, and analysts to share their ideas on the role that can be played by private enterprises in the preservation of the global commons and other sustainable endeavours. The 'Corporate Dialogue on the Global Commons' saw participation from people from various Indian and global corporations, and the esteemed panel elucidated the ideas of the private sector and ways in which corporate players can assist or independently work towards ensuring the development goals as mandated by the UN. Discussions covered a gamut of topics, and business leaders from diverse industry sectors spoke extensively about not just their proposed ideas for making a positive impact on the lives of people across the world, but also on the initiatives they have already started and are currently conducting across the world. Some of the initiatives described included the following.

Mr Sai Ramakrishna Karuturi, the Founder and Managing Director of the world's largest producer of cut-roses, Karuturi Global Limited, spoke about initiatives undertaken by his company to aid and assist the development of land and enable greater food production in impoverished African nations such as Ethiopia. He pointed out how certain farming techniques that utilize untested and potentially dangerous chemical fertilizers and insecticides lead to the seeping of these chemicals into the ground water table, which can have highly adverse impacts on the lives of rural farmers. To avoid such a scenario, his company is assisting in the development of rainwater harvesting techniques among rural farming communities, and is trying to support organic farming methods.

Mr Mahesh Makhija, the Director for Renewables Business Development at CLP Power India Private Limited described how business opportunities can be linked to sustainable development, which was what motivated his organization to enter the renewable energy market in 2001. Renewable energy is an opportunity for businesses to exploit a market that is bound to grow in the succeeding decades and which will benefit not just the corporations that carve a name for themselves in the emerging industry, but also society as a whole.

Ms Hilde M Tonne, the Executive Vice President and Head of the Group Industrial Development for Norway's state-owned communications company, Telenor, delineated the responsibilities of large corporate entities towards their stakeholders. A three-point CSR agenda that includes developing new technologies that can help the establishment of new business avenues, with



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

Mr Björn Stigson,

Former President, World Business Council for Sustainable Development, Switzerland

Mr Björn Stigson, Former President, World Business Council for Sustainable Development, Switzerland



4 Dr Bhaskar Chatterjee, Director General & CEO, Indian Institute of Corporate Affairs, India

5 Ms Hilde M Tonne, Executive Vice President and Head of Group Industrial Development, Telenor, Norway

a clear intent to support the development of energy efficiency; the adoption of a project-based approach towards CSR rather than an overarching CSR policy, thus allowing CSR activities to have a greater and more localized impact on stakeholders; and implementing policies and strict regulations on supply-chain practices, to eradicate practices such as child labour and corruption.

Other points raised by the distinguished members of the panel included the need for corporations to partner with public organizations and individuals to help with the development of the society they are operating in, and a highlight of some of India's state CSR policies; including the mandatory presence of a CSR department and the mandatory reporting of CSR activities by companies that exceed a certain amount of annual revenue, and the requirement for all companies that generate a certain amount of revenue to allocate 2 per cent of the company's net profit towards CSR activities.

Responsibility with the Opportunity

The distinguished members of the panel were united in agreement that corporations operating in the 21st century have more opportunities ahead of them than at any other time since the founding of the world's first multinational corporation, the Dutch East India Company in 1602. With these opportunities come the responsibility of ensuring that their business practices are beneficial to the long-term survival and sustainable development of the human race and global society. As more and more corporations are becoming aware of the impact of their activities on an increasing cross-section of human society, the steps being taken indicate a positive inclination by private sector organizations to assist governments and institutions in the establishment of a sustainable and green future.



MINISTERIAL SESSION – I: SUSTAINABLE MANAGEMENT OF GLOBAL COMMONS IN SOUTH ASIA

South Asia: A Brief Historical Overview

South Asia is a region with a rich and varied history, abundant in natural resources, and amongst the most densely populated areas on the planet. Over the last few centuries, the great kingdoms of South Asia gave way to a region that is amongst the poorest in the world. Hunger, poverty, homelessness, and a vulnerability to natural calamity saw millions of people die over the decades in famines, floods, and wars. However, in the last decades of the twentieth century, the South Asian region's resurgence began, and it is now seen as a business hub and one of the most exciting emerging economic centres in the world.

Like most countries, South Asian countries have had to begin the systematic exploitation of its natural resources in order to maintain its GDP growth rates at the dizzying levels of around 10 per cent per annum. People have already begun calling the twenty-first century the Asian century. While growth and capital is currently concentrated in the Far East, South Asia is posing a threat that allows it to match the emerging economies of South East Asia, such as Malaysia, Indonesia, and Vietnam. However, as the growth model followed by South Asia was essentially a replication of that of China, Europe, and North America, the impact on the environment as well as the region's contribution to global greenhouse gas emissions were starting to become substantial. Additionally, the unequal distribution of the wealth earned by the economic booms the region underwent has seen social problems arise across the region. Political inaction and instability also remains an issue. The differences



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

Moderator:

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

Speakers:

- **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
-



in the region—political, ideological, geographical, social, and economic—might seem to pose a substantial roadblock to the goal of sustainable development. However, if South Asia is to grow to become a region that can compete with Europe, North America, and Japan on not just an economic level but also in lifestyle, it will have no choice but to adopt sustainable management methods.

Towards Sustainable Development in South Asia

The first ministerial session of the 2012 Delhi Sustainable Development Summit saw the participation of ministers of state from various nations in South Asia. They deliberated on the issues of sustainable development in the region, specifically ways to overcome the roadblocks, in order to take their respective countries into a new green, and economically resilient, future. The session saw the exchange of ideas of the ministers of India's neighbouring South Asian nations – Pakistan, Nepal, Bhutan, the Maldives, and Myanmar. The paragraphs that follow expand on the topics discussed during this session.

- 2 **Dr Kandeh K Yumkella**, Director General, United Nations Industrial Development Organization (UNIDO), Austria; **Mr Hemraj Tater**, Hon'ble Minister for Environment, Nepal; **HE Lyonpo Dr Pema Gyamtsho**, Minister of Agriculture and Forests, Ministry of Agriculture and Forests, Bhutan; **HE U Win Tun**, Union Minister, Ministry of Environmental Conservation and Forestry, Myanmar; **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 Mr Mohamed Aslam**, Minister of Housing and Environment, Maldives

For Asia to grow to become a dominant region in the global arena, it is crucial for the nations in South Asia to begin implementing sustainable development practices right now. Without sustainable management practices, the over exploitation of resources in the region could lead to catastrophic outcomes.

South Asia: Low Greenhouse Gas Emissions but High Impact of Climate Change

South Asia is at the forefront of climate change. Bangladesh is losing land at an alarming rate due to rising sea levels, leading to illegal migrations to India. The political problems and financial issues caused by climate change mitigation by a region that provides, per capita, a very small amount of greenhouse gas emissions would require strong political will and concentrated efforts from all major stakeholders within and outside the region.

As natural resources often cross the national boundaries of different regions, ensuring that these resources are not over exploited is a difficult proposition. The members of the panel advocated that nations in South Asia initiate local action to preserve and maintain the local natural resources in the region without waiting for international agreements. Local agreements would be more apt as they tend to reflect the situation of the local region far more suitably and incorporate specific concerns of regional stakeholders.

Since nations in South Asia which do not contribute substantially to global greenhouse gas emissions are nevertheless at the forefront of the impacts of climate change, the international community has an ethical and moral obligation to provide assistance to the region.

Localised Solutions to Realise Immense Potential

The members of the panel agreed that the potential of South Asia is immense, but realize that localized solutions would be better suited to the needs of the region. The distinguished members of the panel stressed on the need for capacity building and utilizing modern technology in order to be able to resolve issues related to climate change, energy, and sustainability. The panel concluded with a reminder that the rampant poverty in the region needs immediate alleviation as poor people are the first victims of the impacts of climate change, and in order for the issues of climate change adaptation and mitigation to be successfully implemented without affecting the growth of the region, the generation of sustainable management practices, in both the government and private sector, are crucial.

3 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

4 HE U Win Tun,
Union Minister, Ministry of
Environmental Conservation and
Forestry, Myanmar

*“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

Cradle of Humanity

Africa is the cradle of humanity. The human body is primarily designed to live the life of a hunter-gatherer in the plains of Ethiopia and Kenya, and it was as a consequence of changes in climate and our own over-exploitation of the resources in Africa, in the form of hunting, that led to a series of migrations that eventually took humanity to the rest of the world in the last 70,000 years. The continent of Africa is rich in natural resources, yet is also the epicentre of poverty, malnutrition, and social injustice in the world today. In the last few decades, it has been ravaged by AIDS on a scale unlike anything seen in the rest of the world. The challenges faced by the sustainable development movement in Africa are unique and unlike that faced by it in the rest of the world. Africa's contribution to global greenhouse gas emission, for a continent of its size and population, is minimal.

Africa: The Emerging Economy

The first decade of the twenty-first century, however, has witnessed economic growth in Africa that is unprecedented and unexpected looking at the crises it had undergone during the centuries preceding it. African economies are not emerging at the same pace as emerging economies in Asia, but are now



1 **Mr Abdoulaye Jannet**, Under Secretary-General and Executive Secretary, United Nations Economic Commission for Africa, Addis Ababa, Ethiopia

Moderator

Mr Abdoulaye Jannet, 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

Speakers:

- **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
-

becoming the centre of attention for businesses from across the world. India, China, and Europe have made substantial investments in African nations, looking to build partnerships that will allow them to be able to take advantage of Africa's significant supply of natural wealth and resources. African nations such as South Africa rank along with Brazil, Russia, China, and India as some of the most attractive emerging economies in the world. Yet, if the history were to be seen, it is crucial to ensure that on this occasion, foreign powers do not exploit Africa of its natural resources indiscriminately, and that the resources of the country and the wealth generated must aid the upliftment of the majority of the population of the continent that lives in destitution and squalor.

The members of the panel on the Global Commons and Challenges in Africa at the Delhi Sustainable Development Summit 2012 featured a cross-section of thinkers, policy makers, analysts, people working for nongovernmental organizations that are trying to provide assist African growth, global organization, and leaders of African nations. Moderated by Mr Abdoulie Janneh, the Under Secretary-General and Executive Secretary, United Nations Economic Commission for Africa at Addis Ababa, Ethiopia, the session witnessed the exchange of numerous ideas on the role the international community can play to ensure that Africa's quest for growth and the world's quest for African resources does not affect the global commons, the local commons of the continent, and that the benefits of such growth

2 **Dr Youba Sokona**, Coordinator, African Climate Policy Centre, United Nations Economic Commission for Africa, Ethiopia; **Mr George J. Gendelman**, Cofounder, Planetworkshops, Paris; **HE Mr Ogunlade Davidson**, Former Minister of Energy & Water, Sierra Leone; **Mr Gurjit Singh**, Additional Secretary (East & Southern Africa), Ministry of External Affairs, Government of India; **Mr Abdoulie Janneh**, Under Secretary-General and Executive Secretary, United Nations Economic Commission for Africa, Addis Ababa, Ethiopia; **HE Mr Henri Djombo**, Minister of Sustainable Development, Forestry and Environment, Brazzaville, Republic of Congo; **Mr Hama Arba Diallo**, Chair of Global Water Partnership (GWP), Ouagadougou, Burkina Faso; **Dr Tewolde Berhan Gebre Egzabiher**, Director General Environment Protection Authority, Addis Ababa, Ethiopia





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

4 Mr George J. Gendelman, Cofounder, Planetnetworkshops, Paris

reach the bulk of the African population and help alleviate poverty. Within the short time span that our species has been on the planet, Africa has been no stranger to climate change. Over the last 13,000 years, forest cover over North Africa gave way to grasslands and finally into the largest desert on the planet – the Sahara. Africa stands at a point where climate change is not a hypothesis up for debate as in countries such as the United States, but rather a dangerous and clear reality. Members of the panel discussed numerous methods to address and alleviate the issues being faced by Africa, as mentioned below.

Next Steps for Africa

There is an immediate need for Africa to take action and address the impacts of anthropogenic climate change in the continent. Climate change mitigation and adaptation would require members of the large African middle class to make substantial changes to their way of living. The international community and governments in Africa have the responsibility of ensuring that such changes do not come at the cost of socio-economic wellbeing of the common citizenry.

Africa does not have a strong global presence and is generally not heard on the global forum. This is an injustice that needs the immediate and concerned action of the global community in order to overturn. Countries in Europe, Asia, and the Americas have the responsibility of ensuring that the voices of African nations are heard and their problems addressed.



Challenges in Africa cover a gamut of issues. The global commons aside, Africa has to resolve issues related to food security, energy security, health, safety, human rights – and women's rights in particular, and healthcare.

African nations also present an opportunity for science and technology and renewable energy technologies. Predictions imply that the opportunities for electricity generation using solar power in the Sahara could be enough to light the entire European continent, and mini-hydro projects are possible on almost all Africa's numerous waterfalls to ensure that communities that are isolated from the main grid will still nevertheless be able to power themselves using a decentralized off-grid power model.

International Cooperation: Key to Success

There was mutual consensus that the potential for growth and development in Africa is immense. However, they cautioned that before it is possible to attempt to bring the continent at par with the lifestyles of continents such as Europe and the Americas, it is critical to ensure that the injustices committed on Africa in the centuries preceding this one are not repeated. The panel concluded that green growth in Africa, powered by renewable energy technology that utilizes an efficient and minimal amount of its abundant natural resources would have the effect of simultaneously allowing nations to begin with the process of alleviating its social and economic problems. However, they cautioned, for all this to happen would require strong will and the concentrated efforts of the international community.



5 **Dr Youba Sokona**, Coordinator, African Climate Policy Centre, United Nations Economic Commission for Africa, Ethiopia



6 **HE Mr Henri Djombo**, Minister of Sustainable Development, Forestry and Environment, Brazzaville, Republic of Congo

WATER: OUR VITAL COMMONS

Issues Pertaining to Water in the 20th Century

Water is a vital resource for our survival. It is used for drinking, agriculture, industry, environment, and biodiversity; simply put, there would not be life without water. And unlike many other resources, it cannot be manufactured, which makes it all the more valuable. Its importance can be gauged from the fact that while it keeps individuals and nations united, it sometimes causes rifts and conflicts too. It seems that the question of water is crucial for the future.

Providing safe and pure drinking water, especially in rural areas, has been a problem area since ages. Then there is the concept of virtual water where water or water intensive products are exchanged from one country to another. Here emerges the issue of ocean navigation for transportation. This is another source of conflict, where territorial claims to parts of the ocean occur. Besides, we need to take high moral position of what happens to our rivers during these transfers. The growing demand of water in the developing world is another matter, and it is worth noting that this demand is not easy to control or restrict. Besides, this mismatch between demand and supply is a politically sensitive issue. Most important of all, more attention needs to be paid to the human aspect of water.

This scenario poses a lot of questions – Are we going to run out of water? Can water be an area for regional cooperation or will it be an area for conflict? Perhaps there are solutions – improving water usage in terms of efficiency and water productivity – it has a good scope particularly in India. And, we can learn lessons from the way other parts in the world like Europe, USA, or Latin America have dealt with the problem.



1 Dr Don Blackmore AM, Chair-eWater CRC & Chair-Water for a Healthy Country, Australia

Chairperson:

Mr Ashok Jaitly, Distinguished Fellow and Mentor – Water Resources Policy & Management, TERI

Speakers:

- **Dr Don Blackmore AM** - Chair-eWater CRC & Chair-Water for a Healthy Country, Australia
 - **Mr Henry Saint Bris**, Senior Vice President Strategy, SUEZ Environnement, 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
 - **Suresh Prabhu**, Chairperson of the Council on Energy, Environment and Water, India / Former Minister in NDA Government
 - **Prof. Johan Rockstrom**, Executive Director, Stockholm Environment Institute, Sweden
 - **Dr Shiv Someshwar**, Director Climate Policy - CGSD & Senior Advisor regional Programs, IRI The Earth Institute, Columbia University, USA
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Innovation and Technology to Play an Important Role

Mr Henry Saint Bris stressed upon the importance of water productivity. He said that an average of 40 per cent water in the world is lost due to networks leakage and another 40 per cent is lost while it moves between water plants and taps. And only 5 per cent of water can be used for cooking and drinking. There are water conservation technologies to tackle such problems that are largely being adopted in many parts of the world. And decentralized systems in urban areas are a good alternative to the traditional network.

Decentralized systems combine rain water harvesting with water treatment plants. They are used in establishments like hospital, airport, shopping mall, or industrial units, making them self-sufficient buildings in terms of energy and waste management. But there are challenges like finding the right scale, the technology and costs involved, and the involvement of a large number of stakeholders. Mr Bris added that the largest future cities will have to invent new solutions to avoid falling into chaos.

Prof. Rockstorm emphasized upon the importance of knowledge-sharing and capacity-building initiatives. He suggested that innovation and technology are the gateways to the solutions of this global problem. He mentioned better water resource management, improved technology, sustainable soil management, and supplementary irrigation system as some of the means to a brighter future that won't have water scarcity issues. Dr Shiv too spoke about a strong scientific foundation as the pre-requisite for the sustainable management of the commons.



2 **Mr Ashok Jaitly**, Distinguished Fellow & Mentor, TERI, India

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



International Forums for Effective Water Management

Mr Lepeltier reiterated the importance of generating greater international consciousness by means of international forums. They are a good base to discuss such matters rather than the media. He spoke about water management being an area of difficulty in many nations and that it needs the attention of international bodies and academia. He also discussed about the importance of reducing sanitary waste, which is as important a matter as international water resources management.

Nations need to extend their support by using the frameworks of the 19th United Nations Conference for Sustainable Development. This convention was unique in that it discussed international rivers management. Mr Lepeltier mentioned that only ten signatories had ratified this convention. He urged nations to take a more proactive stand in order to deal with this issue. He invited everyone to the Sixth World Water Forum to dedicatedly find out solutions to the problems of water.

Regional Cooperation

Mr Molden chose to talk about the river basins connected with the Himalayas to discuss the issue of the far-reaching implications of pollution all over the world. The Himalayas are a common source of seven rivers in South Asia and Southeast Asia. No wonder, this region is constantly under pressure. At the same time, its water has a tremendous potential – it supports biodiversity and about 1.3 billion people. However, the fact that glaciers are retreating and shrinking over most of the Himalayan region is a matter of global significance.



4 Prof. Johan Rockström, Executive Director, Stockholm Environment Institute, Sweden



5 Mr Serge Lepeltier, French Ambassador for Climate Change negotiations, Mayor of Bourges, France

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Pollution has not only had a bearing on the present condition of these glaciers but on other phenomena in the world as well. For instance, there are areas in the world that are witnessing an increase in the amount of snow, rainfall, and floods, and vice versa. In such a scenario, it is pertinent to use the present supplies of water judiciously. The mountain communities must ensure good water management for the same. But there are global issues like climate change that are majorly accountable for the plight of mountains. Most of the rivers coming out of the Himalayas are cross boundary. To tackle this, one has to reach out of the local boundaries to seek regional cooperation on the scientific and technological front. And Rio+20 would be an important platform for the same.

Common Yet Isolated; Abundant Yet Deficient

Equal distribution of water is discussed quite often, but nature somehow has not provided water equally to all parts of the world. Providing water at every household village and dealing with the problem of water at that level itself is not going to solve the water problem. Considering this, water management sounds more like a paradox. But it has a solution, which lies at the macrocosmic level.

6

Dr Shiv Someshwar, Director Climate Policy, CGSD & Senior Advisor Regional Programs, IRI, The Earth Institute, Columbia University, USA

7

Mr Henry Saint Bris, Senior Vice President Strategy, SUEZ Environment, France



To make sure that enough water is available, we need knowledge and wisdom more than technology. It is important to understand that water will be available when we live in harmony with nature. If we damage the ecosystem, water itself will not be available. Therefore the ecosystem concern cannot be just seen in isolation or in limited geography, but it has to be seen in totality.

Therefore, we need to look at the availability of water as something which is the responsibility of global community as a whole. Water will be the biggest casualty of climate change. It could be too much of water as you may see or it may be the paucity of water, but either way the entire mankind will be in trouble. The solution is to develop common ideas and technologies, which can be customized as per the local situation.

New Challenges

We are primarily dealing with fresh water. What about the whole lot of saline water present in the world. And maybe the sea level rise – a repercussion of climate change – would mean more saline water coming on land. And this will actually get contaminated with fresh water, if there is no technology to tackle the same. Saline water will pose a difficulty in producing agro products, besides giving vent to several other problems.

Is there a technology to fight this issue if it prevails in future? It is important to look at new ideas for this and similar other challenges.



8 Dr David Molden, Director General, International Centre for Integrated Mountain Development (ICIMOD), Nepal



9 Mr Suresh P Prabhu, Chairperson, Council on Energy, Environment and Water, India

SUSTAINABLE DEVELOPMENT AND CONSUMPTION

The Paradox of the Haves and Have-nots

The question of consumption is the key issue in the sustainable development debate, long-term change requires one to focus on the point of consumption and find an effective answer to the question of the imbalance between over-consumption of resources in the first world and the lack of adequate resources for consumption among low-income populations. Some startling statistics highlight the inequality of resource distribution in the modern world; while the United States has a per capita electricity consumption of nearly 1,400 W per person, there are concurrently 1.4 billion people worldwide – 20 per cent of the global population – who lack access to electricity in the first place. Nearly 2 billion people worldwide lack access to basic sanitation facilities, most of them in Africa and India; and more than a billion people in middle and lower-income sections of society in Africa and Asia lack access to safe drinking water. Childhood obesity rates in the United States are at 32 per cent according to a 2008 study by the US Federal Government; while in India, 42 per cent of children aged below five are malnourished. The world's ecological footprint is 50 per cent beyond the capacity of the earth's resources to support it. Lifestyles seem to be either excessively resource-intensive, or woefully insufficient of even basic amenities such as food, drinking water, and shelter. In the light of such an enormous imbalance between high and low-income nations, and even individuals in one of those nations, the questions that policy-makers and administrators ought to be looking at are those of channelling resources to reach those who are in dire need of it without making life any worse for the others.



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

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
-



Altering the Existing Paradigm of Growth

The current model of economic growth is treating our planet's limited resources as infinite, and is creating a zero-sum game of wealth and resource availability. This has led to an exponential level of resource utilization over the last few decades, which will start reaching its physical limit in the coming decades. Apart from the impending shortage in energy from over-exploiting fossil fuel reserves, there are impending food and fresh water shortages that, unless prevented, could result in untold woe for millions. Reports say that by the year 2030, the world's total fresh water reserves will only be sufficient for 60 per cent of the world's population; while The Global Sustainability Panel's report states that, the world will require 50 per cent more energy and 45 per cent more food in the next two decades. The only solution appears to be altering the existing paradigm of what constitutes growth, and begin incorporating factors such as environmental and social costs into economic models and development policies.

Role of Technology

The post-tea session on the second day of the Delhi Sustainable Development Summit saw luminaries from various global think tanks, governments, and NGOs discuss the issues of sustainable development and consumption. Some of the ideas put forth and debated by the distinguished panel included on the role technology will play in the future, specifically in terms

2 L-R: **Dr Ligia Noronha**, Director, Resources, Regulation and Global Security Division, TERI, India; **Mr Peter Bakker**, President, World Business Council for Sustainable Development, Switzerland; **Mr Pierre Jacquet**, Chief Economist, Agence Française de Développement (AFD), France; **Ms Connie Hedegaard**, European Commissioner for Climate Action, European Commission, Denmark; **Mr Warren Evans**, Senior Advisor, Sustainable Development Network, The World Bank, USA; **Prof. Petteri Taalas**, Director-General, Finnish Meteorological Institute, Finland; **Mr Bittu Sahgal**, Editor, Sanctuary Asia and Sanctuary Cub Magazines, India

of alleviating the imbalance between consumption of resources, to ensure sustainable consumption. By 2050, there will be 10 billion people living on Earth, and there is no conceivable way for current consumption patterns to be able to sustain such a population on the limited resources that are available – and will be available then. Technology will play a vital role in ensuring the transition to a more sustainable form of livelihood for people, as lifestyles will have to change in order to ensure that a larger group of people can enjoy a higher standard of living. This would mean, for example, making more resources virtual rather than physical. Resources for media and literature, such as CDs and books, will have to be in an electronic format. This might change the nature of consumption of such resources, as it is more likely that these items will become more expensive, that people will shift to a rent-and-share model rather than have single ownership of said items. This will ensure that products are naturally recycled by users, and would facilitate greater efficiency in their life cycle, lower waste, and no major drops in profit margins.

Sensitising Consumers About Sustainability

The panel also discussed how sustainable consumption would require consumers who are concerned about sustainability. Better educating and informing consumers about the environmental impacts and social consequences of their actions will facilitate careful choices in consumption behaviour, and could see an organic movement towards more sustainable lifestyle choices. Panel members spoke of how brands that build trust among their consumer base can be the vanguards to help consumers transition towards sustainable consumerism. Additionally, the panel unilaterally urged high-income nations to take a lead in making consumption sustainable through the creation of appropriate regulatory frameworks.



3 Mr Bittu Sahgal, Editor, Sanctuary Asia and Sanctuary Cub Magazines, India

4 Mr Pierre Jacquet, Chief Economist, Agence Française de Développement (AFD), France



5 **Mr Peter Bakker**, President, World Business Council for Sustainable Development, Switzerland



6 **Mr Warren Evans**, Senior Advisor, Sustainable Development Network, The World Bank, USA

7 **Ms Connie Hedegaard**, European Commissioner for Climate Action, European Commission, Denmark

Efficiency not Reduction

Sustainable development does not always have to mean a reduction in lifestyles, the panel stated, for example, greater efficiency could see more benefit come out of the same amount of resources to a larger group of people. Under-consumption in developing countries needs to be focused on in the manner in which we focus on over-consumption in developed countries. The issue of consumption is also deeply related to food and energy security. It would require the involvement of the local people to be able to achieve sustainable development that does not result in the over-consumption of local resources. Biodiversity and natural habitats need to be protected while trying to improve the distribution of resources among various communities. In this area, a crucial role will be played by children, both as the first generation to be sensitized to and aware of the problem since a young age, and as people who will be responsible and in positions of power when the first major effects of climate change and resource shortages begin.



MINISTERIAL SESSION II: LOOKING AHEAD – PRESERVING GLOBAL COMMONS



Taking a Holistic View

The problem of climate change and sustainable development consists of a complex series of factors, global warming is only one part of a much larger issue. It is imperative for humanity to look at the big picture and address the problems from a holistic angle. Even if climate change can be mitigated, if that is all that is addressed, we would still have problems of water, energy, development inequality, and the global commons. Resource imbalances cannot be alleviated through means that will affect the climate any more adversely than we already are, and the energy crisis cannot be solved by methods that are economically impractical, alienating developing and underdeveloped economies from the benefits of renewable energy sources. Finding a single solution to such a complex, multi-dimensional and multi-faceted problem is difficult in itself; but when one takes the existing level of complexity of the problems facing sustainable development, we must factor in the complex interplay of international politics and finance. Looking at these additional levels of complexity added by social and economic aspects to a climatological problem, or conversely, the additional complexity of climate to an economic development problem, it is hardly surprising that little progress has been managed since the world was first made aware of the problems of climate change and sustainable development at Stockholm in 1972.

1 HE DASHO PALJOR J DORJI, Special Advisor
- National Environment Commission,
Government of Bhutan

Moderator:

HE DASHO PALJOR J DORJI, Special
Advisor - National Environment
Commission, Government of Bhutan

Speakers:

- **Hon. Stéphane Dion**, MP, House of Commons, Canada
 - **HE Ms Heidi Hautala**, Minister for International Development, Ministry of Foreign Affairs of Finland
 - **HE Ms Heidemarie Wieczorek-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
-

The distinguished members of the panel of second Ministerial Session at the Delhi Sustainable Development Summit was a diverse mix of environment ministers from a wide gamut of nations that were representative of the various key drivers of the sustainable development movement. Thus, the panel featured ministers of environment from highly developed industrialised nations, right through to ministers from developing nations who are struggling to ensure their people receive basic food, shelter, water, and healthcare services. Some of the major points addressed by the distinguished members of the panel are expanded below.

Taking the Onus

Despite the world knowing that the Earth is an ailing planet that needs a cure immediately, the primary roadblock stopping international cooperation is the question of who will foot the bill, which is the core of discord between North and South nations.

While political leaders do indeed care about the future health and stability of the human race on the planet, more immediate and material concerns – such as daily political struggles, election cycles, and immediate economic problems – tend to take prominence, and over time, local problems take precedence over global problems. Politicians eventually lose the ability to plan for the long-term, and instead tend to start focusing almost exclusively on immediate issues. Clearly, this issue needs to be addressed immediately, as global leaders need to see their roles in the context of the planet and the impacts of their decisions over the next few decades, and not merely until the next election cycle.



“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

2 HE Ms Heidi Hautala,
Minister for International Development,
Ministry of Foreign Affairs, Finland

3 HE Dasho Paljor J Dorji, Special
Advisor - National Environment
Commission, Government of Bhutan;
HE Ms Maria Mutagamba, Minister
of Water and Environment, Uganda;
HE Dr Assunção Cristas, Minister
for Agriculture, Maritime Affairs,
Environment and Regional Planning,
Portugal; **HE Ms Heidemarie
Wieczorek-Zeul,** Member of the
German Parliament and Former Federal
Minister of Economic Cooperation and
Development, Germany; **Hon. Stéphane
Dion,** MP, House of Commons, Canada;
HE Ms Heidi Hautala, Minister for
International Development, Ministry
of Foreign Affairs of Finland; **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

Harmonized Price for Carbon: An Incentive

A globally harmonized price on carbon is a potential solution, as it would stimulate the national development priorities of various governments. A globally harmonized price for carbon could be an incentive among world governments to begin decarbonizing their energy mix, which would stimulate interest and research in alternative, cleaner, and renewable energy technologies and would eventually make such technologies economically competitive at par with conventional carbon-intensive energy sources. Nations will be spurred into making their existing energy technologies more energy efficient at every level, and will curb the spread of transboundary emissions. Another advantage of globally harmonized carbon price is its potential benefits to developing economies, as developed nations could use the revenue from such a move to help poorer, developing nations in their climate change mitigation and adaptation efforts.

Interdisciplinary Focus: Path to Achieve Sustainable Development Goals

Greater interdisciplinary focus is required between researchers and administrators to achieve the modern trinity of sustainable development goals – economic, social, and environmental development. This can be done by integrating climate financing and international development cooperation. Efforts to generate greater cooperation must begin at the grassroots level, by community building at the local level. The aim of universal and sustainable energy access for all by 2030 is the first step towards achieving this. Capacity building in local communities and the strong social bonds that exist in these communities were witnessed in Japan in 2011, when during the Tohoku tsunami in March, local communities exhibited extraordinary resilience and



“ 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



HE Ms Heidemarie Wieczorek-Zeul,
Member of the German Parliament and
Former Federal Minister of Economic
Cooperation and Development, Germany

Hon. Stéphane Dion, MP, House of
Commons, Canada, and
HE Ms Heidi Hautala, Minister for
International Development, Ministry of
Foreign Affairs of Finland

6



6

Mr Janusz Zaleski, Under Secretary of State, Ministry of the Environment, Poland

7

HE Dr Assunção Cristas, Minister for Agriculture, Maritime Affairs, Environment and Regional Planning, Portugal

calm, with no major law-and-order situation developing in badly hit areas. There were no reports of rioting or looting in Fukushima and other places that suffered intense damage. By ensuring the decentralization of the decision making process, governments can ensure that people at a local level will be more invested in the direction their community is moving towards, which will result in decisions that will look out for their long-term interests.

Responsibility of the Developed Nations

There must be greater pressure on developed nations to ensure they do not default on their climate financing commitments, especially in difficult economic times. While providing financing to poorer, developing nations, there must a shift in the focus of the funding towards renewable energy rather than subsidies towards traditional fossil-fuel energy sources.

Water: The Global Elixir

Water is perhaps the most critical resource on the planet, far more than oil. Water shortages affect all nations, regardless of rich, poor, North or South. Whereas some highly developed nations do not have sufficient sources of fresh water, nations in Africa have abundant water sources but no filtering mechanism, which leads to disease. Africa's copious natural resources are contrasted by a complete lack of infrastructure to be able to utilize them. Thus despite fertile soil, water, and rainfall, the lack of good irrigation facilities lead to food shortages, and despite plenty of water sources, the lack of water treatment plants leads to the spreading of diseases either from the consumption of the water or from organisms that breed in the water.

While nuclear power is not responsible for substantial carbon emissions, it can play a major, albeit temporary, role in the global energy mix while renewable energy technologies are proliferated and perfected. However, the lessons of Fukushima are a reminder that even the best safety systems can become undone by natural disasters.

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NEW FRONTIERS IN COMBATING CLIMATE CHANGE

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 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 water scarce 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.

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



1 **Ambassador C Dasgupta**,
Distinguished Fellow, TERI, India

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

KEYNOTE ADDRESS: THE INFORMATION REVOLUTION AND SUSTAINABLE DEVELOPMENT

Information and Communication Revolution

In light of what is increasingly being referred to as the Communications Revolution, it is imperative for key drivers in the sustainable development arena to be able to leverage the power of modern technology and communication channels. The many-to-many model of communication accorded by technologies such as the internet is a double-edged sword. While on one hand, it is responsible for enabling large groups of people to communicate, congregate, exchange ideas, and learn about new concepts, it can also allow the easy dissemination of false-hoods that can ingrain themselves quite strongly in the minds of biased individuals. Thus, despite the widespread dissemination of information accorded by the development of technologies such as the internet, there are equally strong and extremely vocal groups of people who use the same medium to spread messages that are antithetical to reason and rationality. The upswing in people adopting, propagating, and defending such dangerous notions as climate change denial, creationism, and holocaust denial is a consequence of the abuse of information technology.

The information revolution requires the implementation of communication and outreach strategies that are counter-intuitive to established principles for media such as newspapers or television. Governments across the world are grappling with the issue of how to balance fundamental freedoms while also ensuring that the anonymity and access offered by the internet is not used to stoke hatred, incite racial or communal discord, or spread misinformation. However, the positives witnessed so far and the potential for good from such technology substantially exceeds its abuse. The spread of mobile communications technology in developing countries, especially India, has shown a completely new way forward for utilizing technology to accomplish social good as defined in the Millennium Development Goals.

Information Technology in the Sustainable Development Arena

The keynote address that began the third day of the Delhi Sustainable Development Summit 2012 delved into the

Moderator

Dr Prodipto Ghosh, Distinguished Fellow, TERI, India

Keynote Speaker:

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



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

“ *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

particulars of the challenges, opportunities, and potential hazards of information technology in the arena of sustainable development. Introducing the session, Dr Prodipto Ghosh, a TERI Distinguished Fellow, spoke of the opportunities accorded to various development avenues by the application of information technology. He highlighted telemedicine and distance learning as particular paragons to be looked at for greater applicability throughout India and elsewhere.

Dr Ghosh described the emergence of cheap, easily accessible information technology as the fourth great revolution in human history after agriculture, society-building, and the industrial revolution. He opined that the impacts of the information technology revolution would result in greater learning opportunities for a larger segment of the population, empowerment for communities, and the need for governments and institutions to be accountable to a more open and transparent society and better-learned citizens.

The keynote address was delivered by the distinguished economist, Professor Jeffrey Sachs – currently the Director of the Earth Institute at Columbia University and a Special Advisor to the Secretary-General of the United Nations – whose work on political economics and international development is a cornerstone for modern discussions on sustainable development.

Towards Rio+20

Speaking of the then-impending Rio+20 conference, Dr Sachs expressed disappointment at the fact that in the intervening twenty years little has been done to implement the policy recommendations and ideas so vigorously debated and arrived at in Rio in 1992. Speaking of political partisanship posing potential problems for the sustainable development movement, Dr Sachs highlighted that in Rio 1992, a Republican US President signed two out of three framework conventions on climate change, an unlikely possibility in the current political climate in the United States.

Dr Sachs warned of the potential of inaction becoming endemic in international summits and conferences on sustainable development, looking at the examples of Rio in 1992, and Durban in 2002. Stating that if such a trend does continue to become a standard practice in the conferences of the future, commitments will continue to be deferred to a future date indefinitely until it is too late. Dr Sachs connected the disparate ideas of the information technology revolution and sustainable development by stating that what renewable energy technology needs is to proliferate along the lines of mobile communications and cell phone technology.

Sustainable Development Goals

Addressing the issue of the Millennium Development Goals (MDGs), Dr Sachs advocated that post-2015, international governments and organizations should institute a change to Sustainable Development Goals (SDGs), stating that the aims of sustainable development incorporate the needs of economic, social, and environmental development simultaneously.

The example of mobile communications in rural India was given as indicative of the transformative power of information and communications technology. No technology has had as much of an impact on rural Africa as the proliferation of mobile communication technology, with people who were cut off from the rest of the world now aware of events happening in the world around them. Additionally, the rise of information and communication technology in Africa has also abetted the growth of other kinds of development projects, such as mobile banking – which allows for the economic development of individuals and communities in the region through the use of existing technology and without the need for ATMs or branches. Surprisingly, electrification was an after-thought of mobile communications as the immediate requirement was for charging

points for cell phones, rather than electricity for lights, fans, or televisions. The idea that mobile communications can be the primary driver for the economic development of individuals in Africa, or for a renewed demand for electrification in the region is a substantial shift from what people had normally assumed were the paradigms of growth and development in a region.

Dr Sachs elucidated on other ways in which the information technology revolution could help achieve sustainable development goals, such as smart grids and decentralized energy generation facilities allowing for more extensive, yet cleaner electrification in rural India and Africa, with greater energy efficiency. Online education is another avenue with tremendous potential, i.e., by allowing a greater segment of the population access to information resources through distance and online learning programs, it can aid in capacity building in communities that were otherwise not able to gain the benefits of a traditional educational system involving brick and mortar schools and colleges. The information technology revolution makes it possible, both by providing a blueprint and by providing the means, for sustainable development goals for all to be potentially achieved.

THIS CENTURY OF KNOWLEDGE



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

20th Century: Height of Progress in Technology and Knowledge

The twentieth century has been an extraordinary example of the growth of human knowledge and endeavour. Our collective knowledge of the universe advanced more in the previous century than it had in all the years preceding it. At the turn of the twentieth century, the human race had not discovered the aircraft; the car was at a rudimentary stage and still considered inconsequential to riding a horse; monarchies and dictatorships held sway as wealth was highly unequally distributed; and our knowledge of science extended till the phenomena of electricity and evolution.

At the end of the same century, there were aircrafts ferrying passengers from London to New York in two hours – travelling faster than the speed of sound; the internet was connecting people from across the world at the speed of light; and while wealth equality was not perfect, the general well-being of the majority of the planet's citizens had improved dramatically. Man had walked on the moon, and our knowledge of the universe stretched from the moment the universe began to the universe within an atom.

The twentieth century saw perhaps the greatest flowering of learning that the world had ever witnessed, and it happened on a global scale. There were some significant places where

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
-

many discoveries and inventions came about, but there was no epicentre for knowledge, no equivalent of Athens or the Library at Alexandria for the great minds of the twentieth century. Great men and women came from a tiny port city in Gujarat, from a rural village in Southern Germany, and worked in laboratories and universities in the United States, Europe, India, Japan, Brazil, and Russia.

Shortcomings of the 20th Century: Challenge for 21st Century to overcome

The mistakes of the twentieth century, however, were as enormous as the achievements. The Cold War arms race saw the United States and the Soviet Union fill the world with over 50,000 nuclear weapons – an arsenal that could destroy all of humanity. Dictators led brutal regimes, and genocides slaughtered hundreds of thousands of people. Machines running on oil released toxic gases into the atmosphere; plastics started to fill garbage dumps; the population grew to such an enormous extent that the entire planet's resources were starting to fall short for their needs. In light of these events, the resolve to protect the global commons, that intangible collection of natural resources that are the property of no one and everyone, takes on a new meaning. It is the challenge of the twenty-first century to match the progress of the twentieth, without the unnecessary waste and destruction that it left in its wake.



2 Mr Michael Keating, Deputy Special Representative of the Secretary General, United Nations Assistance Mission in Afghanistan, Afghanistan

3 L–R: Prof. V Ramanathan, Distinguished Professor and Director - Center for Clouds, Chemistry and Climate, Scripps Institution Of Oceanography, University of California, USA; **Ms Annika Markovic,** Environment Ambassador, Ministry of the Environment, Sweden; **Dr Leena Srivastava,** Executive Director-Operations, TERI & Vice Chancellor, TERI University, India; **Mr Michael Keating,** Deputy Special Representative of the Secretary General, United Nations Assistance Mission in Afghanistan, Afghanistan; **Mr Hideyuki Mori,** President, Institute for Global Environmental Strategies, Japan; **Prof. Perttu Vartiainen,** Rector, University of Eastern Finland, Finland



4



Role of Innovation, Technology and Knowledge

This session tackled questions on epistemology. The panel consisted of eminent thinkers from a variety of disciplines, academia, global organizations, governments, research institutions, and think tanks. The session looked at the role that innovation, technology, and knowledge – the cornerstone of human civilization in the past century – can be play towards solving the problems posed by climate change. Speaking from their varied personal and professional experiences in diverse situations, the panel raised many thought-provoking points.

Role of Military

Military engineers can play an important role in helping rural communities adapt to and mitigate climate change. In many third world countries, military engineers tend to be the most knowledgeable and best-equipped for dealing with large-scale natural disasters. By instigating a process of capacity-building and knowledge-sharing, the military engineer corps can use their skill and expertise to help communities adapt to changes in climate or try and mitigate the problems caused by climate change.

4 Prof. V Ramanathan,
Distinguished Professor and Director -
Center for Clouds, Chemistry and Climate,
Scripps Institution Of Oceanography,
University of California, USA

5 Dr Lee Yee Cheong,
Chairman, UNESCO International Science,
Technology and Innovation Centre,
Malaysia



Knowledge-Sharing and Capacity Building Initiatives

Establishment of knowledge-sharing initiatives, such as those between India and Sweden, could be an example for more developed nations to open their doors to countries that could be made self-reliant and independent. Sweden is currently one of the most advanced societies in the world and is helping India in the areas of communications, renewable energy, resource sharing, and capacity building.

Capacity-building was a prominent idea present throughout the session, as multiple speakers stressed on the importance of making sure that people in underprivileged sections of society need skills and knowledge which can be applied for them to rebuild their communities. Until there is a clear understanding of the factors at play behind socioeconomic processes, the outcomes of sustainable development initiatives will still be unpredictable. The importance of knowledge was summarized by the panel, as a necessity for the sustainable development movement to be able to offer specific solutions that can effectively deal with the issues that the world will have to face in the twenty-first century.



6 Ms Annika Markovic,
Environment Ambassador, Ministry of the
Environment, Sweden

7 Prof. Perttu Vartiainen,
Rector, University of Eastern Finland,
Finland



CLEAN ENERGY: IMPROVING THE GLOBAL COMMONS

Preserving the Global Commons: Impending Energy Crisis

Any attempt at trying to preserve the global commons must take into account the single most important issue to have come to the forefront in the last half-century – the impending energy crisis from the over-exploitation of fossil fuels such as oil and natural gas. Despite the introduction of new and revolutionary technologies in the ways we drill for oil or gas, or the sources from where we extract our oil and gas, the fact remains that the days of relatively cheap and easy-to-obtain fossil fuels are behind us. This potential crisis is also an opportunity for society to be able to rebuild itself along the lines of sustainability.



Developing Sustainable Alternatives

The attempt at developing energy technologies which utilise sources that are simultaneously cheap, good for the environment, as well as renewable possess long-term benefits that ameliorate any short-term inconvenience that we might encounter as a consequence of it. The oil economy has reached its end, and it is critical for humanity to be able to figure out a way to meet our growing energy demands through a clean and renewable energy source. While such a technology may not have been found yet, what remains critical is for us to attempt to make the current use of our limited energy resources as efficient as possible, which would stave off the inevitable collapse of the oil-based economy. Energy efficiency is a goal that requires the concentrated efforts of numerous parties, right from manufacturers, all the way to the customer. With growing prices for a host of energy-related services, such as petrol, CNG, and electricity, the mind of the

1 **Ms Fiza Farhan,**
Chief Operating Officer, Buksh
Foundation, Pakistan

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
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customer is now focusing on the principles of energy efficiency more than ever before, as is evident from the fact that more and more consumers are looking at the rate of energy consumption of a product as one of the main considerations during a purchase. Companies that manufacture energy-intensive products such as air-conditioners or cars are now advertising the efficiency of their products as one of the major selling points. These signs are indicative of the beginning of the end game for the usage of fossil fuels.

Towards Clean Energy

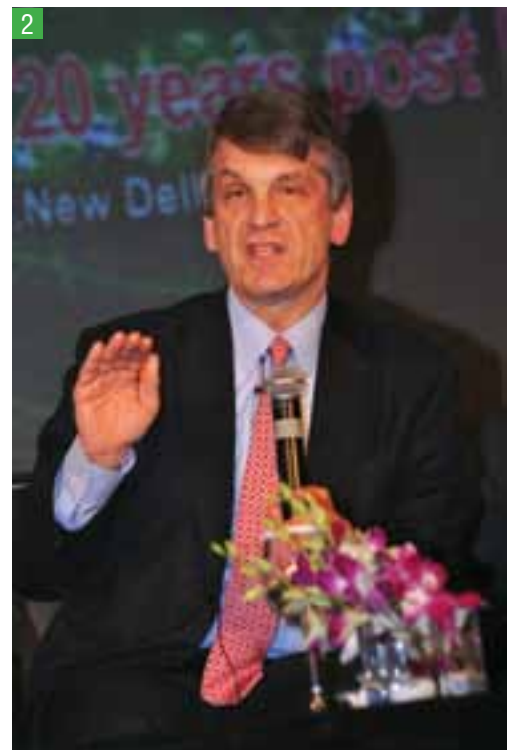
The session on Clean Energy and the Global Commons at the 2012 Delhi Sustainable Development Summit featured a host of discussions on the issues of clean energy from a diverse cross-section of people, from various sides of the debate, with varying and contrasting levels of experience with clean energy. The diversity of thought and experience on display led to the exchange of many different approaches to the implementation of clean energy technologies in different situations. The distinguished panel featured leading lights from private enterprise, non-governmental grass-roots organizations trying to make a difference, members of global governments, policy makers, and members from the academia. Discussions tackled a wide range of topics, some of which are elaborated on in the paragraphs that follow.

Promoting Energy Efficiency

Measures to promote energy efficiency need to be implemented. These may range from spreading awareness to the usage of codes necessitating the compulsory implementation of energy efficient policies by private and government players, and to the introduction of a labelling system that would indicate the energy efficiency of a particular appliance.

Necessity and Importance of Grass-Roots Initiatives

There is a strong need for grass-roots movements that can spread awareness and information about clean energy technologies in third world countries such as Pakistan, India, and Africa. People living in the rural parts of these nations lack basic access to energy, and thus present an opportunity for clean energy technology manufacturers and social entrepreneurs to spread the idea of sustainable development and clean energy. Examples were given of initiatives being taken by the Buksh Foundation that is trying to spread awareness and the use of



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



solar-based products in rural Pakistan. The ancillary benefits of such technologies include improvements in social order, as they spread a message of self-reliance and independence among the rural population. This is evident from the fact that villages in Pakistan where the Buksh Foundation has helped spread the use of solar technology for lamps, cook stoves, and other basic domestic appliances have seen an improvement in the social rights of women. A similar result was seen in villages in India where TERI conducted the Lighting a Billion Lives (LaBL) campaign, and where other organizations have conducted exercises to observe the feasibility of an off-grid decentralized energy village society.

Resource-efficient Renewable Energy

Members of the distinguished panel universally advocated uniting the goals of energy efficiency and renewable energy. By making renewable energy technology energy-efficient, one would see a sharp decline in both the manufacturing as well as life cycle cost of a clean energy product. This new direction holds immense potential in the clean energy movement.

Need for Policies on Clean Energy

The distinguished members of the panel strongly advocated measures that would see the introduction of clean energy technologies into the common commercial market soon. Panellists described how nations across the world are implementing national, long-term renewable energy policies that are looking at clean energy as a way to achieve economic growth and energy security. They agreed in unison on the immediate need for governmental policies on energy-efficient and renewable energy technologies, as well as the need to incorporate the reduction of global greenhouse gas emissions in their deliberations and planning processes.

3 L-R: Mr Christof Schoser, Deputy Head of Unit, Directorate-General for Energy, European Commission; **Dr Ajay Mathur**, Director General, Bureau of Energy Efficiency, India; **Ms Fiza Farhan**, Chief Operating Officer, Buksh Foundation, Pakistan; **Mr David Sandalow**, Assistant Secretary for Policy and International Affairs, US Department of Energy, USA; **Mr Kazuo Furukawa**, Chairman, New Energy and Industrial Technology Development Organization (NEDO), Japan; **Mr Binu Parthan**, Deputy Director General, Renewable Energy and Energy Efficiency Partnership (REEEP), Austria

4 Mr Christof Schoser, Deputy Head of Unit, Directorate-General for Energy, European Commission



OVERCOMING THE DIVIDE: GLOBAL NORTH VERSUS GLOBAL SOUTH



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

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 Sanjbegz**, President, The National University of Mongolia, Mongolia
 - **Mr Ali T Sheikh**, Asia Director, Climate & Development Knowledge Network, Pakistan
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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 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 Tumur Ochir Sanjbegz emphasized that the integration of mitigation and adaptation action and 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



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-materialization 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 of Resource Efficient Growth and Development”.

1 Dr R K Pachauri,
Director-General, TERI, India

PARTNERS AT DSDS 2012

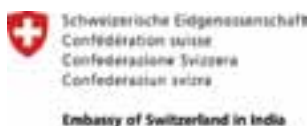
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