

# DSDS 2009



World Sustainable  
Development Forum

DSDS 2009

## Delhi Sustainable Development Summit

### **Towards Copenhagen:** *an equitable and ethical approach*

5–7 February 2009  
Hotel Ashok, New Delhi, India

**SUMMARY OF PROCEEDINGS**



The Energy and Resources Institute



WSDF

# World Sustainable Development Forum

The WSDF (World Sustainable Development Forum), established by TERI in 2005, is a platform to identify, analyse, and disseminate policy interventions to enhance human well being in the present, and create conditions for a sustainable future. In its endeavours, the forum is supported by highly distinguished patrons and advisory committee members who are global leaders in government, industry, and academia, as well as opinion-makers in a world characterized by locale specific socio-economic and environmental priorities. Given the diverse developmental imperatives across regions, WSDF activities and events seek to spread the key messages emerging from the annual DSDS (Delhi Sustainable Development Summit) and RSDS (Regional Sustainable Development Summit), collate information, monitor developments, and report on the progress of MDGs, apart from understanding and disseminating information on the issues of sustainable development in varied contexts.

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## Regional Sustainable Development Summit

Given diverse developmental imperatives across regions, WSDF conducts RSDS (Regional Sustainable Development Summit) annually, to focus on sustainable development issues regionally. The first regional summit held under the WSDF-RSDS series was held in Shirakawa, Japan in 2006 as a Policy Forum on Science and Technology for Sustainable Development. This was followed by the second WSDF summit in 2007, held in Tunisia, focusing on Climate Change Strategies for the African and Mediterranean Regions. The year 2009 will witness two regional summits, both in the month of June to be held in Athens, Greece, with the emphasis on 'Climate Change and Challenges for Future Generations' and in Manila, Philippines as a 'High-Level Dialogue—Climate Change in the Asia Pacific: a development challenge'.

## WSDF newsletter series

As part of its outreach activities, the forum publishes a biannual newsletter series titled 'Tackling tomorrow's challenges today', discussing development prerogatives, debates, and discourses with the aim of highlighting challenges to the attainment of development that is sustainable worldwide.

The 21st century has been dubbed the century of the environment. To truly maximize the available opportunities and a forum of this caliber, we invite expressions of interest for WSDF endeavours.

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**DELHI SUSTAINABLE DEVELOPMENT SUMMIT 2009**

**Towards Copenhagen:  
*an equitable and ethical approach***

5–7 February 2009  
Hotel Ashok, New Delhi, India

**SUMMARY OF PROCEEDINGS**



The Energy and Resources Institute

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## Preface

The DSDS (Delhi Sustainable Development Summit), which was initiated in the year 2001 based on the promise that was brought out by TERI's Silver Jubilee event organized in the year 2000, has now developed into the world's major gathering of leaders from every profession focusing on issues of sustainable development. Each year, the summit defines a specific theme and deals with it by attracting and mobilizing the best minds and the most prominent leaders from every part of the globe. The last two years since the Conference of the Parties met in Bali in December 2007 to initiate plans for a new agreement on climate change, expected to be reached in Copenhagen in December 2009, the subject of climate change has assumed growing worldwide importance. It was, therefore, logical and inevitable that the summit in 2009 dealt with Copenhagen as expressed in the theme of the summit: Towards Copenhagen: an equitable and ethical approach.

Global action is certainly essential and overdue in meeting the threat of climate change, but there are major issues of equity involving different regions of the world that justify a focus on some of the most vulnerable communities and countries that are likely to bear the most negative impacts of climate change. Indeed, some of these regions are already experiencing substantial stress as a result of climate change in respect of growing scarcity of water, adverse impacts on agriculture, and the ever growing threat of sea level rise, which is of deep concern to the small island states and other low-lying coastal areas across the world. This year's summit focused on the spirit of cooperation and understanding among

nations on the equity and ethical dimensions of climate change. The global community is looking to Copenhagen to frame a comprehensive and ratifiable agreement to combat climate change. However, there remain three political challenges for Copenhagen, namely: (a) securing the commitment of developed countries in setting mid-term targets with credible baselines; (b) addressing mitigation and adaptation needs of developing countries; and (c) joint action by governments and the United Nations in developing viable solutions.

Overall, the summit witnessed cautious optimism towards Copenhagen, with emphasis on realizing that necessity and opportunity go hand in hand. Financing adaptation and meeting the needs of the developing countries emerged as a priority. The problems we are facing are complicated. However, dealing effectively with climate change is the only option we have.

This publication is a compilation of all the deliberations that took place during the three-day summit in New Delhi. It is structured by day. It will answer a lot of common questions that bring an interesting approach to solving the problem of climate change. These proceedings provide an in-depth understanding of climate change issues and the challenges that are being faced by the world at large and sustainable solutions for arriving at an agreement in Copenhagen at the end of this year.



R K Pachauri  
Director-General, TERI



## Acknowledgement

The recently concluded DSDS (Delhi Sustainable Development Summit) was a remarkable success. The meteoric rise of the DSDS as a flagship event of TERI, dedicated to the universal cause of environment and sustainable development, is a testimony to its uniqueness and global appeal. Through the years, the distinguished world leaders, brilliant opinion-makers, and high-level global participants have made DSDS a coveted event. The reinforcement of 2008 setting the theme for 2009 and beyond accords a high degree of credibility to the research outputs of TERI.

The ninth edition of DSDS 2009 was inaugurated by the Hon'ble Minister for External Affairs, Government of India, Mr Pranab Mukherjee. The summit was honoured by the presence of five heads of state/government namely HE Ms Tarja Halonen, President of Finland; HE Mr Anote Tong, President of the Republic of Kiribati; HE Mr Meles Zenawi, Prime Minister of the Federal Democratic Republic of Ethiopia; HE Mr Maumoon Abdul Gayoom, Former President of Maldives, and HE Mr Mortiz Leuenberger, Former President of Switzerland. HRH Princess Maha Chakri Sirindhorn, Princess, Kingdom of Thailand; UN Secretary General, HE Mr Ban Ki-moon; and many other eminent dignitaries were part of the inaugural

session. Several renowned speakers, scholars, and administrators chaired and moderated the various sessions. Besides, ministerial representation from over 25 countries including India and over 850 delegates and 70 exhibitors attended the summit. We thank all of them for their valuable contribution in making the summit such a successful and enjoyable event.

Many thanks to the extraordinary speakers for sparing their valuable time educating us about important environmental issues. The talks were insightful, thought provoking, passionate, and inspirational, preparing us to face the tremendous climate change challenges that lie ahead of us.

An international event of the scale of DSDS is truly a challenge and a daunting task. It requires considerable administrative, financial, and technical support. TERI was fortunate to receive the financial, technical, and specialized support from various governments, multi-bilateral organizations, the corporate sector, and some national organizations and groups. TERI wishes to record its deepest appreciation and thanks to all of them. In addition, the media's participation (NDTV, Google, and Financial Times) and presence in DSDS added a noteworthy dimension to the proceedings of the summit.



The annual DSDS very much synergizes the resources of TERI. All divisions and officials of TERI synchronize their efforts meaningfully and optimally and make significant contributions to make the summit a great success. A whole range of activities were undertaken and supported by the TERI team to make the DSDS 2009 truly memorable. But for their valuable support in facilitation, rapporteuring, content development, preparation of background paper, outreach, marketing, administration, logistics, and production of the summit documents like flyers, brochures, and summit bulletins during the summit

and proceedings on its conclusion would not be feasible.

Much as we would wish, it would indeed be very difficult to express gratitude to all the support groups and thank them individually. The summit secretariat warmly and sincerely thanks everyone associated with the DSDS in one form or the other.



**Annapurna Vancheswaran**

Director, Sustainable Development  
Outreach Division, TERI

## Executive summary

### Background

The DSDS (Delhi Sustainable Development Summit), an annual flagship event of TERI since 2001, is a unique forum for analysis of and debate on some of the most crucial environmental challenges being faced by humanity at large. Informed discussions among participants from the corporate sector, governments, international agencies, and institutes provide critical mass for formulation and delineation of strategies to take the sustainable development agenda forward.

Over the years, the summit has enjoyed global support from over 60 countries. Heads of states/governments, ministers, dignitaries, Nobel laureates, development practitioners, scientists, academicians, and corporate leaders from across the world have participated in this event.

### DSDS 2009

The ninth annual DSDS with the theme **Towards Copenhagen: an equitable and ethical approach** was held during 5–7 February 2009. It was inaugurated by the Hon'ble Minister for External Affairs, India, Mr Pranab Mukherjee. The dignitaries comprised five heads of state/governments including HE Ms Tarja Halonen, President of Finland; HE Mr Anote Tong, President of the Republic of Kiribati; HE Mr Meles Zenawi, Prime Minister of the Federal Democratic Republic of Ethiopia; HE Mr Maumoon Abdul Gayoom, former President of Maldives; and HE Mr Mortiz Leuenberger, former President of Switzerland. HE Mr Ban Ki-moon, Secretary General, United Nations was also present and received TERI's Sustainable Development Leadership award for 2009 for his pioneering work on climate change. Besides this, HRH Princess Maha Chakri Sirindhorn, Princess, Kingdom of Thailand and many other eminent dignitaries were also present during the inaugural. In addition, the

summit saw ministerial representation from over 25 countries and participation from over 850 delegates. Participation by governments, the corporate sector, multi-bilateral organizations, research institutes, NGOs, academia, and media representatives enriched the summit proceedings, with diverse and occasionally conflicting opinions on climate change interventions.

Preceding the summit, 20 special events on varied themes like water, mitigation, energy efficiency, sustainable habitat, emerging technologies, and climate change negotiations and dialogue were held highlighting the adverse impacts of climate change and to come up with possible solutions to address these issues.

The World CEO Forum, curtain raiser to DSDS, was organized by TERI-BCSD (TERI-Business Council for Sustainable Development), India in association with the WBCSD (World Business Council for Sustainable Development). It was inaugurated by Shri Jairam Ramesh, Minister of State for Commerce, Industry, and Power on 4 February 2009 where over 100 global CEOs participated in the forum and took stock of the challenges and issues businesses are likely to face due to climate change and discussed corporate initiatives to tackle them. The forum identified the best practices and the way forward to encourage and include the business community in combating climate change, especially in the context of the current economic downturn.

The ICCE (International Climate Change Exhibition) held for the second time, saw participation from about 70 companies demonstrating new technologies, products, and services aimed at mitigating GHG (greenhouse gas) emissions. Companies included international NGOs, government agencies, and corporates like Cleantech Finland, Philips Electronics India Ltd, Freeplay, Nokia, ONGC, GTZ, ArcelorMittal,

GDF SUEZ, ACC Limited, Intel Technology India Pvt. Ltd, several French companies, and the Royal Norwegian Embassy. For complete list of exhibitors (see Appendix).

## Summit highlights

The three-day summit saw speakers from various sessions sharing their experiences leading to an interesting and interactive participation. Highlights of some of these sessions were as under.

- Encourage 'carbon trading' to stimulate investments and transfer of funds and technology to address climate change and poverty issues.
- Implementation of 'polluter pays' principle, where countries accounting for larger share of emissions pay for the damages caused.
- Include Africa in the negotiation process particularly the agriculture sector since it is most vulnerable to the effects of climate change.
- Attempt to resolve three main challenges: (a) clarity on commitment; (b) financing of mitigation and adaptation needs of developing countries; and (c) find credible solutions for governance of new funds.
- Reduce the emissions from developed countries by setting mid-term targets with credible baselines.
- Formulate country-level 'National Adaptation Plans' and integrate climate change and development finance for effective financial transfers to developing countries.

## Challenges and possible approaches

The speakers highlighted some of the challenges to be addressed at Copenhagen. These were as follows.

- Need for clarity on commitments
- Appropriate national action plans from developing countries
- Judicious mix of regulatory as well as governance-driven mechanisms
- South-South cooperation and the opportunity that it offers in bringing about low-cost technology

to reduce emissions of greenhouse gases.

- New spirit of cooperation based on shared vision, understanding, and trust.
- Breaking the deadlocks presently experienced imperative for development.

The likely solutions to these key challenges were as follows.

- **Poverty alleviation** Increasing economic growth through greater generation of energy and pragmatic interventions. Energy generation calls for massive investments, therefore, finance and investment from the developed world will help spark innovations leading to sustainable development.
- **Decarbonization of the energy system** Foster partnerships between governments and businesses to facilitate funding and obtaining appropriate low-carbon technologies. This calls for long-term clarity on investments and cooperation.
- **Mitigation** Long-term commitment by all countries to the agreed mitigation policy makes sense.
- **Emission reduction** Through 'clean, lean, and mean' methods contain energy emissions to have a positive impact on housing, infrastructure, transport, and all walks of life. This difficult transition will have to be attempted through trustful partnerships between governments, businesses, and the society at large to ensure energy efficiency, adopt new, renewable technologies, and develop mature and professional global business management to yield positive outcome.

## Conclusion

The summit provided a platform for diverse opinions on many aspects of climate change. It created a healthy understanding of issues for developing sustainable solutions at Copenhagen. It was expected that fruitful partnerships would be formed and fostered for advancing the agenda and creating momentum for an agreement in Copenhagen.

**WORLD CEO FORUM 2009**

# Curtain Raiser to DS

## THEME Climate Change fast tracking business action

### Inaugural session

**D**r R K Pachauri, Director-General, TERI, welcomed HE Anne Marie Idrac, Minister of State for Foreign Trade, Government of France and the Chief Guest Shri Jairam Ramesh, Minister of State for Commerce, Industry, and Power, Government of India. He introduced the theme of the forum and made a brief mention of the issues, which were going to be discussed in the forum—issues concerning emission reduction by industries, impact of future regulatory policies

related to mitigation, and the need to come up with a clear strategy and develop correct action plans. Based on the NAPCC (National Action Plan on Climate Change), TERI prepared a White Paper, which was tabled at the World CEO Forum. Dr Pachauri urged the corporates to develop a strategy in line with the missions in the NAPCC. After his enlightening deliberation, a short TERI-BCSD film showcasing TERI's initiatives towards sustainable development was screened.

HE Ms Anne Marie Idrac, Minister of State for Foreign Trade, Government of France, in her address, emphasized the need to not only discuss issues related to climate change, but also act upon the prevailing issues. Her address dwelt on the fact that

the current economic downturn and the financial crisis should not let the issues of environment take a backseat. She emphasized that this is the time to bring such issues to the fore and act upon them. Her address also focused on an alliance between SMEs (small and medium enterprises) and big corporates and public-private partnerships, which can come together and fight climate change in an effective manner. Her concluding remarks emphasized the need for countries to share the burden keeping in mind the equity and diversity of each nation. She also invited those present to come and see some of the technologies, services, and products on display at the French pavilion at the exhibition area.



Shri Jairam Ramesh, Hon'ble Minister of State for Commerce and Industry and Minister of State for Power, Government of India



HE Ms Anne Marie Idrac, Minister of State for Foreign Trade, Ministry of Foreign Trade, Government of France

The address delivered by Mr Jairam Ramesh, Hon'ble Minister of State for Commerce, Industry, and Power focused on the ministry's partnership with some of the leading corporates such as Areva, Alstrom, and Lafarge, and reiterated the significant contribution of these companies towards mitigating climate change and global warming. He emphasized the need for international collaboration, which can play an important role. He also focused on the unique role that India will play in the years to come in terms of providing clean coal production technologies, since India has high-ash and low-sulphur coal. He reiterated that a joint collaboration between NTPC and TERI on photobioreactors on natural algae will be experimented for the first time in India. He strongly felt that India is a growing nation having a rich pool of managerial skills, technology, and resources to meet the challenges of climate change. In his address to the gathering, he also said that India should not buckle under international pressure to adhere to the norms but rather act proactively and address local climate change issues faced by the country. In his concluding remarks, he cited several examples of receding glaciers and low production of crops such as wheat, tea, and coffee, which have become a common sight in the country in the last few decades. The session concluded with a vote of thanks by Dr R K Pachauri.



Dr R K Pachauri, President, TERI-BCSD India, and Director-General, TERI

### Panel discussion 1: Tackling the global challenge

The panel discussion started with the participants voting on two questions, the answers to which epitomize the complexity involved in ensuring sustainable development. While there was an overwhelming agreement on the need to strengthen business ethics of the corporate sector to integrate shareholder interests with societal interests, the response of the business community to climate concerns in the wake of current economic downturn received a mixed response.

The panellists emphasized, almost unanimously, on the importance of partnerships between governments, business, and civil society along with the



Mr Björn Stigson, President, WBCSD



Mr Kjell Forsen, President & CEO, Vaisala Oyj



Panel discussion I in progress



Mr Ashok Jaitly, Distinguished Fellow, TERI



Ms Naina Lal Kidwai, Group  
General Manager and Country  
Head, HSBC India

opportunities for business in tackling climate change. The level of investment and demand for newer and better products and services emerging out of the need to address climate change concerns offer tremendous business opportunity. For this to fructify, governments need to come to an agreement on a legal framework that would induce investment by businesses.

Given the scale of challenge, where over one trillion dollar investment per year is envisaged till 2050, it makes economic sense for businesses to be proactive, with special focus on buildings, transportation, and industry. A large part of climate-friendly business activity has to come in the form of energy-efficient practices and technology deployment. Another critical challenge to sustainable development is



Ms Anne Lauvergeon, CEO,  
AREVA, France

## Voting session Q&A

### Panel Discussion I: Tackling the global challenge

**Q.1** *In today's context, there is a need to strengthen business ethics of the corporate sector to not only serve the interests of its shareholders but also cover the long term self interest of the society. Do you agree?*

- Fully agree
- Partially agree
- Can't comment
- Disagree

### Response

The response for this question was an overwhelming yes with 90% of the respondents saying 'fully agree' and the remaining 10% agreeing 'partially'. It was the response to the second question that reminded the session participants of the complexities involved in the functioning of the business world.

**Q. 2** *What impact will the global economic downturn have on business response to climate change?*

- Retreat from concern about climate change
- Increased support for government policies on climate change
- Deeper reflection about the human drivers of climate change

### Response

The responses to the second question were well distributed among the three options. Thirty-three per cent respondents were of the opinion that the economic downturn would result in a retreat from concern about climate change. While 28% saw an increased business support for government policies on climate change, 39% believed that the economic downturn would make the business community reflect more deeply on the human drivers of climate change.



Mr Harry Verhaar, Senior  
Director - Energy and Climate  
Change, Philips



Mr Rob Moul, Vice President  
- Energy Solutions and Services  
(Asia), Johnson Controls, Inc.

the issue of water availability, quality, and access. Since it has a serious economic and social consequence, it augurs well for businesses to also look into water efficiency in the same vein as energy efficiency.

## Panel Discussion II: Partnerships – the answer for tomorrow

The session began with the chair, Mr Nitin Desai, mentioning that the need of the hour was a new industrial revolution that could possibly seek solutions for a better future. The point was re-emphasized by Prof. Jeffrey Sachs who categorically stated that such a change needs to be on a considerably higher scale to make a dent in the current scenario. They mentioned that globalization today was losing its

sheen and is being replaced by nationalism. The speakers stressed on the need for having the right kind of policies in the advent of the economic crisis looming today. They emphasized that the existing policies are more protectionist in nature and not addressing the global concerns holistically. This was highlighted as a worrisome issue and a solution was arrived at. The emphasis was on forging 'global cooperative partnerships'.

In the changing climate regime, efforts have already been made by different countries to manage the repercussions of climate change. However, during the



Panel discussion II in progress



Mr Nitin Desai, Chairman, TERI-BCSD India, Former Under Secretary General of the United Nations



Dr Ajay Mathur, Director General, Bureau of Energy Efficiency

### Voting session Q&A

#### Panel Discussion II: Partnerships – the Answer for tomorrow

**Q.** *What are the critical elements of effective partnerships?*

- Designing and implementing innovative financing mechanisms
- Promoting cleaner energy technologies
- Strengthening cooperation among developed and developing countries

#### Response

The response from the floor tilted equally towards two options. About 44% of the respondents opted for designing and implementing innovative financing mechanisms as the key elements of partnerships and 40% voted in favour of strengthening cooperation among developed and developing countries. The message set at the outset was clear: partnerships are imperative for achieving sustainable solutions.



Prof. Jeffrey D Sachs, Director  
– Earth Institute & Special Adviser  
to the Secretary General of the  
United Nations



Mr Yvo de Boer, Executive  
Secretary, UNFCCC



Mr Ashvin Dayal, Managing  
Director, Asia, The Rockefeller  
Foundation

The CSR department is the wrong place for climate change to be residing in a company... it should be in the mainstream with the company.

Mr Arun Seth  
Chairman, BT (India) Pvt Ltd

discussion, a need to erect an architectural design to exchange ideas and resolve the over-arching issue of climate change was stressed. There was a special mention of Copenhagen as a place offering such an opportunity. Financial mechanisms that could strengthen cooperation amongst various countries were reiterated as critical factors.

Building partnerships for climate resilience was further considered an important aspect by the panel. The panel also emphasized the need for a new level of cooperation in building such partnerships. In a scenario where access to clean energy fuels was a concern, the need to accelerate transition to cleaner energy options was reiterated by the panel. A need was also felt to forge partnerships that focus on development and diffusion of cleaner energy products. Further, close association between technology developers, entrepreneurs, regulators, and policy-makers was pointed out as a necessary factor to ensure that clean solutions reach those who require them.

The panel discussion came to an end with a plan for the future in terms of partnerships amongst key stakeholders to bring about change. It was reiterated that solutions for a better tomorrow emanate from global cooperation and globalization needs to be given an upper hand over nationalist views.

### Panel Discussion III

This session focused on how businesses contribute in tackling climate change. Dr J J Irani, the Chair, began the session with a thought on how the business

Panel discussion III in progress



community cannot stand aside on issues of societal significance such as climate change. He also stressed on the fact that governments cannot achieve environmental goals without the support of business.

Speaking on the idea of sustainability in business, the panellists emphasized on the need for a responsible understanding of issues related to climate change.

They also stressed the need for building a model of sustainable business to strike an equilibrium between economy, ecology, and the society. The panellists emphasized on the need for the business community to reach out to the society to find such equilibrium. The role of the management in ensuring that their actions reflect their good intentions was also discussed. It was stressed that inculcating a sense of direct connection with the environmental cause in employees and in product design is the most challenging and important task for leadership.

The importance of appropriate investment and enhanced R&D through public-private partnerships in developing affordable technologies and meeting the bottom-of-the-pyramid needs of the country came out as one of the key programmatic requirements to enable business to take up a greater responsibility. The role of the government apart from taking up joint activities with the private sector was also stressed. It was emphasized that the role of the government is of utmost importance in giving a direction to business practices through designing suitable regulations. Government regulations to provide a good incentive for enhancing green investments was highlighted as the need of the hour. However, it was also emphasized that the governments need to be careful in introducing new regulations so that there is an optimal alignment between incentives provided and the scale of desired activity.

Similarly, it was also felt that while responding to regulations, the business community needs to explore the scale at which regulations can create good business opportunity. On the issue of what corporations can do without the government, it was stressed that sharing knowledge and experience, and mutual learning are some of the most responsible business practices. The attitude of the business community and the way it perceives situations were other critical points that the panellists emphasized upon. Most of the panellists were of the opinion that the necessary expertise and capacity exists, but what is needed



Dr J J Irani, Co-Chairman, TERI-BCSD India, Director, Tata Group of Companies



Dr Praveen Vishakantaiah, President, Intel India



Mr Arun Seth, Chairman, BT (India) Pvt. Ltd

## Voting session Q&A

### Panel Discussion III: Fast tracking business action

**Q.** *What factors will motivate your organization to actively address the issue of climate change?*

- More information sharing of best practices and awareness building
- Guidelines in the form of assistance and training support
- Incentives
- Regulation

### Response

The respondents considered 'incentives' and 'information sharing of best practices and awareness building' as the most effective motivating factors. Both these options received about 37% votes each. 'Regulation' received 21% votes and the least motivating factor was 'guidelines in the form of assistance and training support'.

Only the paranoid survive. We have to be paranoid about the future scenario.

Mr Praveen Vishakantaiah  
President, Intel Technology India Pvt. Ltd

is a drastic change in the mindset of the people and the business community. In the concluding remarks, the role of recognition, price incentives, and the media in changing the mindsets was discussed.

## Concluding session

Mr Björn Stigson, President, WBCSD and Mr Nitin Desai, former Under Secretary General, United Nations and Distinguished Fellow, TERI concluded the panel discussions by sharing the key messages from the rich discussions in the three sessions. Mr Stigson conveyed a positive and encouraging impression of the corporate response and their willingness to contribute to solutions in the context of climate change issues in India and other major economies such as China. He highlighted energy and IT as the sectors with major business opportunities. The energy sector provides immense business opportunities since simple, clean, and affordable energy solutions are required for the 1.6 billion poor of the world. The IT industry has a huge business opportunity in terms of enabling other industries to reduce their carbon footprint. He said that India is positioned very well



Mr Björn Stigson, President,  
WBCSD

to take a leadership role in these areas in terms of providing business solutions.

Mr Nitin Desai also started on a positive note by saying that the corporate sector recognizes the depth of the climate change problem and is willing to take initiative rather than wait for incentives from the public domain. He emphasized on the need for a long-term outlook for action rather than being pessimistic about the flow of funds in the short term. He highlighted that the primary purpose of the CEOs at this forum should be to convey what the corporate sector wants from inter-governmental negotiations so that they can continue their business in a sustainable manner. He summarized the insights from today's discussions in three words: Integrate, Innovate, and Anticipate. The corporate sector needs to integrate climate change issues into the 'way' it functions rather than put issues to the margins as a corporate social responsibility issue. That is, the corporate sector needs to mainstream the climate change issue into their marketing, investment, and other functional decisions.

Innovation is going to be the hallmark of success for the economies in the new carbon constrained world. We are looking at a new industrial revolution where many-fold increase in carbon productivity would drive the revolution and therefore innovations to achieve this would be most necessary for the survival of a firm. In today's carbon-



Mr Nitin Desai, Former Under Secretary General, United  
Nations and Distinguished Fellow, TERI

**We should not be deflected by the current economic crisis. Integrate, Innovate, and Anticipate: don't get carried away by the \$40 price.**

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

constrained world, it is not control over the conventional energy supply and resources but gaining command over carbon control technologies that will ensure survival and success in the next few decades. The organizations that can anticipate this and take appropriate and relevant actions would be the companies that would remain on the top of the list 40 years from now.

## Dinner session

The dinner session began with the felicitation of new BCSD members by Dr R K Pachauri. Mr Jairam Ramesh, Minister of State for Commerce and Industry and Minister of State for Power, Government of India said that we are looking forward to the expectation of a true consensus at COP 15 to be held at Copenhagen. This would include the quantification of emissions, commitment to meeting targets by the developed countries, and improvements in the energy efficiency standards. India, he said, is committed to increased utilization of nuclear-and-hydro energy, along with renewable energy. India is not a key contributor to the stock of emissions but is increasingly contributing to the flow of emissions. There is a need to understand the steps India is taking to meet the challenges with regard to energy, water, and agriculture, and how this reflects in the National Action Plan on Climate Change. Indian companies are now working towards mitigating the impact of their operations. He highlighted the need for collaborations between Indian and international companies and research institutions.

HE Ms Connie Hedegaard, Minister for Climate and Energy, Government of Denmark, started by voicing the concerns of people across many affected countries like Thailand and Bangladesh, who are directly affected by the increasing uncertainty of climate conditions. She said that the international community has now reached a crossroad where it can work towards building a new world order. The financial crisis has presented an opportunity for rethinking our ways. She urged the business leaders to recognize the role they can play in reliably managing greenhouse gas emissions through the establishment of an efficient carbon market and provision of green jobs. She also emphasized the need for the audience to share their ideas with policy-makers for building a long-term policy framework. Ms Hedegaard also emphasized on speeding up the dissemination of technology and information.



Dinner session in progress

**We are looking forward to Copenhagen 2009 where we would focus on a consensus emerging on technology improvements and energy efficiency.**

**Mr Jairam Ramesh**  
Minister of State for Commerce, Industry, and Power, Government of India



**DELHI SUSTAINABLE  
DEVELOPMENT SUMMIT 2009**

# AGENDA

## Day 1: Thursday, 5 February 2009

9.30–10.00 am

Tea

### INAUGURAL SESSION

10.00–10.45 am

#### *Inauguration by*

- **Shri Pranab Mukherjee**, Hon'ble Minister for External Affairs, Ministry of External Affairs, Government of India

#### *In the presence of*

- **HRH Princess Maha Chakri Sirindhorn**, Princess, Kingdom of Thailand
- **HE Ms Tarja Halonen**, President of Finland
- **HE Mr Anote Tong**, President of the Republic of Kiribati
- **HE Mr Meles Zenawi**, Prime Minister of the Federal Democratic Republic of Ethiopia
- **HE Mr Ban Ki-moon**, Secretary-General, United Nations
- **HE Mr Maumoon Abdul Gayoom**, former President of Maldives
- **HE Mr Moritz Leuenberger**, former President of Switzerland

### ANNOUNCEMENTS

- **Sustainable Development Leadership Award**

### LEADERSHIP PANEL

10.45 am–12.00 pm

#### *Moderator*

- **Mr Nik Gowing**, Main Presenter BBC World, British Broadcasting Corporation, United Kingdom

#### *Speakers*

- **HE Mr Jens Stoltenberg** – by video, Prime Minister, Government of Norway
- **HE Mr Asif Ali Zardari** – through written message, President of the Islamic Republic of Pakistan
- **Her Royal Highness Princess Maha Chakri Sirindhorn**, Princess, Kingdom of Thailand
- **HE Ms Tarja Halonen**, President of Finland
- **HE Mr Anote Tong**, President of the Republic of Kiribati
- **HE Mr Meles Zenawi**, Prime Minister of the Federal Democratic Republic of Ethiopia
- **HE Mr Ban Ki-moon**, Secretary-General, United Nations
- **HE Mr Maumoon Abdul Gayoom**, former President, Republic of Maldives
- **HE Mr Moritz Leuenberger**, former President of Switzerland, Swiss Federal Councillor, Head of the Federal Department of the Environment, Transport, Energy and Communications, Switzerland

### MINISTERIAL

#### SESSION – I

12.00 pm–1.15 pm

#### **Innovative Policies and Technologies**

#### *Moderator*

- **Mr Nik Gowing**, Main Presenter BBC World, British Broadcasting Corporation, UK

1.15 pm

2.30–3.45 pm

3.45–4.30 pm

4.30 pm

### Speakers

- **Dr Rashid Ahmad bin Fahed**, Minister of Environment and Water, Ministry of Environment and Water, UAE
- **Ms Yuriko Koike**, Member of the House of Representatives of Japan and former Minister of the Environment and Defence, Government of Japan
- **Mr Namu Narain Meena**, Hon'ble Minister of State for Environment, Ministry of Environment and Forests, Government of India
- **Mr William K Reilly**, Chairman, ClimateWorks Foundation and former Administrator of the US Environmental Protection Agency
- **Mr Erik Solheim**, Minister of the Environment and International Development, Ministry of Foreign Affairs, Oslo, Norway
- **Mr Wolfgang Hahn**, Director General, Federal Ministry of Transport, Building and Urban Affairs, Germany

### Lunch

### Business as a Stakeholder

#### Moderator

- **Mr Nik Gowing**, Main Presenter BBC World, British Broadcasting Corporation, United Kingdom

#### Speakers

- **Mr Howard Bamsey**, Deputy Secretary, Department of Climate Change, Australia
- **Mr Philippe Forestier**, Executive Vice-President and Co-Founder, Dassault Systemes
- **Mr Tapani Järvinen**, Chairman of the Cleantech Finland Business Forum and President and CEO, Outotec Oyj
- **Ms Naina Lal Kidwai**, Group General Manager and Country Head, HSBC India
- **Ms Tomoyo Nonaka**, Chairperson, NPO GAIA Initiative, Japan
- **Mr Michael P Schulhof**, Chairman and CEO Global Technology Investments, LLC, USA
- **Mr Björn Stigson**, President, World Business Council for Sustainable Development, Switzerland
- **Mr Veli Sundback**, Executive Advisor, Nokia Corporation, Finland

### The Global Challenge

#### Moderator

- **Mr Nik Gowing**, Main Presenter BBC World, British Broadcasting Corporation, United Kingdom

#### Keynote speakers

- **HE Mr Tony Blair** – by video, former Prime Minister of the United Kingdom
- **Mr Yvo de Boer**, Executive Secretary, UNFCCC, Germany

### Tea

4.45–5.15 pm

### The Asian Challenge

#### Moderator

- **Mr Nik Gowing**, Main Presenter BBC World, British Broadcasting Corporation, United Kingdom

#### Keynote speaker

- **Mr Haruhiko Kuroda**, President and Chairperson, Board of Directors, Asian Development Bank, The Philippines

5.30–6.15 pm

### Strengthening Partnerships

#### Special address – by video

- **HRH Princess Haya Bint Al Hussein**, UAE

#### United States position on Global Climate Change – through live video

- **Mr John Kerry**, United States Senator from Massachusetts

6.15 pm

### Reception – Hosted by AFD (French Development Agency)

Launch of the book *A Planet for Life 2009: sustainable development in action*

7.15–8.00 pm

#### Exclusive performances by

Ustad Zakir Hussain, Taufiq Qureshi, and Niladri Kumar; followed by The Green Globe Foundation's Annual Awards Ceremony

8.00 pm

### Dinner – Green Globe Foundation Awards evening

## Day 2: Friday, 6 February 2009

9.30–10.45 am

### The Challenge in Africa: climate change and its humanitarian dimensions

#### Moderator

- **Mr Nik Gowing**, Main Presenter BBC World, British Broadcasting Corporation, United Kingdom

#### Guest of honour

- **HE Mr Meles Zenawi**, Prime Minister of the Federal Democratic Republic of Ethiopia

#### Setting the theme (Keynote)

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

#### Speakers

- **Dr Alcinda Antonio de Abreu**, Minister for Coordination of Environmental Action, Government of the Republic of Mozambique
- **Mr Kwado Adjei-Darko**, Minister, Ministry of Local Government and Rural, Ghana
- **Dr Nana Aboubakar Djalloh**, Cameroon
- **Mr Bruno Jean Richard Itoua**, Minister of Energy and Water, Republic of Congo
- **Mr Stanislas Kamanzi**, Minister of Natural Resources, Kigali, Rwanda

10.45–11.00 am

- **Dr Allassane BA**, Juriste de l'Environnement, Mali
- **Mr Sani Mahazou**, Technical Adviser to the Minister, Niger

**Tea**

11.00 am–12.15 pm

### Multilateral Institutions

#### *Moderator*

- **Mr Nitin Desai**, former Under Secretary General of the United Nations & Distinguished Fellow at TERI

#### *Speakers*

- **Ms Monique Barbut**, CEO & Chairperson, Global Environment Facility, USA
- **Mr Karl Falkenberg**, Director General for Environment of the European Commission, Belgium
- **Mr Abdoulie Janneh**, Under-Secretary-General and Executive Secretary, United Nations Economic Commission for Africa, Ethiopia
- **Mr Kamalesh Sharma**, Secretary-General, Commonwealth, United Kingdom
- **Mr Achim Steiner**, Executive Director, United Nations Environment Programme, Kenya

12.15–1.00 pm

### View from Copenhagen: Keynote Address

#### *Moderator*

- **Mr Rachmat Witoelar**, State Minister for the Environment, Government of Indonesia

#### *Keynote address*

- **Ms Connie Hedegaard**, Minister for Climate and Energy, Denmark

1.00–2.00 pm

### Lunch – Hosted by UNEP (Launch of the South Asia Water Vulnerability Report)

2.00–3.15 pm

### To Copenhagen with Ethics and Equity

#### *Moderator*

- **Mr Yvo de Boer**, Executive Secretary, UNFCCC, Germany

#### *Speakers*

- **Prof. Trevor Davies**, Pro-Vice-Chancellor - Research and Knowledge Transfer, University of East Anglia, United Kingdom
- **Ambassador Walter Fust**, CEO/Director General, Global Humanitarian Forum, Geneva
- **Mr Hal Harvey**, President and CEO, ClimateWorks Foundation, USA
- **Mr Uday H Khemka**, Vice Chairman, Sun Group, India
- **Mr Vikram Singh Mehta**, Chairman, Shell Companies in India
- **Mr Carlos Pascual**, Vice President and Director of Foreign Policy, Brookings Institution Press, USA
- **Prof. Hans Joachim Schellnhuber**, Director, Potsdam Institute for Climate Impact Research, Germany
- **Prof. Petteri Taalas**, Director-General, Finnish Meteorological Institute, Finland

MINISTERIAL  
SESSION – II  
03.15 – 04.30 pm

### Building a New Spirit of Cooperation

#### Moderator

- **Mr Nik Gowing**, Main Presenter BBC World, British Broadcasting Corporation, United Kingdom

#### Speakers

- **Mr Lars Peder Brekk**, Minister for Agriculture and Food, Government of Norway
- **Mr Martin Bursik**, Deputy Prime Minister and Minister for Environment of the Czech Republic
- **Dasho Paljor J Dorji**, Advisor - National Environment Commission, Government of Bhutan
- **Mr Maged George Elias Ghattas**, Minister of State for Environmental Affairs, Egypt
- **Mr Moritz Leuenberger**, former President of Switzerland, Swiss Federal Councillor, Head of the Federal Department of the Environment, Transport, Energy and Communications, Switzerland
- **Mr Staffan Tillander**, Ambassador on Climate, Ministry for the Environment, Sweden
- **Mr Paavo Vayrynen**, Minister for Foreign Trade and Development, Ministry for Foreign Affairs of Finland

4.30–4.45 pm

#### Tea

4.45–5.45 pm

### Nobel Laureates' Keynote Session

#### Moderator

- **Dr Prannoy Roy**, President, NDTV

#### Speakers

- **Nobel Laureate Mr Kofi Annan – by live video**, President, Global Humanitarian Forum Geneva, Switzerland
- **Nobel Laureate Dr James A Mirrlees**, Professor of Political Economy, University of Cambridge, UK
- **Nobel Laureate Prof. Mario J Molina**, Institute Professor, Massachusetts Institute of Technology, USA

5.45–6.30 pm

### Keynote address

#### Moderator

- **Dr R K Pachauri**, Director-General, TERI and Chairman, IPCC

#### Speaker

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

6.30–6.35 pm

### Brief intervention by Mr William Pazos, Managing Director, Standard Bank

7.00–8.00 pm

### Reception – hosted by Standard Bank

8.00 pm

### Dinner – Norwegian Nite

**Chief guest: Mr Anand Sharma**, Hon'ble Minister of State, Ministry of External Affairs, Government of India

## Day 3: Saturday, 7 February 2009

9.20–9.30 am

**Discussions thus far – a summary by Dr R K Pachauri, Director-General, TERI**

9.30–10.45 am

### Adapting to the Impacts

#### *Moderator*

- **Dr Prodipto Ghosh**, former Secretary, Ministry of Environment and Forests, Government of India and Distinguished Fellow, TERI

#### *Setting the theme*

- **Prof. Jeffrey D Sachs**, Director - Earth Institute and Special Advisor to the Secretary-General of the United Nations, USA

#### *Speakers*

- **Dr Larry Brilliant**, Vice President, Google Inc. and Executive Director, Google.org
- **Mr Henry Saint Bris**, Senior Executive Vice-President of SUEZ Environnement, France
- **Ambassador C Dasgupta**, Distinguished Fellow, TERI
- **Dr Maritta Koch-Weser**, CEO, The Global Exchange for Social Investment, Germany
- **Dr Dirk Messner**, Director of the German Development Institute (DIE), Germany
- **Ms Katherine Sierra**, Vice-President for Sustainable Development, The World Bank, USA
- **Sir Crispin Tickell, KCVO GCMG**, Director - Policy Foresight Programme, James Martin Institute for Science and Technology, UK

10.45 am

**Tea**

11.00–12.30 pm

### Mitigation and Co-Benefits

#### *Moderator*

- **Mr Terry Tamminen**, Author, Lecturer, and Strategist on Energy and the Environment, California

#### *Speakers*

- **Dr Alf Bjørseth**, Chairman, Scatec AS, Norway
- **Mr Jean-Paul Bouttes**, Executive Vice President Corporate Strategy, Prospective and International Affairs, Electricite de France
- **Ms Bärbel Höhn**, former Minister of the Environment of North-Rhine Westphalia, Vice-Chair of the Green Party Parliamentary Group, Germany
- **Mr Pierre Jacquet**, Executive Director (in charge of strategy) and Chief Economist at the French Development Agency (AFD), Paris
- **Mr Hideki Minamikawa**, Deputy Vice-Minister, Minister's Secretariat, Ministry of the Environment, Japan
- **Mr Georges Valentis**, Managing Director, The Institut Veolia Environnement, France
- **Mr Xianbin Yao**, Director General, Regional and Sustainable Development, Asian Development Bank, The Philippines
- **Mr Terry F Yosie**, President and CEO, World Environment Center, USA

12.30–12.45 pm

**Special address***Moderator*

- **Mr S Sundar**, Distinguished Fellow, TERI

*Speaker*

- **Ms Anne Hidalgo**, Vice Mayor, Paris
- **Mr Salifou Sawadogo**, Minister of Environment, Burkina Faso

12.45 pm

**Lunch**

1.30–2.45 pm

**Engaging all stakeholders***Moderator*

- **Mr Terry Tamminen**, Author, Lecturer, and Strategist on Energy and the Environment, California

*Speakers*

- **Dr Sanjaya Baru**, Visiting Professor, Lee Kuan Yew School of Public Policy (LKY) and Institute of South Asian Studies (ISAS), Singapore
- **Mr Reinhard Butikofer**, Co-Party Leader, Die Grunen, Germany
- **Mr Steven M Fludder**, Vice President – Ecomagination, General Electric Company
- **Mr A G Kawamura**, Secretary, CDFA (California Department of Food and Agriculture), California
- **Prof. Luigi Paganetto**, President, Italian National Agency for New Technologies Energy and the Environment, Italy
- **Dr Laurence Tubiana**, Director, Institut du Developpement Durable et des Relations Internationales, France

 MINISTERIAL  
SESSION – III  
2.45–4.00 pm
**Climate Change & Sustainable Development***Moderator*

- **Mr Nik Gowing**, Main Presenter BBC World, British Broadcasting Corporation, United Kingdom

*Speakers*

- **Shri Prem Kumar Dhumal**, Hon'ble Chief Minister of Himachal Pradesh, Government of Himachal Pradesh
- **Dr Wakako Hironaka**, Member, House of Councillors, Government of Japan
- **Mr Caio Koch-Weser**, Former Deputy Finance Minister, Germany and Vice Chairman, Deutsche Bank
- **Mr Brice Lalonde**, former Minister of Environment and Ambassador for Climate Change, France
- **Mr Valli Moosa**, former Minister of Environmental Affairs and Tourism, South Africa and Executive Chairman, Lereko Investments (Pty) Ltd, South Africa
- **Mr Ahmed Naseem**, Minister of State for Foreign Affairs, Maldives
- **Ms Teresa Ribera Rodríguez**, Secretaria de Estado de Cambio Climático, Ministerio de Medio Ambiente y Medio Rural y Marino, Madrid, Spain
- **Mr W D J Seneviratne**, Minister of Power and Energy, Sri Lanka

4.00–5.00 pm

### Valedictory Session

#### *The Business Brief*

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

#### *Summit Summary*

- **Dr Leena Srivastava**, Executive Director – Operations, TERI

#### *The Indian Perspective*

- **Mr Vijai Sharma**, IAS, Secretary, Ministry of Environment and Forests, Government of India

#### *Valedictory address*

- **Prof. Ernesto Zedillo**, former President of Mexico and Director, Yale Center for the Study of Globalization, USA

5.00 pm

### Tea

## BACKGROUND NOTE

### International action: overview of the progress towards Copenhagen

Climate change is a severe challenge that calls for an immediate and concerted global response. The IPCC (Intergovernmental Panel on Climate Change), established in 1988, has been instrumental in producing objective assessments of climate change, which have provided a scientific basis for action in this field. Its First Assessment Report in 1990 provided the basis for an agreement on the UNFCCC (United Nations Framework Convention on Climate Change). The Convention, by providing a common platform to all member countries, aims to achieve 'stabilization of GHG (greenhouse gas) concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system' (Article 2) and calls for emissions reductions on the basis of equity, common but differentiated responsibility and respective capabilities (Article 3).

The Kyoto Protocol under the Convention was adopted in 1997 and came into force in 2005. The Protocol sets binding targets for industrialized countries and provides them with flexibility to achieve these targets through its three mechanisms—CDM (Clean Development Mechanism), EU-ETS (European Union-Emission Trading Scheme), and JI (Joint Implementation). The first commitment period under the Kyoto Protocol runs from 2008 and comes to an end in 2012. Given the lead time for negotiating and arriving at an agreement, discussions on the next commitment period have begun. Experts, international organizations, governments, and other important stakeholders have started assessing a range of options for advancing the global international climate change efforts beyond 2012. The Climate Change Conference of the Parties to the Convention (COP) held in Montréal in 2005 initiated a process to consider further commitments for Annex I<sup>1</sup> Parties for the period beyond 2012. The Fourth Assessment Report of the IPCC, released in November 2007, emphasized the severe consequences of climate change and the limited time left to fight this global challenge. The report created a sense of urgency amongst various stakeholders and provided impetus to international response to climate change. A formal negotiation process began at the Thirteenth Conference of the Parties held in Bali in December 2007. The COP culminated with the adoption of the Bali Road Map, including the Bali Action Plan, which charted the course for a new negotiating process to arrive at a global consensus by Copenhagen COP for tackling this challenge.

The Fourteenth session of the Conference of the Parties was held in Poznan in December 2008. The meeting came midway between COP 13, where the international negotiation process was initiated and

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<sup>1</sup>Annex I Parties include the industrialized countries that were members of the OECD (Organization for Economic Cooperation and Development) in 1992, plus countries with economies in transition (the EIT Parties), including the Russian Federation, the Baltic States, and several Central and Eastern European States.

COP 15, where the negotiations are set to conclude. Although the conference made progress on a few issues, there were no significant breakthroughs.

A significant step forward was the adoption of the rules and procedure for establishing the board of the adaptation fund. The Parties agreed that the fund would be a legal entity granting direct access to developing countries and thus avoiding obstacles that hampered project implementation in the past. On the technology front, progress was made with the endorsement of the Global Environment Facility's 'Poznan Strategic Programme on Technology Transfer'. The aim of the programme is to scale up technology transfer by leveraging private investments, assisting developing countries in technology needs assessments, and promoting innovative project development.

In addition, a resounding commitment was made by all Parties on a shared vision for long-term cooperative action to achieve an ambitious and comprehensive deal in Copenhagen.

Although progress has been observed from Bali to Poznan, some important issues still remain unresolved and the need to effectively deal with them is urgent. The biggest challenge for the Copenhagen meeting will be to mobilize the political will of all countries to arrive at an agreement that addresses the most immediate challenges of climate change. In particular, the enabling pillars for adaptation and mitigation that is, technology transfer, finance, and capacity building must be strengthened and new mechanisms as well as institutions that support their implementation should be created.

## Major challenges ahead

Some of the most immediate challenges requiring urgent action are as follows.

### *Low adapting capacities of developing countries*

The early impacts of climate change are already appearing as evident from the findings of the Fourth Assessment Report of the IPCC. Scientists believe that the distribution of impacts is likely to be uneven and the already stressed developing countries will face greater impacts. The South Asian region is one of the regions most vulnerable to climate change impacts. According to the IPCC Working Group II Report to the AR4 (Fourth Assessment Report), the number of people that are going to be affected by floods will be largest in the mega deltas of Asia and Africa and the populations of the small islands will be most vulnerable. The interaction of climate change impacts with other environmental stresses and armed conflicts could lead to the possibility of large numbers of people becoming environmental refugees. This is not only a humanitarian problem of serious proportions but can also be a potential source of social disruption.

In general, the developing countries, which have low adaptive capacities along with increasing development needs, are the most vulnerable to climate change. In this context, addressing these issues by identifying key challenges, and designing integrated adaptation strategies by involving important stakeholders is imperative.

### *Mitigation*

The AR4 emphasizes the urgent need for deep emission cuts to keep the global temperature rise under 2°C. Towards this end, the industrialized countries need to undertake deeper emission reduction commitments. However, emissions from the developing countries are also projected to increase significantly in the near future. Therefore, developing countries need to direct their efforts towards achieving low-carbon development paths. In this context, renewable energy and energy efficiency measures have a crucial role to play. Deployment of proven technologies and substantial research and development investment in new technologies is required. However, it is essential that these efforts are supported and enabled by appropriate financial and technological resources from the North. In addition, the private sector can play an instrumental role in achieving a wider diffusion of these technologies. Hence, a policy framework that promotes involvement of the private sector through appropriate incentives is required.

Further, on the mitigation side, REDD (Reducing Emissions from Deforestation and Forest Degradation) has generated a new debate in climate change negotiations. It is important that ways to promote cooperation on this issue among various Parties are explored. Institutional mechanisms that integrate REDD in the future regime need to be spelled out clearly.

### *Technology development and transfer*

A strengthened international future climate regime needs to drive technology cooperation and innovation forward. The IPCC 2007 Synthesis Report calls for accelerated deployment of low-GHG emission technologies as well as enhanced R&D activities for achieving stabilization targets and cost reduction. However, the major challenge that remains in effective transfer, deployment, and diffusion of technology is the rigid IPR (Intellectual Property Rights) regime, lack of finance, and international cooperation. There is a pressing need to ensure stronger multilateral and bilateral cooperation to promote technology development and transfer. Apart from North–South cooperation, promoting the SSC (South–South Cooperation) as well as scaling up of national efforts to promote cleaner technologies are equally important.

### *Finance and investment*

The Bali Action Plan requires enhanced action on the provision of financial resources and investments to support action on mitigation, adaptation, and technology cooperation for developing country Parties. Therefore, access to adequate, predictable, and sustainable financial resources is of paramount importance. The current financial mechanisms, however, fail to provide appropriate funding for climate change actions. Hence, it is important that mechanisms that are in accordance with the Convention principles are scaled up and new options for financing climate change actions are explored. In addition, positive incentives for developing country Parties for enhanced implementation of national mitigation

strategies and adaptation action are necessary. Mobilization of public and private sector funding and investment, including facilitation of carbon-friendly investment choices is also imperative.

## DSDS 2009: finding solutions

The DSDS (Delhi Sustainable Development Summit) is the annual flagship event of TERI. It is a global forum that seeks to provide long-term solutions for sustainable development. In 2009, it will focus on the theme, **Towards Copenhagen: an equitable and ethical approach**, which aims to find answers to some of the challenges mentioned above. The summit will focus on these challenges from a variety of viewpoints through theme-based sessions. Each session will bring together representatives from industry, government, civil society, the media, academia, and international institutions from across the globe.

The focus of the summit is to explore the options for an ethics-based framework for a future climate regime that will address adaptation and mitigation challenges. On the adaptation front, the summit will try to identify adaptation priorities, capacity building needs and adaptation measures with a key focus on Asian and African regions. While exploring key linkages between climate change and sustainable development, the summit will discuss in detail the measures for mitigation of GHG emissions. Technologies with co-benefits and the factors hindering their deployment will also be identified. The underlying objective will be to integrate all these solutions together to move forward and suggest a framework that defines an ethics-based global climate deal.

The summit follows a **multistakeholder approach**. It brings together principal stakeholders to focus on a given problem from different perspectives so that comprehensive solutions can be conceptualized and explored. Stakeholders from across the world will come forward to examine the process of policy formulation in the light of impending climate change. The representatives of the business community will be instrumental in providing insights into ground realities and the practicability of policy options. By bringing together eminent leaders and people instrumental in influencing policy decisions, the summit aims to make an impact globally.

In addition, a **question-based approach** is followed in each session to find answers to the key challenges revolving around a particular issue. Each session will have a set of four questions with the objectives of finding answers to the main issues. For example, the session on adaptation will address the questions on challenges faced by developing countries due to climate change, the factors enabling adaptation, and the role of key players in institutionalizing solutions.

In between plenary sessions each day, there are **ministerial sessions**, where heads of state and ministers from different countries will share the views of their respective governments on climate change related issues. By bringing together such prominent leaders from the world, the ministerial sessions will aim to bind together other sessions and move towards building a new spirit of cooperation.

In advancing these actions to address climate change, **multilateral institutions** are required to play a crucial role. These institutions are instrumental in providing assistance to poor countries in their pursuit of development. However, a key issue to be noted is that support for climate change adaptation and mitigation is qualitatively different from assistance for development. Therefore, the summit will look into the role of multilateral institutions in ensuring that the vulnerable countries are able to meet the challenges of climate change as well as their development requirements.

Overall, by bringing together important players and focusing on essential building blocks, the summit will aim at identifying key challenges and opportunities resulting due to climate change, the global responses required and actions that enhance financial resources and technology transfer. The summit will highlight the urgency with which the world leaders need to handle this issue both at the national and international levels and strengthen global and regional cooperation for both adapting to and mitigating climate change.

## Day 1: Thursday, 5 February 2009

### Inaugural session

**Expectations of DSDS 2009:** to foster a spirit of understanding and cooperation among nations with a focus on equity and ethical dimensions of climate change

Climate change impacts are being widely felt across the globe and the need of the hour is to act to minimize the damage. TERI over the years has been playing an active role in identifying problems and finding solutions for sustainable development.

Climate change is looming above existing environmental concerns and exacerbating them. Between 1970 and 2004, global GHG (greenhouse gas) emissions have risen by 70% (CO<sub>2</sub> emissions by 80%). There is a growing awareness that anthropogenic warming could lead to several abrupt and irreversible impacts, which can alter the geography of this planet and the spread of human habitation. Though the scientific evidence of climate change is now stronger and more compelling, there is a steady shift in approach that essentially marks 'do nothing' positions by countries. In this context, an articulation of what would represent dangerous anthropogenic interference with climate systems is an imperative for a shared vision on climate change. Such an articulation would need to take into account not just the average impacts but rather what would be dangerous for most vulnerable communities.

Further progress by developing countries towards attaining the Millennium Development Goals is threatened by problems such as economic recession, volatile energy prices, and food security, all of which are accentuated by climate change. It needs to be ensured that the current financial recession is not used as an excuse to renege on climate change commitments. Climate change initiatives would have to be financed through new funds rather than the already scarce development assistance.

While the framework was prepared at Bali, first steps were taken at Poznan in terms of arriving at actions. The global community is looking towards Copenhagen to frame a comprehensive, ratifiable agreement to combat climate change. There remain three political challenges for Copenhagen: (1) Securing the commitment of developed countries in setting ambitious mid-term targets with credible baselines; (2) addressing the mitigation and adaptation needs of developing countries; and (3) joint action by governments and the United Nations in developing credible solutions.



Mr Pranab Mukherjee, Hon'ble Minister for External Affairs, Ministry of External Affairs, Government of India, inaugurating DSDS 2009.

**C**limate change is indeed a threat but it also presents a unique opportunity to work together.

**Mr Pranab Mukherjee**  
Hon'ble Minister for External Affairs, Ministry of External Affairs, Government of India



Inaugural session in progress

Transitions to low-carbon economies and adapting to the inevitability of climate change, both call for financial and technological resources. The United Nations has been playing a unique role in addressing the climate change problem and will increasingly work closely with national governments in arriving at credible solutions. Several countries have shown determination towards green growth. While recognizing the need for global action and the criticality of recognizing common-but-differentiated responsibilities and

response capabilities, India has also taken concrete steps as outlined in its National Action Plan on Climate Change. The action plan envisages eight missions, which provide a roadmap for a greener and resource-efficient future.

With unexpectedly low costs of mitigation and huge co-benefits associated with it, if we remove barriers in implementation in several cases, mitigation can be achieved at negative cost. We cannot escape the responsibility for action since the cost of inaction is too high to ignore.

Science cannot provide answers to what is dangerous but science has provided solutions to many aspects of climate change.

**Dr R K Pachauri**

Director-General, TERI and Chairman, IPCC



## THE SUSTAINABLE DEVELOPMENT LEADERSHIP AWARD

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



The Fifth Sustainable Development Leadership Award was presented to HE Mr Ban Ki-moon, Secretary-General, United Nations. The award was presented by Mr Pranab Mukherjee, Hon'ble Minister of External Affairs, Ministry of External Affairs, Government of India

## Leadership panel

The focus of the Leadership Panel was to identify hurdles and issues that may impede the process of reaching a consensus at Copenhagen. The session recognized that in the next eight to nine months, leaders need to focus on agreeing to common targets, solutions, and firm commitments for achieving success at Copenhagen.

The panel was of the view that while all countries will be affected by climate change, those who have contributed the least would be the most vulnerable. These vulnerable nations lack required resources to deal with these issues. In this context, technology transfer and availability of adequate financial resources especially in the wake of the current financial and economic crisis were identified as the most crucial responsibilities of the international community. One of the suggested solutions was to encourage carbon trading, which is expected to stimulate investments and transfer of funds and technology. This would not only help in addressing climate change but also in eradicating poverty. One of the panellists also stressed upon the important role of developing countries in the climate change debate. Another option that can be considered at Copenhagen is the implementation of 'polluter pays' principle, where countries accounting for larger share of emission pay for the damages caused.

Three crunch issues that need to be addressed by political leaders of the developing world include: (a) determination of mid-term targets and defining scope of mitigation strategies; (b) greater clarity on the role of developed countries to provide financial and technical support to developing member countries; and (c) channelizing support through financial markets. Panellists stressed that political leaders should look beyond national territories and demonstrate leadership at



Leadership panel in progress

**F** Deserts are spreading, water scarcity is increasing, tropical forests are shrinking—climate change is looming large.

HE Mr Ban Ki-moon  
Secretary-General, United Nations



HE Mr Anote Tong



HE Mr Meles Zenawi



HE Ms Tarja Halonen



HE Mr Moritz Leuenberger



HE Mr Ban Ki-moon

HRH Princess Maha Chakri  
Sirindhorn

a global level. While developed countries have a greater responsibility in these efforts, the need of the hour is to identify and work towards a common target with everyone on board.

Equal focus needs to be given to both mitigation and adaptation options to provide sustainable solutions to climate change for all affected. For instance, small island states, which are facing major repercussions due to climate change, have limited room for adaptation strategies including relocation. Here, the role of the international community is immense and the community needs to identify sustainable solutions since this is about human survival and not just economic growth.

The objective of Copenhagen is to find solutions that also address and internalize the social aspects of climate change. The most vulnerable section is the population in Africa and they need to be involved in the negotiation process. It is seen that political leaders in the west are primarily bound by electoral demands and pressure exerted by countries from outside. What is important is to notice that regions like Africa get sidelined in this process as their role in the global economic development and negotiation process is limited.

Leaders need to work together to prepare plans and proposals focusing on both mitigation and adaptation strategies, as well as implement these to achieve sustainable development across the globe. While the developing world can prepare these plans, the developed world needs to come forward with the requisite

technical and financial resources to achieve this. Success at Copenhagen requires innovative solutions leading to a clean revolution and green growth in the future. This can be achieved only when both private sector involvement and political leadership complement each other. This becomes further important, especially in wake of the current financial crisis being faced by the world at large.

Every country in the world has a right to development and economic growth for a better future. This requires economic growth

HE M r Maumoon Abdul  
Gayoom

**The international community cannot afford not to take action. It is about human survival and not economic growth. If we do not go to Copenhagen with a feeling of sacrifice, nothing will happen.**

**HE Mr Anote Tong**  
President of the Republic of Kiribati

and carbon growth to be decoupled. Development of CCS (carbon capture and sequestration) technology is not an alternative to investment in renewable energy. It was suggested that CCS and forestation should be included in the Copenhagen negotiations. The panel also emphasized that government, business, and grass-roots organizations need to work together to create partnerships and awareness. Business leaders hold the key to make a difference. Their contribution can be in two ways: (a) in technology transfer and actual implementation of clean technologies, and (b) involving the grass-roots organizations in this process. Education, innovation, and cooperation are the key areas where the private sector has an important role to play.

It was recognized that climate change has gender issues attached to it. Women in developing countries need to be empowered for tackling climate concerns. They can in fact be the champions in this campaign and while their contribution may not be visible, it is a very important way of contribution through a number of small initiatives. The media provides an important link between the public and the parliamentarians and has a key role in creating awareness about climate related risks. The public in general is aware of the issues. The moot point is to involve them in the process and educate them on their specific role and contribution in meeting the climate change challenge.

## Ministerial session I: Innovative policies and technologies

This session revolved around the nature and availability of low-carbon technologies; the role of policy in promoting them; their replicability internationally; barriers, if any, preventing technology transfer; and the ideal modality of delivery of these technologies.

Almost everywhere there are location-specific examples of efficient technologies being developed and implemented. Technologies adopted in several countries represented on the panel include efficient nuclear power plants, waste recycling, and a 'green tax system' to accelerate investments in industries producing hybrid and electric cars, efficient fuel cells, cleaner oil production processes, and green building codes. The linkage between regulatory reform and energy conservation is highlighted by the example of the state of California in the US, where rate regulators penalize excessive energy use and reward greater investment in energy efficiency.

Thus, technologies exist and are not necessarily expensive but many countries lack the incentives to get them implemented. National policies have to be restructured so that economies will not only encourage the implementation



Ministerial session I in progress



Mr Wolfgang Hahn

of existing carbon-efficient technologies but also the development of alternative ones such as those relying on solar, wind, biomass, and hydraulic energy.

The issue of whether or not emissions trading should be at the cost of progress in developing nations did not find common ground. On this topic, there was some dissent within the panel about responsibility for international leadership on the issue of adopting carbon-efficient technology. The panellists from India and the UAE argued that developed countries should be ready to transfer technology both reducing the cost of technology and relaxing strictures on IPRs (Intellectual

Property Rights). Both claimed that their respective countries were

environmentally aware and had already committed to specific targets on reducing emissions or developing alternative energy sources. They argued that developing countries must also be compensated for the cost of adaptation to climate change. They stressed that equity among nations was vital on the issue of carbon emission reductions.

Equity was envisaged in terms of financial and technological support from the developed to the developing nations. The adoption of carbon trading mechanisms should not be at the cost of progress in developing nations they said, contending, moreover, that carbon sequestration technology is profoundly in the interest of developed countries to share.

In contrast, the panellists from Norway and Japan said that leadership had to come from both developed and developing nations. They claimed that innovative technologies were not the exclusive domain of the former – for example, Brazil's development of biofuels – and that the future belongs to the developing world. Thus, developing countries too need to make a more concrete consensus to meet the mid-term target.

Mr William K Reilly made an interesting but less apparent point that even within nations, there may be a lack of consensus about a national target for carbon emissions reduction, which in turn would impede any definite outcome at Copenhagen. Mr Wolfgang Hahn added that IPR should not be a constraint to moving forward quickly. He maintained that since targets are, in fact, achievable, what is needed is pragmatic cooperation between developed and developing countries.

On the issue of whether the state or markets should deliver on efficient technology, too, there was a divide, with some panellists arguing that the market was the more



Mr William K Reilly

**Leadership has to come from both the developed and developing nations.**

**Ms Yuriko Koike**  
Member of the House of Representatives  
of Japan



Ms Yuriko Koike

efficient and practical mechanism of delivery. Those opposed to this view asserted that the public sector should play an active role in technology development since it involved large investments and long gestation periods. Others argued that it was the private sector that was taking a lead in this area and that there are limits to what any government can do. A government can facilitate affairs by promulgating strong policies and regulating the market but it ultimately depends on the private sector to develop efficient technologies. According to them, therefore, PPPs (public-private partnerships) may be the answer.



Mr Namu Narain Meena

Panellists believed that stricter and better regulation of the nascent carbon market is needed. There should be a gradual increase in carbon prices in order to ward off excessive volatility. The current economic crisis should be seen as an opportunity, which allows the development of carbon-saving measures and interventions. Given that we are now in the process of creating a carbon market, it should be based on verifiable and measurable data. These data should be backed by strong public policies about greenhouse gas emissions.



Dr Rashid Ahmad

To sum up, there was general agreement that key technologies and practices for low-carbon pathways are already being applied in several countries—developing and developed. However, the problem in replicating them elsewhere is due to the fact that there are few, if any, incentives for their adoption. Moreover, creating awareness about the need for such technologies and disseminating them through international platforms are important for some innovative technologies. On the issue of who should drive such technology development, there was no contradiction of the view that governments need to create a favourable policy environment while the private sector takes responsibility for R&D activities. Carbon market regulation was also stressed.

However, there was far less concurrence on the issue of whether governments of developed countries are obliged to pay developing countries for technology transfer. Those against argued that the IPRs for these technologies are often held in the independent private sector of developed nations rather than by their governments; that R&D for new technologies was happening in developing countries as



Mr Erik Solheim

Since targets are really achievable, what is needed is pragmatic cooperation between developed and developing countries.

**Mr Wolfgang Hahn**  
Director General, Federal Ministry of Transport, Building and Urban Affairs, Germany

well; that available technologies were often quite affordable; and that all countries – especially some large and growing ones – need to reduce emissions without setting any preconditions. Those in favour of such a move argued that they were already doing all they could to reduce emissions and that any further reductions would only occur if they were extended financial assistance (for technology transfer) by developed countries, whom they held responsible for the greater part of climate change that has already occurred. They were firm in their conviction that global concerns of climate change should not impede their own continued growth. This, they argued, would smack of international double standards, with different measures of progress for developed vis-à-vis developing countries. Hence, the session was inconclusive about one of the fundamental but highly charged issues in climate change negotiations.

## Business as a stakeholder



The focus of the session was to identify best practices and the way forward for the participation of the business community in tackling the crisis of climate change, more so in the context of the current economic downturn. At the onset of the discussions, the panellists discussed whether the business community should be considered as a stakeholder or as a solution provider. While the panellists agreed to the fact that climate change is a definite opportunity, it was pointed out that the current financial

meltdown exposed the lack of ability to forecast and this in turn may leave people reluctant to take risks.

With regard to the need for developing partnerships, it was emphasized that not just the government and businesses, but also the civil society will play an important role, with its ability to reach the grass-roots level. Various initiatives by the corporate sector were cited in this regard. It was pointed out that partnership between the government and industry should enable, educate, and appreciate both parties on their respective strengths.



Mr Philippe Forestier



Mr Tapani Järvinen



Ms Tomoyo Nonaka



Mr Björn Stigson



Mr Michael P Schulhof

Mr Veli Sundback

Mr Howard Bamsey

Ms Naina Lal Kidwai

Regarding the role of the government, it was emphasized that the government with its existing strengths, for example research and development, should be treated as a partner and that it should frame policies to encourage innovation. It was pointed out that green consumerism is directly related to economics and the government has an important role to play. The panellists agreed that venture capital holds huge opportunity in the near future. As a way forward strategy for the business community, it was mentioned that businesses should develop solutions for climate change that has the outreach and is affordable as in the case of the telecom sector's success in India.

### The global challenge



Video message: HE Mr Tony Blair

The poor and the vulnerable are already feeling the heat of climate change. We are in the middle of complex negotiations and a financial crisis, and need to find a solution that will not only cut emissions but also kick-start a new low-carbon economy. Mr Tony Blair stressed that the least expected outcome from Copenhagen is a mutually agreed shared vision to reduce emissions, which will require setting long-term target and binding milestones.

Finance and investment from the developed world will help spark innovations thereby leading to sustainable development. A mechanism needs to be developed to promote adoption of clean technologies. There is a need to reduce conflict for limited energy resources, and create institutions to build trust and ensure that financial resources are spent wisely.

Mr Yvo de Boer urged humanity to deal decisively with climate change so as to avoid climate chaos. This year has been termed as the 'year of climate change' by the Secretary-General of United Nations. This itself highlights the level of importance being given to the issue. In order to tackle climate change, it is imperative that in 2050, global emissions are 50% below the 2000 levels. The industrialized nations need to ensure 80% reduction in their emissions for the same timeline. Global emissions need to reduce in the next 10–15 years.

The poor and the vulnerable are already feeling the heat of climate change. There is a need to reduce conflict for limited energy resources, and create institutions to build trust and ensure that financial resources are spent wisely.

HE Mr Tony Blair  
Former Prime Minister of the United Kingdom



Mr Yvo de Boer

Climate change needs urgent action, and reaching a political solution is critical particularly for the vulnerable people who lack adaptive capability. The BAP (Bali Action Plan) provided a plan of action and Poznan did what it was meant to—operationalization of adaptation fund, intensification of negotiation schedule in 2009, and taking steps towards improvement of CDM (Clean Development Mechanism). However, there was no major

political outcome and thus, the expectations from Copenhagen are much higher. At Copenhagen, he said, the stakes are high, but the price to pay for failure is higher still. The Copenhagen meeting must provide a long-term policy framework for businesses and investors. Mr Boer was optimistic that linking economic recovery to ambitious climate change policies will help in seizing the opportunity being provided by the current financial meltdown. Some countries have already given indications that they want to go green while meeting this challenge.

This provides signs that countries are ready to act, strengthening the possibility of a global green revolution. The EU and US are already looking to bring down emissions to 1990 levels by 2020. A number of other developed countries too are working towards reduction targets. Economic growth and mitigation, he emphasized, need to be seen as mutually reinforcing objectives, and the synergies evident here need to be harnessed at Copenhagen. Green infrastructure investments can help in creating jobs and promoting growth. No economy can thrive by trying to be exclusive in a globalized world. However, even in this crisis, developing countries' aims of poverty eradication and economic growth are very much relevant and demand action. It is, therefore, important that Copenhagen turns developing country mitigation actions into something that both serves and boosts their economic development goals.

Mr Boer stressed that ways and means to make MRV (measurable, reportable, verifiable) support for nationally appropriate mitigation actions compatible and in consonance with economic growth in developing countries should be identified. He called upon the global community to ensure that 'nationally appropriate mitigation action serves broader development goals on the one hand and that development goals serve climate change abatement on the other'. He called upon the world political leadership to rise to the occasion and provide the leadership expected from them. It is rare, he said, that necessity and opportunity come hand in hand demanding immediate action—and it is here that the real leaders will rise to the occasion.

The current carbon markets, he added, are a first step towards providing support to low-carbon growth. India has taken to the CDM with enthusiasm and has benefited in terms of technology transfer. He said that a mix of financial instruments is required to further this objective. Due to financial crisis, it is difficult to raise money and therefore it is important to generate money from within the

**It is rare that necessity and opportunity come hand in hand demanding immediate action. And it is here that the real leaders will rise to the occasion.**

**Mr Yvo de Boer**

Executive Secretary, UNFCCC, Germany

process. Actions at the local level are essential in addressing the problem of climate change but it is disappointing to note that local-level action is limited to the US. CDM has been a tremendous success but it can be improved substantially in order to design a process that is less bureaucratic and more flexible.

## The Asian challenge

Just as the World Economic Forum at Davos witnessed an unprecedented collective effort, similarly the DSDS (Delhi Sustainable Development Summit) is an important platform in developing collective actions leading to Copenhagen. Asia has had a spectacular economic growth in the last few decades and has resulted in lifting millions out of poverty. However, this has resulted in the fast expansion of Asia's contribution to GHG (greenhouse gas) emissions.

There are three priority sectors for urgent action in Asia namely energy, cities, and water. There is a need to focus on energy efficiency, exploring clean coal technologies, and renewable energy options. This search for alternatives should not be affected by the recent worldwide fall in oil prices, which is more of a temporary phenomenon. Cities are the hub of major GHG emissions and also vulnerable in terms of impacts of climate change. Within cities, transport and buildings are two major areas of intervention. There is a need to develop an efficient public transport system as well as energy-efficient buildings. Like other parts of the world, Asia also needs to focus on adaptation strategies along with the mitigation efforts.

The coastal Asian cities will face major problem due to sea-level rise as most of the infrastructure and livelihood of the communities will be affected and hence there will be a need for adaptation strategies for the coastal areas. Agriculture in Asia will be affected by climate change in terms of reduced productivity and food security. There is a need to focus research on new crop strains, which are drought and salinity resistant.

To strengthen policy efforts, many developing countries in Asia have prepared a national action plan for climate change. Mr Kuroda complemented the initiative taken by the Government of India to prepare the NAPCC (National Action Plan on Climate Change) and mentioned that the eight missions identified by the plan focus on long-term and integrated strategies to achieve key national goals from the climate change perspective. Asia's participation in the global carbon market is critical in attracting private sector funding for carrying out such national level action plans. Efforts should also be made to facilitate transfer of technology to Asia given its record of reducing cost of technology from which the world can benefit.



Mr Haruhiko Kuroda

Asia has the responsibility to grow sustainably and it has to face this challenge by establishing the global partnerships within the CBDR (common but differentiated responsibility) framework.

**Mr Haruhiko Kuroda**  
President & Chairperson, Board of Directors,  
Asian Development Bank, The Philippines

The ADB (Asian Development Bank) is committed to promote low-carbon growth in Asia by providing financial and technical assistance to its member countries. It was announced that a grant of \$100 000 will be provided for promoting the efforts of TERI's Lighting a Billion Lives Campaign. Asia must continue to grow and free itself from poverty. But Asia has the responsibility to grow sustainably and has to face this challenge by establishing the global partnerships within the CBDR (Common But Differentiated Responsibility) framework. The ADB board has asked member countries to consider the proposal to increase capital base by 200%, as there will be more focus on financing the climate change activities.

## Strengthening partnerships

Global climate change waits for no one and respects no border and we cannot solve this crisis without the committed participation of every nation in the world.

**Mr John Kerry**

United States Senator from Massachusetts



Live video message: Mr John Kerry

Through a video address, Senator John Kerry discussed the issue of climate change from a global perspective. He felt that growth opportunity and development have to be achieved in a sustainable manner. In this context, the opportunities before India are huge with the rich expertise and technologies available in resolving the issue.

HRH Princess Haya Bint Al Hussein highlighted that the world is going through a period of rapid and totally unexpected changes, as there has been negligence in the protection of the environment and its sustainability. There is a need for evaluation and justified use of natural resources. The challenges for reaching an equitable and ethical deal in Copenhagen seem quite daunting and the leaders of the world must rise in meeting this challenge.

HRH Princess Haya Bint Al Hussein highlighted that the world is going through a period of rapid and totally unexpected changes, as



Video message: HRH Princess Haya Bint Al Hussein

## Dinner session

The dinner session saw an enthralling performance by Ustad Zakir Hussain, a world-renowned Tabla maestro and Grammy award winner along with Mr Taufiq Qureshi,



Niladri Kumar



Zakir Hussain



Taufiq Qureshi

an ace percussionist and Mr Niladri Kumar, a young sitar virtuoso. After an hour-long performance, bouquet of flowers and TERI's solar lanterns were presented to all the musicians. This was followed by the Green Globe Foundation's Award ceremony.

The Green Globe Foundation is an initiative of Wizcraft International Entertainment dedicated to the cause of environment and has partnered with UNEP (United Nations Environment Programme), TERI (The Energy Resources Institute), and Live Earth to strengthen its commitment towards addressing the issue of climate change. Mr Sabbas Joseph, Director, Green Globe Foundation and Wizcraft thanked Dr R K Pachauri and TERI for their guidance and sharing knowledge on climate change. He acknowledged several measures that are being jointly taken by TERI, Green Globe Foundation, and NDTV such as the Greenathon and LaBL. A small film was shown where leading stars from the film fraternity spoke on climate change.

Four awards were given under the following categories.

- a) **Youth** The award was given to Mr Arjun Mahalingam for being the best speaker at the YUVA Meet on Climate Change special event.
- b) **Design and Architecture** The award was presented to Mr Karan Grover, Architect, Karan Grover and Associates.
- c) **Business Enterprise** The award was presented to Ms Naina Lal Kidwai, Group General Manager and Country Head, HSBC India.
- d) **Media** The award was presented to Darryl D'Monte, Chair, Forum of Environmental Journalists of India.



Mr Arjun Mahalingam receiving the award for the best speaker at the YUVA Meet on Climate Change special event



Mr Karan Grover, Architect, Karan Grover and Associates receiving the award for Design and Architecture



Ms Naina Lal Kidwai, Group General Manager and Country Head, HSBC India receiving the award for Business Enterprise



Mr Darryl D'Monte, Chair, Forum of Environmental Journalists of India receiving the award for Media

## Day 2: Friday, 6 February 2009

### The Challenge in Africa: climate change and its humanitarian dimensions



Mr Nik Gowing, initiating the discussion

Natural disasters like floods and droughts exacerbated by climate change can affect the vulnerable countries of Africa. The success of the Copenhagen meeting lies in a joint effective participation by the African countries. Countries in Africa are taking action to address climate change issues through a national strategy for sustainable development. In countries like Mozambique, a national action plan has been formulated that deals

with coastal zone management in order to tackle the colossal impacts of climate change. These impacts would largely be felt in most of the African countries. Adaptation to tackle the impacts of climate change in Africa can be achieved only through mobilization of financial resources, development of environmental infrastructure like dams, and implementation of measures to tackle the adverse effects of climate change on health through diseases like cholera and diarrhoea.



Mr Sani Mahazou

Mitigation measures in the African context would require simplified CDM (Clean Development Mechanism), larger South-South cooperation in technology transfer, integrated strategy of cooperation between countries of the South, and improvement in agricultural productivity. Improvement in agricultural productivity is a key issue in countries like Niger where land degradation, soil productivity loss, and erosion has taken place. Also, the water in Lake Chad in Niger has dried up due to climate change. This has also affected the agricultural productivity and water availability. Any reduction in agricultural productivity affects the livelihoods of small-scale marginal farmers who are mostly dependent on rain-fed agriculture.



Mr Abdoulie Janneh

In addition to loss in agricultural productivity, deforestation is also a major problem in African countries. Extreme weather conditions in the form of erratic temperatures have affected most of the African countries. Along with this,

The key strategic area for addressing developmental goals and climate change concerns in Africa is agriculture and the future of agriculture in Africa lies in giving support to small farmers.

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



Dr Allassane BA

climate change has also affected pasturelands and has created inter-community conflicts in places like Niger. Absence of proper institutional and legal rights to natural resources has further exacerbated this issue. Climate change has significantly affected biodiversity across Africa. This has in turn affected the livelihoods and GDP and resulted in large-scale migration within Africa. Since many small marginal farmers are women, the impact of climate change has been

felt primarily by them. This has also resulted in gender inequity.

In order to tackle issues with biodiversity, plantation programmes have been carried out. Countries like Niger and Senegal have begun large tree plantation programmes as part of their national action plans. However, faster implementation of these action plans would need a change in the attitude of stakeholders towards the problem of climate change. This would help in larger mobilization and channelization of the promised funds for Africa from developed countries, as most of the promised funds have not been directed to Africa. Such mobilization of funds has to be complemented



Mr Stanislas Kamanzi

by transfer of renewable energy and other relevant technologies that could help in mitigating climate change. Mitigation of carbon emissions also has to be channelled through an effective, efficient carbon-trading framework. Niger has already implemented a carbon programme, supported by the World Bank, to develop an efficient carbon-trading framework. Many rural communities are already participating in the programme. Thus, there is a sense of optimism towards tackling the impacts of climate change in Africa.



Dr Alcinda Antonio de Abreu

In addition to this, there is still a need to address the impacts of climate change in Africa through action plans and programmes by creating synergies between stakeholders. Such a synergy would help in putting a united voice for developing countries of Africa in the upcoming Copenhagen meeting by developing a common vision and goal.

## Multilateral institutions

The focus of the session was on the role of multilateral institutions in light of the expected outcome from Copenhagen. Multilateral institutions assume critical importance because they create crucial frameworks for mediation and help arrive

**M**ali has already brought out a national plan to create synergy between stakeholders to address the effects of climate change on agriculture, biodiversity loss, and water scarcity.

Dr Allassane BA  
Juriste de l'Environnement, Mali



Session in progress

at a common system of governance. Multilateral institutions help in promoting science and its findings. They ensure that the coordinated, compromised, and acceptable actions become more possible. They also provide a platform to unheard voices in the room. To achieve the same, it is important to arrive at a global governance system for which time is already running out. The recent development of close to 500

multilateral agreements has further worsened the situation by creating confusion due to number of voices and their failure to address the core issues.

It was felt that science has always been at the forefront of any change and can be successful if supported by effective policy-making. Thus, there is a need to develop policies that are science based. The United Nations is committed towards a better scientific understanding of issues and dissemination of information related to climate change. Without coming to a concrete agreement, the debate in Poznan shifted to discussion on the type of financial structure



Ms Monique Barbut

Multilateral institutions help to promote science and its findings. They ensure that the coordinated, compromised, and acceptable actions become more possible. They also provide platform to unheard voices in the room.

**Mr Achim Steiner**  
United Nations Under-Secretary-General  
and Executive Director, United Nations  
Environment Programme, Kenya

to combat climate change, which the panel found hard to digest. Without commitment there is always a threat that we will go back to old resources, which cannot raise the necessary financial support. It was suggested that parallel approaches are needed for mitigation and adaptation. Ms Monique Barbut felt strongly that since developed countries are entirely responsible for climate change they were also duty bound to compensate the



Mr Karl Falkenberg

developing countries for the losses and pay for the costs of mitigation.

Comparable efforts in terms of targets and finance are expected from other developed countries like Russia and the US. Carbon trade markets would add to revenues substantially. Also, specific actions are desired by developing countries as it is in their own interest. Greening the economy could lead to increases in



Mr Abdoulie Janneh



Mr Nitin Desai



Mr Achim Steiner



Mr Kamalesh Sharma

employment and hence economic growth. Since the issue is of absolute global relevance, efforts could be redirected from blame game to positive and prompt action from all the concerned stakeholders.

New sources of funding need to be leveraged so that climate change issues can be tackled in a less restricted framework. Various agencies have come together in Africa to make information readily available for informed decision-making. It was generally felt that increasing focus on countries facing dual threat from climate change and poverty would be important. However, it was also felt that topics such as biodiversity loss, combating desertification, and waste management should not lose attention and climate change should not be singled out across the agendas. The issue of money has become a kind of fixation at the cost of a more appropriate vision for the future. Copenhagen is so crucial that if talks fail due to the effects of the current short-term economic crisis, it would not find justifiable grounds and that would indeed be sad.

### View from Copenhagen: keynote address

This session was moderated by Mr Rachmat Witoelar, State Minister for Environment, Government of Indonesia, who commented on the Bali Road Map and said that it was only a wish list without any timeline. He observed that Bali was difficult but Copenhagen will be much more difficult and more economies should realize this. Ms Connie Hedegaard, Minister for Climate Change and Energy, Denmark delivered the keynote address. She began the address by highlighting the need to act urgently in the coming 10 months. She said that the 'last mile lies before us in international negotiations' and that there is a need for countries and parties to be flexible. She reiterated the fact that each of us has the responsibility to act on our own. However, different countries have different roles and responsibilities. Industrialized countries must take strong actions but the fight can be successful only if the developing countries also act.



HE Ms Connie Hedegaard

**A**ction starts from you and your home and your country. We need audacity to make tough choices.

**HE Ms Connie Hedegaard**  
Minister for Climate and Energy, Denmark

She felt that from an era of rhetoric and talking in conferences, we have to move to an era of action emanating from mutual goodwill and respect. There is less than a year to fulfill our responsibilities as world leaders. Although all stakeholders, including academia, business, and civil society are important, the choices to be made and deals to be done ultimately are a question of political will.

## To Copenhagen with ethics and equity

The ongoing negotiation process is in trouble, as the agreed fundamental principles of the Framework Convention on Climate Change and the Bali Action Plan are not being respected. A conclusion cannot be expected from Copenhagen if the ethical issues are not addressed



Ambassador Walter Fust speaking at the session

properly. Responding to his concerns, Prof. Hans Joachim Schellnhuber proposed three fundamental principles necessary for an ethical and equitable climate change regime, namely, a) global emission reduction target, b) equal per capita emission rights, and c) international emissions trading. He noted that while a large number of developing countries are yet below the target level of two tonne of per capita emission in 2050, developed countries have already overdrawn their entitlements. Referring to the Angela-Manmohan Singh Meeting in 2007, he appreciated the promise made by the Indian Prime Minister that its per capita emission will never reach that of the developed world.



Mr Carlos Pascual

Ambassador Walter Fust suggested two principles that can

be followed to reach an ethical and equitable framework: (a) take responsibility; and (b) act to capability. He justified his argument by stressing upon the unequal burden of climate change due to development of last decades on the poor people who made no contribution to the problem. A theory that came up was that 40% of the global emissions could be reduced by implementing six simple policies (for example, energy-efficient cars and building codes) worldwide, most of which are free of any additional costs. There are some other policies also, which can be



Mr Yvo de Boer

Even though the principle of common but differentiated responsibility is an agreed principle, if developing and emerging countries replicate the experience of developed countries, we will follow a path of mutual self-destruction.

**Mr Carlos Pascual**  
Vice President and Director of Foreign Policy,  
Brookings Institution Press, USA



Prof. Hans Joachim Schellnhuber

implemented with marginal additional costs. He strongly recommended that all countries first implement these policies before negotiating on a global framework to address climate change. He brought to the focus the examples of French cars, Swedish houses, and Japanese manufacturing practices.

Professor Trevor Davies stressed on the need to develop a framework for assessing not only the feasibility of such plans but also the larger ethical and equity concerns. Mr Uday Khemka took the discussion to a different level by posing a question: how would Gandhi

have reacted to the issue of climate change? Drawing insights from

Gandhi's passionate adherence to justice and face the inconvenient truth head on, he made an appeal to shed fear and be wisely trustful towards the international community. In his opinion, the barrier in dealing with climate change is not the lack of finance or technology but it is a matter of conscience.

Mr Vikram Mehta made a strong case for providing energy to 600 million people in India who do not get the basic minimum, suggesting that this supply need not come from fossil fuels. He recommended that countries take pragmatic first steps without losing sight of the long-term perspective. Highlighting the fact that just five countries account for 80% of global coal use to generate electricity, he argued that an arrangement among these countries to reduce emissions is desirable where technology transfer can be an important component. He suggested that along with taking advantage of CDM, there is an urgent need to look at pricing, regulatory, and fiscal issues.



Prof. Trevor Davies

Mr Carlos Pascual argued that even though the principle of common but differentiated responsibility is an agreed principle, if

developing and emerging countries replicate the experience of developed countries, we will follow a path of mutual self-destruction. He also argued that investment in developing countries will be more efficient in terms of reducing emissions. Such measures will also protect the developing countries from fossil fuel vulnerabilities. He asked for a change in the development paradigm. He suggested that there was an urgent need to avoid clash on the issue and work out a mechanism for provisions of finance and technology to deal with climate change. He also suggested that if countries are not

able to decide on country-specific targets, some global target must be agreed upon and the associated investment required to reach that target should be made on the principle of marginal costs of reducing emissions.



Prof Petteri Taalas

**The most robust equity principle is to have equal per capita emission rights.**

**Prof. Hans Joachim Schellnhuber**  
Director, Potsdam Institute for Climate Impact Research, Germany



Ambassador Walter Fust



Mr Hal Harvey



Mr Uday H Khemka

**Nature is adapting.  
Nature has no  
consciousness. But  
humans do and we need  
to think consciously.**

**Ambassador Walter Fust**  
 CEO/Director General, Global Humanitarian  
 Forum, Geneva

It was strongly recommended that a small representative group of countries get together, informally, to agree upon the principles on which a larger consensus can be reached later. At a larger level, climate change is a question of civilizational ethos, a question of need versus greed. Since the impacts of climate change are not going to be equally distributed geographically, the issues of ethics and equity become all the more important.

Another concern was raised about the fact that countries are talking in terms of reduction of carbon emissions. However, a large part of the greenhouse gases emitted is non-CO<sub>2</sub> which should get more attention. Besides this, the global discourse on climate change is highly biased in favour of mitigation and the question of adaptation does not get the attention it deserves. Incidentally, the adaptation costs are going to be higher for the poorer countries not only in relative terms but also in absolute sense. The Indian proposal of climate insurance for all was highlighted in this context. It was also suggested that such insurance would be both ethical and equitable.



Mr Vikram Singh Mehta

## Ministerial Session II: Building a new spirit of cooperation

Ministerial session II in progress



This session witnessed a thought-provoking discussion on the politics of global cooperation in combating climate change. The session started with a discussion on whether a spirit of cooperation already exists and whether it is time now to move towards an international consensus.

At the outset, shared vision, understanding, and trust were identified as the three defining pillars of the new spirit of cooperation, with the vision guided by the scientific understanding



Mr Dasho Paljor J Dorji



Mr Martin Bursik



Mr Maged George Elias Ghattas

provided by the IPCC (Intergovernmental Panel on Climate Change) and the trust based on new legal instruments. There is a need for a shared vision based on the tenets of common but differentiated responsibility, and the polluter pays principle, with resultant strengthening of financial instruments. Issues of food security are



Mr Lars Peder Brekk

typically under-represented in climate change discussions. It is important that these issues are looked into especially in the face of growing population and the need to grow more food. While Bhutan has set several environmental benchmarks for the world to follow, the country's voices would be heard (in climate change discussions) only when there is international action.

National parliaments have to agree with the goals of the negotiation so that a domestic consensus is built up. In Switzerland, it is often domestically argued that being a small country, why is it that it must take the first step (in reducing emissions). He proposed a carbon dioxide tax that would depend on carbon dioxide emissions rather than the economic status of a country. Besides, the media also has an important role in creating awareness among all the stakeholders, specially the investors and the common citizens.

Speakers viewed the current global financial crisis as an opportunity to reform the present economic development model and develop new and radical ideas, while strengthening the spirit of cooperation. Indeed, a recovery plan (from the financial crisis) has to build in energy efficiency, investments in renewable energy, and creation of green jobs. In this context, the need for transfer of technology for climate change mitigation/



Mr Paavo Vayrynen

Countries like Bhutan and all are at the other end of the stick. We are countries affected by climate change and we look towards all the major developing countries, especially the big industrialized countries to do something about it so that we do not have to suffer for their actions.

Mr Dasho Paljor J Dorji  
Advisor - National Environment Commission,  
Government of Bhutan



Mr Staffan Tillander

**We have to find the ways forward where we can work together and find the mechanisms through which we can cooperate and tackle the problem of climate change.**

**Mr Staffan Tillander**

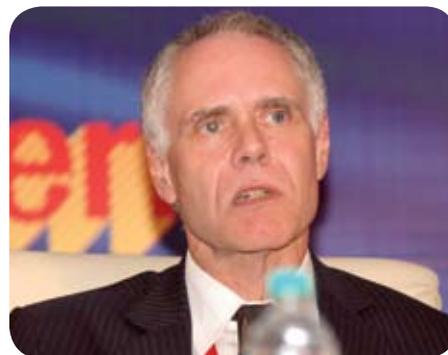
Ambassador on Climate Change, Ministry for the Environment, Sweden

adaptation and the necessity of inclusion of environmental dimensions in all development policies were strongly felt. At the same time, it was felt that many European countries were themselves facing domestic difficulties and thus, it was all the more important to have a transparent mechanism to track spending public money.

Several speakers felt a need for cooperation among ministers of environment and finance/economics towards creating a negotiated consensus on more carbon-efficient economies. A need to integrate climate change and development finance, resulting in stronger financial transfers to developing countries, was expressed. The necessity to build ecological considerations and development policy was also expressed. The political leaders indeed have to sell these deals to the people.

The necessity of including critical social and economic issues (such as food security and livelihood issues) within the ambit of climate change negotiations was emphasized. For example, there was a need to provide dignified livelihoods to low-carbon communities such as forest dwellers so that they are not induced to migrate to polluting zones such as urban slums. The necessity to build these into regional policies was noted. A need was also felt to have a single unified United

Nations at the country and headquarter level (or an empowered environmental body like the United Nations) with possibly a council dealing with economic and sustainable development issues on the lines of the United Nations Security Council.



Mr Moritz Leuenberger

## Nobel Laureates' keynote session

This session explored the type of mechanisms that would be required for effective commitment and agreement, and also delved into the financial challenges on the 'Road to Copenhagen'. A need for an alternative institution was felt, which could implement carbon emission taxation and/or cap and trade in an equitable and agreeable manner. It was stated that both these measures would increase the price on emission such that economics itself would dictate the movement to green technologies and lifestyles. A development angle could also be brought in wherein developing countries would have higher emission targets as compared to the developed countries. It was recognized that the single biggest hurdle



Live video message:  
Nobel Laureate Mr Kofi Annan

towards a global agreement is the myopic self-interests of countries. All governments need to recognize that all countries are in the problem together and that cooperation is no longer a choice but an imperative.

Climate change is an all-encompassing threat for the world. The poor are especially bearing the brunt of the adverse impacts of climate change as they have less means to adapt and cope. Following the 'polluter pays' principle, those who are polluting the most must pay the cost and that none should be given a free ride. Carbon tax and carbon trading are some of the prominent strategies that can be adopted in this regard. He stressed upon a global fund that would help the poor countries to adapt and transfer green technologies to them. He reiterated the fact that the world cannot afford to fail at the Copenhagen round despite the fact that protectionism within countries as well as the current economic downturn would make the move difficult. In the ensuing discussion, the possibility of institutional changes within UNFCCC was also explored. It was stated by the floor that a more independent and authoritative body than the UNFCCC is required. However, consensus could not be reached on whether the UNFCCC needs to be modified accordingly or if a new organization needs to be put in place.

In the face of the potential threat of climate change, the world is in no position to take chances. There exists uncertainty in the science of temperature rise and emission relationships and there could be chances of reaching the 'tipping level' and/or the 'point of no return' despite best efforts. On the other hand, there may also be the case that despite the increase in emission (in a business-as-usual scenario), there may not be much of an impact on temperature in future.



Nobel Laureate Dr James A Mirrlees

While science may explain the probable impacts of increasing emissions, it is the society that has to take a final decision on whether or not it is prepared to take the risk. From a financial perspective, the burden of taking the necessary measures for stabilization is not much. Approximately, 1%–2% of the world GDP (gross domestic product) would suffice to cover the costs involved. However, since costs for developing countries are



Nobel Laureate Prof. Mario J Molina

**We must assume collective and individual responsibility to protect the climate and manage resources in a sustainable manner. Pollutants must not be given a free ride. They should pay for cleanup and for adaptation.**

**Nobel Laureate Mr Kofi Annan**  
President, Global Humanitarian Forum  
Geneva, Switzerland

not known extensively, specific studies need to be conducted for estimating the amount of transfer. Furthermore, initiatives in addition to the emission pricing, such as transfer of technologies through international collaborations and domestic interventions for energy efficiency need to be undertaken.

Developing countries should play a proactive and important role in the 'Road to Copenhagen'. Mexico has agreed to a 50% reduction in its emission levels by 2050. The success of Montreal Agreement, and its similarity to the Kyoto Protocol, illustrates the possibilities of effective cooperation. The Montreal Protocol serves as an example wherein a global agreement was reached between a large number of countries to solve a similarly major problem. Through common effort by all countries, drastic reduction in CFC levels has been achieved. An interesting concept



Dr Prannoy Roy

of using emissions per capita per income unit as a target measure was also suggested. It was stated that the usage of emission per capita would understate the impact of those countries that are emitting but have a large population, which counterbalances the increase in emissions.

The importance of wide-spectrum policies was also highlighted. He stressed upon an elaborate carbon taxation system in the non-target countries on the lines of developed countries that would be applicable also to the transportation and

animal products sector. Changes in energy consumption patterns would also require changes in the price of carbon. Thus, carbon trading should also be done even if it is highly inclusive and the flow of permits is appropriately low.

Estimates exist about talks on the global impact and global targets. However, the allocation of targets to individual countries is very complex since each country would have to agree to an action that would have an impact on others. If each country chose its own emission targets ignoring the effect on others, there would be very little impact on global warming. The translation of global targets into targets for individual countries needs to be based on a more comprehensive methodology such as a Nash bargaining solution for agreeing upon targets or maximizing sum of discounted GDPs. To make Copenhagen a success, it was deemed necessary to include more countries to lower the target.

## Keynote address

'I have a different approach to solving the current environmental crisis, an alternative approach,' said Thomas L Friedman, Foreign Affairs Columnist, *The New York Times*, USA. Dr R K Pachauri described the session as 'the best for the last'. Mr Friedman described the world as hot, flat, and crowded based on his book. He put forward the five major problems that face the world today, namely, energy and natural resources, petrodicatorship, climate change, energy poverty, and biodiversity

All of you have seen the results from the IPCC that the position of the atmosphere is changing very clearly as a result of human activities and in the next three years the temperature will also change drastically.

**Nobel Laureate Prof. Mario J Molina**  
Institute Professor, Massachusetts Institute of  
Technology, USA

loss. 'What is happening right now is not global warming but global weirding; the weather is getting weirder than we could ever imagine,' said Mr Friedman drawing claps from the appreciative crowd. He also pointed out that more than 1.6 billion people around the world have no access to the electric grid.



Mr Thomas L. Friedman

According to Mr Friedman, there is only one solution to all the five problems—the human race needs to find the most reliable source of non-polluting electrons and molecules. 'We have to create a new ecosystem of innovation,' he explained. Energy technology, he stated is the key to all the current problems. The world has no choice but to go into a second green revolution. Mr Friedman focused on the fact that green will have to become

a habit; the only way the world does business. 'We need 10 million innovators, maybe a green Google and a green Microsoft,' he said. He also emphasized that the climate problem is a problem of scale and we require the right prices on carbon, the right standards, and correct regulation.

### Dinner session: Norwegian nite

In his address, Eric Solheim emphasized on the advantages of using alternative energy sources to bring the dependence on fossil fuels to an end. He reiterated the fact that at the end of the day, the tough, hard decisions will have to be made by North America, Europe, China, and India.



Mr Eric Solheim

Mr Anand Sharma, Hon'ble Minister of State, Ministry of External Affairs, Government of India, emphasized that the most important issues facing the world were food security and climate change. He felt that to view climate change in isolation would be inadequate.



Mr Anand Sharma

**M**other Nature is actually a lot like your body. If your body temperature goes from 98.6 to 100.6 you don't feel so good. And if it goes from a 100.6 to a 102.6, you go to the hospital. So does Mother Nature. Small changes in global average temperature can have huge climate effects.

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

## Day 3: Saturday, 7 February 2009

### Discussions thus far: a summary by Dr R K Pachauri

Dr R K Pachauri highlighted that there was a series of events took place much before the summit started. This included the World CEO Forum where CEOs not only from India but also from several countries in the world participated. The purpose of the forum was to bring about a consensus and a clear sense of direction on part of the corporate sector, by which action required for Copenhagen can be fast tracked. He informed the astute audience that the corporate heads were happy to see themselves as part of the solution for the future. Dr Pachauri highlighted the importance of the scientific assessment on climate change, which has been clearly the basis for negotiations but he felt that perhaps we are drifting away from that basis and need to revisit it effectively on a regular basis. He made a very special reference to Senator John Kerry's extremely valuable address where Senator Kerry reiterated what President Obama said: America is ready to lead. This according to Dr Pachauri is absolutely critical for the success of Copenhagen. Dr Pachauri concluded by saying that the deliberations of the last two days and the remaining day should be brought out in a way that gains momentum at the international level in arriving at an effective agreement in Copenhagen.



Dr R K Pachauri

The poor are the most vulnerable to ecological pressures as they have no buffers, are relatively voiceless in politics, and have no capital for adjustment and resilience.

**Prof. Jeffrey D Sachs**

Director - Earth Institute and Special Advisor  
to the Secretary-General of the United  
Nations, USA

### Adapting to the impacts of climate change



Dr Prodipto Ghosh speaking at the session

Even though the world has realized the implications that climate change is likely to have, adaptation has not been prioritized in actions although it is much more difficult and painful than addressing mitigation. Technology can contribute to solving the problem but not altogether. A range of effects are expected related to sea level rise, shortage of water, loss of biodiversity,

and human proliferation which requires the need for thinking differently. There is a need for new thinking on economics. New economic models and concepts are needed.

Institutions are required to adapt to changes as well. This includes adaptation in the UNFCCC to give it new powers and introduction of new funds including a green fund. There is a need for institutional change and setting up of a world environment organization. All these changes are steered with leadership from above, pressures from the NGOs and civil society and when catastrophe strikes.

Development forms the best form of adaptation in developing countries. However, there are limits of adaptation given the manageable conditions and the tipping points. Huge consequences that require crisis, conflict, and disaster management would otherwise result in destabilization, massive migration of societies and governments.

Adaptation would require revolutions and big transformations. We need a global governance revolution besides other localized efforts. For instance, we require international legal rules to deal with environmental refugees, global land use management system.

Mindsets, perceptions, and thinking are still based on pre-globalized era and these are required to shift in case ethics and equity are to be kept in mind. There is a need to build global re-identities, change time horizons of actions taken. Adaptation is not a technocratic challenge; it is an institutional and mindset challenge.

There is a parallel between the present economic crisis and ecological crisis. In both these cases, we are living on credit and have to pay a debt. Post this crisis a new economy will emerge that will be less demanding, more frugal and less brutal. Pressures on resources are likely to increase due to demographic factors, dietary patterns and climate change. There is a need to take conscious decisions that reduce the risks in the long run including the building of infrastructure.

The BAP (Bali Action Plan) has put the adaptation agenda squarely on the agenda as well as issues related to sustainable financing. Specific dedicated financing for

adaptation is not enough. Adaptation will be a major development challenge with the aim to make communities and businesses resilient. In this context, the World Bank has been taking steps to build knowledge trusts on economics of adaptation, social dimensions and incorporate climate resilience in their programmes, explore financial products and assist countries in shifting from a project by project mode to national strategies, and strengthening internal system to build resilience.



Dr Prodipto Ghosh



Prof. Jeffrey D Sachs

**A**daptation is not a technocratic challenge, it is an institutional and mindset challenge.

**Dr Dirk Messner**  
Director of the German Development Institute (DIE), Germany



Dr Larry Brilliant



Mr Henry Saint Bris



Ambassador C Dasgupta



Dr Maritta Koch-Weser

We will know when  
there is action.

**Mr Dasho Paljor J Dorji**  
Advisor, National Environment Commission  
Government of Bhutan  
*(when asked if he feels that his country's  
voice is  
heard in climate change negotiations)*

The rainforests are critical for the stabilization of the climate. A large portion of the forests have already been destroyed and are very close to the tipping point resulting in a devastating effect owing to forest dieback. These will not only result in localized impacts but would also have a major global effect. Excellent legislation in terms of licensing, monitoring, land tenure, and conservation exist but there is need for programmes and financial resources to implement these. This would require programme support for REDD, much better market mechanisms, and taking learnings from past policies and projects.

Developing countries are the major victims of climate change even though they are not responsible for causing it. The poorest suffer the most given low coping capacities and increased dependence on climate-sensitive sources. Developed countries are, however, relatively less affected because of dependence largely on industrial and service sectors and possess capital, technology, and human resources to adapt to climate change. Social development and poverty eradication are the first overriding priorities for developing countries and any form of initiative taken by them on climate change would include these elements.

Climate change is here and here to stay with the urgency to act now. We cannot 'wait, delay, allow' our actions to stay. It will create new pandemics at a scale and level unprecedented in history with a narrow window of opportunity to react. Some learnings are there from the way small pox and polio have been handled and there are many more diseases to concentrate on.



Dr Dirk Messner



Ms Katherine Sierra



Sir Crispin Tickell

More than 6 billion people are dependent on resources that are already depleting and diminishing. The poor are the most vulnerable to these ecological pressures as they have no buffers, are relatively voiceless in politics, and have no capital for adjustment and resilience. Two ways are normally followed, one that is more proactive that realizes we all are in it together and that there is no safety for anybody unless there is safety to all; and the other, which is reactive and ignores the poor. Sadly, the second path is most treaded despite the huge number of outreach activities to mobilize action in a realistic way. There is a strong need to focus on the issues of population, migration, and finances.

## Mitigation and co-benefits

Co-benefits are often not recognized and internalized in cost estimates. Mitigation steps being taken in California such as the million solar rooftops initiatives were highlighted. Such policies have lead to solar roofing companies bucking the trend during the financial slump by and providing 'green' jobs when other businesses are laying off workers. An intervention such as this could be further strengthened by individual action and hence he called upon each individual to be a 'pebble in the pond' to help address the issue of climate change.

Dr Bjørseth presented the insights from a rural electrification project in an Indian village. He showed how solar energy could be competitive and cost-effective in comparison to diesel-based power generators, and that in light of the recent financial crisis it has become even more viable. He stressed that the knowledge and technology needed for up-scaling such endeavours is available, what is needed is willingness to implement them on ground. The co-benefits arising from taking such actions will not be limited to employment but will also be felt in the community by improving health and supporting education in far-flung villages. Mr Bouttes from EDF pointed to the role of CDM (Clean Development Mechanism) in promoting technology transfer and the need to reform CDM to make it more effective. Programmatic CDM and its role in energy efficiency were also mentioned.



Mr Terry Tamminen speaking at the session



Ms Bärbel Höhn



Mr Pierre Jacquet



Mr Hideki Minamikawa

To rely on CO<sub>2</sub> value, then linking CDM to the development strategies for developing countries will be important. Positive price signals, favourable fiscal incentives, and guiding norms will definitely help in promoting CDM to sectors that have not been able to get substantive benefit through carbon markets. Technology transfer is complex in the electricity sector and factors such as local adaptability; right incentives; capacity-building; and joint ventures for local manufacturing of components are essential to make it successful. In fact, producing locally should be the guiding principle to bring down the cost.

Ms Hohn brought a German perspective to the proceedings and shared some of the price signals such as ecotaxes, which have helped Germany to meet its Kyoto targets and realize co-benefits such as creation of 250 000 new jobs from deployment of renewable energy, stimulating economic growth, and promoting energy security. Such policy interventions have provided co-benefits such as additional public savings through the reduction in the import bill of crude oil and

Each individual needs to be a 'pebble in the pond' to help address the issue of climate change.

**Mr Terry Tamminen**

Author, Lecturer, and Strategist on Energy and the Environment, California



Mr Terry Tamminen



Dr Alf Bjørseth



Mr Jean-Paul Bouttes

the increase in earning from export of renewable energy technologies to other countries. The reduction in the import of oil has also led to greater energy security in the region along with a cleaner environment. Mr Jacquet from AFD said that mitigation is a North–South issue and a collaborative effort is needed to solve it. Innovative solutions such as no-tillage agriculture are the need of the hour. Also, it is important to use finance as a catalyst by promoting collaboration further. The actions being prescribed today will definitely become spontaneous and acceptable in future due to proven associated co-benefits.

Mr Minamikawa pointed out that no mitigation creates co-costs and so the reverse also holds true; mitigation has co-benefits. He informed the audience about the launch of GOSAT (GHG Observing Satellite) that will be a great tool in monitoring indicators of climate change in the future. He gave various examples of how CO<sub>2</sub> and air pollution can be jointly addressed by process improvements. Mr Valentis brought out that though diffused mitigation action holds huge potential, it is yet 'not glamorous' because they show results slowly, are effective on long-scale horizon and are geographically dispersed. Also mitigation action need not be limited to massive technologies. In fact, lifestyle changes can help in reducing demand and thus contributing towards mitigating climate change. The type of intervention selected for implementation will depend on willingness of people and their comfort with it. Mr Yao of ADB (Asian Development Bank) added a new dimension by encouraging the audience to explore whether we need to look



Mr Georges Valentis



Mr Xianbin Yao



Mr Terry F Yosie

at co-benefits of mitigation or mitigation of co-benefits. For developing countries, mitigation is a co-benefit of sustainable development but there is no single solution that cuts across all the regions. Also, a programmatic approach rather than a single transaction-by-transaction project-based approach will be helpful in scaling up action.

Mr Yosie mentioned realities of financing climate change in the current world scenario. He brought a business perspective and mentioned that the risk of climate change now outweighs the benefits. A much more detailed and effective organizational response is needed at this hour. This will help to both reduce consumption thus mitigating climate change; and also have financial implications. Anything that affects the balance sheet of a company in today's scenario will be minutely scrutinized. If it leads to positive results then many companies will adopt the same. However, it is the final consumer who needs to be influenced. Consumer participation still remains untapped and they need to be engaged in the debate through information dissemination. Business can play an important role by streamlining, redesigning, and strategizing their supply chains to take into account the threat being posed by climate change. Mr Yosie mentioned that as adaptation needs are now becoming a reality, these need to be more focused. However, adaptation is no substitute for mitigation of climate change. Summing up appropriately, he exclaimed that adaptation is not a substitute for mitigation, although mitigation alone is not sufficient.

The entire panel stressed on the need for capacity-building, effective technology transfer, and meeting high-investment cost associated with renewable sources of energy.

## Special address

Ms Anne Hidalgo began her special address by thanking Dr Pachauri for the invitation to participate in the summit. She stated that in these times of climate change, it becomes a challenge for any government to work on sustainable development. She explained that even while policies for reducing vehicular pollution were in place, the way out was expanding the public transport system. Encouraging citizens to use



Ms Anne Hidalgo

To control climate change, the local population, and the corporate and local administration, everybody has to be committed.

Ms Anne Hidalgo  
Vice Mayor, Paris



Mr S Sundar



Mr Carlos Pascual



HE Mr Salifou Sawadogo

The government of my country is counting on the support from other countries. These countries can share their experience in dealing with problems.

**HE Mr Salifou Sawadogo**  
Minister of Environment and Officer of the  
National Order, Burkina Faso

bicycles to work could also act as a deterrent to polluting vehicles. This policy has reduced pollution levels by 30% on the streets of Paris.

The Paris administration has ambitious plans in place to reduce 25% of the GHGs (greenhouse gases) by 2020. Yet another policy of public housing is also all set to ensure GHG reduction. Ms Hidalgo also spoke of the plan to renovate old houses. However, she also drew attention to the difficulties in implementing the new policies and mobilizing public opinion in Paris for a more equitable approach. She called for greater local participation. She concluded by saying that the local population, corporate as well as local administration, should pledge their commitment to combating climate change.

While the discussion focused on the need for leadership to face the challenge of a changing climate, a need was also felt to reduce the levels of carbon in the atmosphere. Greater support from the developed countries was called for and TERI was applauded for generating a positive response from world leaders.

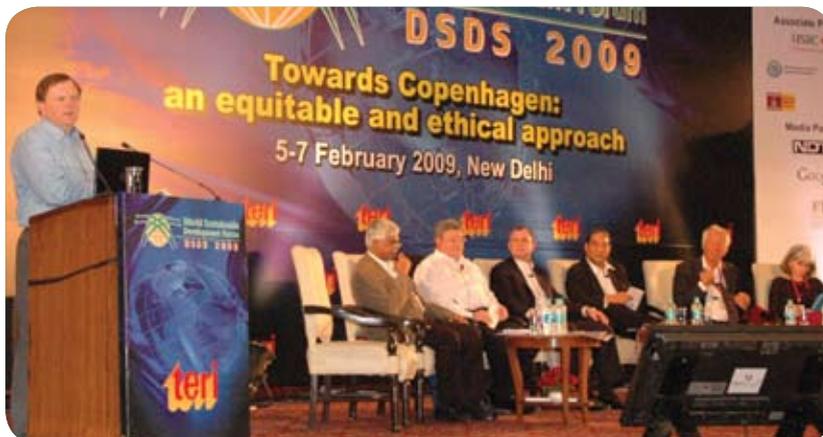
## Engaging all stakeholders

The session began with an emphasis on the importance of engaging stakeholders from all walks of life to combat climate change. Engaging stakeholders is very crucial for effective technology transfer. The public sector has a crucial role to play in developing technology in the 20th century. He mentioned that public-private partnership is fundamental to bridge the gap between the northern and southern markets for sustainable development of the society. There is a great potential for sustainable energy generation, particularly in countries falling in the sun belt and

the government should take a lead role in promoting the development of energy-efficient technology.

Dr Sanjaya Baru highlighted the fact that unlike other stakeholders, the media is a medium for passing on the message to other stakeholders. He spoke about media as a stakeholder, questioning its effectiveness as one in sustainable development, its role in speaking for other stakeholders

Mr Terry Tamminen speaking at the session





Mr Terry Tamminen



Dr Sanjaya Baru



Mr Reinhard Butikofer

and listening to other stakeholders. Quoting examples, he stressed on the fact that media has been more of a follower than a leader in voicing any issue. Citing the case of BRT (Bus Rapid Transit) corridor in Delhi, he mentioned that the media did not play a positive role in support of the same, as there was no influential lobby involved. Similarly, the media hardly speaks for the pedestrians or bicyclists, again for the same reasons. The issue of climate change was not highlighted until it became glamorous and listened only to those with the power to influence it. Only what is canvassed for by the powerful stakeholders is heard by the media. However, the session raised the issue of the role of other stakeholders informing the media just as the media is expected to inform them.

The issue of climate change was not highlighted until it became glamorous. Only what is canvassed for by the powerful stakeholders is heard by the media.



Mr Steven M Fludder

Mr Reinhard Butikofer pointed out that successful revolutions have always required majority support, which is possible through mutual respect for individual agendas. He spoke about the 'Green New Deal' to promote economic growth through ecological reforms and environmental innovations. Giving an example of the case of Germany where eco-taxation revenues have been used to fund pension schemes, he said similar instruments could be used to garner

**Dr Sanjaya Baru**  
Visiting Professor, Lee Kuan Yew School of Public Policy (LKYP) and Institute of South Asian Studies (ISAS), Singapore

majority support. In order to get support and involve sections from all walks of society, it is also necessary to open up to their concerns and work towards forging new partnerships with them. He stressed that for widespread acceptance of a sustainable path to development would be possible only when stakeholders are convinced that environmental investments are profitable.

Mr Steven Fludder emphasized that to arrive at environmental solutions, technology transfer should embrace developing countries as well. The goal of technology transfer is to ensure that the best of technology is available anywhere in the world is available everywhere. Giving the example of GE, which has many stakeholders, the shareholders being the most important, he stressed that it is important to see business opportunity in providing solutions to the issue of climate change.

Mr A G Kawamura spoke for agriculture as a crucial stakeholder, drawing similarities to California, which is the largest state economy in the US, in



Dr Laurence Tubiana

Engaging stakeholders is very crucial for effective technology transfer. Public-private partnership is fundamental to bridge the gap between the northern and southern markets for sustainable development of the society.

**Prof. Luigi Paganetto**  
President, Italian National Agency for New Technologies Energy and the Environment

terms of agriculture, a majority of the developing economies are agro-based and share the same pattern of vulnerabilities from climate change. He stressed that climate change does not discriminate between small and large agriculturists and hence, the key to sustainable development is vitalizing the agriculture sector on the whole. He emphasized that climate change has the capacity to exacerbate the existing challenges and if not addressed in time, it might create a new monster. Everyday, thousands of children die across the world because of starvation. It is important to link the ethics of human security to the efforts for countering climate change.



Mr A G Kawamura



Prof. Luigi Paganetto

Dr Laurence Tubiana reiterated that for low-income families, it is difficult to adapt to any kind of change, including climate change and thus there is a need for coordinated actions towards social transformation, which in turn requires facilitation of the desire for change. The session concluded with the moderator emphasizing that engaging stakeholders is all about leading by example. Stressing on the phrase 'My life is my message', he drew one commitment from each of the speakers for a change in their individual lives to combat climate change.

## Ministerial Session III: Climate change and sustainable development



Ministerial session III in progress

Moderator Nik Gowing set the stage by mentioning that the international community is shying away from their obligations towards the critical issue of climate change. Therefore, the need is to identify and address missing links and signs of caution in the buildup towards Copenhagen.

One of the views emphasized the financial aspect of the climate change negotiations at Copenhagen and said that two key questions that need

to be answered are: a) what is the cost of climate change? and b) who pays for it? The steps required to ensure that CO<sub>2</sub> emissions remain within the 450-PPM levels need to be clearly ascertained along with how these would be distributed amongst the developed and the developing countries. It was recognized that the



Mr Nik Gowing



Shri Prem Kumar Dhupal



Dr Wakako Hironaka

cost of climate change was affordable and manageable (75 billion euros would be required annually and 125 billion euros would be required as capital expenditure). These resources can be mobilized through various approaches like stringent domestic legislations in developed countries, voluntary adoption of low-carbon development strategies in emerging economies, and scaling up of CDM and sectoral programmes in the emerging markets. One of the views pointed out that financing adaptation measures to tackle climate change concerns would need to be ODA (official development assistance) type of financing and National Adaptation Plans need to be formulated at the country level for ensuring adequate funds for adaptation strategies. A need was felt to involve the finance ministers in the negotiation process to follow through with the outcomes of negotiations at the national level so that it does not fizzle out under the pressure of more immediate national concerns.

However, another view expressed was that it is not just the political will that is missing but the 'desire' for a better future—what is lacking is an image or a clear vision of how a low-carbon society or a better future would look like. And this vision for a better future would emerge out of imagination from different sections of the society and not just the political leaders. It was mentioned that skepticism was not around climate change issues per se but with respect to climate change policies, which would impose costs and constraints. Solutions would need to be evolved through partnerships. Cooperation in case of renewable energy options was mentioned as a requisite in the context of environmental security.



Mr Brice Lalonde

The issue of climate justice was debated by a number of participants. It was expressed that the poor have been subsidizing the carbon-rich lifestyles. It is therefore necessary to bring to the negotiations table, the issue of paying a fair price for the environmental resources (global commons) that have been appropriated by the affluent. The need to ensure fair price for leading a carbon-rich life was stated as being an imperative to unleash the resources for development.



Mr Caio Koch-Weser

The international community is shying away from its obligations towards the critical issue of climate change. Therefore, the need is to identify and address the missing links and signs of caution in the buildup towards Copenhagen.

**Mr Nik Gowing**  
Main Presenter BBC World, British Broadcasting Corporation, United Kingdom



Mr Valli Moosa



Mr Ahmed Naseem



Ms Teresa Ribera Rodríguez

The global businesses realize their role in the climate debate and are bringing in their perspectives in the global negotiations. The world together as one entity needs to work towards achieving a low-carbon economy.

**Mr Björn Stigson**

President, World Business Council for Sustainable Development, Switzerland

A controversial viewpoint was that the developing countries should not be given more time in terms of taking action to reduce their emissions. In support, another viewpoint suggested that there is a need to distinguish between developing countries who are large emitters and those who are not. It was mentioned that some of the developing countries were in fact high emitters of greenhouse gases and corrective actions through emission reduction targets and national policies must be put in place to overcome the climate change concerns. This provoked a strong debate among the panellists with two divergent views emerging. The view that supported the above statement essentially stated that the developing countries should not emulate the developed country growth pathways and should start moving towards low-carbon growth pathways immediately. The view that opposed the above statement essentially made a case based on equity, justice, and ethics considerations. They stated that sufficient attention towards economic and social development in developing and less developed countries is required to ensure environmental protection and the developed countries must pay for their extravaganza.



Mr W D J Seneviratne

Recognizing the challenges, the session concluded that in order to make headway in Copenhagen, international cooperation and partnerships among diverse stakeholders is the key. Appropriate leadership remains crucial at this juncture and cooperative frameworks with both developed and developing countries partnering can bring about a change.

## Valedictory session

The valedictory session provided an apt finale to the entire summit. Apart from the summit summary, the session highlighted the business perspective and provided a developing country's outlook followed by a very insightful valedictory address.

Mr Björn Stigson (President, WBCSD) while providing the business brief recognized the challenges of poverty alleviation and of providing energy to all, and stressed upon the role of partnerships with governments. He pointed to the need for a Clean (incorporating low carbon technologies), Lean (incorporating resource constraints), and Mean (with winners and losers) society. Emphasis was also placed



Mr Björn Stigson

on the pertinence of having all countries involved in order to achieve a low-carbon society in a globalized environment. With the continuous increase in emissions, and the challenge of reducing them by approximately 50% in the next 41 years, it was emphasized that the onus lies both on the developed as well as the developing world.

Specific actions are needed for improving energy efficiency and increasing the role of renewables, without which, the challenge would be even more daunting. The world together as one entity needs to work towards achieving a low-carbon economy. Within this, the role that a country like India could play on pursuing a low-carbon pathway with widespread global implications cannot be underemphasized.

Dr Leena Srivastava (Executive Director – Operations, TERI) summarized the deliberations of the summit and provided a brief account of the various issues that emerged during the same. The deliberations clearly established that climate change is indeed a challenge for the present society. Some of the pertinent points highlighted included the following.

- In the context of the climate challenge, cooperation needs to be the name of the game and is required at all levels and amongst all stakeholders (consumers, policy-makers, businesses, and so on).
- There is a need to have more ambitious targets with a need for a consensus on what is the most dangerous level of anthropogenic emissions and in this regard there is a need to give particular importance to the most vulnerable countries.
- While science can provide us the solution, it is the role of cooperation that assumes importance here.
- The fierce urgency to act as reiterated by several speakers and the mixed reactions on the position of the US were also highlighted.
- During the summit, it was reiterated that the current financial crisis should not be used as an excuse to shy away from the responsibilities pertaining to the climate challenge.
- A general consensus on all countries participating in the global challenge with differentiated yet a common responsibility was observed.
- On the issue of leadership, it was emphasized that right leadership means the need to realize and take into account the vulnerabilities of the poor. It also means at times leaving a position to arrive at a solution.



Dr Leena Srivastava

**In the context of the climate challenge, cooperation needs to be the name of the game.**

**Dr Leena Srivastava**  
Executive Director – Operations, TERI

- Increased emphasis on finance to be used as a catalyst for tackling the global challenge, several references to carbon trading regime to generate resources for adaptation, and a general need to simplify the methods was felt.
- The role of technology was highlighted to provide innovative solutions and to build resilience to climate change. Learning from different country experiences, efforts should be made to widen the access to low-carbon technologies.



Mr Vijai Sharma


 The process of consultations is crucial since negotiations are still beset with deadlocks and several issues remain unresolved.

**Prof. Ernesto Zedillo**  
 Former President of Mexico and Director, Yale  
 Center for the Study of Globalization, USA

Overall, the summit witnessed cautious optimism towards Copenhagen, with the emphasis on realizing that necessity and opportunity go hand in hand. Financing adaptation and meeting the needs of the developing countries emerged as a priority. A poll on outcomes of Copenhagen was conducted during the summit and the results indicated that nearly 42% of those present believed that there would be positive outcomes, 40% were neutral in their response, and 20% were rather pessimistic on the expected outcomes.

Mr Vijai Sharma (Secretary, Ministry of Environment and Forests, Government of India) discussed the underpinnings of India's approach to climate change. Highlighting the principles of equity and ethics being engrained in India's approach with emphasis on burden sharing with regard to adaptation, mitigation, and poverty eradication. He highlighted the need for distributional justice and fairness in the process of negotiations as well as the importance of adaptation in the Indian context. While he emphasized on the inherent sustainability associated



Prof. Ernesto Zedillo

with Indian lifestyles, he also pointed to some of the key efforts made by the country in incorporating sustainable development in its growth agenda and the fact that adaptation is the cornerstone of the Indian perspective. India has taken a proactive stance in framing its National Action Plan on Climate Change.

The plan within the country is being given utmost importance and has been an all-encompassing inter-ministerial effort. Efforts have been made to enhance energy efficiency in the country by actually tailoring the countries' policies to include sustainable development and climate change concerns. The government has now introduced standards and labelling for many electrical appliances and almost all power plants are encouraged to use supercritical technology. The NREGP (National Rural Employment Guarantee Programme), which is the largest sustainable livelihoods and poverty alleviation programme, is a green programme. It would greatly help in adapting to climate variability and change. India also reposes faith in the CDM

route and adheres to the belief that an ethical and equitable solution would be the best answer to global concerns over climate change.

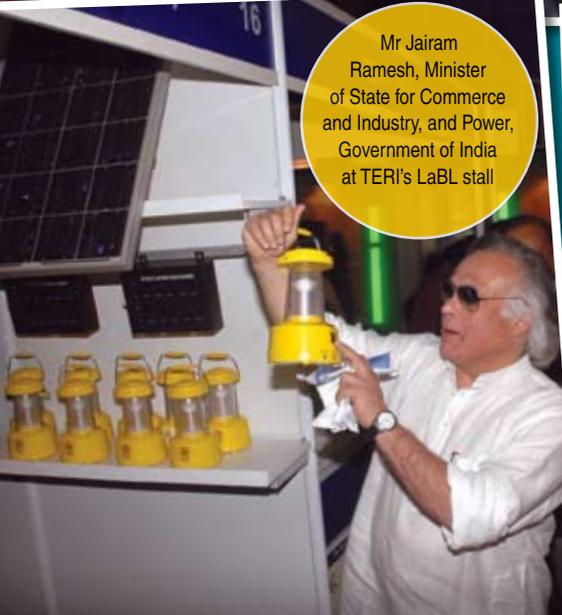
Prof. Ernesto Zedillo (former President of Mexico and Director, Yale Centre for the Study of Globalization, USA) once again emphasized on the pertinence of this year's theme. He mentioned that the process of consultations was crucial since negotiations are still beset with deadlocks and several issues remain unresolved. He again stressed, amongst other issues, on the need for collective action and the urgency for evolving a new regime with universal participation and considering associated pitfalls. A vote of thanks by Dr Leena Srivastava brought the valedictory session to a close.



Left to right: Taufiq Qureshi, Tabla maestro Ustad Zakir Hussain, and Niladri Kumar performing at the Green Globe Awards night



Left to right: HE Mr Moritz Leuenberger, former President of Switzerland; HE Mr Ban Ki-moon, Secretary General, United Nations; Dr A Ramachandran, Chairman, TERI; HE Mr Anote Tong, President, Republic of Kiribati; HE Ms Tarja Halonen, President of Finland; Mr Pranab Mukherjee, Hon'ble Minister for External Affairs, Ministry of External Affairs, GoI; HE Mr Maumoon Abdul Gayoom, former President of Maldives; HE Mr Meles Zenawi, Prime Minister of the Federal Democratic Republic of Ethiopia; HRH Maha Chakri Sirindhorn, Princess, Kingdom of Thailand; and Dr R K Pachauri, Director-General, TERI, at the inaugural session



Mr Jairam Ramesh, Minister of State for Commerce and Industry, and Power, Government of India at TERI's LaBL stall



TERI's stall at the exhibition

# Delhi Sustainable Development Summit 2009

*a snapshot*



Mr Jairam Ramesh and HE Ms Connie Hedegaard, Minister for Climate and Energy, Government of Denmark at the CEO Forum dinner session



Left to right:  
Mr Jairam Ramesh, Dr R K Pachauri,  
and HE Anne Marie Idrac, Minister of  
State for Foreign Trade, Government of  
France at ICCE 2009



Plenary session in progress



# PARALLEL EVENTS

**SPECIAL EVENTS**

**INTERNATIONAL CLIMATE CHANGE EXHIBITION**

## Special Events

### Youth Unite for Voluntary Action on Climate Change

TERI organized the first YUVA (Youth Unite for Voluntary Action) Meet in partnership with the Ministry of Youth Affairs and Sports as a special event of the DSDS during 2–3 February 2009 at Vishwa Yuvak Kendra, New Delhi. The main objective of

the meet was to provide the youth with an overview of emerging challenges posed by climate change and a platform to present and share their perspectives. The meet witnessed participation by 147 youth from colleges and universities across the country. The students were selected on the basis of presentations submitted by them on different climate-related topics.

The meet was inaugurated by Ms Sindhushree Khullar, Secretary, Ministry of Youth Affairs and Sports, Government of India. She stressed on the fact that since 70%

of India's population is below the age of 35 years, this segment had a major role to play in combating the challenge of climate change. Dr Leena Srivastava, Executive Director, TERI and Mr Rehman, Director, TERI reinforced the view that the youth have a major responsibility in bringing about the desired change. There was a special session on 'Lighting a Billion Lives' chaired by Dr Akanksha Chaurey, Director, TERI, who presented an overview of the campaign and encouraged the youth to actively participate in it. The students were divided into five groups for the debate on topics related to climate-friendly transport systems, local efforts, indigenous knowledge, climate communications, and green jobs.

Mr Arjun Mahalingam from Delhi College of Engineering, who was adjudged the Best Speaker, addressed the gathering. The Youth Portal on Climate Change was also launched during this event.

### High-level India–EU Seminar on Climate Change and Sustainable Development

The India–EU high-level dialogue was held on 3–4 February 2009. The programme was jointly implemented by AGCC, the Potsdam Institute for Climate Impact Research, The Heinrich Böll Foundation / Berlin, and German Technical Cooperation. Mr Nitin Desai and Sir Crispin Tickell, the co-chairs, called on the meetings of the G20 in April and G8 in June to take account of climate change as the greatest threat to humanity in their deliberations on the economy, and to direct investment towards measures for climate mitigation, adaptation, and restoration in a 'green new deal'.



Sir Crispin Tickell, Director  
- Policy Foresight Programme,  
James Martin Institute for  
Science and Technology, UK

The dialogues concluded with an agreement to explore institutional mechanisms to strengthen cooperation between India and the EU on climate and sustainable development, together with proposals for practical projects on concentrated solar power as well as PV, black carbon, biochar pyrolysis, and so on. Proposals for action will be prepared for the forthcoming India–EU summit in Delhi. Recent research shows that reductions in black carbon and biochar sequestration can make a rapid and substantial contribution to atmospheric cooling. Participants also heard examples of how India and the EU are addressing these challenges through solar power and the nations' respective approaches for action on climate change.

## Scaling up Renewable Energy and Energy Efficiency in South Asia: focus on financing and investment

This event aimed at addressing issues to stimulate the use of renewable energy and energy efficiency in South Asia. It opened with a welcome address by Ms Ligia Noronha, Coordinator, REEEP (Renewable Energy and Energy Efficiency Partnership), South Asia, who presented brief highlights of REEEP activities in South Asia. This was followed by a special address by Mr Creon Butler, Minister and Deputy High Commissioner, British High Commission and Chair of the Steering Committee, REEEP, South Asia. He expressed concerns about the likely impacts of the global economic crisis on the activities of REEEP in particular and renewable energy and energy efficiency promotion activities in general.

Ms Gauri Singh, Joint Secretary, MNRE (Ministry of New and Renewable Energy), Government of India, highlighted various policy initiatives undertaken by the MNRE for renewable energy technology promotion in India, in her inaugural address. While presenting the focus of the future policies, she explained the importance of developing wind, solar, and biomass energy based grid-connected power generation to meet India's growing energy demand and the need to change the focus from tax-based incentives to generation-based incentives. Ms Ligia Noronha proposed the vote of thanks. The proceedings continued with panel discussions on a variety of issues.



Ms Ligia Noronha, Coordinator, REEEP

## UK–India Collaboration to Overcome Barriers to Transfer of Low-carbon Energy Technologies: phase 2

This consultative workshop was organized as a special event during DSDS 2009 to deliberate on the interim findings of the study jointly carried out by SPRU (Science and Technology Policy Research Unit), University of Sussex; IDS (Institute

for Developing Studies), Sussex; and TERI. The results, experiences, and lessons from TT (technology transfer) case studies in five distinct areas namely: (1) IGCC (integrated gasification combined cycle); (2) energy-efficient technologies for Indian SMEs (small and medium enterprises) focusing on glass and foundry industries; (3) wind energy; (4) solar photovoltaics; and (5) hybrid vehicles, were discussed in the workshop.

In his welcome address, Dr R K Pachauri, Director-General, TERI, described the project as a pioneering work. He observed that TT has not received enough attention despite its vital role in implementing strategies to combat climate change, and that this UK–India collaborative study project is the only one to have come to grips with the issue of barriers to TT. In his opening remarks, Mr Owen Jenkins, Counsellor and Head, Climate Change and Energy Unit, British High Commission/DFID, placed TT as well as the barriers to TT process in the context of two worlds: (1) the ‘real’ world in which TT is a vital idea and vehicle to address climate change; and (2) the more remote and ‘sterile’ world of international diplomacy and climate change negotiations, in which the issues related to TT receive very little attention. The present study is, in essence, an effort to bring these two worlds together to facilitate TT through international cooperation and collaboration. The participants in the workshop included representatives from academia, industry, and the government, and other stakeholders.

## Climate Change, Glacier Melting, and Water-induced Disasters in the Himalayan Region: the case of riverine floods

The special event ‘Climate change, glacier melting, and water-induced disasters in the Himalayan region: the case of riverine floods’ was held on 4 February 2009. The event was jointly organized by TERI and ICIMOD (International Centre for

Integrated Mountain Development). Dr R K Pachauri, Director-General of TERI, in his inaugural address mentioned the importance of the theme of this event and the lack of information related to glaciers and snow of the Himalayan region in the Fourth Assessment Report of the IPCC (Intergovernmental Panel on Climate Change).

Dr Madhav Karki, Deputy Director – Programme, ICIMOD, introduced the purpose and expectation of the programme, and highlighted the objectives of the event. Mr Pradeep Mool, Action Area

Team Leader for Monitoring of Ice and Water Resources under the Integrated Water and Hazard Management Programme at ICIMOD, gave a presentation on ICIMOD’s research into HKH Glaciers. Prof. Syed Iqbal Hasnain, Senior Fellow and Director,



Dr R K Pachauri, Director-General, TERI delivering the inaugural address

TERI, gave a presentation highlighting the issues of climate change, glacier melting, potential impacts, and status of research knowledge in Indian glaciers.

Mr Partha Das from Water, Climate, and Hazard Programme of AARANYAK, Assam, made a presentation on 'Himalayan floods: need for local adaptation and national/regional early warning systems'. Mr Praveen Singh from Winrock International India made presentation on the case study on the Koshi Flood. Dr Pal Prestrud, Director of CICERO, Norway, talked about the Arctic Climate Impact Assessment Programme.

## Emerging Technologies in Developing Countries: capabilities and governance issues

The event 'Emerging Technologies in Developing Countries: capabilities and governance issues' was divided into three sessions. The first was a discussion on comparative frameworks of development of emerging technologies. The second session focused on the theme of application of nanotechnology in health and textile sectors. The third and final session was a deliberation on specific governance aspects of biotechnology and nanotechnology in India. The discussions focused on the need to develop applications for addressing developmental needs and the creation of a knowledge-based economy to drive technical innovation and market robustness. The nature of capabilities that a country must possess to respond to nanotechnology development was also debated upon.

The role of the academia, government institutes, and the industry in generating patents and publications in nanotechnology for the period spanning 1990–2007 was discussed. Speakers emphasized the need for developing an interdisciplinary approach, integrating basic science with medicine. In their concluding remarks, the speakers argued that there was a need to develop specific policy capacities in developing nanotechnology and biotechnology applications, the regulation of which should include inputs of sector specialists.



Dr Ligia Noronha, TERI, speaking at the event; also seen Dr M Balakrishnan, TERI

## Indo-Norwegian Initiative on Climate Change Science Research: key challenges and opportunities

This event was a continuation to the Framework Agreement signed between Norway and TERI in 2008 to strengthen the bilateral cooperation between Norway and India. The focus of the event was on strengthening the cooperation in the area of scientific research and climate modelling. In her opening address, the Norwegian envoy to India, HE Ambassador Ann Ollestad, said that this agreement was a flagship programme of the Norwegian government to support institutional

capacities in the developing world, particularly in India. In his opening address Dr R K Pachauri, Director-General, TERI also emphasized the importance of collaboration in building modelling capabilities in India. He stressed on the need for downscaling modelling exercises suitable to local and global analysis.

Speaking on Norwegian priorities in Indo-Norwegian research collaboration, Mr Hans M Morchgrevink of the Research Council of Norway elaborated upon the organization of research activities in Norway and highlighted that energy and environment along with ocean, food, and health are the key research priorities. Elaborating further on the Norwegian priorities in climate research, Mr Helge Drange from Bjerkness Centre for Climate Research, said that the Norwegian government is going to increase funding for climate research by about 67 million euros during 2008 and 2010, doubling it from the 2008 level. The immediate focus of Norwegian research agenda is on renewable energy, climate variability, consequence and adaptation, policy, and mitigation. There are two main programmes to take this research forward: NORKLIMA and RENERGI. Dr Prodipto Ghosh, Distinguished Fellow, TERI elaborated upon the Indian priorities in scientific research. He emphasized that energy is critical from the Indian perspective as about 600 million people in India still do not have access to electricity and coal is going to be the major source of energy in the coming years.



Mr Ashok Jaitly, Distinguished Fellow, TERI addressing the audience

### Adapting to Climate Change: strategies for water and food security in India

This special event was hosted by TERI's Water Resources Division and the Swiss Agency for Development and Cooperation. The event focused on the links between water resources, food security, and climate change in India. The importance of climate change and food security was discussed during the deliberations. The disconnect between ongoing research, marketable products, and marketing efforts was

discussed and debated upon and solutions were sought to overcome this divide.

The economics of climate change was also discussed at great length. The potential role of regulatory bodies was stressed upon. The highlight of the event was the emphasis on advocating successful initiatives keeping in mind the local conditions in India. The seminar came to a close with a consensus among the speakers on resource sharing and equitable access to technology.

### Towards a Low-carbon Economy: facilitating technology transfer between India and Japan

This discussion meeting was chaired by Prof. Morishima, Chair of the Board of Directors, IGES (The Institute for Global Environmental Strategies), Japan, and

co-chaired by Dr Pachauri. The discussion centered primarily on the availability of opportunities for technology transfer that India and Japan's unique positions offered—India's fast-growing economy offers burgeoning market for investments in low-carbon technologies spanning several sectors, and Japan's experience with energy-efficiency and renewable energy technologies provides several potential avenues for collaboration in this arena. Several opportunities for collaboration between TERI and IGES were discussed, such as TERI providing possible energy scenarios for India. The event concluded with Dr Pachauri suggesting a future collaborative workshop conducted by TERI and IGES that would focus on ground-level issues for technical cooperation between the two countries.

## Democracy and Sustainability: India as a case study

When and how does democracy facilitate sustainable development? This was the central question for participants in this event organized by the 21st Century Trust and Salzburg Global Seminar in collaboration with the Paul Hamlyn Foundation and the Environment Foundation. Participants began their discussions with a visit organized by 'Growth-for-All' and partners near Rithala. They spent the afternoon seeing how coordinated civil society initiatives were in supplementing government resources in areas such as health and education. Mr Nitin Desai opened the formal discussion, calling for a new set of global ethical principles to underpin climate negotiations.

The gap between organic decision-making at the local level and 'inorganic' official decision-making was one of the themes. Processes of economic and developmental change at the local level need to be supported by proper appreciation of the right to be responsible oneself as a citizen. As Dr Pachauri emphasized, concluding the discussion, leadership through lifestyle choice and modest consumption are important at every level.



Ms Sushma Iyengar, Director, Kutch Nav Nirman speaking at the session. Also seen Mr Robert Dufton, Director of the Paul Hamlyn Foundation and Mr Ajit Kapadia, Board Member, Hindustan Oil Exploration Company

## Energy Transformations for Asia: responding to energy security and climate challenges

The chair, Mr Prabir Sengupta, Distinguished Fellow, TERI, started the discussion by outlining the issues to be discussed at the session. He highlighted the challenges arising from limited reserves of fossil fuels, increasing import dependence, and climate considerations. Dr Leena Srivastava, Executive Director – Operations, TERI defined the concept of energy security and its application in the Indian scenario. She discussed issues with regard to future energy requirements, fuel and technology preferences, import dependence, and the resulting vulnerability.

Ms Marianne Osterkorn, International Director, REEEP, talked about the potential of the expanding renewable energy market in Asia which is driven by the increasing demand for energy, favourable business climate, legal framework, and strong manufacturing capabilities. Mr Hideyuki Mori, Vice-President, IGES, pointed out how the concept of energy security in Asia needs to include the issues of access, stability, and sustainability.

Mr Surya Sethi, Principal Adviser (Energy), Planning Commission, discussed some of the issues in tapping nuclear energy potential. He touched upon the issues of availability of uranium, the risks involved with proliferation and waste disposal, and the politics and economics of nuclear energy.

Dr Ajay Mathur, Director-General, Bureau of Energy Efficiency, looked at three major transformations occurring in India today: movement away from biomass to fossil fuels in the residential sector, increasing motorized personal transport, and the movement towards high energy intensity buildings.

## Sustainable Buildings and Construction for India: policies, practices, and performances

The emerging issues of the building sector in terms of greenhouse gas emissions and interest of the UNEP (United Nations Environment Programme) in finding out the opportunities for sustainable buildings in India were discussed in this event.



Ms Kaarin Taipale, Chair, MTS SDC, Government of Finland speaking at the session

UNEP has undertaken the initiative of identifying the network of stakeholders and builders in India. The issues pertaining to the economic situation of the Indian building sector and its major challenges, such as right pricing (energy forms), financing (promoting EE products), and human resources (capacity, awareness) were also raised. Issues like development of a clear-cut action plan on sustainable building development were talked about. Various measures need to be identified, which can be adapted on a voluntary, mandatory or incentive basis. The conclusions were to have a joint vision (involving engineers, architects, manufacturers, and stakeholders around the world) for sustainability and to create an action plan for capacity building in the building sector.

## Catalysing Institutional Synergy Towards Managing Risks in a Changing Climate

Climate change is a reality that is pushing us into action and there is a need to respond. In such a scenario, creating synergy and cooperation to manage risks becomes imperative. The aim of this special event was to forge partnerships towards such a synergy. Prof. Jeffrey D Sachs laid down the context for creating institutional synergy to address and manage risks. The nature of risks is multifaceted and

complex, and their downscaling and mapping is a huge challenge. Prof. Sachs stressed on the need to capitalize multi-sectoral resources and come up with new tools to manage risks. Institutional synergy includes the capacity to mobilize climate knowledge and push that through the core of different sectors, creating effective human institutions, financial investment, and also moving those who are affected into 'zones of visibility'.

The question of upscaling is also writ with challenges—there is a lack of well-documented case studies and tools to allow people to assess and manage risks. In addition to this, there is a lack of venture capital for 'decentralized entrepreneurship'. Giving a new dimension to the discussion, Dr Dirk Messner spoke about the significance of having an inter-disciplinary and multi-pronged approach to look at risks. He also urged for large-scale investment to encourage new researchers. Dr Leena Srivastava spoke about the 'risk of risk assessment'. In the present scenario, we also face a multitude of deficits—deficit between communities and state/development experts, of capacities and abilities to take decisions, and deficit of good-quality data.



Session in progress

## Role of Regulatory Commissions and Utilities in Addressing Climate Change Issues

The primary objective of this workshop was to analyse the various ways in which regulatory commissions and utilities can formulate policies and strategies to address climate change issues and move towards energy secure future for India.

The major problems facing the power sector in India were discussed in presentations by distinguished guests from varied backgrounds. Issues such as high dependency on fossil fuels, low penetration of renewable energy sources in power generation, high level of transmission and distribution losses, inefficient use of electricity appliances at the end-use level, and high level of power wastage at the agriculture level were also discussed. In the absorbing discussions thereafter, various measures were suggested to deal with these issues. It was mentioned that there is an urgent need to give proper market signals in terms of incentives to the consumer and the utilities to move towards efficient consumption and supply of power. The session concluded with a presentation on the successful experience of France in tackling the aforementioned issues.



Dr R K Pachauri, Director-General, TERI speaking at event

# International Climate Change Exhibition 2009

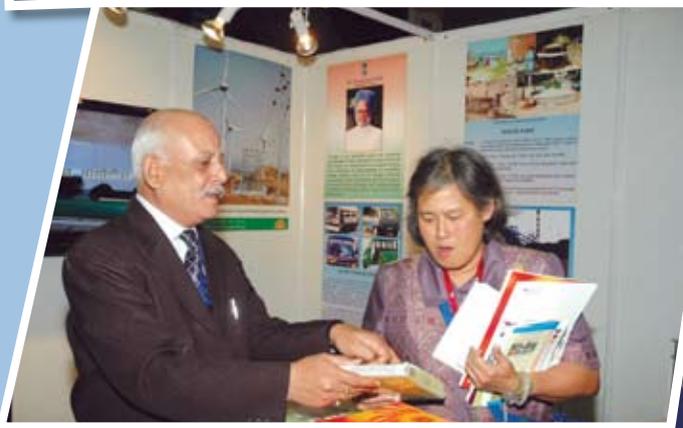
TERI organized the second ICCE (International Climate Change Exhibition) to complement the theme of DSDS 2009. The exhibition was inaugurated by Mr Jairam Ramesh, Minister of State for Commerce and Industry, and Minister of Power, Government of India in the presence of HE Ms Anne Marie Idrac, Minister of State for Foreign Trade, Government of France; and Dr R K Pachauri, Director-General, TERI. The ICCE provides a platform for exhibitors to demonstrate

new environment-friendly technologies, products, and services. It also aims to engage visitors in the debate on possible solutions to mitigate climate change and find out more about alternative technological revelation. It endeavours to motivate people to take action towards reducing their ecological footprint and hopes to inspire organizations to act on an individual level and explain how small changes can make a difference.



Mr Jairam Ramesh, Minister of State for Commerce and Industry, and Power, Government of India inaugurating ICCE 2009

# ICCE 2009: a snapshot





## **QUOTES FROM SPONSORS**



It was our privilege to partner with DSDS for the seventh consecutive year and we are delighted we had the opportunity of taking it forward to the highest levels of support as the star partner in 2009. The summit in 2009 sought to reinforce the climate change agenda of the previous year, with the theme **Towards Copenhagen: an equitable and ethical approach**, reflecting the importance of arriving at a global consensus on climate change beyond 2012. The participation of the Norwegian Minister of the Environment and International Development, Mr Erik Solheim, and the Norwegian Minister for Agriculture and Food, Mr Lars Peder Brekk, reflected the importance that the Norwegian government attaches to this issue and Norway's dedication to doing its utmost in reducing greenhouse gas emissions, both home and abroad.

The deliberations on climate change during DSDS 2009 were extremely relevant. We commend TERI for hosting a dialogue of this nature annually.

**HE Ann Ollestad**, Ambassador, Norwegian Embassy



The Government of Finland is committed to active participation in international cooperation to solve global environmental problems and to enhance international environmental governance. The Ministry for Foreign Affairs of Finland and Cleantech Finland will extend their gratitude towards TERI and Delhi Sustainable Development Summit 2009 for providing a unique platform and an opportunity to sensitize the world of the concerns of climate change to arrive at a global consensus on climate change beyond 2012. The enthusiasm of the Indian public and private sector for Finnish internationally competitive Cleantech innovations and comprehensive solutions was evident at the Cleantech Finland pavilion during DSDS 2009.



**Mr Santtu Hulkkonen**  
Executive Director, Cleantech Finland



**Mr Asko Numminen**  
Ambassador of Finland



Schweizerische Eidgenossenschaft  
Confédération suisse  
Confederazione Svizzera  
Confederaziun svizra

Swiss Agency for Development  
and Cooperation SDC



The SDC (Swiss Agency for Development and Cooperation) has been supporting DSDS for the past three years. This collaboration between TERI and SDC on energy and climate change issues has been built on an institutional partnership over the past 15 years. The special event organized by TERI and SDC on 'Adapting to Climate Change: strategies for water and food security in India' was a highlight of a very successful DSDS 2009.

**Mr Francois E Binder**, SDC India Country Director



Ministry of Environment and Forests  
Government of India



The MoEF (Ministry of Environment and Forests) has been partnering with TERI in organizing the DSDS for a long time. Over the years, DSDS has been effectively bringing together the world's finest minds and leading thinkers on a common platform to generate insights about the challenges and opportunities of sustainable development. DSDS 2008 and 2009 have provided a unique opportunity to enhance our understanding on climate change. DSDS 2009 also gave us an opportunity to share India's National Action Plan on Climate Change and profile the concrete steps being taken in the country to promote sustainable development. The success of DSDS 2009 came not only on account of the range of issues discussed, but also because of the new partnerships and bridges forged for responding effectively to global environmental challenges.

**Mr Vijai Sharma**, Secretary (E&F), Ministry of Environment and Forests,  
Government of India



DSDS 2009 'Towards Copenhagen: an equitable and ethical approach' was perfectly timed. It brought together relevant political voices, along with scientists and civil society. It reinforced the fact that climate change cannot be delinked from responsible growth choices and sustainable development. Sweden was very happy to support TERI for its 2009 seventh Delhi Sustainable Development Summit, which has set the stage for what we all hope will be a positive outcome in December and beyond.

**HE Lars-Olof Lindgren**, Ambassador of Sweden



DSDS 2009 put an energy-efficient spotlight on the critical issues that we must urgently address in order to forge a truly equitable and ethical path to Copenhagen. The Rockefeller Foundation was proud to sponsor an event that is truly unique in bringing together such an array of leaders from different sectors as partners in tackling the challenge of climate change.

**Mr Ashvin Dayal**, Managing Director, Asia, The Rockefeller Foundation



HSBC has a long-standing commitment to the environment. The group has taken all possible steps to embed sustainability into its corporate ethic and businesses. DSDS 2009 was another important platform for us to participate, given its extremely relevant theme 'Towards Copenhagen: an equitable and ethical approach'. It was a unique experience to hear important stakeholders voice their views on climate change policies and action that should take the centre stage at the Copenhagen Conference of Parties under the United Nations Climate Change Convention in December 2009. HSBC in India and TERI are collaborating on key climate change projects and I am sure that learnings from DSDS 2009 will help us create a greater impact in achieving a low-carbon economy.

**Ms Naina Lal Kidwai**, Group General Manager and Country Head, HSBC in India



Comprehension, awareness, action, and results: it is this combination that drives sustainable development. First is comprehension of the problem, its causes, manifestations, and magnitude. Second is the awareness of what needs to be done, what others are doing, and how we can contribute. Third is designing an implementation strategy and translating concepts to reality. Fourth is cataloguing measurable and verifiable results of this coordinated action. DSDS is a unique platform that addresses all four aspects in equal measure. It provides for a unified resource vault that can be accessed by all stakeholders of sustainable development for implementing a lasting solution towards preservation of our 'Blue Planet'.

As a corporate leader supporting affirmative action for societal development, ONGC is truly proud of being associated with DSDS. We have supported this endeavour in the past and pledge to support it in the future as well.

**Mr R S Sharma**, Chairman and Managing Director, Oil and Natural Gas Corporation Ltd.



In the ninth edition of DSDS, TERI has continued the tradition of successfully bringing together decision makers from international agencies, governments, the private sector, and NGOs to foster and further the dialogue on how to make development both inclusive and sustainable. This year's theme, 'Towards Copenhagen: an equitable and ethical approach', tackled the crucial issue of building both momentum and an international consensus for dealing with climate destabilization before the UN Framework Convention on Climate Change in December 2009. GTZ additionally supported this process by co-organizing the High-Level India-EU Dialogue in Delhi with AGCC.

BMZ/GTZ was proud to partner up with TERI for the third time for DSDS 2009 and we look forward to more years of fruitful and close collaboration.

**Mr Guenter Dresruesse**, Country Director, GTZ, India



Securing a fair and ambitious climate change deal in Copenhagen is the UK's highest priority and the British High Commission in New Delhi considers TERI as a strategic partner in this effort in India. We were therefore pleased to be a partner in the 2009 edition of DSDS, which provided an excellent forum for a wide range of national and international climate change experts to deliberate options for a way forward. We compliment TERI for hosting this impressive gathering and hope to see TERI leading civil society efforts in India in this direction.

**Mr Owen Jenkins**, Counsellor and Head, Climate Change and Energy Unit  
British High Commission/DFID India



World Business Council for  
Sustainable Development



Since its inception nine years ago, the WBCSD has been a proud supporter of the DSDS, the foremost event on sustainable development in Asia. The World CEO Forum that we have been regularly organizing with TERI-BCSD India, has become the official curtain raiser and key conduit to channel business input to the summit.

**Mr Björn Stigson**, President, WBCSD



**Australian Government**  
Department of Climate Change



2009 is an important year for international negotiations on climate change. DSDS 2009 was a timely opportunity for countries to discuss ways they can work together to achieve the best possible outcome at Copenhagen in December.

**Mr Howard Bamsey**, Deputy Secretary,  
Department of Climate Change and Australia's Special Envoy on Climate Change.



REEEP was pleased to be one of the sponsors of DSDS 2009 and also to organize a side event, hold a signing ceremony with Government of Norway, and participate. The summit, which was managed well by TERI, was also a good platform to promote the switch to low-carbon energy and efficient energy use. We found the level of participation high and the quality of the discussions to be of high value.

**Dr Marianne Moscoso-Osterkorn**, Director General, REEEP



Asian Development Bank was privileged to join world leaders in exploring future options for addressing climate change mitigation and adaptation challenges at DSDS 2009. As the region's premier development bank, ADB is strongly committed to helping Asia transition to low-carbon growth and sustainable development. We thank the summit organizers for the opportunity to share some of our thoughts in helping ADB's developing member countries address climate change effectively.

**Mr Xianbin Yao**, Director General, Regional and Sustainable Development Department, ADB



Being one of the sponsors has been highly valuable to AFD, and complements its ongoing work in India in the field of sustainable development. AFD, IDRI and TERI's joint publication 'A Planet for Life' was very well received by the public, and the exhibition provided everyone with great networking opportunities. I'd also like to congratulate TERI for bringing together such a wide and impressive range of speakers. This year's edition of DSDS was beyond expectations..

**Mr Jérôme Adam**, AFD India Country Director



CLIMATE CONSORTIUM



The magnitude of this year's Delhi Sustainable Development Summit is a good sign of the importance that is now attached to climate change in India. Also, the participation of dignitaries from around the globe shows that the world sees India as one of the key players in the international negotiations, says Ms. Connie Hedegaard, Minister for Climate and Energy.

**HE Ms Connie Hedegaard**, Minister for Climate and Energy, Denmark

### MEDIA PARTNERS



### FUNCTION HOSTS



# APPENDIX

## List of speakers: DSDS 2009

### Royalty

**Haya Bint Al Hussein**, Princess of UAE  
(by video)

**Maha Chakri Sirindhorn**, Princess,  
Kingdom of Thailand

### Heads of State/Government (current)

**Tarja Halonen**, President of Finland

**John Kerry**, United States Senator from  
Massachusetts

**Ban Ki-Moon**, Secretary-General,  
United Nations

**Pranab Mukherjee**, Hon'ble Minister of  
External Affairs, Ministry of External  
Affairs, Government of India

**Jens Stoltenberg**, Prime Minister,  
Government of Norway (by Video)

**Anote Tong**, President of the Republic  
of Kiribati

**Asif Ali Zardari**, President of Islamic  
Republic of Pakistan (through  
written message)

**Meles Zenawi**, Prime Minister of the  
Federal Democratic Republic of  
Ethiopia

### Heads of State/Government (former)

**Tony Blair**, Former Prime Minister of  
the United Kingdom (by video)

**Maumoon Abdul Gayoom**, Former  
President of Maldives

**Moritz Leuenberger**, Former President  
of Switzerland

**Ernesto Zedillo**, Former President of  
Mexico and Director, Yale Center for  
the Study of Globalization, USA

### Ministers (current)

**Alcinda Antonio de Abreu**, Minister  
for Coordination of Environmental  
Action, Government of the Republic  
of Mozambique

**Allassane BA**, Juriste de  
l'Environnement, Mali

**Lars Peder Brekk**, Minister of  
Agriculture and Food, Government  
of Norway

**Martin Bursik**, Deputy Prime Minister  
and Minister of Environment of the  
Czech Republic

**Kwado Adjei-Darko**, Minister, Ministry  
of Local Government and Rural,  
Ghana

**Prem Kumar Dhumal**, Hon'ble Chief  
Minister of Himachal Pradesh,  
Government of Himachal Pradesh

**Nana Aboubakar Djalloh**, Cameroun

**Rashid Ahmad bin Fahed**, Minister of  
Environment & Water, Ministry of  
Environment & Water, UAE

**Maged George Elias Ghattas**, Minister  
of State for Environmental Affairs,  
Egypt

**Connie Hedegaard**, Minister for  
Climate and Energy, Denmark

**Bruno Jean Richard Itoua**, Minister of  
Energy and Water, Republic of Congo

**Stanislas Kamanzi**, Minister of Natural  
Resources, Kigali, Rwanda

**Namo Narain Meena**, Hon'ble Minister  
of State for Environment, Ministry  
of Environment and Forests,  
Government of India

**Hideki Minamikawa**, Deputy Vice-  
Minister, Minister's Secretariat,  
Ministry of the Environment, Japan

**Ahmed Naseem**, Minister of State for  
Foreign Affairs, Maldives

**Teresa Ribera Rodríguez**, Secretaria  
de Estado de Cambio Climático,  
Ministerio de Medio Ambiente y  
Medio Rural y Marino, Madrid, Spain

**Salifou Sawadogo**, Minister of  
Environment, Burkina Faso

**W D J Seneviratne**, Minister of Power &  
Energy, Sri Lanka

**Anand Sharma**, Hon'ble Minister of  
State, Ministry of External Affairs,  
Government of India

**Erik Solheim**, Minister of the  
Environment and International  
Development, Ministry of Foreign  
Affairs, Oslo

**Paavo Vayrynen**, Minister for Foreign  
Trade and Development, Ministry  
for Foreign Affairs of Finland

**Rachmat Witoelar**, State Minister for  
the Environment, Government of  
Indonesia

### Ministers (former)

**Dasho Paljor J Dorji**, Advisor –  
National Environment Commission,  
Government of Bhutan

**Bärbel Höhn**, Former Minister of  
the Environment of North-Rhine  
Westphalia, Vice-chair of the Green  
Party Parliamentary Group, Germany

**Brice Lalonde**, Former Minister of  
Environment & Ambassador for  
Climate Change, France

**Valli Moosa**, Former Minister of  
Environmental Affairs and Tourism,  
South Africa and Executive  
Chairman, Lereko Investments (Pty)  
Ltd., South Africa

**Yuriko Koike**, Member of the House of  
Representatives of Japan & Former  
Minister of the Environment &  
Defense, Government of Japan

### Nobel Laureates

**Kofi Annan**, President, Global  
Humanitarian Forum Geneva,  
Switzerland (by live video)

**James A Mirrlees**, Professor of Political  
Economy, University of Cambridge,  
UK

**Mario J Molina**, Institute Professor,  
Massachusetts Institute of  
Technology, USA

### Government (others)

**Howard Bamsey**, Deputy Secretary,  
Department of Climate Change,  
Australia

**Reinhard Butikofer**, Co-Party Leader,  
Die Grunen, Germany

**Wolfgang Hahn**, Director General,  
Federal Ministry of Transport,  
Building and Urban Affairs, Germany

**Anne Hidalgo**, Vice Mayor, Paris

**Wakako Hironaka**, Member, House of  
Councillors, Government of Japan

**A G Kawamura**, Secretary, California  
Department of Food & Agriculture  
(CDFA), California

**Sani Mahazou**, Technical Adviser to the  
Minister, Niger

**Vijai Sharma**, IAS, Secretary, Ministry  
of Environment and Forests,  
Government of India

**Staffan Tillander**, Ambassador on Climate Change, Ministry for the Environment, Sweden

### Multi-Bilateral

**Monique Barbut**, CEO & Chairperson, Global Environment Facility, USA

**Yvo de Boer**, Executive Secretary, UNFCCC, Germany

**Karl Falkenberg**, Director General for Environment of the European Commission, Belgium

**Hal Harvey**, President & CEO, ClimateWorks Foundation, USA

**Pierre Jacquet**, Executive Director (in charge of strategy) and Chief Economist at the French Development Agency (AFD), Paris

**Abdoulie Janneh**, Under-Secretary-General and Executive Secretary, United Nations Economic Commission for Africa, Ethiopia

**Haruhiko Kuroda**, President & Chairperson, Board of Directors, Asian Development Bank, Philippines

**Luigi Paganetto**, President, Italian National Agency for New Technologies Energy and the Environment, Italy

**William K Reilly**, Chairman, ClimateWorks Foundation & Former Administrator of the US Environmental Protection Agency

**Kamlesh Sharma**, Secretary-General, Commonwealth, United Kingdom

**Katherine Sierra**, Vice-President for Sustainable Development, The World Bank, USA

**Achim Steiner**, Executive Director, United Nations Environment Programme, Kenya

**Xianbin Yao**, Director General, Regional and Sustainable Development, Asian Development Bank, Philippines

### Institutions / NGOs

**Sanjaya Baru**, Visiting Professor, Lee Kuan Yew School of Public Policy (LKY) and Institute of South Asian Studies (ISAS), Singapore

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

**Trevor Davies**, Pro-Vice-Chancellor - Research & Knowledge Transfer, University of East Anglia, United Kingdom

**Nitin Desai**, Former Under Secretary General of the United Nations & Distinguished Fellow at TERI

**Ambassador Walter Fust**, CEO/Director General Global Humanitarian Forum, Geneva

**Prodipto Ghosh**, Former Secretary, Ministry of Environment & Forests, Government of India & Distinguished Fellow, TERI

**Dirk Messner**, Director of the German Development Institute (DIE), Germany

**Tomoyo Nonaka**, Chairperson, NPO GAIA Initiative, Japan

**Carlos Pascual**, Vice President and Director of Foreign Policy, Brookings Institution Press, USA

**Jeffrey D Sachs**, Director - Earth Institute & Special Advisor to the Secretary-General of the United Nations, USA

**Hans Joachim Schellnhuber**, Director, Potsdam Institute for Climate Impact Research, Germany

**Leena Srivastava**, Executive Director - Operations, TERI

**S Sundar**, Distinguished Fellow, TERI

**Petteri Taalas**, Director-General, Finnish Meteorological Institute, Finland

**Terry Tamminen**, Author, Lecturer, and Strategist on Energy and the Environment, California

**Crispin Tickell**, KCVO GCMG, Director - Policy Foresight Programme, James Martin Institute for Science and Technology, UK

**Laurence Tubiana**, Director, Institut du Developpement Durable et des Relations Internationales, France

**Georges Valentis**, Managing Director, The Institut Veolia Environnement, France

**Terry F Yosie**, President & CEO, World Environment Center, USA

### Corporate

**Alf Bjørseth**, Chairman, Scatec AS, Norway

**Jean-Paul Bouttes**, Executive Vice President Corporate Strategy, Prospective & International Affairs, Electricite de France

**Larry Brilliant**, Vice President, Google Inc. & Executive Director, Google.org

**Henry Saint Bris**, Senior Executive Vice-President of SUEZ Environnement, France

**Steven M Fludder**, Vice President - Ecomagination, General Electric Company

**Philippe Forestier**, Executive Vice-President and Co-Founder, Dassault Systemes

**Tapani Järvinen**, Chairman of the Cleantech Finland Business Forum & President & CEO, Outotec Oyj

**Uday H Khemka**, Vice Chairman, Sun Group, India

**Naina Lal Kidwai**, Group General Manager and Country Head, HSBC India

**Vikram Singh Mehta**, Chairman, Shell Companies in India

**William Pazos**, Managing Director, Standard Bank

**Michael P Schulhof**, Chairman & CEO, Global Technology Investments, LLC, USA

**Björn Stigson**, President, World Business Council for Sustainable Development, Switzerland

**Veli Sundback**, Executive Advisor, Nokia Corporation, Finland

**Caio Koch-Weser**, Former Deputy Finance Minister, Germany & Vice Chairman, Deutsche Bank

**Maritta Koch-Weser**, CEO, The Global Exchange for Social Investment, Germany

### Media

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

**Nik Gowing**, Main Presenter BBC World, British Broadcasting Corporation, United Kingdom

**Prannoy Roy**, President, NDTV

## List of speakers: World CEO Forum 2009

- Yvo de Boer**, Executive Secretary, UNFCCC
- Prasad Chandran**, Chairman and Managing Director, BASF India Ltd
- Ashvin Dayal**, Managing Director, Asia, The Rockefeller Foundation
- Nitin Desai**, Chairman, TERI-BCSD India, Former Under Secretary General of the United Nations
- Kjell Forsen**, President & CEO, Vaisala Oyj
- Prodipto Ghosh**, Distinguished Fellow - Climate Change, Centre for Global Environment Research, TERI
- Connie Hedegaard**, Minister for Climate and Energy, Government of Denmark
- Anne Marie Idrac**, Minister of State for Foreign Trade, Ministère de l'Economie, des Finances et de l'Emploi
- J J Irani**, Co-Chairman, TERI-BCSD India, Director, Tata Group of Companies
- Ashok Jaitly**, Distinguished Fellow, Water Resources, Water Resources Policy & Management, TERI
- Naina Lal Kidwai**, Group General Manager and Country Head, HSBC India
- Anne Lauvergeon**, CEO, AREVA, France
- Ajay Mathur**, Director General, Bureau of Energy Efficiency
- Rob Moul**, Vice President - Energy Solutions and Services (Asia), Johnson Controls, Inc.
- R K Pachauri**, President - TERI-BCSD India, Director-General, TERI
- Jairam Ramesh**, Minister of State for Commerce and Industry and Minister of State for Power, Government of India
- Arun Seth**, Chairman, BT (India) Pvt. Ltd
- Jeffrey D Sachs**, Director - Earth Institute & Special Adviser to the Secretary General of the United Nations
- Bjorn Stigson**, President, WBCSD
- Harry Verhaar**, Senior Director - Energy & Climate Change, Philips
- Praveen Vishakantiah**, President, Intel India
- Shekar Viswanathan**, Deputy Managing Director, Toyota Kirloskar Motor

## List of participants: DSDS 2009

- Philippe Bertin**, 3MW
- Balawat Joshi**, ABPS Infrastructure Advisory
- Viktor Koch**, Academy for European Management GmbH
- Ellen Mender**, Academy for European Management GmbH
- Mridu Pandey**, Accenture
- Titus Alexandar**, Action for a Global Climate Community
- Pradip Kumar**, Action For Food Production
- Peter Luff**, Action for a Global Climate Community
- S G Salunke**, Action For Food Production
- Tom Spencer**, Action for a Global Climate Community
- Robert Whitefield**, Action for a Global Climate Community
- Dominique Campana**, ADEME
- Nick James**, AEDAS
- Jérôme Adam**, AFD
- Jean-Pierre BARRAL**, AFD
- Yazid BENSALID**, AFD
- Aymeric BLANC**, AFD
- Christian DE GROMARD**, AFD
- Pierre JACQUET**, AFD
- Raphaël JOZAN**, AFD
- Laureline KRICHEWSKY**, AFD
- Jacques LOUP**, AFD
- Emilie PASCAL**, AFD
- Lalita BALAKRISHNAN**, All India Women's Conference (AIWC)
- Asko Numminen**, Ambassador of Finland
- Raouf Chatty**, Ambassador of the Republic of Tunisia
- Mohamad Sultan Al Owais**, Ambassador of the UAE
- Jérôme Bonnafont**, Ambassador of France
- B Murali Krishna**, Andhra Pradesh Forest Academy
- Rajesh Mittal**, Andhra Pradesh Forest Academy
- A K Srivasthava**, Andhra Pradesh Forest Academy
- C Suvarna**, Andhra Pradesh Forest Academy
- Sanak Mishra**, Arcelor Mittal India Ltd
- Sudhir Kumar Sinha**, Arcelor Mittal India Ltd
- Anne Lauvergeon**, AREVA France
- Arthur de Montalembert**, AREVA India Pvt Ltd
- Bernard Favre**, Aria Technologie
- Juergen Bischoff**, ASEM
- Pratima Dayal**, Asian Development Bank
- Robert Dobias**, Asian Development Bank
- Shuichi Hosoda**, Asian Development Bank
- Tadashi Kondo**, Asian Development Bank
- Ashok Lahiri**, Asian Development Bank
- Ann Quon**, Asian Development Bank
- Kunio Senga**, Asian Development Bank
- Diwesh Sharan**, Asian Development Bank
- Prasad Chandran**, BASF India Ltd
- Ram Sai Yelamanchili**, Bayer Material Science Pvt Ltd
- Vidhu Aul**, BBC
- Milton Nkosi**, BBC
- Vaishali Sharma**, BBC
- Robert ANGIOLETTI**, BEE-ADEME
- Anurag Wadhwa**, Beta Analytic Mohan, BG India
- Michael Anderson**, DFID India
- Fergus Auld**, BHC-DFID India
- Philip Douglas**, BHC-DFID India
- Madeline Knox**, BHC-DFID India
- Owen Jenkins**, Head, BHC-DFID India
- Sandeep Rai**, BHC-DFID India
- Shan Mitra**, BHC-DFID India,

- B Siddarthan**, BHC-DFID India  
**Udaya Sekhar Nagothu**, Bioforsk  
**Nita Shah**, Bombay Natural History Society  
**Arvid Gjeltén**, Bondebladet  
**Samuel Shiroff**, Bosch and Siemens Home Appliances  
**Tobias F Enjelmeiai**, Bridge to India  
**V C Mohan**, Bosch Ltd  
**Marcus Wijnen**, BRGM  
**Aditya Nath Jha**, Brooke Hospital for Animal-India  
**Arun Seth**, BT India Pvt. Ltd  
**Benoit-Jean Bernard**, Bureau du Québec  
**Saurabh Kumar**, Bureau of Energy Efficiency  
**Ajay Mathur**, Bureau of Energy Efficiency  
**J Sood**, Bureau of Energy Efficiency  
**Gobriele Zanetto**, University of Venice  
**Henri D'Ambieres**, CALYON  
**Marie-Isabelle Fernandez**, Internationale CAPENERGIES  
**Hemi Gandhi**, Carbon Natural Volunteers  
**Ilka Herlin**, Cargotec Corporation  
**S Srinivas**, Cargotec India  
**Sanjeev Prabhakar**, Cargotec India  
**Murali Kanakasabai**, CCX  
**Kristin Aunan**, Center for International Climate & Environment Research  
**Pal Prestrud**, Centre for Climate Research in Oslo  
**Jacques Pfister**, Chambre de commerce et d'industrie  
**G S Gill**, CIDCO India  
**Juan Luis Pena Chapa**, Cinvestav IPN Merida  
**Christiane Ducastelle**, Citi of Paris  
**Pierre Thomas**, Citi of Paris  
**Santtu Hulkkonen**, Cleantech Finland  
**Inka Jylhä-Ollila**, Cleantech Finland  
**Rzavan Maximiuc**, Cleantech Network  
**Seema Paul**, ClimateWorks Foundation  
**Tanguy de Monceau**, CO2Logic  
**Mukul Kumar**, Coca Cola  
**Ruchira Kamboj**, Commonwealth Secretariat  
**Jukka Ahtela**, Confederation of Finnish Industries EK  
**Jitendra Balakrishnan**, Corning India  
**Rustom Desai**, Corning India  
**Amit Chugh**, Cosmos Ignite Innovations Pvt Ltd  
**Malgorzata Pilawska**, Cracow University of Technology  
**Abhay Puri**, CSE  
**Kartikeya Singh**, Climate Solution  
**Alexis Ringwald**, Climate Solution  
**Kjetil Elsebutangen**, Dagsavisen  
**Christian Friis Bach**, Dan Church Aid  
**Mani Kumar**, Dan Church Aid  
**Jesper Joergensen**, Danish Ministry of Climate and Energy  
**Suman Bose**, Dassault Systèmes India Pvt Ltd  
**Philippe Forestier**, Dassault Systems  
**Andy Kalambi**, Dassault Systèmes India Pvt Ltd  
**Elsayed Sabry Mansour**, Delegation of Egypt  
**Sherif Abdel Rahim**, Delegation of Egypt  
**Ismail Faiz**, Delegation of Maldives  
**Abdul Ghafoor**, Delegation of Maldives  
**Haleema Mohamed**, Delegation of Maldives  
**Nasreena Mohamed**, Delegation of Maldives  
**Ibrahim Rasheed**, Delegation of Maldives  
**Mohamad Hussain Shareef**, Delegation of Maldives  
**Ali Shareef**, Delegation of Maldives  
**Peter Bettes**, Department of Energy and Climate Change, UK  
**S K Sarkar**, Department of Personnel & Training, UK  
**Aditya Narayan Singh**, Dept. of Environment, Govt. of Delhi  
**Chetna Harjai**, Dept. of Environment, Govt. of Delhi  
**Anil Kumar**, Dept. of Environment, Govt. of Delhi  
**B C Sabata**, Dept. of Environment, Govt. of Delhi  
**Jussi Rousi**, Desinfinator Ltd  
**James Davey**, DECC  
**C K Kumaraswamy**, DNV Climate Change Services  
**Purba Debpal**, E G Gas Limited  
**Kankan Majumdar**, E G Gas Limited  
**Kailash Mishra**, E G Gas Limited  
**Christina Mishra**, E G Gas Limited  
**S C Katyal**, E Square Verification (P) Ltd  
**Christian Duhain**, EADS  
**Yves Guillaume**, EADS  
**Nakkirane Pary**, EADS INDIA  
**Elina Majumdar**, Earth Institute  
**Rekha Natarajan**, Earth Institute  
**Reema Singhal**, Earth Institute  
**Sonia Sachs**, Earth Institute  
**Raghuvansh Saxena**, Earthwatch Institute India  
**Nigel Winsor**, President, Earthwatch Institute  
**Pascal Guasp**, Eau Pure  
**Haakon Vennemo**, Econ Poyry  
**Raphael Hernandez**, EDF  
**Jean-Christophe Elis**, EGIS  
**N V Krishna**, EGIS India  
**Ambassador Mohamad Higazy**, Egyptian Embassy  
**Sami Salem**, Egyptian Embassy  
**Mika Kiiskinen**, Ehovoc Ltd  
**Ville Silvonen**, Ehovoc Ltd  
**Ujjwal Mathur**, Electricite De France  
**Assaad Saab**, Electricite De France  
**Assanta Elizabeth**, EMA Asustralia Pvt Ltd  
**Ambassador Jean M Deboutte**, Embassy of Belgium  
**Ida Ebbensgaard**, Embassy of Denmark  
**Thomas Haahr**, Embassy of Denmark  
**Anders Hasselager**, Embassy of Denmark  
**Marie Hindhede**, Embassy of Denmark  
**Santonu Kashyap**, Embassy of Denmark  
**Ambassador Ole Lønsmann Poulsen**, Embassy of Denmark  
**Sofus Rex**, Embassy of Denmark  
**Dorte Vizard**, Embassy of Denmark  
**Sanna Selin**, Embassy of Finland  
**Liisa Valjento**, Embassy of Finland  
**Sonia Barbry**, Embassy of France  
**Ambassador Brend Muetzelburg**, Embassy of Germany  
**Ambassador Roberto Toscano**, Embassy of Italy  
**Kyaw Nyunt Lwin**, Embassy of Myanmar  
**Ambassador Ion De La Riva**, Embassy of Spain  
**Ambassador Lars-Olof Lindgren**, Embassy of Sweden  
**Jonas Montpaz**, Embassy of Sweden  
**Anders Sjöberg**, Embassy of Sweden  
**Oscar Schlyter**, Embassy of Sweden  
**Ambassador Staffan Tillander**, Embassy of Sweden  
**Daniel Freihofer**, Embassy of Switzerland  
**Florence Tinguely Mattli**, Embassy of Switzerland  
**Theo J J Groothuizen**, Embassy of the Netherlands  
**Girma Hailu**, Embassy of the Republic of Ethiopia  
**Mehreteab Mulugeta**, Embassy of the Republic of Ethiopia

- Ambassador Gennet Zewide**, Embassy of the Republic of Ethiopia  
**Miklavž Borštnik**, Embassy of the Republic of Slovenia  
**Khaled Fekih**, Embassy of Tunisia  
**Nedhal Al-Falasi**, Embassy of UAE  
**Stefania Novaro Paganetto**, ENEA  
**Helena Airaksinen**, Entre Marketing  
**Willam Agyemang Bonsu**, Environmental Protection Agency  
**James Brannigan**, ESD Consulting-WWF International  
**Robert Donkers**, European Commission  
**Cesar Dopazo**, European Commission  
**Viriato Soromenho Marques**, European Commission  
**Rosario Bent Pais**, European Commission  
**Daniel Smadja**, European Commission  
**Prateek Pant**, FICCI  
**Karun Sharma**, FICCI  
**Pentti Arajärvi**, Finland Delegation  
**Päivi Kairamo-Hella**, Finland Delegation  
**Aleksi Härkönen**, Finland Delegation  
**Maija Haverinen**, Finland Delegation  
**Sointu Hautajoki**, Finland Delegation  
**Arto Hokkanen**, Finland Delegation  
**Major Jukka Jokinen**, Finland Delegation  
**Cdr Commander Janne Muurinen**, Finland Delegation  
**Päivi Nevala**, Finland Delegation  
**Keijo Norvanto**, Finland Delegation  
**Liisa Piitulainen-Numminen**, Finland Delegation  
**Mauri Ohtonen**, Finland Delegation  
**Pekka Puustinen**, Finland Delegation  
**Marko Pokka**, Finland Delegation  
**Hannele Pokka**, Finland Delegation  
**Janne Reitala**, Finland Delegation  
**Anu Saarela**, Finland Delegation  
**Jukka Uosukainen**, Finland Delegation  
**Eila Vandeweerd**, Finland Delegation  
**Petteri Taalas**, Finnish Meteorological Institute  
**Seema Kala**, Finpro  
**Seppo Keranen**, Finpro India  
**Katherine Hutchinson**, Freeplay Energy India P Ltd  
**John Hutchinson**, Freeplay Energy India P Ltd  
**Shivania Narang**, Freeplay Energy India P Ltd  
**Devin Narang**, Chairman, Freeplay Energy India Pvt Ltd
- Patrick CHEZAUD**, French Embassy  
**Natacha Monnet**, French Embassy  
**Matthieu Riche**, French Embassy  
**Diana Beaulieu**, French Ministry of Ecology, Energy and Sustainable Development  
**Thierry Desclos**, French Ministry of Ecology, Energy and Sustainable Development  
**Kristina Birke**, Friedrich Ebert Stiftung  
**Anja Minnaert**, Friedrich Ebert Stiftung  
**Gourisankar Ghosh**, FXB India Suraksha  
**Bernard Saincy**, GDF SUEZ  
**Prat Kumar**, GE Infrastructure  
**Tundup Angmo**, GERES  
**Lund Gram**, German Delegation  
**Michael Hasper**, German Delegation  
**Matthias H Hahn**, German Delegation  
**Ernst Stöckl-Pukall**, German Delegation  
**Andreas Pfeil**, German Delegation  
**Heinz Wirth**, German Delegation  
**Karl-Heinz Wiesner**, German Delegation  
**Almuth Draeger**, German Ministry of Transport, Building and Urban Affairs  
**Marianne Gratza**, German Ministry of Transport, Building and Urban Affairs  
**Wolfgang Hahn**, German Ministry of Transport, Building and Urban Affairs  
**Rainer Lingenthal**, German Ministry of Transport, Building and Urban Affairs  
**Regina Maltry**, German Ministry of Transport, Building and Urban Affairs  
**Konstantina Makridou**, German Ministry of Transport, Building and Urban Affairs  
**Lars Oberg**, German Ministry of Transport, Building and Urban Affairs  
**Ralf Schulze**, Ministry of Transport, Building and Urban Affairs  
**Christian Theis**, German Ministry of Transport, Building and Urban Affairs  
**Anandi Iyer**, Germany and India-Strategic Partners for Innovation  
**Amar Singh Sidhu**, GGS Institute of Communication  
**Eva Jensen**, Global Climate Division, Denmark
- Marek Vaculik**, Glopolis  
**Larry Brilliant**, Google  
**Putrycz**, Google  
**Mutsuyoshi Nishimura**, Government of Japan  
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## DELHI SUSTAINABLE DEVELOPMENT SUMMIT 2010

The global economy is going through a period of unprecedented decline, and an upswing does not appear predictable at this point of time. Several other developments that are taking place this year would, among other effects, have a profound impact on future actions to meet the challenge of climate change. The most significant of the developments that are expected to take place in 2009 would be an agreement in Copenhagen in December by which the global community is expected to adopt commitments for reducing emissions of greenhouse gases and assist in actions for adapting to the impacts of climate change. The combined effect of current economic trends and the gathering momentum of actions to tackle climate change is likely to result in a significant shift in economic policies that would specifically address the need for attaining a path of sustainable development globally. While Copenhagen is expected to define specific actions for tackling climate change there would be substantial spillover initiatives that would launch actions to attain sustainability in economic growth and development. The problem of human induced climate change is, after all, only a subset of the much larger problem of unsustainable development that the world has pursued since the beginning of industrialization. Copenhagen, therefore, would be the trigger that would propel the world along pathways of sustainable development, which would have major implications for the manner in which human society produces and consumes goods and services.

DSDS 2010 would be the first major gathering of leaders drawn from every part of the globe and from every sphere of human endeavour to focus on the pathways that the world is expected to explore and move along as a consequence of the Copenhagen Conference of the Parties in December 2009.



**R K Pachauri**  
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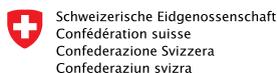
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