

The climate change – MDG nexus

Moderator Mr Darryl D'Monte

Speakers • Mr Corrado Clini • Mr C Dasgupta
 • Dr Klaus S Lackner • Dr Neil A Leary
 • Dr Richard L Sandor • Sir Nicholas Stern
 • Dr Harlan Watson



If the MDGs are to be met, it is imperative that the Climate Change Treaty should aid and actively promote development, that is, it should be development-friendly and not development-neutral.

At the outset, it is important to remember that what makes the climate change problem particularly vexing is the international asymmetry between the genesis of the problem (developed nations) and the loci of the potentially devastating impacts (developing nations). The additional costs on developing countries in undertaking mitigation and adaptation options could further cripple their chances of meeting the MDGs.

Given this backdrop, and considering that energy demand can only increase from here on, instruments through which the integration of the MDGs with the climate change agenda can take place (or be strengthened) need to be defined and deployed. The CDM (clean development mechanism) presents a very strong case, as it ensures a mutually supportive relation between the developed and the developing nations. Hence, an expansion of the CDM base assumes significance.

There has been much deliberation on the notion of carbon markets and the price of

carbon, and a robust case has been presented for carbon finance as a tool beyond the Kyoto Protocol. However, there is increasing awareness that mitigation alone shall not suffice in meeting the climate change challenge. Adaptation and fortification of existing adaptive capacities of communities that are expected to be most affected by the impacts of climate change are as indispensable. Finally, the notion of equity and justice shall have to be embodied in the climate change political process.

KEYNOTE ADDRESS

Chairperson Mr Pronab Dasgupta

Speaker Nobel Laureate Prof. F Sherwood Rowland



The keynote address was a succinct account of climate change trends since the mid-eighteenth century. Evidence of climate

change emerges from various indicators, among which global temperature trends (the 11 warmest years of all time were recorded in the last 15 years alone) and observed sea-level rise are some of the most visible.

The increase in greenhouse gas emissions in the atmosphere is primarily caused by anthropogenic interference with the climate system. Together with carbon dioxide, methane concentration in the atmosphere has increased significantly in past decades and contributed to global warming. Some sources of methane emissions are well-known: cattle, rice paddies, and enteric fermentation. However, burning biomass also emits methane, and some natural processes tend to capture methane as a sink.

Another topic relevant to climate change is tropospheric ozone concentration. Ozone formation in the lower atmosphere originates essentially from transport and other activities in urban areas. However, since the implementation of the Montreal Protocol (1988), CFC emissions have decreased in the stratosphere

Mankind is interfering with the amount of methane in the atmosphere every year... About two-thirds of methane released is produced by mankind.

Prof. F Sherwood Rowland

Donald Bren Research Professor of Chemistry and Earth System Science, University of California, USA



and the adverse impact on stratospheric ozone is declining.

Overall, addressing climate change will require substantial emission reduction worldwide, with the significant involvement of all major emitting countries (including India). The need for action has been recognized for years, but the implementation of emissions reduction strategies has been slow. Whereas the USA has been a leader in the preparation and implementation of the Montreal Protocol, leadership on greenhouse gas emission reduction seemed to have shifted to other countries.

Science and technology for sustainable development

Moderator Mr Kiran Karnik

Speakers Dr Vibha Dhawan • Mr D S Kim
• Mr Manns Lonroth • Dr Sameer Maithel
• Mr Tony Meggs • Prof. John D Podesta



While energy drives development, technology drives sustainable development. Harnessing energy resources in a sustainable manner is a way to achieve MDGs. Energy resources can be harnessed not only through scientific interventions and their applicability but also through appropriate policy strategies and business partnerships. It is equally important to keep in view the economic and cultural context of the society while attempting to

attain sustainable development. Furthermore, the relevance of creating knowledge rather than managing knowledge is underscored.

For a country like India that has agro-based economy, modern biotechnology can provide innovative energy solutions and help achieve food security through enhanced productivity in an affordable and sustainable manner. However, it is also necessary to ensure that the products of these technologies mitigate environmental footprints and have minimum negative impact on the environment.

Providing energy to the poor sector is important for achieving the MDGs. This could be attained through technologies that aim at decentralizing energy production. Currently, there is a limitation of financial support for such kind of research activities and the solution lies in developing partnerships from multidisciplinary areas.

There is an urgent demand for a shift from fossil-based energy production to employing renewable resources as exemplified by biomass gasification, nuclear fusion, and use of hydrogen and solar energy to produce power. The existing missing link between technology and sustainable development lies in creating clean markets for developing technologies through supply chain management within the premises of sound legal systems.

Hence, appropriate research and policy agenda as well as global commitment have to be combined with socio-economic and cultural sensitivities, which require change in perspectives. These are the key aspects of global sustainable development.

Lunch hosted by WBI

Water, sanitation, and health

Moderator Ms Chitra Subramaniam Duella

Speakers Mr Francois Binder • Dr Daniel Gustafson • Mr Ashok Jaitly • Ms Rohini Nilekani • Mr I H Rehman • Mr Jeff Seabright
• Mr Steven D Smith • Dr Laurence Tubiana

Meeting the water and sanitation MDGs, as with all other MDGs, is a daunting task requiring a mindset and attitude change, in all stakeholders. Water-borne diseases are like the silent tsunami—the single largest cause of preventable deaths. Issues of a better health through improved water supply and sanitation can only be addressed through political will and local action. It is important to think of innovative models for water supply and sanitation, especially in the context of socio-cultural diversities in the developing countries.



Instead of looking at large-budgeted, supply-driven engineering solution to the problems, emphasis should be laid on local solutions to reduce environmental impacts downstream. Viewing the poor and the un-served as entrepreneurs and not victims is imperative to develop local partnership models. Large businesses are increasingly viewing water as a strategic business issue; they can also contribute to ensuring safe access to both water and sanitation. However, it is important to devise a regulatory framework that encourages private sector participation in a non-exploitative and equitable manner.

Another pertinent factor is the rights-based approach. Currently, in India, rights are *de facto* and linked only to property rights. Considering equity aspects, it clearly calls for attention. There is also a need to look at technologies that are cheap, easily deployable, and maintained. Also, awareness building is critical for generating sufficient demand and for the private sector to pitch in. As regards financing, venture capital can play a significant role in providing innovative, low-cost solutions.

MINISTERIAL SESSION 1

Meeting the MDGs: the policy dimensions and institutional reforms challenge

Moderators Ms Mythili Bhusnurmath

- Mr Uday H Khemka

Speakers HE Dasho Paljor J Dorji

- Dr Massoumeh Ebtekar • Mr Pieter van Geel
- HE Mr Adugna Jebessa • HE Mr Jim Knight
- HE Prof. Emil Salim • HE Mr John Thwaites



Sustainable development in the present world requires incorporating some profound approaches to the development pathways. This includes the explicit recognition of peace as a basic development premise, and the importance of dialogue within and across nations, especially in regions affected by human-induced conflicts.

Perceptions of immediate governance challenges for sustainable development differ across regions and development levels. Therefore, while Ethiopia has taken measures to provide improved water and sanitation facilities, the state of Victoria in Australia is attempting to reduce the size of its ecological footprint by decreasing its per capita water consumption.

The development of market-based instruments to counter environmental threats, especially those posed by climate change, needs to be emphasized upon. In this context, the issue of integrated energy–environment programmes, and the necessity of reducing carbon dioxide emissions through energy efficiency measures assume importance.

India being one of 17 ecologically mega diverse countries in the world, it is commendable that the Indian government has effected a revival in the population of vultures, which had suffered a decline of 99 percent in a decade. Enlightening people about the benefits of biodiversity in their daily life may help rural communities complement the conservation imperatives of the environment.

Correcting distorted market prices that fail to internalize environmental costs, the importance of public-private partnerships and civil society involvement, and the need to strengthen cooperation between multilateral organizations and the private sector to achieve the MDGs were among the important suggestions for governance. The session ended on a ‘happy’ note with a discussion on the concept of the ‘Gross National Happiness’ in Bhutan.

Dinner address

Chairpersons Mrs Rajashree Birla

- Hon’ble Mr Salman Khurshid

Speaker Mr Vinod Khosla

Dinner hosted by ABN Amro

In a strong endorsement of ethanol as a true ‘out-of-the-box’ solution to the current energy problem of the world, particularly with respect to the need of the transport sector, there are three major advantages of ethanol over petroleum: cost-effectiveness, short-term feasibility of the technology, and the relative environmental benefits. While in the USA, ethanol is

In brief...

already recognized as part of the fuel market through 'blending', in the developing world, Brazil has emerged as a success story by substituting petroleum with ethanol. The advantages of ethanol vis-à-vis petroleum and hydrogen fuel are that it comes with significantly lower energy security risks, lower price, and lower infrastructure and implementation costs.



practices significantly. There is demonstrated technology from the USA as well as India that there is a huge potential for generating ethanol commercially from agricultural and animal waste.

As for the possibilities of biofuels getting introduced in both developed and developing countries in a big way, major technology improvements in bioengineering and energy crop cultivation are already taking place. It is imperative that both developed and developing economies introduce appropriate legislation that will facilitate the shift in a more effective and time-bound manner.

The objection to ethanol has been primarily in terms of land-use issues, the energy balance question, and associated environmental costs. However, the reality on the land-use issue is that ethanol does not change agricultural

As they said it . . .

Overcoming extreme poverty will improve the environment because people who lack food, shelter, and sanitation cannot be expected to preserve the environment at the expense of their own survival.

Harlan Watson, Senior Climate Change Negotiator, United States Department of State, USA

The missing link between sustainable development and technology is that of the rule of the law, the legal system.

Mr Manns Lonroth, Managing Director, MISTRA, The Foundation for Strategic Environmental Research, Sweden

We need to stop silencing scientists... There is no politically correct science; there is only good science. If we protect the integrity of

scientists, technological developments will be immense.

Prof. John D Podesta, President and CEO, Centre for American Progress, Washington, DC, USA

Water cannot finance water; there is a need for cross subsidies in some cases and stable international transfer in some other. Water needs cheap money on a long-term basis.

Laurence Tubiana, Director, IDDRI, France

We [Bhutan] do believe in change, and if we don't change, we are dead; all of us change from time-to-time. We just don't want to achieve the MDGs, we want to enjoy the MDGs when we achieve them.

HE Dasho Paljor J Dorji, Advisor, National Environment Commission, Royal Government of Bhutan

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