

Keynote Address by Shri C Dasgupta, Distinguished Fellow, TERI  
at the Conference on Climate Change Issues & Opportunities  
on July 13, 2002 in Chennai

Honorable Minister, Mr Jayakrishanan, Mr. Dutt, Mr. Sivaramakrishnan, Ladies and Gentlemen,

Climate Change will be the subject of the most important international conference to be held in India this year. Ministers and senior officials representing over 150 countries are expected to arrive in New Delhi at the end of October in order to participate in the 8<sup>th</sup> conference of parties to the Framework Convention on Climate Change.

Why does Climate Change – or ‘global warming’ as it is popularly known – attract so much international attention? The reason is that it involves not only environmental but also economic questions of the utmost importance. From the outset of the Climate Change negotiations, governments and business circles have been conscious of the profound, long-term economic implications of Climate Change and the measures taken to combat it.

What is Climate Change or ‘global warming’? Science tell us that a build – up of carbon dioxide and other “ greenhouse gases” in the atmosphere is causing our planet to become warmer. Carbon dioxide emissions have increased dramatically since the Industrial Revolution because of increasing dependence on hydrocarbon fuels - coal, petroleum and natural gas. Energy generation and consumption lies at the heart of the Climate Change problem.

Scientists tell us that, during this century, we are likely to see a rise in the global mean temperature in the range of 1.3 degree Celsius – 4.5 degree Celsius. (In the case of India, the expected increase is in 2 degree Celsius – 3 degree Celsius range) The rise in temperature will trigger off a number of other changes. Most notably-

- There will be an increase in rainfall;
- Glaciers and the polar ice- caps will continue to retreat. (Incidentally, the Gangotri glacier is already retreating at the rate of about 30 meters per year.)
- The sea level will rise (in the range of 0.09 – 0.88 meters) because of thermal expansion of the seas and melting of the polar ice – caps. The rise the sea – level will lead to submergence of low-lying islands and coastal areas (such as the Maldives and the parts of the Ganges – Brahmaputra basin and Kutch). Parts of Chennai might be submerged unless preventive measures are taken.

These changes would directly affect agriculture, forestry and fishery. They would have an impact on human health and bio – diversity. These set backs would inevitably have a secondary impact on industry as well

It is obvious that Climate Change would result in vast economic damage unless it is checked. There is a consensus in the international community that steps must be taken in order to limit the adverse impact of global warming.

But while all countries share a common interest in mitigating climate change, there are wide differences over the ways in which the costs should be distributed, which countries should be required to reduce their carbon emissions and to what extent. Reducing carbon emissions involves cutting down use of hydrocarbon fuels. It thus has major implications for industry, transport and agriculture. As I said earlier, the climate change negotiations have profound economic implications for all countries.

India and other developing countries maintain that the developed, or industrialized, countries should be required to cut down their carbon emissions. After all, it is these countries which are responsible for causing the problem by excessively increasing their consumption of hydrocarbon fuels and per capita carbon emissions. We have maintained that we shall accept binding limitations only after our own per capita carbon emissions converge with those of the developed countries.

The industrial countries, on the other hand, argue that carbon emissions from large developing countries like China and India are increasing rapidly and these increases would offset any reductions planned by industrialized countries. They therefore urge that from a "practical" viewpoint that countries like China and India should accept some obligations to control the rate of growth of their emissions.

After very difficult negotiations, we finally succeeded in securing acceptance of the view that only the developed countries should commit themselves to reducing their greenhouse gas emissions, at least at the present stage. The Kyoto Protocol, agreed in 1997, requires each developed country to reduce or limit its emissions to a specific level by the years 2008 – 2012. The intention was to reduce the overall emissions of developed countries by at least 5% below the 1990 level.

In order to assist these countries to achieve their targets, it was agreed that they could satisfy a part of their commitments by co-operation arrangements with other countries. One of these arrangements the clean development mechanism or CDM is of special interest to developing countries. The clean development mechanism is an arrangement under which developed countries can fulfill a part of its obligations by promoting projects in developing countries, which help to moderate carbon emissions and at the same time promote sustainable development.

The initial expectations aroused by the Kyoto Protocol have had to be scaled down considerably because the Bush administration has withdrawn from the agreement. The current United States position is that the commitments incorporated in the protocol will damage the American economy. The US is also now insisting that developing countries like China and India must also accept similar commitments. The United States has been followed by Australia and it is quite possible that Canada, too, may follow suit.

Climate Change poses challenges as well as opportunities for India and more specifically, for Indian industry. Even though we have so far successfully resisted any binding carbon emission commitments, we can, and should, make a contribution to the global effort by implementing projects and measures which moderate carbon emissions and which can also be independently justified in terms of their economic or environmental benefits. In other words, we should seek out projects and measures through which we can contribute to mitigating global warming without incurring any additional expenditure. A couple of examples will help to explain what I mean:

\*The introduction of solar energy projects in many remote areas is fully justified on economic considerations alone but it also generates benefits in terms of moderating carbon emissions.

\*Conservation of our forests is justified in terms of our economic and social objectives alone. At the same time they additionally serve the purpose of acting as 'Carbon sinks' and contribute to addressing the climate change problem.

It is incumbent on us to search out and implement similar measures, which can contribute to mitigating global warming WITHOUT ENTAILING ADDITIONAL EXPENDITURE. It is essential not only to implement such measures but also to inform the international community of the contributions we are making.

This is the immediate challenge before us. In a long-term view, we must also recognize that at some stage we will have to accept binding commitments to restrict our green house gas emissions. Long term planning must take this into account. In particular, we must pay sufficient attention to R&D in the NRE sector.

If there are the challenges, there are also opportunities for industry. In the near future, CDM and similar projects will offer opportunities for promoting sustainable development in India through international cooperation. The immediate opportunities are somewhat modest in my view but there is a real possibility that these opportunities may expand if the United States decides to cooperate in CDM-like projects even while it stays out of the Kyoto Protocol.

Ladies and Gentlemen,

Such in outline are the issues posed by Climate Change and the challenges and opportunities they offer us.

Thank you for your patience.