



Chapter – 13

*International
Cooperation
and
Sustainable
Development*

International Co-operation and Sustainable Development

Introduction

- The Ministry of Environment and Forests is the nodal Ministry in the Government of India for all Multilateral Environmental Agreements. These include Vienna Convention for the Protection of the Ozone Layer, Montreal Protocol on Substances that deplete the Ozone Layer, UN Conventions on Biological Diversity, UN Framework Convention on Climate Change, UN Convention to Combat Desertification, Kyoto Protocol, the Basel Convention on Trans-boundary Movement of Hazardous Substances, Stockholm Convention on Persistent Organic Pollutants, Rotterdam Conventions, Ramsar Convention etc.
- International Co-operation & Sustainable Development Division is the nodal point within the Ministry to coordinate all international environmental cooperation and sustainable development issues. It is the nodal Division for United Nations Environment Programme (UNEP), UNDP, World Bank, UNIDO, UN Commission for Sustainable Development (CSD), Global Environment Facility (GEF) and regional bodies like Economic & Social Commission for Asia & Pacific (ESCAP), South Asian Association for Regional Cooperation (SAARC), South Asia Cooperative Environment Programme (SACEP), ADB and European Union (EU). The Division also handles bilateral country to country co-operation in the areas of environment protection and sustainable development.

Progress of Activities Undertaken

Commission on Sustainable Development (CSD)

- The United Nations Conference on Environment and Development (UNCED),

held in Brazil in 1992 adopted Agenda 21, which is a blue print for a global plan of action for achieving sustainable development. The Commission on Sustainable Development (CSD) was set up in 1993 under UN ECOSOC for the purpose of review of progress of implementation of the Agenda 21. Ministry of External Affairs is the nodal Ministry for the CSD matters. However this Ministry plays the role for providing technical support and for implementation of Agenda 21.

- The Fifteenth session of the Commission on Sustainable Development (CSD), was held from April 30 to May 11, 2007 in New York, which considered the thematic areas of energy for sustainable development, climate change, air pollution/atmosphere and industrial development. The Indian delegation was led by Shri Namo Narain Meena, Hon'ble Minister of State. The proceedings of the 15th CSD are available at <http://www.un.org/esa/sustdev/csd/csd15/csd15.htm>.
- The 16th Session of CSD will be held from 5-16 May, 2008 in New York. This session will focus on the thematic issues viz: Agriculture, Rural Development, Land, drought, Desertification and Africa.

United Nations Environment Programme (UNEP)

- The United Nations Environment Programme (UNEP) established in 1972 after the Rio Earth Summit is the principle entity within the UN system to assist the developing countries in building scientific and technical capacity, fostering partnership and knowledge development to promote environment for sustainable development. Based in Nairobi, Kenya, UNEP activities that range from assessment of environmental trends,

especially early warning systems to dealing with the environmental disasters and emergencies to the promotion of environmental science and information.

- The 10th Special Session of UNEP's Governing Council/Global Ministerial Environmental Forum was held on 20-22 February, 2008 in Monaco. The session focused on issues like 'Globalization and the Environment', 'Mobilizing Finance to meet challenges' and developing UNEP's Medium-term Strategy. The Indian delegation was led by Hon'ble Minister of State (Environment).

Global Environment Facility (GEF)

- The Global Environment Facility (GEF), established in 1991, as an independent financial mechanism, provides grants to developing countries and economies in transition for projects that benefit the global environment and promotes sustainable livelihoods. India as a founder member of GEF is both a donor and recipient of GEF funds. It represents South Asia Constituency (including Bangladesh, Bhutan, Maldives, Nepal and Sri Lanka) in GEF Council. (www.gefweb.org)
- GEF projects address six focal areas – biodiversity, climate change, land degradation, international waters, ozone layer depletion and persistent organic pollutants and two cross-cutting issues viz., sustainable forest management and sound chemical management.
- Since GEF funds only incremental costs, the projects require mandatory co-funding. Each focal area has its own targets for the ratio of co-financing to GEF grant, which is determined by the role of co-financing for the project undertaken. The GEF in India works through its implementing and executing agencies including, UNDP, UNEP, WB, UNIDO, FAO, ADB, and IFAD.
- Since 1991, GEF has provided grants for more than 1,900 projects in more than 160 countries. Since 1991, India has contributed USD 42 million and accessed USD 260 million as GEF grant from the GEF Trust Fund. GEF projects in India have leveraged a co-financing of about USD 1,798 million. India has received an indicative RAF allocation of USD 29.6 million (Biodiversity) and USD 74.9 million (Climate Change) for a period of 2006 – 2010. In 2007 – 2008, using this GEF allocation, we have developed a Programmatic Approach on Energy Efficiency (USD 40 m), Programmatic Approach on Conservation of Marine and Coastal Ecosystems (USD 14.071 m) among other projects.
- The Ministry of Environment and Forests (MoEF), Government of India (GoI) is the designated GEF Operational Focal Point for India. It is primarily responsible for the in-country coordination of GEF projects and other operational activities. MoEF represents the country at the GEF Council meetings, which take place at Washington twice a year. The Department of Economic Affairs (DEA), GoI is the designated GEF Political Focal Point. They deal with policy and governance related issues.
- The GEF Empowered Committee chaired by the Secretary (E&F) was constituted in 2003 for determining national priorities, streamline eligibility checks, approvals and endorsements of GEF proposals, facilitate project development, implementation and to coordinate actions among various ministries and GEF agencies. It meets on a quarterly basis and has senior officers as its members from different thematic divisions of MoEF, DEA, Ministry of External Affairs and Planning Commission. The concerned line Ministries of GoI, State Governments, GEF agencies and project proponents attend

the meeting as special invitees. The projects/ concept notes are submitted to Joint Secretary and GEF Operational Focal Point India, MoEF on a rolling basis throughout the year.

- Launched in 1992, GEF Small grants Program (SGP) complements GEF full size and medium size project's funding, by providing a window for the direct participation of NGOs, local communities and other grassroot organizations. On behalf of MoEF, SGP in India is being hosted and coordinated by the Centre for Environment Education (CEE). The National Steering Committee chaired by the Joint Secretary and GEF Operational Focal Point India approves the project on a quarterly basis. Since 1996, as SGP India has funded 185 projects worth of USD 3.8 million of GEF grant while generating USD 4.2 million as project co-financing. The project proposals/ concept notes could be submitted to the CEE's regional cell or National Coordinator, SGP India, CEE, New Delhi on a rolling basis throughout the year. (For details: www.sgpindia.org)

Delhi Sustainable Development Summit, 2007

- Sustainable Development being a thrust area of the Ministry of Environment and Forests, this Ministry has been supporting The Energy and Resources Institute's (TERI) initiative to organize Delhi Sustainable Development Summit (DSDS) since 2001.
- The 8th Delhi Sustainable Development Summit organized by TERI from 7-9 February, 2008 at Vigyan Bhawan, New Delhi was inaugurated by the Prime Minister of India. This time "Sustainable Development and Climate Change" has been taken up as the theme of the event with an aim to make a significant contribution to the global debate on climate change and sustainable development issues.

South Asia Cooperative Environment Programme (SACEP)

- SACEP was set up in 1982 with headquarters in Colombo. It aims to promote regional co-operation in South Asia in the field of environment, both natural and human, in the context of sustainable development and on issues of economic and social development which also impinge on the environment and vice versa. It supports conservation and management of natural resources of the region by working closely with all national, regional, and international institutions, governmental and non governmental, as well as experts and groups engaged in such co-operation and conservation efforts.
- Secretary, Ministry of Environment & Forests is the SACEP Focal Point for India. The SACEP holds its Governing Council (GC) meetings, which concentrate on current regional issues as well as global concerns. The 10th Governing Council of SACEP was held on 25th January, 2007 in Kathmandu. The meeting deliberated on institutional matters, project status and work programme.

South Asian Association for Regional Cooperation (SAARC)

- SAARC has eight countries of the region as members, viz., Afghanistan, Nepal, India, Bangladesh, Bhutan, Pakistan, Maldives and Sri Lanka. So far, seven Environment Ministers Conferences have been held under SAARC, which also has a Committee on Environment, Meteorology and Forest, for working out the detailed plan of action in these areas and implementing the same. Strengthening regional cooperation in environment is the focus of the SAARC meetings.

- One of the important achievements of the year is the establishment of SAARC Forestry Centre in Bhutan. India is the current Chair of SAARC and is taking a lead in operationalizing the declarations of various SAARC forums and proposing regional cooperation projects in capacity building and technical support.

Bilateral Co-operation

This Ministry has bilateral MoUs / Agreements on environment with Austria, China, Germany, Iran, Israel, Netherlands, Mauritius, Russia, Tajikistan, Turkmenistan, USA, UK & Vietnam. These MoUs / Agreements cover a wide array of environmental issues. In addition to formal bilateral agreement there are cooperative activities with a host of other countries some of which are enumerated below:-

- European Commission: The activities with European Commission covered implementation of the India-EU Joint Action Plan, holding the Joint Working Group meeting and the EU supported Action Plan Support Facility project. All activities leading up to the Action Plan Support Facility have been completed and the project is now to start very soon.
- The initiatives under the Joint Statement on India-UK High Level Dialogue on Sustainable Development were carried forward in a time bound manner with the formation of working groups on the four identified areas of cooperation viz. Wildlife, Corporate Social Responsibility, Sustainable Forestry (Natural Resource Management) and Sustainable Production and Consumption.
- The first meeting of the Joint Working Group on Environment with Norway took place in Norway in October, 2007 paving the way for further cooperation between the two countries. It focused on bilateral issues on climate change and CDM, biological diversity, hazardous chemicals and waste.
- The fourth meeting of the Joint Working Group on Environment between India and Finland also took place in October, 2007 which deliberated upon both issues of bilateral cooperation and environmental issues of international importance. The discussions broadly covered issues relating to climate change, air pollution control, sustainable consumption and production, etc.
- The Memorandum of Understanding (MoU) in the field of Environment signed between Ministry of Environment and Forests, Government of India and United States Environment protection Agency (USEPA) in January, 2002 provides a framework for policy and technical cooperation between this Ministry and the USEPA on the basis of common concern for the protection off environment as well as to pursue sustainable development. The activities covered under this MoU reflect adequately our environmental concerns - environmental governance, air and water quality management, management of toxic chemicals and hazardous wastes. A document for extension of the MoU for another five years was signed between the Hon'ble Minister of Environment and Forests Shri A. Raja and the visiting USEPA Administrator Mr. Mr. Stephen L. Johnson on 2nd April, 2007.
- A new bilateral agreement with Mauritius in the field of environmental cooperation was entered into after Cabinet approval on 23rd November, 2006.
- A Joint Statement on India-Canada Forum for Environmental Cooperation was signed on 17th September, 2007 to

institutionalize the rich and diverse India-Canada bilateral environmental cooperation portfolio and is further expected to boost the same through regular meetings/ interactions.

- A number of bilateral activities were carried out with Sweden from where a high level delegation came to India in September, 2007 to explore the possibility of environmental cooperation, such as Indo-Swedish Knowledge Facility, setting up of a Joint Working Group, proposed signing of a country to country agreement in environment etc.

World Bank

- IC &SD Division is nodal division for the overall World Bank portfolio in environmental projects. It coordinates the initial tying up of activities including crucial negotiations before the projects are actually started by the concerned thematic divisions.

Country Environmental Analysis (CEA)

- The Ministry along with the World Bank has conducted a study- Country Environment Analysis, which seeks to identify and recommend institutional development and capacity building measures that strengthen monitoring and enforcement of environment of environmental compliance and enhance environmental performance in the three sectors of power, highways and industry. The work focuses on assessing implementation experiences from selected case studies in these sectors to draw lessons of good practice and of existing barriers to good environmental performance and compliance.
- The CEA seeks to support the implementation of the National Environment Policy and other environmental Acts by assessing major

institutional barriers to good environmental performance and compliance. Specifically, the study examines gaps in institutional arrangements, processes and incentives governing the integration of environmental considerations in the planning, design and implementation of development projects and activities in the identified sectors. The study recommends policy measures, capacity building areas and institutional reforms needed to strengthen monitoring and enforcement, and suggests incentives for better environmental and ecological performance in the context of accelerated infrastructure and industrial growth in the country.

Advisory Services in Environmental Management (ASEM)

- This is an umbrella project under the aegis of Indo-German technical collaboration covering present and future projects being supported by the Government of Germany in the environment sector. The initial funding was Euro 3 million for the first phase of project (2002-2005). For the second phase (2005-2008) apart from 3 million Euros initially committed, an additional amount of Euro 1.7 millions was further committed. For the third phase (2008-11) of the project a total German grant of Euro 4.7 million has recently been agreed to.
- ASEM focuses on six major thrust areas namely, Environmental Planning, Waste management, Sustainable Small Industries/Cleaner Technologies, Clean Production and Products, Clean Development Mechanisms. The project has developed well in the field of Eco-cities, Eco-industrial Estates, Eco-Industrial Parks for Electroplating Industries of

Madurai, waste management, Sustainable Small Industry & Clean Development Mechanism and e-waste management. Under the Human Resource Development Programme of the project, relevant trainings and workshops are organised in the identified thrust areas.

- One of the important developments under the project was the commitment of the German side to provide technical support the Jawaharlal Nehru Urban Renewal Mission being implemented by Ministry of Urban Development.
- In another initiative, a Trust Fund has been created with contributions from Central Pollution Control Board, UNIDO and City of Vienna for development of eco-business plans for the eco-cities.
- A number of other activities have been started during the year in question in the designated focal areas of the project such as technical assistance for cleaner production, air and water pollution control, municipal waste management, human resource development in environment, etc.

Training abroad

Capacity building of officers in the field of environment and forestry abroad is carried out by the IC & SD Division. A data bank of officers of various State Governments, Central and State Pollution Control Boards, State Environment and Forests Departments, etc. is maintained by this Division for this purpose. A total number of approximately 25 officials have attended various foreign trainings during 2007-08 in the fields such as Waste management, Natural Resource Management, Climate Change, Eco-industrial Estates Development, Environmental Management, Environmental Health, etc.. The

officers are sent on international training keeping in view the functional requirements and due representation to State Governments.

Facilitation of international meetings

IC&SD Division also facilitates funding and other arrangements in respect of this Ministry's delegation for various important international meetings in the fields of sustainable development, bilateral and multilateral cooperation, negotiations in UN bodies, participation in international workshops and seminars, etc. It also caters to all foreign delegations coming to the Ministry for furthering bilateral cooperation.

Climate Change

Adaptation and Capacity Building Project on Climate Change.

Introduction and objectives

- Climate Change is one of the most important global environmental problems. The Fourth Assessment Report of Intergovernmental Panel on Climate Change brought out in 2007, has projected a serious picture of the earth's future. The Report has stated that global warming may have a devastating impact on the climate of the earth. It is very likely that climate change can slow down the pace of progress towards sustainable development either directly through increased exposure to adverse impact or indirectly through erosion of the capacity to adapt.
- Recognizing threats posed by Climate Change, most countries joined an International Treaty, the United Nations Framework Convention on Climate Change (UNFCCC), to begin to consider what can be done to reduce global warming and cope with whatever

temperature increases are inevitable. India is a Party to the United Nations Framework Convention on Climate Change (UNFCCC), which was adopted in May 1992 and came into force on 21st March 1994. The objective of the Convention is to achieve stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. Such a level is to be achieved within a time frame sufficient to allow eco-systems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner. The Convention enjoins upon the Parties to protect the climate system on the basis of equity and in accordance with their “common but differentiated responsibilities” and respective capabilities.

- To give more concrete action plan to combat climate change, Parties to the Convention in 1997 adopted the Kyoto Protocol in recognition of necessity for strengthening developed country commitments under the Convention in furtherance to the objectives of the Convention. The Kyoto Protocol commits the developed countries, including economies in transition, to reduce emissions of greenhouse gases by an average of 5.2% below 1990 levels during 2008-2012. The Kyoto Protocol came into force on 16 February 2005. India is a party to the Kyoto Protocol.

Progress of Activities Undertaken

- Under the scheme “Adaptation and Capacity building project on climate change”, funding has been provided to the projects relating to climate change

including projects relating to modeling exercise to support Government of India with sound economic and rigorous scientific results.

- During the year, the new projects funded by the Ministry are
 - Energy efficient pathways for sustainable development in India and
 - National Strategy on Climate Change.

Clean Development Mechanism (CDM)

- Under the Clean Development Mechanism (CDM) of the Kyoto Protocol, a developed country with quantified emission limitation and reduction commitments would take up the greenhouse gas reduction project in a developing country. The resulting certified emission reductions could be used by developed country Parties to help meet their emission reduction targets. The Government of India has set up the National CDM Authority in December 2003 with its office in the Ministry of Environment & Forests. The National CDM Authority evaluates and recommends CDM projects for host country approval. The CDM aims to assist developing countries in achieving sustainable development by promoting environmentally friendly investment from industrialized country government and businesses.
- Meetings of National CDM Authority were held periodically to consider the CDM Projects for grant of Host Country approval. Till December 2007, the National CDM Authority has approved 772 projects in the field of Biomass based Cogeneration, Energy efficiency, Municipal Solid Waste; Renewable such as Wind, Small Hydro projects etc. These projects would generate 433 million

certified emission reductions (CERs) by the year 2012, if all these projects successfully get registered with the CDM Executive Board.

Inter-Ministerial and Inter-agency Consultative Mechanism

- As preparatory to articulate policies and develop our strategy, MoEF being the nodal Ministry for Climate Change, Secretary (E&F) chairs an inter-ministerial and inter-agency Consultative Group for Climate Change negotiations, which also includes eminent national experts in different fields. Apart from this Group, there are various Sub-Groups such as Political Sub Group on Climate Change and Modeling Sub-Group on Climate Change, which meets at regular intervals. As forestry issues have gained importance, a separate Sub-group on Forestry issues was set-up during the year.

Expert Committee on Impacts of Climate Change

- In pursuance of the announcement made by the Hon'ble Finance Minister while presenting the Union Budget 2007-08, the Government set up the Expert Committee on Impacts of Climate Change on 7th May, 2007 under the Chairmanship of Dr. R. Chidambaram, Principal Scientific Adviser to Government of India. The Terms of Reference of the Committee are to study the impacts of anthropogenic climate change on India and to identify the measures that we may have to take in the future in relation to addressing vulnerability to anthropogenic climate change impacts. The Expert Committee includes eminent persons from academia, science and also from various Ministries and Departments concerned.

Prime Minister's Council on Climate Change

- A coordination committee chaired by Prime Minister called Prime Minister's Council on Climate Change was constituted in June, 2007 to coordinate national action for assessment, adaptation and mitigation of climate change. The first Meeting of the Council was held in July, 2007 and the second meeting of the Council was held in November, 2007. One of the important decisions, among many other decisions, has been to prepare a National Document compiling action taken by India for addressing the challenge of climate change and the action that it proposes to take, be prepared as India's National Report on Climate Change.

India's National Communication to United Nations Framework Convention on Climate Change (UNFCCC)

- India is a Party to UNFCCC. One of the obligations, being a Party, is to furnish information on the implementation of general commitments under the Convention in the form of a National Communication. India had submitted its initial National Communication to the UNFCCC in June, 2004. The elements of initial national Communication include an inventory of Greenhouse gas emission – Carbon dioxide, Methane and Nitrous Oxide for the base year 1994; a preliminary national assessment of vulnerability due to climate change on Indian Water Resources, Agriculture, Forestry, Natural eco systems, coastal area, health, energy and infrastructure besides other elements. The initial analysis has revealed that climate change scenario may have adverse effects of severity of droughts and intensity of floods in various

parts of the country and provides general description of steps taken or envisaged to implement the Convention. India is required to prepare and communicate its Second National Communication containing updated information for the base year 2000. This activity has already been initiated. A National Steering Committee under the Chairmanship of Secretary (Environment & Forests) with representative of the various concerned Ministries of the Government of India provides overall guidance to the preparation of the National Communication.

- Consequent upon obtainment of the funds from the Global Environment Facility through United Nations Development Programme several activities were undertaken inter-alia organization of the meeting of the National Steering Committee (May 22, 2007) and an Inception Workshop of India's Second National Communication (SNC) to UNFCCC on May 28, 2007 for implementation of the work programme of SNC inter-alia greenhouse gas inventory estimation, uncertainty reduction in inventory estimation, vulnerability assessment and adaptation and education and public awareness. The programme relating to estimation of inventories of greenhouse gases of anthropogenic origin in sectors such as energy, industry, agriculture, forestry and waste has been initiated.

Inter-Governmental Panel on Climate Change (IPCC)

- The Inter-governmental Panel on Climate Change (IPCC) has brought out the Fourth Assessment Report on Climate Change in November, 2007. It is based on the three

working group reports released during the year; the first on science of climate change; the second on Impacts, Adaptation and Vulnerability to Climate and the third on mitigation of climate change.

- The review of the Fourth Assessment Report of the IPCC was undertaken through extensive study and synthesis of the comments obtained from the experts countrywide on the various aspects of climate change, viz., the physical science basis of climate change; impacts, vulnerability and adaptation and mitigation of climate change. Inter-Ministerial delegations participated in the meetings of the IPCC wherein the Fourth Assessment Report, including Synthesis Report of the IPCC, were adopted.
- Many Indian scientists contributed to the Assessment Reports of the IPCC. The Hon'ble Prime Minister hosted a felicitation function on November, 26, 2007 at his residence in recognition of the contributions of the Indian scientists to the work of IPCC, which was declared the joint winner of the Nobel Peace Prize, 2007. Each contributing scientist was awarded citation signed by the Hon'ble Prime Minister.

Indo-UK Collaborative Research Programme – Phase-II (Impacts and Adaptation) on Impact of Climate Change in India

- A joint collaborative research programme between the Government of United Kingdom, Department of Environment, Food and Rural Affairs and the Ministry of Environment & Forests, Government of India was initiated. The objective of the research programme is improvement of climate scenarios, quantifying and reducing uncertainty in the impacts, and

introducing consideration of elements of adaptation in a regional project, with some stakeholder involvement.

- The Phase-II of Indo-UK collaborative research on climate change under the aegis of Structured Dialogue on Climate Change was initiated. The Ministry of Environment and Forests (MOEF), India and the UK Department of Environment, Food and Rural Affairs (DEFRA) have jointly devised a three year research programme on the impacts and adaptation to climate change in India. The project has been built on India's existing expertise to assess the sectoral impacts of climate change; reduce the uncertainties in current climate change prediction models; and contribute to the science of climate change.
- The Programme of work for Phase-II consist firstly in the national level assessment of impacts inter-alia improvement in climate change scenarios and revision of impact assessment at the national level and secondly adaptation responses to climate change for specific sectors through a regional project to build capacities in India to adapting to climate change. The regional project would concentrate on sectors such as water resources, agriculture and health. In addition, the Phase-II envisages training and institutional capacity building through establishment of links between Indian and UK Institutions for developing training opportunities relevant to the study.
- A Steering Committee co-chaired by the representatives of MOEF and DEFRA will oversee the development and implementation of the Phase-II programme. A workshop was held on 20th November, 2007 at New Delhi with

the aim of processing the design study and the various elements of work to various stake holders.

Major International Meetings on Climate Change

- An inter Ministerial delegation from India participated the 26th Session of Subsidiary Body meetings to the United Nations Framework Convention on Climate Change (UNFCCC) and the third Session of the Ad-hoc Working Group (AWG) on further commitments for Annex-I Parties under the Kyoto Protocol in May 2007. India made a Country presentation on adaptation oriented activities based on a detailed Study of Budget documents and expenditure figures on schemes/ programmes, etc that Govt. of India has been taking as a part of its development plans with a direct bearing on adaptation. The presentation demonstrated that India is already spending 2% of its GDP on adaptation related activities to take care of natural climate vagaries. The presentation concluded with the political message that pure adaptation would need additional funds without detracting from development resources.
- Climate Change was one among the major theme discussed in the G8+05 Meeting held in Heiligendamn, Germany in June 2007. During his intervention, Dr. Manmohan Singh, Hon'ble Prime Minister stated clearly that "we are determined that India's per-capita GHG emissions are not going to exceed those of developed countries even while pursuing policies of development and economic growth".
- Indian delegation also participated in the Fourth Session of the Adhoc Working Group on further commitments for Annex-I Parties under the Kyoto Protocol (AWG)

and Fourth Workshop under the Dialogue on long-term cooperative action to address climate change by enhancing implementation of the Convention from 27-31 August, 2007 at Vienna, Austria. This Session took forward the process to determine the quantified emission limitation/reduction targets of Annex-I Parties. During the Dialogue, Indian delegation made a presentation titled 'GHG Mitigation Interventions – How far feasible in India' highlighting the cumulative incremental investment requirements by 2036 for reducing CO₂ emissions in some selected sectors such as SMEs, Power, Renewable etc.

- The subject of Climate Change has over the years gained increasing importance and was discussed in various international and bilateral forums. Significance of the subject may be gauged from the fact that it was discussed in the United Nations General Assembly (UNGA) on 24th September, 2007. Hon'ble Finance Minister represented India. Hon'ble FM reiterated India's well known stand on climate change and felt that this event would assist in moving forward the process in the United Nations Framework Convention on Climate Change [UNFCCC] in accordance with the principle of common but differentiated responsibilities and respective capabilities.
- At the initiative of the USA, Major Economies Meeting (MEM) on Energy Security and Climate Change was held in Washington DC, in September, 2007. The Indian Delegation effectively participated in this meeting. The most noteworthy point of this meeting was that all Parties affirmed the importance of UNFCCC and the USA in particular assured that MEM was not proposed to be a substitute of UNFCCC process. The second meeting of MEM was held in January, 2008 at Honolulu.
- Second Ministerial meeting of Asia-Pacific Partnership on Clean Development and Climate was held in New Delhi on 15 October, 2007, preceded by meeting of Programme and Implementation Committee on 14 October, 2007. In this Ministerial meeting, Canada was included as the seventh member of the Partnership. During the meeting 18 flagship projects were also approved.
- As a preparatory to 13th UN Climate Change Conference (COP-13), Informal Inter-ministerial meeting was held at Bogor, Indonesia in October, 2007. During the meeting, there were several references to a post 2012 framework. India made it clear that UNFCCC is universally accepted and 2012 is merely the end year for the first commitment period under the Kyoto Protocol, which clearly refers to further commitment periods. India emphasized that the need is to really invigorate the negotiations with a clear time table for determining targets in the period post 2012 for Annex I Parties without reference to any extraneous issues that vitiate the principle of 'common but differentiated responsibilities and respective capabilities'.
- An Inter-Ministerial delegation, led by Shri Kapil Sibal, Hon'ble Minister for Science & Technology and Earth Sciences, from India participated in the Thirteenth Conference of Parties (COP) to the United Nations Framework Convention on Climate Change (UNFCCC) and the Third Meeting of Parties to the Kyoto Protocol

(COP/MOP) held in Bali, Indonesia during 3-15 December 2007. The Bali Climate Change Conference had attracted a great deal of attention because of the release of the Fourth Assessment Reports by the Inter Governmental Panel on Climate Change (IPCC) recently and also because of the fact that the year 2007 is the year immediately preceding the beginning of the first commitment period under the Kyoto Protocol, i.e., 2008-2012. Parallel to these meetings, meetings of Finance Ministers and Trade Ministers were also held. The Conference at Bali was meant primarily to set out an agenda of negotiations, and a time-table, on a future regime to address climate change.

- The principal outcomes of the Bali Conference were, first, a process to determine the greenhouse gas ("GHG") reduction commitments of industrialized countries ("Annex I") under the Kyoto Protocol, beyond 2012. Second, the commencement of Bali Action Plan; a comprehensive dialogue on long-term cooperative action to address four major building blocks of climate change, i.e. GHG mitigation; adaptation to climate change impacts; technology development and cooperation; and finance. The unique point of this decision is that the USA also joined the global consensus and agreed to accept this decision. The Indian delegation under the leadership of Shri Kapil Sibal effectively articulated our position, in the midst of tough negotiations, in accordance with the provisions and principles of the UNFCCC, in particular the principle of "common but differentiated responsibilities and respective capabilities and national circumstances". In addition, several other significant decisions were reached, in

particular the operationalization of the Adaptation Fund to provide assistance to developing countries to adapt to climate change.

Ozone Layer Protection

Introduction and Objectives

- Ozone, a tri-atomic molecule is formed naturally in the upper level of the Earth's atmosphere by high-energy Ultraviolet (UV) radiation from the Sun. The radiation breaks down oxygen molecules, releasing free atoms, some of which bond with other oxygen molecules to form ozone. About 90 per cent of all ozone formed in this way lies between 15 and 55 kilometers above the Earth's surface, called the Stratosphere.
- The stratospheric Ozone Layer absorbs all the harmful Ultraviolet (UV) radiation emanating from the Sun. It protects plant and animal life from UV radiation. UV radiation has the potential to cause skin cancer, eye damage, suppress body's immune system, decrease crop yield, causes damage to forests in early seventies, led to the adoption of the Vienna Convention for the Protection of the Ozone Layer in 1985 and the Montreal Protocol on Substances that Deplete the Ozone Layer 1987 along with its 4 Amendments. In India, provisions of the Montreal Protocol and its London Amendment came into effect from 17.09.1992. India also ratified the Copenhagen Amendment (1992), the Montreal Amendment (1997) and the Beijing Amendment (1999) on 3rd March, 2003.
- India produces Chlorofluorocarbons (CFC-11, CFC-12, CFC-113), Hydrochlorofluoro carbons (HCFC-22), Carbontetrachloride (CTC) and has

stopped production of Halon-1211, Halon-1301, methyl chloroform and methyl bromide. These Ozone Depleting Substances (ODS) are used in refrigeration & air conditioning, foams, fire fighting, electronics, aerosol fumigation applications.

- The Government of India has entrusted the work relating the ozone layer protection and implementation of the Montreal Protocol to the Ministry.
- A detailed India Country Programme for phase out of ODS was prepared in 1993 to ensure the phase out of ODS according to the National Industrial Development Strategy, without undue burden to the consumers and the industry and for accessing the Protocol's Financial Mechanism in accordance with the requirements stipulated in the Montreal Protocol. The Country Program has been updated in 2006. The Executive Committee of the Multilateral Fund (MLF) at its 49th meeting held in July, 2006 approved the Country Program Update for India.
- The Ministry has set up the Ozone Cell as a National Unit to look after and to render necessary services to implement the Protocol and its ODS phase-out programme in India. The Ministry has established an Empowered Steering Committee (ESC) chaired by the Secretary (E & F) which is supported by the Standing Committees. These Committees are responsible for the implementation of the Montreal Protocol provisions, review of various policy and implementation options, project approvals and project monitoring.

Progress of Activities Undertaken

- India has taken a series of fiscal and regulatory measures to facilitate ODS phase-out in the country. Among fiscal measures taken, Government has accorded customs and excise duty exemptions on goods required for ODS phase-out projects and new investment and expansion of established industries with non-ODS technology. In current financial year i.e. 2007-08 only benefit of customs duty has been given for the above purpose. The Reserve Bank of India has issued directions to all financial institutions and commercial banks not to finance new establishment with ODS technology. Trade in ODS with non-Parties to the Protocol has been banned. All ODS have brought under the ambit of licensing for purpose of both imports and exports. Export of CFCs to Non-Article (5) Countries has also been banned.
- Ozone Rules have been amended.
- Fiscal measures have been adopted.
- Awareness activities such as International Ozone Day and Technical Workshops etc. were organized since 1995.
- Participated in the meeting of the Executive Committee, Meeting of the Parties (MOP) and other related meetings.
- Data on production, export, import and Ozone Depleting Substances was submitted to the Ozone Secretariat for the year 2006.
- Project Management Unit was set up to implement the CFC and CTC National Phase-out Plans.
- Training Programs for customs and other enforcement officers were organized.
- Information material like "VATIS" and "Montreal Protocol: India's Success Story" was brought out.

Achievements made

India has met the following compliance dates as per the control schedule of the Montreal Protocol:-

- Freeze of CFC production and consumption in July, 1999 at 22588 ODP tons and 6681 ODP tons respectively
- Freeze of Halon production and consumption on 1.1.2002
- Total phase-out of halon production and consumption in 2003.
- 50% reduction of CFC production and consumption in 2005 (production from 22588 MT to 11240 MT and consumption from 6681 MT to 1640 MT)
- 85% reduction of CTC production and consumption in 2005 (production from 11525 MT to 1508 MT and consumption from 11537 MT to 1493 MT)
- The Executive Committee of the MLF had approved a total of 296 projects involving funding of about US\$ 229 million for phasing out 25000 ODP tons of production and 23000 ODP tons of consumption of ODS. So far, India has achieved the 50% reduction target in respect of CFC and 85% reduction of CTC as of 1.1.2005.
- In 2006 and 2007 during 48th to 51st meeting of the Executive Committee of the MLF, US \$ 23.96 million were approved for implementation of 2006 and 2007 annual work programmes of CFC Production Sector Phase-out Project, National CFC Phase-out Plan and CTC National Phase-out Plan.

Awareness activities

- The UN General Assembly on 23rd January, 1995 adopted a resolution

49/114 which proclaims 16th September as the International Day for the Preservation of the Ozone Layer, to commemorate the signing of the Montreal Protocol on Substances that Deplete the Ozone Layer which was signed on 16th September, 1987. The International Day for the Preservation of the Ozone Layer is celebrated at national and state level since 1995.

- The Thirteenth International Day for the Preservation of the Ozone Layer was celebrated in Delhi on 16th September, 2007. The theme of this year's International Ozone Day was "Celebrating 20 Years of Progress". Around 500 school children attended the function organized at Sri Satya Sai Auditorium, New Delhi. On this occasion poster, painting, skit competitions were organized among school children. Prizes for best 3 in each competition were given. Ozone Cell publication "Montreal Protocol: India's Success Story", was released and distributed to the participants.
- The 52nd Meeting of the Executive Committee of the MLF for Implementation of the Montreal Protocol was held from 23rd to 27th July, 2007 in Montreal, Canada. Director (Ozone Cell) participated in this meeting. The following important decisions were taken in the meeting

Authorised using the flexibility clause provided under the agreement between the Government of India and the Executive Committee of the MLF, to allow funds to be used to cover all relevant sectoral consumption, on the understanding that existing Executive Committee guidelines would not change for determining eligible

incremental costs for consumption and production.

Approved funding of US\$ 100,000 for preparation of investment project for phase out of CFCs in Metered-Dose-Inhalers (MDI) sector.

Approved the 2007 Annual Program for CTC National Phase-out Plan at a total funding level of US\$ 4,820,938.

- The 53rd Meeting of the Executive Committee of the MLF for implementation of the Montreal Protocol was held from 26th to 30th November, 2007 at Montreal, Canada. Joint Secretary and Director, Ozone Cell had attended the meeting. The following important decisions relevant to India were taken in the meeting

Options for assessing and defining eligible incremental costs for HCFC consumption and production phase-out activities;

Paper on options for possible funding arrangements and levels for institutional strengthening support beyond 2010, and on opportunities to fine-tune the institutional strengthening renewal process;

- A seminar on the Montreal Protocol – Celebrating Twenty Years of Progress” and 19th MOP to the Montreal Protocol on Substances that deplete the ozone Layer was held in Montreal, Canada from 16th to 21st September, 2007. The Indian delegation was headed by the Hon’ble Minister of State for Environment and other senior officers of the Ministry as well as High Commissioner of India in Canada. The 19th MOP adopted 29 decisions including the following important decisions relevant to India

- Accelerated phase out of HCFCs – The decision accelerates the phase out of HCFC production and consumption by a full decade, moving the commitment for phase-out by Article 2 Parties from 2030 to 2020 for Article 5 parties from 2040 to 2030. The decision includes the availability of sufficient funding through MLF for implementation of the Montreal Protocol to meet all agreed incremental costs to enable Article 5 Parties to comply with the accelerated phase-out schedule of both for production and consumption.
- The 19th MOP endorsed the selection of India as Member of the Executive Committee for the year 2008 along with Nepal and Jordan as the co-opted Members.
- The Ozone Secretariat considering the best performance of India in respect of Implementation of ODSs phase-out projects, development of regulations and fiscal incentives to comply with the reduction schedule as prescribed in the Protocol, selected the Ozone Cell of India for the Best Implementer’s Award. The award was given on 16th September, 2007 by Mr. Achim Steiner, Executive Director of UNEP. Hon’ble Minister of State for Environment Mr. Namo Narain Meena received the award.
- ECOFRIG, HIDECOR and NCCOPP have been selected for The Montreal Protocol Exemplary Project Recognition Award for its achievement in developing hydrocarbon technology for refrigeration and insulation of foam.
- Kirloskar Copeland Ltd. got The Montreal Protocol Exemplary Project

Recognition Award for conversion of compressor design for refrigerators and appliances from CFC-12 to HFC-134a.

- M/s Satya Deeptha Pharmaceuticals Ltd. got The Montreal Protocol Exemplary Project Recognition Award for process agent industry.
- National Academy of Customs Narcotics and Drugs (NACEN) and Ozone Cell organized training programme for customs officers as part of Policy and Customs training project in the RTIs of NACEN.
- Workshop for SISI officers on India's regulatory framework for Montreal Protocol was organized at Hyderabad in Jun'07.

Regulatory Measures

- The Ozone Depleting Substances (Regulation and Control) Rules, 2000 under the Environment (Protection) Act, 1986 has been notified in the Gazette of India on 19.7.2000. These Rules set the deadlines for phasing out of various ODS, besides regulating production, consumption, trade, import and export of ODS and the products containing ODS.

The Ozone Depleting Substances (Regulation and Control) Rules, 2000 were amended in 2001, 2003, 2004, 2005 and 2007 to facilitate implementation of ODS phase-out by the enterprises in various sectors.

- These Rules prohibit the use of CFCs in manufacturing various products beyond 1.1.2003 except in MDI and other medical purposes. Similarly, use of halons is prohibited after 1st January, 2001 except for essential use. Other ODS such as carbon tetrachloride, methyl chloroform and CFC for MDI can be used upto 1.1.2010. Further, the use of methyl bromide has been allowed upto 1.1.2015. Since HCFCs are used as interim substitute to replace CFCs, these are allowed upto 1st January, 2040.
- The latest amendment to the rules, have defined feedstock use of ODS and extended the date of registration for enterprises using ODS.

Fiscal Measures

- Customs and Excise duty exemption have been extended for MLF assisted ODS phaseout projects or expansion of capacity with non-ODS technology during the financial year 2007-2008.