The Montreal Protocol: India's success story

India acceded to the Montreal Protocol on 17 September 1992. India's per capita consumption of ozone-depleting substances is at present less than 3 g and did not cross 20 g between 1995-97, compared with 300 g permitted under the Protocol. India commonly produces and uses seven of the 20 substances controlled under the Montreal Protocol. These are CFC-11, CFC-12, CFC-113, Halon-1211, Halon-1301, carbon tetrachloride (CTC) and methyl chloroform. This article features some highlights of India's efforts to phase-out ODS.

ODS phase-out progress

- Updating of the India Country Programme for phase-out of ODS as per the schedule in the Protocol was initiated in 1998 and is likely to be completed by early 2000.

- All the producers, as of now, are contemplating to go for a gradual closure scenario, wherein each producer will curtail production based on allocated quota. The quota for each producer will be based on actual share in total base level production. It is anticipated that the quota will be tradable among producers, so that such producer will be able to determine when to exit the industry. Further, the producers plan to follow accelerated phase-down on a linear decline of production in each industry. A phase-out project for the four producers of CFCs in India has been prepared by the World Bank. This project has been submitted to the Executive Committee of the Multilateral Fund (MLF) for deciding the level of compensation to be paid to the producers. This project is under intense negotiations with the developed countries for an early settlement.

- A total of 226 projects in the consumption sector have been approved and funded by MLF, of which 187 are ODS phase-out investment projects and 39 are support activities.

Sector-wise approved projects as on 30th July 1999

Sector	No. of projects	Grant amount (US$)	ODP tonnes phase-out
Aerosol	22	2,488,326	741.1
Foam	100	22,442,689	2,439.4
Halon	14	1,843,777	1,750.1
RAC	39	21,060,771	2,181.4
Solvent	12	3,603,157	569.5
Support activities	39	6,430,528	–
Total	**226**	**57,869,248**	**7,681.5**

Fiscal measures

- The national ozone unit (NOU), the Government body that is responsible for monitoring an implementation of the country programme, recognized that without the proposed policy framework, plant investment and non-investment projects will succeed. Accordingly, it initiated an aggressive programme to create a regulatory framework to reinforce the investment, training and other ODS phase-out measures.
- The Government of India has decided to grant full exemption from payment of Customs and Excise duties on capital goods required to implement ODS phase-out projects funded by the Multilateral Fund. The Government decided to extend the benefit of customs and excise duty exemptions for ODS phase-out projects that were eligible for funding under the Multilateral Fund, whether or not such enterprises actually sought assistance from the fund. This will also cover projects submitted for retroactive financing. The benefit was available subject to the condition that the enterprises should give clear commitment to stop using ODS in all future manufacturing operations after the projects were implemented.
- The benefit of duty exemption was also extended for items of recurring use, including non-ODS alternatives. This benefit was allowed for the period for which funds were committed by the Multilateral Fund in specific projects.
- The benefit of duty exemption has been extended for new capacity with non-ODS technology.
- Indian financial institutions have decided not to finance/re-finance new ODS producing/consuming enterprises.
- The Tariff Advisory Committee (TAC) – a statutory body under the Insurance Act, 1938 – has decided to grant suitable discounts on fire insurance premiums if alternative agents are used to replace halons.

Regulatory measures

- Trade in ODS with non-parties has been banned.
- The import and export of all Annex A and Annex B ODS are subject to licensing requirement.
- The export of Annex A and Annex B ODS to Non-Article-5 Parties has been banned.
- A draft notification prohibiting setting up of fresh capacity to manufacture aerosol products, except metered dose inhalers for

medical purpose, have been published in the Gazette of India in 1998.

- Draft Ozone Depleting Substances (Regulations) Rules has been notified in the Gazette of India in 1998 for public comments. It is in the process of finalization and publication.

India's proposed phase-out dates for ODS in the rules

Name of Activity	Phase-out date
Manufacture of aerosol products excluding Metered Dose Inhalers (MDI)	1 Jan 2003
Manufacture of foam products (including domestic refrigerators)	1 Jan 2003
Manufacture of Mobile Air-conditioners (MAC's)	1 Jan 2003
Manufacture of other refrigeration and air-conditioning products	1 Jan 2003
Manufacture of products based on other ODS	1 Jan 2010
Manufacture of Metered Dose Inhalers (MDI)	1 Jan 2010
Use of methyl bromide except Quarantine and Pre-shipment	1 Jan 2015
Manufacture of products based on HCFC	1 Jan 2040

Monitoring system

A detailed monitoring mechanism has been established by the Ozone Cell to ensure that the investments made directly by MLF through implementing agencies are being fruitfully utilized by the enterprises. The monitoring mechanism has the following components:

- A Monitoring and Evaluation Sub-committee is being set up which would include representatives from four implementing agencies, other ministries and industry associations. The Sub-committee is an advisory body to the Empowered Steering Committee of the Montreal Protocol, which is responsible for the implementation of the Protocol in India. The Committee will develop detailed formats to evaluate and monitor investment and non-investment projects.
- The Director (Ozone Cell) has been convening monthly evaluation meetings with representatives of UNDP, IDBI and UNIDO with a view to note the progress of implementation and to sort out short-term problems, which might occur during the implementation process.

- A provision for the site inspections of the projects that are under implementation, and also when the project completion reports have been submitted, has also been made. Normally, during the course of the year, implementing agencies send 3-4 missions to visit sites where project implementation work is going on, and where projects have been completed and handover protocols are to be signed. During such missions, ODS equipment is also destroyed. Now, an officer of the Ministry of Environment and Forests (MoEF) will accompany the mission of the implementing agency in these visits with a view to evaluate the work being done by the enterprises.
- It is also proposed to send a team of officers from MoEF to the project sites after the project has been completed to ensure that the enterprise has not reverted back to using ODS and that the new technology is in place. These visits are being planned on a quarterly basis.

The road ahead: remaining challenges

Some priority challenges that are yet to be addressed include:

- Implementation of the sector phase-out plan for the production of CFCs;
- Phase-out in the small and medium sector and the servicing sector;
- Phase-out in the solvent sector especially use of CTC as solvent and as process agent;
- Illegal imports of CFCs are possibly entering the country;
- Ozone depletion issues and its relation to refrigeration practices is still not included as a standard element of the curricula of all technical training institutes in the country;
- Inflow of old ODS using equipment may negate the country's early ODS phase-out achievements; and
- Servicing workshops will need to be trained in the use of replacement refrigerants as well as the required tools for good servicing and maintenance practices would need to be adopted.

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