

HCFC Phase-Out Management Plan (HPMP) - (Service Sector)

Terms of Reference

Equipment and Tools for Technicians Training

Background

India's HPMP has been approved during the 66th Meeting of the Executive Committee of the Multilateral Fund under the Montreal Protocol. As the RAC servicing sector contributes to a large extent to the consumption of HCFCs, in particular in the room air-conditioner segment, GIZ-Proklima on behalf of the Government of Germany and in close co-operation with the Ozone Cell in the Ministry of Environment and Forests will implement phase-out activities in the Indian RAC servicing sector. The consumption will be reduced mainly through training on better servicing practices and leak prevention but service technicians also need to be prepared on the introduction of alternatives like HC-290, HFC-410a and HFC-32.

The average consumption of HCFC-22 for servicing in 2009 and 2010 is 5,042 metric tonnes which is equal to about 40% of India's baseline for this substance. This consumption is expected to exceed 10,000 metric tonnes by 2013 in a scenario with unconstrained growth (which would then be approx. 70% of India's HCFC-22 baseline). This is due to the high growth rate in particular in the room air-conditioner sub-sector. The segment of room air-conditioners is the largest servicing sub-sector in India with its installed base growing from 7 Mio units in 2003 to more than 47 Mio units by 2013. It is important to note that an unknown quantity of these units are imported pre-charged.

The demand projection for 2010-2030 clearly indicates that the servicing sector needs to be simultaneously addressed with the air-conditioning manufacturing industry in order to reduce India's consumption of HCFCs.

GIZ - Proklima

Since 1996 GIZ-Proklima has been working in developing countries on reducing and subsequent phasing-out of ozone depleting substances, such as CFCs, halons, methyl bromide,. Proklima follows guidelines and resolutions adopted in the 1987 "Montreal Protocol on Substances that Deplete the Ozone Layer".

Proklima cooperates with a variety of private and public partners:

- United Nations organizations,
- German Government,
- Governments in partner countries in Africa, Asia and Latin-America ,
- Associations representing industrial sectors,
- Vocational training institutions,
- Individual companies in the production and service sectors.

Proklima advises governments of partner countries on drafting local regulations and setting policies that will comply with all international environmental agreements.



In the industrial sector, Proklima assists companies in replacing ozone depleting technologies with environmentally friendly and economically attractive alternatives. Proklima ensures that promoted replacement technologies comply not only with the obligations under the Montreal Protocol but also with other international environmental agreements, such as the Kyoto Protocol.

Today, Proklima cooperates with many countries in Africa, Asia, and Latin America in the fields of air-conditioning, refrigeration, foam blowing, firefighting equipment and agriculture. Such broad cooperation is also due to the countries' appreciation for German technology, know-how and technical expertise provided by German enterprises.

Activities under HPMP

As improving servicing practices will lead to immediate gains in terms of HCFC consumption reduction it has been proposed to start this activity as soon as possible. There are already 15 training cells in the country which are sufficient for reaching out to technicians in metros and towns all over India to train as many technicians as possible but min of 10200 nos and to address all the identified sub-sectors.

The focus during the first training session would be on leak prevention and better servicing practices in subsectors of Room Air-Conditioners below 2 TR, Water Coolers, Ice Candy Plants and Display Cabinets while the training programmes would be gradually expanded to the other sectors during the subsequent training sessions.

During Phase I the target group for technicians to be trained would be from institutions, franchisees and the semi-organised sector as most of these would be able to avail of the required tools and equipments for good servicing practices.

It is also planned to adapt the syllabus of the RAC trade to ODS free servicing and better service practices of HCFC based systems. This activity would ideally complement the inclusion of the Government Industry Training Institutes (ITIs) under the CFC phase-out where the ITI trainers were trained in specific training of trainer programmes and where equipment for training of future RAC technicians on servicing of household refrigerators was provided under the CFC Phase-Out Plan. This activity would ensure that future RAC technicians could adopt ODS free servicing and better servicing practices of HCFC based systems which will help the country to achieve its targets during Phase II of the phase-out.

Equipment and Tools for Technicians Training

Under the HPMP project the technicians training program is done through classroom – theory training and practical hands on training. For the hands on training the training institute / centre has to be equipped with the required equipment and tools.

Annexed is the list of equipment and tools with specifications and quantity required. These specifications are the minimum requirements for the equipment and tools.

