Govt of India committed to phase out Hydrochlorofluorocarbons by 2030

- Reduction of CO2-equivalent emission of about 8.5 million metric tonnes annually from 2023
- Energy efficiency in buildings and equipment are key to mitigating both ozone depletion and impacts on climate change

New Delhi, December 18, 2017: As a part of the commitment to completely phase-out Hydrochlorofluorocarbons (HCFCs) by the year 2030 in India, the Ministry of Environment, Forest & Climate Change (MoEF&CC) and United Nations Environment Programme (UNEP) organized several national level workshops on implementing Energy Efficiency and phasing out HCFCs in the Building Sector. These workshops helped to understand the existing regulatory framework in the sector to support HCFC phase-out management plan, preparedness of various stakeholders, probable hurdles and drawbacks that is needed to overcome for successful implementation of HPMP in building sector. They also helped to identify the preparedness of the sector for future phasedown of HFCs (hydrofluorocarbon).

Organised by the Ozone Cell of the MoEF&CC with support from Energy Efficiency Services Ltd (EESL) and The Energy and Resources Institute (TERI), the last workshop was held in Delhi and was attended by Climate Change experts like Shri Gyanesh Bharti, Joint Secretary, MOEF&CC; Dr. Ajay Mathur, Director General, TERI; Mr. Atul Bagai, Country Director, UNEP India; Mr. Bjarne Olesen, President, ASHRAE; Dr. Amit Love, Joint Director, MoEF&CC and Mr. SP Garnaik, Chief General Manager, EESL, among other dignitaries. Stakeholders from construction industry, building developers, building owners, academia, manufacturers, industry associates, consulting agencies and policy makers were part of the workshop.

Given that the refrigeration and air-conditioning systems in buildings account for significant amount of HCFC consumption and energy use, there is a high demand for HCFC-based solutions coming in from an increase in real estate and infrastructure development activities across all major sectors in India. Apart from using HCFC based solutions, energy efficient building designs can also directly reduce the demand for refrigerants by taking into consideration the climate and sunlight, making it possible to use smaller air-conditioning equipment & non-ozone depletion substances.

The latest Kigali Amendment to the Montreal Protocol calls for the phase down of HFCs to control the greenhouse gas emission due to its use. As per the Montreal Protocol, India must achieve complete phase out of HCFCs by 2030 and start phase down of HFCs by 2028. It has been identified that, about 70-80% of the Ozone Depleting Substances (ODSs) which include HCFCs are used in refrigeration & air-conditioning (RAC), building insulation and firefighting equipment, contributing to both direct and indirect CO2-emissions. Therefore, buildings will have a significant impact on emissions in the years to come. Energy efficiency in buildings and equipment has been identified as the key to mitigating both ozone depletion and impacts on climate change.

Speaking about the importance of the workshops, Mr Shri Gyanesh Bharti, Joint Secretary, MOEF&CC, said, "*We are in process of phasing out HCFCs and have advanced our target to achieve it from the year 2040 to 2030. It is estimated that with this plan, there would be a net direct CO2-equivalent emission reduction of about 8.5 million metric tonnes annually from 2023. These workshops will be helpful in contributing to policy level interventions and I thank EESL and UNEP for organising them*."

After successfully implementing HCFC phase-out management plan (HPMP) Stage-I, the Government of India launched the stage-II in March 2017. The key aspect of the plan is to provide technical assistance and awareness programmes to all industries, especially the small and medium-sector.

Mr SP Garnaik, Chief General Manager, EESL said, "*We are working towards retrofitting 10,000 buildings with energy efficient appliances in next three years. We are very optimistic that this will result in enormous amount of CO_2 reductions, will add to energy savings and ultimately monetary savings in the form of reduced electricity bills.*"

Energy experts have identified a three-pronged approach as a key in phasing out the use of HCFCs in buildings. First, reduce demand for refrigerants through energy efficient equipment and buildings. Second, replace HCFCs with zero Ozone Depleting Potential (ODP) and low Global Warming Potential (GWP) alternatives that achieve both ozone protection and climate benefits. Third, use not-in-kind alternative technologies that do not rely on Ozone Depleting Substances (ODS).

The transition from HCFCs to environment-friendly, technically proven and economically viable alternatives is a challenging task particularly for a developing country. However, India has voluntarily followed a low carbon development path, while phasing out HCFCs by adopting non-ODS, low Global Warming Potential (GWP) and energy-efficient technologies in its HCFC Phase Out Management Plan (HPMP), which is unlike growth paths taken by many countries in the developed world.

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