

**Project Title and ID:**

Hydrochlorofluorocarbons Phaseout Management Plan- II

Project Number (Atlas Output ID): 92915

**Annual Progress Report**

January 2021 - December 2021

## PROJECT SNAPSHOT

Date:	3 March 2022
Award ID:	85200
Project ID:	92915
Project Title:	Hydrochlorofluorocarbons Phaseout Management Plan- II
Project Start Date:	January 2017
Project End Date:	December 2022
Donor:	MLF
Implementing Partner:	Ministry of Environment, Forest and Climate Change
Total Project Budget (all years):	USD 34,849,413
Core Resources:	NIL
Non-Core Resources:	
Government contribution:	
<p><b>Project Brief Description and Outputs:</b></p> <p>Under the Hydrochlorofluorocarbons Phase-out Management Plan (HPMP) Stage-I, India prioritized phase-out of HCFC-141b in the foam manufacturing sector, especially in 15 large HCFC consuming enterprises. In addition, 15 System Houses were also provided funding as a one-time technical assistance to develop new non-HCFC based formulations to support the downstream foam manufacturers, especially, MSMEs in HPMP Stage-II. Under HPMP stage-I, India has successfully phased-out a total of 341.77 ODP tons of HCFCs including 310.53 ODP tons of HCFC 141 b in the foam manufacturing and 31.24 ODP tons of HCFC-22 in refrigeration and air conditioning (RAC) servicing sector, respectively.</p> <p>The Executive Committee (Ex-Com) of the Multilateral Fund (MLF) in its 77<sup>th</sup> meeting, approved the HPMP Stage-II for India with a total funding of USD 44,911,459 plus implementing agencies support costs. The agreement between the Ex-Com of the MLF and the Government of India to reduce consumption of HCFCs under HPMP Stage II was also approved in the same decision. As per the decision, UNDP assumed the role of lead implementing agency of HPMP Stage-II, with UN Environment and Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) Proklima, Government of Germany as cooperating agencies. Under HPMP – II, UNDP supports the Ministry of Environment, Forests and Climate Change (MoEF&amp;CC), Government of India, which in turn support participating enterprises to effectively phase-out HCFCs.</p> <p>The key elements of support include:</p> <ol style="list-style-type: none"> <li>1) Strategy to phase-out HCFCs by adoption of non-ODS and low GWP technologies.</li> <li>2) Implementation of policy and regulatory interventions to phase-out Ozone depleting substances; and</li> <li>3) Awareness and capacity building of the foam &amp; RAC sectors and stakeholders on implementation of HCFC phase-out activities.</li> </ol> <p><b>The Project Objectives:</b></p> <ol style="list-style-type: none"> <li>1. To facilitate India's compliance with the Montreal Protocol 2020 control targets, complete phase-out of HCFC-141b by 2020 and part phase-out of HCFC-22 in room air conditioners, manufacturing &amp; servicing of Refrigeration and Air Conditioning (RAC) sector.</li> </ol>	

<ul style="list-style-type: none"> <li>• Sustainable reduction in the consumption of HCFCs through implementation of a combination of interventions i.e. technology transfer, training &amp; capacity building, awareness, monitoring and management i.e. 5,800 MT of HCFC – 141 b (638 ODP tonnes) in foam manufacturing sector</li> <li>• 1140 MT (62.70 ODP tonnes) of HCFC – 22 in air-conditioning manufacturing sector</li> <li>• 1250 MT (68.75 ODP tonne) of HCFC– 22 in refrigeration and air-conditioning (RAC) servicing sector</li> </ul> <p>2. To extend financial support to enterprises for conversion into use of non-ODS and low Global Warming Potential (GWP) technologies, technical assistance, training and capacity building, etc., as specified in the decision of the Ex-Com of the MLF, by availing funds made available to meet quantitative phase-out target of ODSs set for the country.</p> <p><b>List of focus States/districts</b> – National level Project - covering HPMP-II participating enterprises in India.</p>				
<b>Overall Project Quality Rating</b> (mark on the scale of 1 to 5 as per the following criteria): <b>5</b>				
Exemplary (5) *****	High (4) ****	Satisfactory (3) ***	Poor (2) **	Inadequate (1) *
<b>All outputs are rated High or Exemplary</b>	All outputs are rated Satisfactory or higher, and at least two criteria are rated High or Exemplary	One output may be rated Poor, and all other criteria are rated Satisfactory or higher	Two outputs are rated Poor, and all other criteria are rated Satisfactory or higher	One output is rated Inadequate, or more than two criteria are rated Poor
Budget 2021	\$ 11,899,240			
Expenditure 2021	\$ 11,488,378			
Delivery %	96.55%			

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## ACRONYMS

GWP – Global Warming Potential
HCFC – Hydrochlorofluorocarbons
HPMP II – Hydrochlorofluorocarbons Phase-Out Management Plan -Stage II
ODP – Ozone Depleting Substances
RAC – Refrigeration and Air Conditioning

## 1. Executive Summary

*The executive summary is a concise brief on the progress towards the project outputs during the reporting period. The section also includes key implementation challenges, lessons learned and way forward. It is also suggested to include key financial information, such as expenditure for the reporting period, cumulative expenditure and a delivery rate against budget.  
(Suggested length - 400 words maximum)*

India acceded to the Vienna Convention for the Protection of the Ozone Layer in March 1991 and ratified the Montreal Protocol on Substances that Deplete the Ozone Layer in June 1992. India also ratified all the amendments to the Montreal Protocol. India is classified as a Party operating under Paragraph 1, Article-5 of the Montreal Protocol and thus is qualified for technical and financial assistance from the Multilateral Fund for the Implementation of the Montreal Protocol (MLF).

During HPMP Stage-I, in line with the guidelines approved by the Executive Committee (Ex-Com) of the MLF, India prioritized phase-out of HCFC-141b in foam manufacturing sector, especially in the large HCFC consuming enterprises in HPMP Stage-I and initiated activities in the Refrigeration and Air-conditioning (RAC) Servicing sector. In addition, technical and financial assistance was secured for Systems Houses for developing HCFC-free polyol formulations with low- Global Warming Potential (GWP) blowing agents. The HPMP Stage-I, has successfully phased-out a total of 341.77 ODP tons of HCFCs including 310.53 ODP tons of HCFC 141b in foam manufacturing and 31.24 ODP tons of HCFC-22 in RAC servicing sector respectively and the reduction in HCFC consumption is higher than the required amount to meet the target of freeze in 2013 and reduction of 10% in 2015.

The Hydrochlorofluorocarbons Phaseout Management Plan (HPMP II) aims to facilitate India's compliance with the Montreal Protocol's accelerated phase-out targets for India through complete phase-out of HCFC-141b use by 2020 in foam sector, and reduction in use of HCFC-22 in Refrigeration and Air-Conditioning (RAC) sector and focuses on supporting the HCFC Phase-out Management Programme (HPMP-II) through combination of sustainable interventions i.e. policy, regulatory, technical, financial and capacity building support besides monitoring and evaluation.

The project component on Phase-out of HCFC-141b in foam manufacturing sector included technology conversion support to foam manufacturing enterprises from HCFC-141b to non-HCFC technology and led to Phase-out of 5800 MT (638.02 ODP tonne) of HCFC-141b. The Phase-out of HCFC-22 in Refrigeration and Air Conditioning (RAC) Sector included technology conversion from HCFC-22 to non-HCFC technology with an output indicating Phase-out of 1140 MT (62.72 ODP tonne) of HCFC-22.

Project management support extended includes:

- i) Supervision and monitoring of implementation.
- ii) Stakeholder meetings including with industry.
- iii) Awareness workshops on low GWP alternatives to SMEs.
- iv) Technical Assistance, monitoring and evaluation activities.
- v) Third party verification of progress in Industries for monitoring.
- vi) Verification of the implementation of activities at enterprise level.
- vii) National Level verification as per agreement with the Ex-Com of the MLF; and
- viii) Documentation and Materials including contingency expenditure etc.

Key challenges in project implementation include:

- i. Phase-out of HCFCs without adversely affecting industrial and economic growth of foam and RAC sectors, while protecting consumer and public interests.
- ii. Availability of cost-effective alternative technologies for HCFC 141b and HCFC22, as far as possible from indigenous sources.
- iii. Decision XIX/9 of the 19th MOP emphasizes introducing safe and sustainable non HCFC and climate friendly technologies to maximize the environmental benefits, particularly on climate.
- iv. Physical verification of technology conversion implementation projects in India for releasing financial support, due to prevailing COVID 19 travel restrictions and exposure risks to infection

#### Expenditure in 2021

Expenditure for reporting period	Cumulative Expenditure	% of total expenditure
\$ 11,488,378	\$ 21,946,872	52.35%

## 2. Project Background

*The background should be a short introductory of the project. The situation analysis and the objective sections of the Project Document can be referred to for this section. Also include an up-to-date overview of changes in the context and situations. (Suggested length - maximum half a page)*

India is a second largest producer of Hydrochlorofluorocarbons (HCFCs) after China in the world. HCFCs are classified as controlled substances under Annexure-C, Group-I of the Montreal Protocol and therefore their use has to be reduced and eventually phased out. HCFCs additionally have a global warming impact due to their high Global Warming Potential (GWP). HCFCs are widely used chemicals. The applications of them include refrigerants (in refrigerators, freezers and air conditioning systems), and as blowing agents in foam manufacturing, aerosols propellants, solvents and firefighting .

In the Hydrochlorofluorocarbons Phase out Management Plan (HPMP) Stage-I, India had prioritized phase-out of HCFC- 141b in foam manufacturing sector, especially in the 15 large HCFC consuming enterprises. In addition, 15 System Houses were also provided funding as one-time technical assistance to develop new non-ODS formulations of pre-blended polyols to support the foam manufacturers. The HPMP Stage-I, has successfully phased-out a total of 341.77 ODP tons of HCFCs including 310.53 OPD tons of HCFC 141b in foam manufacturing and 31.24 ODP tons of HCFC-22 in RAC servicing sector respectively.

UNDP, appointed as the lead agency for implementation of HPMP Stage-II supports the Ministry of Environment, Forest and Climate Change (MoEFCC), Government of India and the participating enterprises in the effective phase out of HCFCs, to enable India to meet the compliances under Montreal Protocol. The key elements of support include:

- strategy to phase out HCFCs and conversion to non-ODS and non-HCFC technologies,
- implementing the policy and regulatory measures formulated for Ozone Depleting Substances,

- awareness and capacity building of the concerned industry and other stakeholders for implementing the HCFC phase out activities in the medium and small enterprises.

UNDP as an agency coordinates the Institutional strengthening activities pertinent to the ozone Cell on the Ministry of Environment, Forest and Climate Change, Govt. of India

### 3. Project Performance and Results

#### 3.1. Contribution towards Country Programme Outcome

<p><b>CPD Outcome:</b> By 2022, environmental and natural resource management is strengthened, and communities have increased access to clean energy and are more resilient to climate change and disaster risks.</p>			
Indicator(s):	Baseline:	Target(s):	Achievement(s):
6.2 Extent of implementation of HCFC phase-out management plan	10% (2017)	35% (2022)	<p>1. India achieved over 896 ODP tonnes (53%) reduction (phase-out) by January 2020, which is much higher than the target of 562.87 ODP tonnes (35%).</p> <p>2. Out of the achieved reduction of over 896 ODP tonnes, the UNDP supported through HPMP-I 341.77 ODP tonnes and HPMP-II supporting 280.888 ODP tonnes through 159 foam enterprises, so far through HCFC 141b phase-out. The total contribution 622.658 ODP tonnes through HPMP-I and HPMP-II together, so far, accounts for 69% of total reduction achieved by the India).</p>
<p><b>CPD Output/s:</b> Output 3.2: Effective solutions developed at national and subnational levels for sustainable management of natural resources and ecosystems, ozone depleting substances, chemicals and wastes.</p>			

Indicator:	Baseline:	Target(s):	Achievement(s):
Number of scalable initiatives incorporating improved management of ozone depleting substances, chemicals and/or wastes	2	4	Facilitated India's compliance with the Montreal Protocol's accelerated phase-out targets for India through complete phase-out of HCFC-141b use by 2020 in foam sector, and reduction in use of HCFC-22 in Refrigeration and Air-Conditioning (RAC) sector.
<p><b>Description of output level/outcome level <u>results achieved</u> in 2021:</b></p> <p>UNDP extended high priority to the HPMP Stage-II implementation, as a result Technology conversion support was provided to 159 enterprises in Foam sector and 4 enterprises in refrigeration and air conditioning (RAC) sector. Alternative technologies for phase out of HCFC-141b that are having zero Ozone depleting potential (ODP) and low global warming potential (GWP) chemicals are adopted by the Indian Foam sector; alternatives for phase-out of HCFC-22 are adopted in RAC Sector.</p> <p>UNDP demonstrated its technical commitment to Government of India (GOI) - support was extended to GOI on both policy and technical matters.</p> <p>UNDP facilitated the Government of India in taking following interventions:</p> <ul style="list-style-type: none"> <li>• 40% additional payment to the MSMEs, while maintaining the overall average per Kg phase-out rate set by the MLF. This move facilitated many SMEs, which have short pocket, and affected by the health and market distortions due to COVID19 pandemic.</li> <li>• Third party verification of implementation of technology conversion projects of 116 Nos. of foam sector enterprises (77% of total) and 3 Nos. of RAC industries (100% of total) completed by Dec 2021. This involves physical site verification of each enterprise for recording the status and also recommended for releasing next milestones corresponding to the physical progress made as per the signed agreements between the Government and individual enterprise.</li> <li>• UNDP facilitated the GOI in submission and approval of HPMP Stage 3 preparation request to 87<sup>th</sup> Ex-Com of the MLF.</li> </ul>			
<p><b>Means of Verification</b></p> <ol style="list-style-type: none"> <li>1. No. of signed MoAs between Govt. of India and enterprises</li> <li>2. No. of payments (instalments) released to the enterprises, upon implementation of set milestones in the Agreement</li> <li>3. No. of physical verifications completed to verify the implementation progress</li> <li>4. No. of participants in workshops, and hand holding support through CIPET, Bhubaneswar</li> <li>5. Reduction in number of milestones for MSMEs</li> <li>6. Reduction in number of physical verifications in case of MSMEs</li> <li>7. Releasing additional eligible payments, for maximisation of support to the foam enterprises</li> <li>8. Disbursed amounts to enterprises</li> </ol>			



### 3.2. Progress towards Project Results/Outputs

<b>Project Output I: Effective solutions developed at national and sub-national levels for sustainable management of natural resources, ecosystems, ozone depleting substances (ODSs), chemicals and wastes.</b>			
<b>Indicator(s)</b>	<b>Baseline</b>	<b>Target(s)</b>	<b>Achievement(s)</b>
Support phasing out of Hydrochlorofluorocarbon carbon (HCFC) from Foam and RAC sector in India by providing technology conversion support to switch to non-ODS alternatives under Montreal Protocol.	10% (2017)	35% (2022)	55.76%
<p><b>Description of project output level <u>results achieved</u> in 2021:</b></p> <p>Over the past two decades, India has successfully implemented ODS phase-out projects that helped the industry in smooth and systematic transition to ozone friendly alternatives.</p> <p>HPMP Stage-II, results so far:</p> <ul style="list-style-type: none"> <li>• Technical scrutiny, financial support, disbursement protocols, roles and responsibilities have been devised for smooth and rapid implementation of the project</li> <li>• Number of awareness programmes conducted and planned across the country to facilitate and drive sustained transition to non ODP and low GWP chemicals use.</li> <li>• Ease-out in procedures for MSMEs are introduced</li> <li>• CIPET has been engaged to extend hand-holding support of the foam sector</li> <li>• MoAs were signed with 159 foam enterprises to phase-out HCFC-141b, a foaming chemical having significant ozone depleting potential, by January 1, 2020; and 4 RAC firms to phase down HCFC-22, ozone depleting refrigerant, by alternative chemicals with no ozone depleting potential and low global warming potential.</li> <li>• Third-party verification of 96 foam enterprises to phase-out HCFC-141b and 3 RAC firms to phase down HCFC-22 are completed, concluding the successful transfer of technology.</li> <li>• Regulatory ban on import and use of HCFC-141b came into effect from January 1, 2020. MoA signed foam enterprises phased-out HCFC-141b use are financially supported through HPMP-II, for having appropriate instruments, EHS management, capacity building and operations. Of them, the support to about 100 small and micro enterprises having consumption less than 5MT/ Year is significant, for smooth transition from ODP to non ODP chemicals use.</li> <li>• So far, country phased out 341.77 through HPMP-I + 554.97 through legal ban of HCFC-141b = 896.74 ODP tonnes. This corresponds to a total reduction of 53% with respect to base level, while the Protocol target by 2020 is only 35% - A significant achievement ahead of timelines. Of this UNDP supported 341.77 through HPMP-I + 280.888 through HPMP-II so far = 622.658 tonnes (~69% of the achieved reduction by the country is supported by UNDP so far till January 1, 2020).</li> </ul>			

Overall Output Status (mark the output on the scale of 1 to 5 as per the following criteria):				
Exemplary (5) *****	High (4) ****	Satisfactory (3) ***	Poor (2) **	Inadequate (1) *
The project is expected to over-achieve targeted outputs and/or expected levels of quality, and there is evidence that outputs are contributing to targeted outcomes	The project is expected to over-achieve targeted outputs and/or expected levels of quality	The project is expected to achieve targeted outputs with expected levels of quality	The project is expected to partially achieve targeted outputs, with less than expected levels of quality	Project outputs will likely not be achieved and/or are not likely to be effective in supporting the achievement of targeted outcomes
Means of Verification:				
<ul style="list-style-type: none"> <li>• No. of signed MoAs between Govt. of India and enterprises</li> <li>• No. of payments (instalments) released to the enterprises, upon implementation of set milestones in the Agreement</li> <li>• No. of physical verifications completed to verify the implementation progress</li> <li>• No. of participants in workshops, and hand holding support through CIPET, Bhubaneshwar</li> <li>• Reduction in number of milestones for MSMEs</li> <li>• Reduction in number of physical verifications in case of MSMEs</li> <li>• Releasing additional eligible payments, for maximisation of support to the foam enterprises</li> <li>• Disbursed amounts to enterprises</li> </ul>				

## 4. Project Risks and Issues

*This section identifies and analyses project risks and issues that:*

*1) had an impact on project deliverables<sup>1</sup> (quality, schedule, etc.) During the reporting period, or  
2) were newly identified during the reporting period and are being addressed by the project (in the case of risks, "addressed" means to mitigate their effects or decrease the likelihood of impact, and in the case of issues, how to resolve them).*

### **Brief overall narrative of project risks and issues:**

The time available to implement actions for achieving the objectives of the HPMP Stage-II is limited and keeping in view the large number of enterprises, particularly the Small and Medium enterprises in the foam manufacturing sector, there are likely to be challenges in implementation. However, sound implementation framework supported by an effective monitoring mechanism will ensure timely and successful implementation.

### **a. Updated Project Risks and Actions**

<sup>1</sup> A deliverable is defined as the result of an activity or in other terms the product which contributes to the achievement of project outputs).

Project Risk 1: The COVID 19 pandemic has had widespread impacts which have also affected the supply chain of equipment and chemicals.

Actions taken: The UNDP and the Ozone Cell, MoEF&CC jointly took up this challenge and with dedicated focus ensured that implementation is done in a result -oriented and integrated manner. The Ozone Cell, MoEF&CC, in close cooperation with UNDP and an onboarded expert technical institution and international foam experts, jointly worked to guide and assist the participating enterprises and towards establishment and stabilization of the supply chain of alternatives, equipment and parts required to allow the transition in a smooth way and minimize the burden of transition on consumers and manufacturing industry.

Project Risk 2: Amid surge in Covid-19 situation, the authorities may impose restrictions on movement of people and other activities. Thereby, it may not be feasible to conduct physical site verification in some of the enterprises. To facilitate India's compliance with Montreal Protocol 2020 control targets, through complete phase out of HCFC-141 B in Foam sector and phase-out of HCFC-22 in RAC sector, as per the MOA between ozone cell MoEF&CC and industry, a third-party physical verification of manufacturing facility needs to be conducted in order to fulfil Third, fourth and fifth milestones, where applicable. There is high probability that above activity may get delayed in some of the participating enterprises.

Actions taken: Possible risk management measures adopted include- a. the Prioritization of the physical site verification region-wise wherein the situation is improved and permissible within the guidelines; b. Avoid physical verification of the participating enterprises situated in high-risk area until the situation improves. This risk is managed after following due planning and procedures to meet the requirements of physical verification despite of uncertainties involved.

## **b. Updated Project Issues and Actions**

Project Issue 1: *Approval of Extension of Institutional Strengthening Project (Phase-XIII)*

*Actions taken: UNDP extended its support for preparation of Phase XIII of IS request and facilitated in securing the same from the MLF in its 88th Meeting in Nov'2021 for period from Dec'2021 till Nov'23.*

Project Issue 2: *Strengthening financial support to enterprises participating in HPMP-II implementation*

*Actions taken: The Government of India considered initially to disburse a part of the eligible amount to enterprises, and later additional disbursement to eligible foam manufacturing enterprises participating in HPMP Stage-II was considered in line with the funding principles. Further, additional allocation to small enterprises considered to enable them to sustain and continue operations, especially in the present challenging circumstances. This revision rationalized the disbursements and encouraged the enterprises in implementation of the technology conversion projects.*

## **5. Lessons Learned**

*This section should capture the lessons learned to ensure on-going learning, knowledge sharing and communication within the organisation and with the partners/donors. It should include analysis on the following contents:*

- 1) Key project successes and factors which supported these successes;*
- 2) Difficulties encountered and measures taken to overcome these difficulties;*
- 3) Analysis on what could have been done differently / better to attain the project results;*
- 4) Recommendations to improve future programming.*

*(Suggested length – half a page to 1 page)*

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| 1. Key project successes and factors which supported these successes. |
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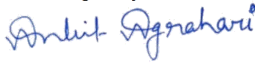
- Facilitate the foam manufacturing enterprises for completion of technology conversion through non-ODP alternatives with the assistance of CIPET and technical experts
  - Provision of the technical assistance facility of CIPET to carry out trials and develop formulations for small and medium scale enterprises.
  - Promote networking and sharing of the experiences among participating enterprises
  - Carry out activities for the sustenance of ODS phase-out for the enterprises, having completed technical conversion to non-ODP alternatives.
  - Achieved over 896 ODP tonnes (53%) reduction (phase-out) by January 2020, which is much higher than the target of 562.87 ODP tonnes (35%).
  - Out of the achieved reduction of over 896 ODP tonnes, the UNDP supported through HPMP-I 341.77 ODP tonnes and HPMP-II supporting 280.888 ODP tonnes through 159 foam enterprises, so far through HCFC 141b phase-out. The total contribution 622.658 ODP tonnes through HPMP-I and HPMP-II together, so far, accounts for 69% of total reduction achieved by the India).
  - Factors supporting these results include the technical handholding and financial support within the regulatory framework ensures optimum participation of enterprises under HPMP-II.
2. Difficulties encountered and measures taken to overcome these difficulties.  
COVID 19 pandemic and associated travel restrictions and health considerations have impacted in progress of the third-party field verification of enterprises. Adequate measures adopted in terms of team mobilization and enhanced coordination among verification team, enterprises, UNDP and Ozone Cell, MoEF&CC, the effectiveness of risk outcome could be minimized.
  3. Analysis on what could have been done differently / better to attain the project results.  
Despite of the efforts made in completion of technology transition in foam sector enterprises including physical site verification requirement, few of the enterprises are facing challenges to conversion process. Provision of handholding support and further fund allocation being made to support small enterprises so business disruption could be minimised and alternate technology to sustain and continue operations be maintained.
  4. Recommendations to improve future programming.  
Reduction in requirements of physical verification of the enterprises in Stage-3 of HPMP in terms of number of milestones for smooth and sustained adaption of alternative technology.

## 6. The Way Forward/ Key Priorities for 2022


*This section should summarize the achievements, challenges and lessons learned as well as explain the way forward, including relevance of the project and necessary revisions that will be made to the project and plans of the upcoming reporting period. Any funding gaps, resource requirements as well as further partner engagement plans can be specified in this section. This should include any modifications that need to be made to indicators, baselines, targets as well data collection and monitoring to track progress*

*If this is a Final Report and if applicable, also mention on sustainability of the project and/or plans on future projects that may supplement / scale up the achievements of this project.  
(Suggested length – half a page to 1 page)*

- Compliance with HCFC phase-out targets, as per the accelerated phase-out schedule of the Montreal Protocol, in accordance to the Agreement between the Ex-Com of the MLF and the Government of India
- Completion of remaining projects in foam sector conversion remain critical, hence technical and handholding support would be essential in 2022.
- Identify issues of concern to the participating enterprises under HPMP Stage-II that have phased out HCFC 141b and are operating on alternative non HCFC and low GWP technologies and identify measures for sustaining phase out, especially the small and medium enterprises.
- Preparing foam industry using HFCs for transitioning to low GWP alternatives under the Kigali Amendment
- Sustainable reduction of 8,190 MT or 769.49 ODP tons of HCFC consumption from the starting point of 1691.25 ODP tons by 2023, contributing to India's compliance well in advance with the control targets for Annex – C, Group – 1 substances (HCFCs) under the Montreal Protocol
- Net direct CO<sub>2</sub>-equivalent emissions reduction of about 8,530,900 MT per year from 2023 onwards

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Programme Officer

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