Hydrochlorofluorocarbon (HCFC) Phase-Out Management Plan (HPMP) in the Islamic Republic of Iran – Stage II

May 2025

Project Information:

Funding: USD 5.7 mln (Funded by Multi-Lateral Fund)
Duration: November 2017 to December 2025
Implementing Agencies / Partners: UNDP (lead), UNIDO, UNEP, GIZ (Germany)

Background:

The Montreal Protocol on Substances that Deplete the Ozone Layer is a landmark multilateral environmental agreement regulating nearly 100 man-made ozone depleting substances (ODS). These chemicals, when released, harm the stratospheric ozone layer, which protects life from harmful ultraviolet radiation. Adopted on 16 September 1987, it is one of the rare treaties to achieve universal ratification.

The Islamic Republic of Iran, as a signatory to the Montreal Protocol, is committed to phasing out ODS. Following the successful completion of Stage I, the second stage of the HCFC Phase-Out Management Plan (HPMP) builds on prior achievements to meet compliance targets by 2025. This stage supports Iran's transition to ozone-friendly and low Global Warming Potential (GWP) technologies in the refrigeration and foam sectors, contributing to the protection of the ozone layer and climate change mitigation.

The project aligns with Iran's obligations under the Montreal Protocol and supports the country's broader environmental agenda by reducing the use of hydrochlorofluorocarbons (HCFCs), safeguarding both environmental health and economic sustainability.

Objective:

- Support Iran in achieving compliance with the Montreal Protocol through the elimination of HCFCs and transitioning to energy-efficient, low GWP alternatives in key industrial sectors.

Challenges:

- ➢ Addressing the dual threat of ozone depletion and climate change.
- ➢ Facilitating technology transition while ensuring affordability, safety, and continuity in employment and market access.

- Coordinating among multiple sectors and stakeholders to implement complex technical upgrades.

Key Components:

1. HCFC phase-out in the foam sector:
    a. Complete phase-out by July 2024.
    b. Focus on reducing HCFC-141b use in both PU foam and commercial refrigeration sectors in selected eligible enterprices.
2. Refrigeration and air-conditioning sector:
    a. Prioritize high HCFC consumption areas and promote low GWP and energy-efficient technologies.
    b. Provide technical assistance and technology transfer to SMEs for adopting new technologies.
3. Capacity building:
    a. Enhance technical skills in the service sector and among manufacturers through training and equipment support.
    b. Foster partnerships with educational institutions for ongoing capacity building and adoption of new standards and practices.
    c. Updating technical knowledge of the refrigeration and air-condition technicians in collaboration with Technical and Vocational Training Organization. Emphasizing on ozone friendly, low GWP alternatives and minimum energy consumption.
    d. Institutional capacity building among national stakeholders

Expected Outcomes:

- Achieve national phase-out targets for HCFCs by 2025 in line with Montreal Protocol obligations.
- Support Iranian industries in adopting modern, environmentally friendly technologies, ensuring job retention, moving toward energy efficiency and sustainable growth.
- Contribute to global efforts for ozone layer recovery and climate change mitigation.

Results to Date:

- **National phase out targets exceeded from the commitments through strategic technology transition:** With support from UNDP and implementing partners, Iran successfully reduced its ozone-depleting potential by 179.31 ODP tonnes, that 16.94 ODP tonnes surpassing its Montreal Protocol commitments. This was achieved through the introduction of ozone-friendly technologies in the refrigeration and foam sectors, positioning Iran as a leader in environmental compliance and innovation.
- **Technology transfer and capacity building across public and private sectors:** The project facilitated the adoption of sustainable alternatives by strengthening technical capacities in both industry and government. Training, institutional support, and strategic partnerships helped ensure the long-term sustainability of HCFC phase-out efforts and empowered local actors to maintain compliance and competitiveness.
- **Effective international collaboration enabled national ownership:** The close coordination between Iran's Department of Environment, UNDP, and international partners, including UNIDO, UNEP and GIZ, demonstrates the effectiveness of multi-stakeholder collaboration. This integrated approach has reinforced institutional frameworks and supported the successful implementation of the HPMP through joint commitment and shared expertise.

CPD Outputs:

The project contributes to key outcomes of UNDP Country Programme Document (CPD) in Iran by promoting sustainable resource management, enhancing climate resilience, and supporting biodiversity conservation.

Given the timeline of this initiative, the project spans two CPD cycles. The outputs listed below reflect its alignment with both programming periods:

CPD 2018-2022: Output 1.1: strategies and measures that promote sustainable and integrated management of natural resource, biodiversity and ecosystem services are developed and considered for adaptation o/implementation by Iran.

Output 1.2: Climate Change adaptation and mitigation solutions developed and considered for adaptation/implementation by Iran.

CPD 2023-2027: Output 3.1: National Capacities for integration of Natural Resources Management into national economic programmes enhanced and effectively utilized.

Output 3.3: Institutional capacities on climate action and waste management enhanced through technical and innovation support and international advocacy and cooperation.