**HCFC Phase-out Management Plan (HPMP)**

**Annual Report- 2012**

Implemented by

**National Ozone Unit of the**

**Ministry of Environment & Renewable Energy**

**Sri Lanka**

Financial Assistance

**Multilateral Fund of the Montreal Protocol**

**(Project Number 78493)**

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# Executive Summary

Under the Montreal Protocol’s accelerated phase-out programme for Hydrochloroflurocarbons (HCFCs), Sri Lanka has adopted HCFC Phase-out Management Plan. The HCFC Phase-out Management Plan of Sri Lanka for Stage I (HPMP of Sri Lanka –I) targets, from 2013 to 2020, was approved at the 62nd Meeting of the Executive Committee held in December 2010 at a funding level of $647,866. The Executive Committee entered into a Multi-year Performance Based Agreemment spread over 10 years i.e. 2010-2020, with the Governmentof Sri Lanka for implementing this plan. With this funding level, the Government of Sri Lanka agreed to phase out 4.93 ODP tons constituting (35% of baseline) by the year 2020.

UNDP has agreed to be the lead implementing agency and UNEP has agreed to be the cooperating agencies to achieve HCFC phase-out targets.

**Main achievements**

Capacity improvements of the National Ozone Unit of the Ministry of Environment & Renewable Energy, which coordinates all activities of the project, in planning, policy making, finance, project management and technical specialisation were evident in Sri Lanka meeting CFC targets ahead of time, and embarking on HCFC phase-out. Capacities for planning, procurement and technical specialisation of aircondition repair service providers and importers of refrigerant gases into the country and Customs Officers who identify different gases at import control have been improved through the Montreal Protocol Programme and are evident in the import quotas for HCFC of the Government and Private Sector for the next five years.

Training Programmes were held for Technicians on good refrigeration practices at District level. Refrigerant recovery equipment and accessories were distributed to the Technical Colleges in the Eastern Province and a Training of Trainers Programme was organised by UNEP Bangkok. Training programmes for Customs and Enforcement Officers were conducted and HCFC identification equipment was distributed. Under the Recovery and Reclamation programme, technical specifications for equipment were finalised and procurement will be completed by 2013**.** To promote technology adoption, Sri Lanka industry participated in the technology conference in July 2012 in Bangkok

## Awareness and outreach activities were carried out on HPMP on the 25th Anniversary of the Montreal Protocol and for the celebration of ‘Ozone Day’. This was an important platform for creating awareness on ODS phase-out and specifically on HPMP activities. Leaflets on HPMP were produced in 3 official langagues and distributed at the National Exhibition in February 2012. Dockets were designed and distributed during the year.

# Introduction

## Brief historical background for project/programme rationale

Under the Montreal Protocol’s accelerated phase-out programme for Hydrochloroflurocarbons (HCFCs), Sri Lanka has adopted HCFC Phase-out Management Plan. Under the HPMP, Sri Lanka has committed to limit the import of HCFCs gradually from 1st January 2013 and finally phase-out these substances by 2030. HCFC phaseout is meant not only to protect the Ozone layer but also to minimize the impacts on earth’s climate.

The 54th Meeting of the Executive Committee in April 2008, through Decision 54/39, adopted guidelines for preparation of HCFC phase-out management plans. These guidelines provide an indicative outline and content of the HCFC phase-out management plans, with the following key elements (ExCom Decision 54/39 is attached as Annex-I):

1. Adoption of a staged approach to implementation of the HCFC phase-out management plans within the context of an overall national strategy. Stage-1 would focus on compliance with the 2013 freeze and 2015 reduction targets. The second stage would focus on HCFC phase-out in compliance with the future reduction control targets.
2. Commitments to achieving the 2013 and 2015 control milestones through performance-based agreements

Sri Lanka is at its final stages of completing phase-out activities associated with HCFC phase-out Management Plan. Financial Assistance for implementation of phase-out activities is provided by the Multilateral Fund (MLF). The Government of Sri Lanka has designated UNDP to be the lead agency to coordinate the overall development of the HCFC phase-out management plan in Sri Lanka.Technical and consultancy assistance are provided by UNDP and UNEP.

## Main objectives and outcomes expected as per the Bridging Programme and UNDAF

This project which ends in 2013 will complete activities already planned as per the old UNDAF directions and will try to incorporate the new UNDAF directions into activities where relevant. The UNDAF directions will also be incorporated into the 2014 interventions.

## Policy and programme context, including linkage to other ongoing operations/activities

The Government, through the efforts of the Ozone office, has implemented several regulatory measures to control import of ODS and ODS based equipments. The project is working in line with the three gazette notifications placed for ODS regulation as per the Sri Lankan government policy.

## Project Approach:

### Project Set up and management and coordination arrangements

The project was implemented through the National Implementation Modality [NIM], as per the organizational structure in the Project Document. No changes were effected during the reporting period.

### Main implementing partner

The National Ozone Unit (NOU) of Sri Lanka, Ministry of Environment and Renewable Energy

### M&E: Tools that were used to monitor and evaluate the project

The project was monitored against the Annual Work Plan and Quality Criteria which built on the CPAP M&E framework. Issues and Risks were logged in Atlas, and on a quarterly basis monitoring was done through quality assessments and recorded in quarterly progress reports

# Progress Review

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **EXPECTED OUTPUTS** **AND INDICATORS**  including annual targets | **PLANNED ACTIVITIES** | **PLANNED BUDGET**  (In USD) | **EXPENDITURE**  (In USD) | **RESULTS OF ACTIVITIES** | **PROGRESS TOWARDS ACHIEVING OUTPUTS** |
|
| **OUTPUT 1:**  **Introduce Cyclopentane as an option to replace HCFC in foam Production**  INDICATOR   * 1. Design Work Plan for modifications   1.2 : Modified facility at Regnis using Cyclopentane | * Providing technical assistance to Regnis Lanka Plc. to introduce cyclopentane as an option to HCFC; * modify the machinery and mixing system; * design a plan for the proposed medications & * provide financial assistance for medication. | 18,866 | 0 | Technical assistance has been provided and further assistance will be provided when the conversion takes place. | Regnis has planned to convert their refrigeration equipment manufacturing facility that is currently using pre-blended polyols with HCFCs with HC based alternatives.  The MOA between NOU and Regnis is being finalised and will be signed in May 2013.  The project is expected to be completed by the end of 2013. Regnis is expected to invest about US $350,000 on this conversion project. |
| **OUTPUT 2: To build capacity of domestic air-conditioner assemblers who import second-hand air-conditioning equipment to adopt HCFC free alternatives**  INDICATOR   * 2.1 Provision of charging units, pumps and equipment * 2.2 Estimated reduction of HCFCuse | * Build the capacity of domestic AC assemblers who import second hand ACs by collecting information about assemblers who import secondhand AC equipment; * capacity building of assemblers to adopt HCFC free technology; * training to use HCFC free alternatives. | 49,000 | 497 | Domestic AC assemblers trained. Information collected  Awareness creation and training programmes organised | Consultations have been underway on conversion of enterprise assembly airconditioning equipment.  Site verification of baseline data was undertaken during the second half of the year 2012. The results of the site verification are under review by the government and based on this, next steps on project implementation are being finalised. |
| **OUTPUT 3: Reduction in HCFC-22 consumption in assembling and servicing by the agencies and faster adoption of HCFC-free alternatives**  Indicator   * 3.1 At least 20 recovery installations supported * 3.2 Training on use of equipment and recycling provided to the staff of at least 30 operators | * Provide technical assistance for enterprises installing industrial airconditioners by collecting information about installers; * capacity building of installers to adopt HCFC free technology; * provision of equipment. * In collaboration with UNDP to facilitate Recovery, Reclaim of HCFC; * training in recovery/reclaim equip. | 15,000 | 3,982 | Capacity building and trainng will be completed in 2013  Part of the equipment is on order and procurement will be completed in 2013 | The first workshop on use of HCFC based solvents in cleaning application was conducted.  Technical assistance, recovery installation and training on use of HCFC free technologies would be undertaken in HY2 of 2013. |
| **OUTPUT 4: Increase in adoption of recovery of HCFCs while servicing equipment; higher levels of reclaiming of HCFCs and use of reclaimed HCFCs in servicing equipment**  Indicators:  4.1 At least 10 reclaiming centers in operation at the end of 2012  4.2 At least 100 technicians training in recovery and reclaiming of HCFC | * Provide training to at least 100 technicians; * provision of equipment and establish at least 10 reclaim centres. | 15,634 | 1,132 | Training was provided to Technicians  Technical specification for equipment were finalised; and equipment procurement for recovery and reclamation programme is in progress and will be completed by 2013 | 80 technicians were trained in various Technical Colleges in the Country.  76 technicians participated in training on elimination of 141B as cleaning agent.  Equipment is on order and will be provided for 3 reclaim centres. For the remaining reclaim centres, funds are insufficient. Remaining balances from the NCAP and Incentive Programme was to be used for HPMP activities, however, there has been a delay in extensions of these projects by ERD. |
| **Output 5: Provision of management support to implement HCFC phase-out**  Indicator  5.1: Delivery ofproject activities  5.2: Progress monitoring at the National Steering Committee Level | * Provision of management support to implement HCFC phase-out | 37,000 | 33,634 | Provided support for management and implementation of project activities. | Organised training programmes, promotional International Ozone Day celebration activities, developed CD on Ozone Layer Depletion and Climate Change |
|  | UNDP Charges |  | 771 |  |  |
| **TOTAL:** |  | **135,500** | **39,554** |  |  |

# Challenges and Lessons Learned

Challenges

The project is experiencing difficulty in convincing end-users to change over to the alternatives. This is mainly due to the alternative gas being more expensive compared to the HCFC, the conversion period is lengthy and HCFC is a known technology. However due to the regulations being put in place, if issue is some what negated.

The Training of Trainers programme was not completed, due to the delay in receiving the Curricula from UNEP. Once this is received, the project will fast track this activity.

Another reason was the MOU to be signed with Regnis was delayed as they needed time to invest in the conversion. The percentage of incentive given from the project was low against the total investment.

Some of the activities have spilt over to 2013 and hence the budget has been re-phased to 2013 for completion of these activities.

# Partnerships and Sustainability

One of the main partner is UNEP. Organisations such as the Sri Lanka Environment Friendly Refrigeration Association and American Society of Heating, Refrigeration and Airconditioning are providing assistance to the project for various activities

# Financial Summary

The total expenditure was US $39,554 against the budget of US $135,000. The reasons for the low delivery was as a result of the challenges described above.

# Annexure 01: Annual Work Plan - attached

# Annexure 02: Combined Delivery Report - attached

# Annexure 03: Assets Inventory – N/A