Funding Request for the Preparation of Stage II For Afghanistan HCFC Phase-Out Management Plan

1. Background

The HCFC Phase-out Management Plan (HPMP) for Afghanistan was approved at the 63rd Meeting of the Executive Committee to the Multilateral Fund in April 2011 and revised at the 72nd meeting. Stage I of the HPMP for Afghanistan is approved for the period from 2011 to 2020 at the amount of US$757,655 for UNEP, as lead agency, and for the Government of Germany, as bilateral partner. The latter part was later transferred to UNIDO. The HPMP aims to apply a staged approach to phase out the consumption (import) of HCFCs by 2030. The 1st Stage of the HPMP is designed to achieve the 35% phase-out target by 2020.

Further details of the HPMP including the funding approved in principle are shown in Table 1.

Table 1: Overview of the HPMP of Afghanistan

Calculated HCFC baseline (2009-2010)	23.80 ODPT
Total level of funding requested (for all the HPMP projects) including PSC	US$757,655
Amount of funding received for the 1-3 tranches in 2011, 2014 and 2017 including PSC	US$680,702
Lead Implementing Agency	UNEP
Cooperating Agency	UNIDO

The objective of the project preparation (PRP) proposal is to assist Afghanistan's National Ozone Unit in taking stock of market trends, achievements with the implementation of Montreal Protocol and further needs of stakeholders and in developing HPMP Stage II to meet effectively its national objective for the HCFC use reduction. HPMP Stage II for Afghanistan will be developed with assistance from UNEP as a leading agency and UNIDO, as a cooperating agency.

2. Progress on HPMP Stage I

The HPMP of Afghanistan was officially launched in January 2012. The key phase-out activities of Stage I include:

- HFC Phase-out policies and Enforcement
- Capability Certification System and Good Practice Program for the Servicing Workshops Technicians;
- Enhanced awareness and outreach;
- Plan for Gradual Reduction of HCFCs;
- Technical Assistance Manufacturing,
- National Refrigerant Management Competence Centre (RMCC) on Reclaim, Containment and Best Practice.

2.1 HCFC Consumption

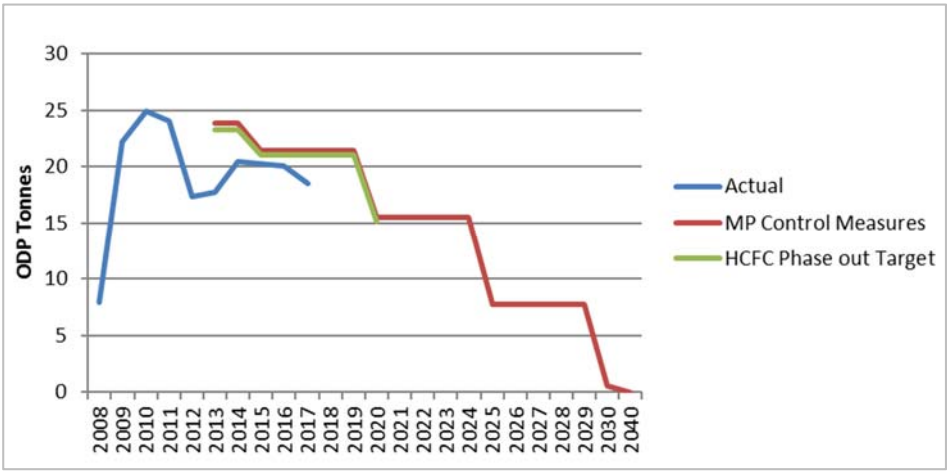
Afghanistan is considered non-low volume consuming country as its consumption is above 360MT. Based on the Country Programme Data submitted to the Secretariat of the Multilateral Fund, the country's

main consumption is in servicing sector as presented in table 2 below. However, according to the recent survey, a small amount of HCFC-22 is used in assembly of large commercial, industrial and transport refrigeration. The main reason behind the large consumption of the country is the import of low standard HCFC based equipment from neighbouring countries and second-hand equipment from developed countries, which require frequent servicing. The country is on track with its reduction schedule as also shown in Graphic 1.

Table 1: Overview of the HPMP of Afghanistan

Year	2012	2013	2014	2015	2016	2017
HCFC-22 consumption in Servicing Sector (ODP)	17.34	17.7	20.46	20.24	20.02	18.54

Graphic 1: Afghanistan scheduled and actual consumption



The results of the recent Ozone Depleting Substances (ODS) Alternative survey conducted in the country show that most of the new RAC equipment imports are dominated by options using high Global Warming Potential (GWP) refrigerants such as HFC-134a, HFC-407c, HFC 410a, and HFC-404a, HFC-227ea, and HFC-236fa. Among low GWP options, there is consumption of HC-600a and R-717.

2.2 HCFC Phase-out Policies and Enforcement

The government of Afghanistan introduced its first Regulation on Controlling Materials Destructive to the Ozone Layer on 6th August 2006 under the Environmental Law of Afghanistan of the same year. The ODS regulation 2006 consists of 3 chapters and 18 articles with a list of 92 controlled substances including HCFCs, annexed to the regulation. In 2018, the amendments in 12 clauses and 22 articles were approved. The purpose behind this amendment was to simplify and facilitate the license and quota systems from one side and further strengthen the control over the allocated quota. One of the amendments makes NOU responsible for inspections on the allocated quota through a coordinated mechanism and engagement of stakeholders. The regulation also includes the ban on HCFC based equipment which will become effective from November 2018.

The country also maintains licensing and quota system for HCFCs which is overseen by the HCFC Quota System Committee established on the 2nd April 2012 and composed of eight members from the key stakeholders for the HPMP implementation namely (1) Ministry of Commerce and Industry; 2)

Afghanistan Custom Department; 3) Afghanistan Investment Support Agency; 4) Ministry of Justice; 5) Afghanistan Chamber of Commerce and Industry; 6) Afghanistan National Craftsmen Union; 7) Border Police, Ministry of Interior Affairs, and 8) Directorate of Policy and legislation, of National Environmental Protection Agency (NEPA). The Committee is facilitated by the NOU and meets three times each year. The National Ozone Unit is established in NEPA.

In order to enforce the control over HCFCs and effectively operate the licensing and quota system, NOU signed and renews each year the Memorandum for Cooperation with Afghan Customs Department (ACD). Using the facilities of the ACD academy, capacity building activities for customs offers were organized taken place. The list of trainings conducted for customs is included below:

Location	**Date**
One-day workshop for Customs officers (40 participants from 13 provinces), Kabul, ACD Academy	3 March 2012
One-day workshop for Customs officers (50 participants from 12 provinces), Kabul ACD Academy	5 May 2012
Half-day workshop for customs officers (54 participants from 13 provinces), Kabul ACD Academy	9 June 2012
One-day workshop for customs, (40 participants from 14 provinces), Kabul ACD Academy	4 March 2014
Workshop for customs officer and related stakeholders, Nangarhar province	20 September 2016
Training for customs officers (30 participants), Jalalabad province	14 May 2017
Training for Customs Officers (48 participants from 14 provinces), Kabul ACD Academy	18 May 2017
One-day Workshop for Enforcement Authorities, in Balkh province	22 April 2017
ToT for customs officers including on Green Customs Initiative, Kabul (40 participants), Kabul ACD Academy	23-25 July 2017
One day training workshop for Customs Officers, (30 Participants), Hairatan Custom Port, Balkh province	26 December 2017
One day Green Customs Workshop for Customs Officers, (40 participants from 6 provinces), Kabul ACD Academy	6 May 2018
One day Enforcement Authorities Workshop, (35 participants), Balkh Province	24 July 2018
One day Green Customs Workshop organized for Customs officers, (30 participants) Balkh Province	25 July 2018
One day Enforcement Authorities Workshop, (30 participants), Kandahar Province	29 July 2018
One day Green Customs Workshop organized for Customs officers, (25 participants), Kandahar Province	30 July 2018

The NOU obtained 6 units of portable refrigerants identifiers in November 2015 for Afghanistan Custom Department. The NOU allocated and re-distributed the identifiers to 3 of total 19 official custom ports where ODS trade are concentrated, i.e. Herat (trade with Iran), Kandahar and Jalalabad (trade with Pakistan).

2.3 Capability Certification System and Good Practice Programme for Servicing Workshop Technicians

To monitor the market, NOU in coordination with the Environmental Inspection Department of NEPA regularly has been conducting market surveys in key provinces of the country since April 2013. Since the start of the programme, the NOU and NEPA carried out nine joint inspections. Altogether 400 RAC servicing shops were inspected. The objective of this market surveillance programme is to find and trace fake or contaminated HFCs, illegal trade of ODS as well to monitor HCFCs consumption.

For the development of national certification system consultations started with the Ministry of Labour, Social Affairs, Martyrs and Disabled. Currently the Terms of Reference for the development of the certification system were prepared and with the support from UNEP CAP team in Bangkok a regional expert will be selected to help to set up the certification system for servicing technicians

2.4 Enhanced Awareness and Outreach

The regular outreach and communication activities are conducted by the NOU in cooperation and targeting key stakeholders. Communication and outreach strategy was developed covering the period until 2020. Customs training manuals, booklets and other communication and outreach material are regularly printed and distributed to public, customs officers and other stakeholders during the trainings and consultation meetings. These include: ODS identification quick tool for custom officers, Book on Ten Questions and 10 Answers about the Ozone Layer, Ozone Story book, Custom officers training manual, Ozone regulation booklet, 20 Qs 20 As about Ozone Layer, guidebook on "alternative to HCFC in the refrigeration and air-conditioning sector". The issues of the Ozone layer protection and Montreal Protocol implementation in Afghanistan are regularly highlighted in the celebrations of the World Environment Day at the high-level meetings for senior governmental and non-governmental officials and public outreach. The media announcement regularly made on the quota for HCFC, milestones in achieving the reduction, e.g. 10% in 2015. An extensive communication programme is annually conducted on the World Ozone Day.

2.5 Plan for Gradual Reduction of HCFCs

The training activities under this component are conducted using the facilities of the Afghan Korean Training Centre.

Location	Date
ToT, (30 participants), Afghan-Korea Vocational Training Centre, Kabul Province, Afghanistan	29 May – 1 June 2012
One-day training, (35 participants from 4 provinces), Kabul Afghanistan	16 February 2016
ToT (30 participants from 5 provinces), Afghan-Korea Institute, Kabul Province, Afghanistan	22-24 October 2016
Training for technicians (30 participants) on safety of flammable refrigerants, Balkh Province, Afghanistan	23-24 April 2017
Training for technicians (30 participants) on safety of flammable refrigerants, Herat Province, Afghanistan	19-20 September 2017
Training Workshop for R/AC Technicians on Good Practices and Alternatives to the HCFCs in Kandahar province	31 July – 1st August 2018

2.6 Project Coordination and Management

Strengthening of the project management unit was done to better coordinate the HCFC Phase-out programme. With additional person on board, coordination within NEPA and other stakeholders and focal points has been strengthened.

2.7 Technical Assistance Manufacturing

Two companies in Herat, Khorasan Service and Shirpour, were visited in 2017 to assess their technical capacities and eligibility for the MLF support. Both function more as servicing workshops and therefore cannot be considered as manufacturers. They deal with mobile air conditioners in automobiles, domestic and commercial refrigerators including compressor failure and leaking, etc. The types of refrigerants used in the equipment brought to the workshops include R134a, R22, R404, and occasionally R600a etc. The companies founded their businesses after 2007, and it was concluded that they are not eligible for the MLF support in the current stage. Other potential companies were surveyed including those in Kabul. None of them were found eligible for the MLF support. The resources allocated for this component has been shifted to the servicing sector component, 2.8, as anticipated and described in the last tranche request.

2.8 National Refrigerant Management Competence Centre (RMCC) on Reclaim, Containment and Best Practice

In consultation with the government, UNIDO surveyed the companies to update the list of beneficiary companies to maximize the reduction of ODS. The Afghan Korean Institute (AKI) has been selected as the suitable facility to provide further training for technicians on good practice, new technologies and refrigerants. An MoU draft was agreed between both the parties (AKI and NEPA/NOU) and sent to the Ministry of Labour, Social Affairs, Martyrs and Disabled which has been forwarded to the vocational and technical department of the MoL and is currently with the policy department for the final stage of review. This MOU designates AKI as the training centre and articulate the responsibilities of both parties to implement the HCFC management plan while promoting the safe use and handling of refrigerants in AKI. Some equipment that had been purchased by GIZ before UNIDO took over this component but kept in a storage of the National Environmental Protection Agency have now been delivered to AKI. Once the MOU enters into effect, the facility modification will be articulated and new equipment will be delivered for the training including safe handling of natural refrigerants. The list of the equipment requested by AKI has been received.

1. Overarching Strategy and Activities for the Stage II Preparation Project

The overarching strategy for Afghanistan is to implement an integrated plan for HCFC reductions to facilitate the market transition to HCFC alternatives while achieving climate benefits through the adoption of energy efficient HVRAC technologies based on low global warming potential refrigerants. It will target the reduction by 67.5% in HCFC consumption from the baseline of 23.80 ODPT for the period from 2020 to 2025.

The strategy for Stage II HPMP will build on the achievements and results of Stage I, taking the lessons learned into account especially market needs and demand, gaps in implementation and enforcement of policies, capacity development needs of key stakeholders and constraints in access to information by key market players including public at large as consumers of HVRAC technologies. The strategy will also aim to maximize the HCFC phase-out as much as possible by identifying additional manufacturing facilities in the dynamic market of the country and additional sectors such building and construction and cold chain where through policy interventions such public procurement and regulations/codes/standards further potential reductions can be achieved.

The results of the recent ODS Alternatives survey highlighted consumption trends of non-HCFC refrigerants and their distribution by sectors and subsectors. It showed there is certain scale of HFC-based technologies penetration however they are mostly high-mid GWP options. These findings will be incorporated into the preparation of HPMP Stage 2. However, additional data needs to be collected concerning possible manufacturing facilities and changes in servicing sector recognizing the fast-changing market and growing economy in Afghanistan compounded by the volatile political situation.

The full funding of US$ 60,000 is requested for the PRP of HPMP Stage II for both implementing agencies: US$ 40,000 for UNEP as the lead agency and US$20,000 for UNIDO as cooperating agency for the investment component. The description of activities needed to prepare HPMP Stage II is presented below:

(1) Data collection: a detailed survey will be organized and conducted to:

- Assess the HCFC quantities currently consumed by HVRAC sector, inventory of HCFC-based equipment especially residential and commercial refrigerators and air conditioners;
- Assess the needs of servicing sector including developing an updated national database of service technicians and understand their capacity needs to handle ODS alternatives and/or flammable ODS alternatives;
- Determine the market profile of HCFC-based equipment and equipment depending on the alternatives especially low GWP and ozone-friendly technologies;
- Identify manufacturing facilities suitable for conversion projects;
- Review information on policy initiatives regarding the phase-out of HCFCs such as certification process of technicians, existing codes of practice and their enforcement with the aim of institutionalizing capacity building efforts under Stage II. The policy review will also aim to identify additional policy instruments such as standards and labelling and public procurement to be deployed in Stage II; and
- Understand potential user and consumer segments of the HVRAC technologies to expand phase-out efforts.

Activities will include mobilizing and training the survey team, local travels to key provinces, data collection through bottom-up approach and interviews, top down approach from the key institutional stakeholders, consolidation of data. The survey will be split into two parts for UNEP and UNIDO components.

(2) Stakeholder coordination and consultation: During the data collection, a number of joint and targeted consultations including interviews will be organized and conducted with a range of stakeholders such as customs and enforcement agencies, relevant line ministries, servicing sector associations and individual entrepreneurs, importers/traders, large end-users, and experts. To formulate Stage II strategy and implementation plan, stakeholder consultation workshops will be held to collect the feedback and revise accordingly the final document. The consultations on the final document will be conducted jointly for UNEP and UNIDO components.

(3) Preparation of HPMP Stage II: Based on information collected and analysis conducted including with the feedback from stakeholders, the proposal for HPMP Stage II will be prepared. UNEP will take lead in assisting the NOU to put together the final document with inputs from UNIDO colleagues. The HPMP proposal for Stage II will outline the overarching strategy and implementation plan with detailed activities and funding requirement for: policies & regulations, sector based ODS policies, refrigeration service sector training, service sector certification system, customs & enforcement capacity building, large end-user HCFC phase-out strategy & activities, and awareness & outreach activities. The draft proposal for HPMP Stage II will be circulated by NOU among implementation agencies and national stakeholders for comments. The overarching HPMP Stage II will be revised based on the comments collected and the final proposal will be submitted to the first meeting of ExCom in 2020.

2. Budget

The break-down for an overall budget for PRP proposal is given in the table below:

Activities	Cost estimation	UNEP	UNIDO
Data collection (local staff, regional expert, interviews, and local and regional travel)	**30,000**	15,000	15,000
Stakeholder coordination and consultation (meetings venue and catering, at least 5 meetings)	**15,000**	10,000	5,000
Preparation of Stage II (expert cost)	**15,000**	15,000	-
Total (USD) without PSC	**60,000**	**40,000**	**20,000**

**the funding level of each activity is indicative and subject to changes based on the further discussion between the NOU, implementing agency and the national stakeholders during the Stage-II preparation.*

Annex-I: Endorsement Letter from Government of Afghanistan

Appended

Funding Request for the Preparation of Stage-II HCFC Phase-out Management Plan for BELIZE

Background

The first stage of the HCFC Phase-out Management Plan (HPMP) for Belize was approved at the 62nd Meeting of the Executive Committee with a total funding of US$280,000 (excluding agency support costs) for the period 2010 to 2020 to reduce HCFC consumption by 35% of the baseline. The overreaching strategy has the main goal to provide ozone and climate benefits through the integrated plan for ozone depleting substances (ODS) reductions for the refrigeration sector, promotion and adoption of energy efficiency alternative technologies. The first stage sought to phase out the consumption of HCFCs in the country as required by the Montreal Protocol. Its focus was on the following components: (a) Training of technicians in good practice, recovery and reuse, handling of non-HCFC refrigerants, safety practice and Licensing of Technicians; (b) Training of customs and enforcement personnel in the Monitoring and Control of Trade in ODS (c) Awareness and Information Dissemination; (d) Improving the policy and legal framework to support the HCFC Phase out; Project monitoring, coordination and evaluation (including reporting); and Procurement of tools and Equipment to support the Phase out of HCFCs.

The project has been implemented with support from UN Environment as a lead agency and UNDP as a cooperating agency.

The Government of Belize committed to the following control measures with the support of funding and technical assistance from the Multilateral Fund and implementing agencies:

(i) Freeze the consumption of HCFCs in 2013 to the agreed baseline figure.
(ii) Reduce consumption of HCFCs by 10% from 2015.
(iii) Reduce consumption of HCFCs by 35% from 2020.

In 2010 the Government of Belize agreed its starting point for sustained aggregate reduction in HCFC consumption of 2.94 ODP tonnes as a baseline, calculated using actual consumption reported in 2009 and estimated consumption for 2010. This was then revised by 79th ExCom in July 2017 to 2.80 ODP tonnes based on the actual consumption of 2.51 ODP tonnes and 3.09 ODP tonnes reported for 2009 and 2010, respectively, under Article 7 of the Montreal Protocol, reported by the Government of Belize under Article 7. Therefore, its revised phase-out schedule, the relevant paragraphs of the Agreement have been updated accordingly.

Belize has progressed with implementation of Stage 1 of its HPMP. Notable achievements include meeting the 2013 HCFC freeze and 10 percent reduction targets in 2015 and building the capacity of refrigeration technicians in good refrigeration practices, recovery and recycling. Further, Belize has transitioned to an Online Application and Licensing System (OPAL) and has trained a number of Customs and enforcement officers including those posted at its borders. Additionally, a number of public awareness activities were undertaken to promote the transition to low GWP, energy efficient technologies.

The approved HPMP Stage I preparation funds have been fully used, and it is confirmed that there is no balance remaining.

The endorsement from the Government for the request of the Stage-II HPMP preparation has been received.

Progress in the implementation of HPMP Stage-I

	Activity	**Progress In Implementation**
Component I	***Training – UN Environment***	
Tranche 1	Technical Assistance	The Government of Belize undertook a number of technical assistance activities during the tranche including: technicians trained on Best Practices on Refrigeration and Air Conditioning (RAC); a demonstration and sensitization workshop on HC refrigerant as an alternative in domestic air conditioners (ACs) reaching 25 technicians; training 91 technicians trained in alternative refrigerants to HCFC's with emphasis on HC technologies and R-407A and 410 A systems. In addition, ARACT collaborated in the delivery of training sessions and ensured administration of the licensing system for technicians.
	Assistance for the Use of Flammable Refrigerant Equipment	This co-financing component of the HPMP was not implemented as an agreement between the Government of Belize and the Government of Switzerland was not done.
	RAC Excellence Centre and Development of National Expertise Capacity	Under this activity, the following was done: 1. Sourcing of information for Excellence Center, Expert trials and visiting of enterprises 2. Handing over equipment to 3 Institutes for Technical and Vocational Schools (ITVETS) that are undertaking trials with HC based AC's and refrigerators. The schools received recovery tanks, suction pumps, hoses and gauges among other equipment. 3. Development of internet website for the ARACT 4. In collaboration with the CAYO Center for Employment Training a Demonstration and Sensitization on HC Refrigerant as an alternative in domestic RAC held.
	High Efficiency-HCFC Phase out synergy in the Tourism and Hotel Sector	One meeting held with the Belize Hotel Association to seek partnership to sensitize the sector on the benefits and potential challenges during the HCFC phase out and the transition non ODS alternatives. Also 2 Brochures were developed to facilitate information dissemination in the sector and encourage the phase out of HCFCs and transition to low GWP, energy efficient alternatives in the hotel sector.
	Capacity building for enhanced control of trade of HCFC-based substances and equipment expertise capacity	A Train the Trainers Refresher Course, training over 40 Customs and Enforcement Officers was held (monitoring and control of trade and prevention of illegal trade of ODSs and legislation). Also 75 Customs Officers were trained on monitoring and control of trade and prevention of illegal trade of ODSs and the legislation Over 48 Customs Officers were trained at border points and included the Customs enforcement unit in Orange Walk, Belize.
Component II	***Awareness Campaign – UN Environment***	
Tranche 1	Public Awareness	In commemoration of World Ozone Day public awareness materials were acquired. Brochures were developed regarding the importance of the Ozone layer, NOU roles and refrigerant quota system and was disseminated to the general public, schools and universities. Expo, Agricultural and Trade Show, Ozone Day collaborating

	Activity	Progress In Implementation
		with Department of the Environment (DOE) in public presentation at schools regarding ozone.
Component III	***Policy – UN Environment***	
Tranche 1	Improved Policy and Legal Framework to support HCFC Phase out	A Policy directive to amend the current legislation approved by cabinet (inclusion of accelerated HCFC phase out, licensing and quota system (LQS) for HCFC based equipment) was given. The current legislation to incorporate HCFCs and HCFC based equipment was drafted and submitted to Cabinet for approval.
Component IV	***Project Coordination and management – UN Environment***	
Tranche 1	Monitoring, Evaluation and Reporting (MER)	To ensure effectiveness implementation of all projects within the HPMP, the NOU contracted a national consultant under the project with responsibility for continuous monitoring of implementation of project activities. The consultant also provided support in the preparation of all reports and Tranche Requests required under the Project and identified solutions to challenges encountered.
	Implementation of Licensing and Quota System	The LQS in Belize was upgraded to an online based system known as the Online Application and Licensing System (OPAL) which is linked to the ASYCUDA system which is more effective and efficient. In addition, it allows for improved data reports.
Tranche 2	Monitoring, Evaluation and Reporting (MER)	To ensure effectiveness implementation of all projects within the HPMP, the NOU continued the continuous monitoring of implementation of project activities through the national consultant.
Component V	***Investment - UNDP***	
Tranche 1 and 2	Procurement of Tools and Equipment	The funds from tranche 1 were combined with tranche 2 (as committed) in order to achieve economies of scale. The recovery tools purchase by the UNDP on February 2014 and delivered on April 2014. The equipment procured included: 20 Portable refrigerant recovery machines for HCs; 160 refrigerant recovery cylinders for HCs; 3 portable multi-refrigerant analyzers; 100 dry filters; and assorted spare parts for the refrigerant analyzers. The NOU distributed equipment to qualified licensed RAC technicians through established criteria and site visits. Major findings were also complied in a report, presenting volumes of imported gas by type. Some equipment was reserved for training sessions

Overarching Strategy

The overarching strategy for Belize is to implement an integrated plan for HCFC reductions in the RAC servicing sector (RSS) through the promotion and adoption of low GWP, energy efficient alternative technologies to achieve climate benefits. The strategy will be based on strengthening the implementation of the existing policies and capacity development of refrigeration experts to support the adoption of appropriate ozone and climate friendly alternative technologies.

Belize implemented a staged approach strategy of HCFC Phase-out Management Plan (HPMP). Stage two will seek to implement activities to phase out remaining HCFC consumption based on the promotion of natural refrigerant use. The Government of Belize conducted a National Survey on consumption of ODS alternatives in line with Decision

XXXVI/9 of the Montreal Protocol on the protection of ozone layer. The main objective of the survey was to enable Belize to better understand its consumption trends of ODS alternatives and their distribution by sectors and subsectors. Furthermore, the survey also focused on opportunities and challenges for adoption of the alternatives. The results of the survey will be incorporated into the HPMP stage 2.

The HPMP Stage II for Belize is aiming to support the country to achieve complete phase-out of HCFCs under the Montreal Protocol by 2025.

HCFC Consumption

The HCFC consumption for Belize in 2017 is 2.03 ODP tonnes and the estimated consumption for 2018 is 1.19 ODP tonnes.

Information to be collected

Information to be collected during the Stage-II HPMP preparation would include:

- Conduct surveys to collect information on the HCFC quantities currently consumed by RAC sector, inventory of remaining HCFC-based equipment especially air conditioning and commercial HCFC-based equipment;
- Information on policy initiatives regarding the phase-out of HCFCs such as certification process of technicians, existing codes of practice and their enforcement;
- Identify and discuss with the relevant stakeholders, possible ways of reducing the current consumption of HCFCs in the country.
- Determine the market profile of HCFC-based equipment and equipment depending on the alternatives especially low GWP technologies which are ozone friendly. Incorporate results of the survey into the HPMP stage 2.

Activities proposed for Stage II Preparation

The HPMP stage II for Belize will be developed with assistance from UN Environment as a leading agency and UNDP, as a cooperating agency. The proposed activities and budget are provided in the table below:

Activities	**Proposed cost**	**UNEP**	**UNDP**
Conduct surveys to determine HCFC quantities currently consumed by servicing workshops; and to establish inventory of existing HCFC-based equipment both domestic and commercial.	10,000		10,000
National review, discussion and consultation meetings on the draft of Stage II HPMP	10,000	10,000	
Recruitment of international / national experts to assist in the development of stage II HPMP	10,000	10,000	
Total (USD) without PSC	**30,000**	**20,000**	**10,000**

Note: The funding level of each activity is indicative and subject to changes based on the further discussion between the NOU, implementing agency and the national stakeholders during the Stage-II preparation.

Funding Request for the Preparation of Stage II of HCFC Phase-out Management Plan of Brunei Darussalam

Jointly developed by Brunei Darussalam, UN Environment and UNDP

1. Background

The HCFC Phase-out Management Plan (HPMP) Stage I for Brunei Darussalam was developed by the Department of Environment, Parks and Recreation (DEPR), the Ministry of Development (MOD) with the assistance of the United Nations Environment Programme (UN Environment) as the lead implementing agency and the United Nations Development Programme (UNDP) as the co-operating implementing agency. The HPMP Stage I for Brunei Darussalam was approved by the 66th meeting of the Executive Committee (ExCom) in April 2012.

The overall objective of the HPMP Stage I for Brunei Darussalam is to enable the country to comply HCFC phase-out obligations under the Montreal Protocol; freeze at baseline consumption in 2013, 10% reduction in 2015 and 35% reduction in 2020. The HPMP Stage I for Brunei Darussalam has been implemented since 2012 and will be completed by 2020. According to the agreement between Brunei Darussalam and the ExCom, the funding level of US $315,000, excluding programme support cost, has been approved in principle to Brunei Darussalam to implement the proposed strategies and actions under the approved HPMP Stage I. Of which, US $183,000 was approved for UN Environment and US $132,000 for UNDP. The above funding is scheduled to be released in four tranches: the first tranche upon approval of the project, the second tranche in 2015, the third tranche in 2017 and the fourth tranche in 2020.

Since the approval of HPMP Stage I, Brunei Darussalam has received two tranches as follows:

- The first tranche was approved at the 66th ExCom meeting in conjunction with the approval of the HPMP, Stage I by the ExCom. The total funding of US$ 175,800 (excluding programme support cost) was approved for Brunei Darussalam to implement the activities during 2012-2015. Of which, US$ 123,000 was through UN Environment and US$ 52,800 was approved through UNDP.
- The second tranche was approved at the 74th ExCom meeting in May 2015. The total funding of US$ 67,100 (excluding programme support cost) was approved for Brunei Darussalam to implement the activities during 2015-2016. Of which, US$ 27,500 was through UN Environment and US$ 39,600 was approved through UNDP.
- The third tranche is planned for submission to the 82nd ExCom meeting at the total amount of $US 40,000 (excluding support cost); US$ 7,000 through UN Environment and US$ 33,000 through UNDP. Brunei Darussalam is a low-volume-consuming (LVC) country, and was selected to submit an independent verification report along with the third tranche request (decision 74/22). Due to the government rules that do not allow private company to audit the government document, therefore, significant time was spent to identify a government agency that is independent from the NOU to conduct verification. Following long internal discussion, the Attorney General Office advised that two potential Departments should not be conducting the verification as this is not their mandate. Finally, there was agreement that UN Environment could use private company/individual auditor registered with the government to conduct the verification on an exceptional basis. With the delay in submission of independent verification report, the third tranche could not be submitted to the ExCom meeting in 2017 as planned.

The approved HPMP Stage I preparation funds have been fully used, and it is confirmed that there is no balance left to be returned to the Multilateral Fund.

The endorsement from the Government of Brunei Darussalam for the request of the Stage-II HPMP preparation has been received.

2. Progress in the implementation of the stage I (brief information)

The HPMP Stage I for Brunei Darussalam elaborates the three-pronged approaches: 1) limit the supply of HCFCs, 2) reduce demand of HCFCs for servicing existing equipment and 3) limit new demand of HCFCs, which have been implemented through a number of activities on policy and enforcement, non-investment and investment. Progress of implementation of these activities by tranche is elaborated below.

Table 2: Progress in the implementation of first and second tranche of the HPMP Stage I for Brunei Darussalam

Component	Progress in the implementation	
	First Tranche	**Second Tranche**
Policy, regulations and enforcement		
Policy review and amendments of regulations	o Brunei Darussalam implemented the licensing and quota system of HCFC through an Application Permit (AP) System, which has been regulated under the Customs Act-Prohibition and Restriction on Imports and Exports (Amendment) Order 2006. o Brunei Darussalam banned import of all other types of HCFCs except HCFC-22. o The quota system for HCFCs has also been implemented since 2013 and quota is allocated on an annual basis. o In 2014, the Royal Customs and Excise Department has introduced and used the E-permit system under Brunei Darussalam National Single Window for application of import and export of HCFCs on a trial basis. o The mandatory labelling requirement for HCFC containers prior to being released to the domestic market has been implemented since January 2013. Each cylinder will be attached with a sticker with different running number to facilitate DEPR to track down source of cylinder. o ODS-free for all RAC equipment installation has been included as requirement in tender issued by the government.	o Licensing, quota and mandatory labelling requirement are continued under the second tranche. o The E-permit system under Brunei Darussalam National Single Window for application of import and export of HCFCs has been fully operated since 2017. All applications and approval are undertaken via electronic system, which can be assessed by DEPR, customs and importers (with different level of assessment to information). o Initiating dialogue with the Department of Mechanical and Electrical as well as the Ministry of Energy Manpower and Industry (MEI) on the ban of HCFC based equipment. The meeting concluded that the ban on equipment would fall under the purview of the MEI under their Energy, Efficiency and Conservation Act (EEC), which has been pending on approval. o DEPR is still consulting with o Royal Customs and Excise Department on the establishment of on-site joint inspection team to survey the market to have better picture on situation of refrigerants supply and availability in the country.
Training of enforcement officers	o With assistance of UN Environment, organizing an Enforcement Training Workshop during 18-20 September 2012 (13 participants). o Training manuals and materials used for train- have been translated into local language and distributed to the customs officers.	o With assistance of UN Environment, organizing the updated training workshop for Customs and enforcement officers during 5-6 March 2018 (23 participants). o DEPR is discussing with the Customs to explore how to integrate the training on Montreal

Component	Progress in the implementation	
	First Tranche	Second Tranche
		Protocol and licensing system in the training curriculum of the new customs officers
Refrigeration and air-conditioning servicing (non-investment)		
Training of technician on good practice	o Organizing a Train-the-Trainer Workshop for Good Practices in RAC Servicing during 8-11 October 2012 in Vientiane Capital (13 participants). o DEPR assigned Jefri Bolkiah Vocational School as training center under HPMP. Training materials were translated by the trainers to be the local language. o Organizing 15 sessions of RAC technicians training workshop (191 participants).	o Organizing additional 4 sessions of RAC technicians training workshop (56 participants). The 20th session will be conducted by first week of September 2018. o DEPR is discussing with the Fire and Rescue Department and the Department of Mechanical and Electrical on integrating the safe introduction of low GWP alternatives technologies in the RAC sector through the Fire Safety Order.
Certification of refrigeration technician	Certification system was implemented in conjunction with the training workshops of RAC technicians on code of good practice. Training center in close collaboration with DEPR developed standard examination and certification procedures. Evaluation for the certification was based on question developed by the national trainer.	o Department of Mechanical and Electrical implements the technician certification for the government project. However, there is no training provided to the RAC technicians (only theoretical examination is required). o Department of Mechanical and Electrical agrees that a single harmonized system would be a good option especially in tackling freelance technicians. DEPR is working with Department of Mechanical and Electrical to harmonize the qualification of RAC technicians that can be made as mandatory requirement. o One of the approaches is to have an independent training centre or institution that will conduct the training. The Government's role in this approach is to be the authority that certifies and issue the certificates. Any technicians that undergo the training from the selected institution and are certified will be accredited by the Government.
Investment component for refrigeration and air-conditioning servicing		
Refrigerant recovery and reclamation program	o A unit of mini reclamation machine and 11 sets of recovery package (recovery equipment, tools and accessories) as part of the initial phase of recovery and reclamation program) were procured as part of the initial phase of the programme. o A training workshop on recovery and reclamation was conducted on 25-26 February 2015 with participation of 25 trainees from selected RAC servicing workshops, training center and DEPR.	o A reclamation centre has been selected and set up. The center will be in operation by the end of 2018. o A unit of mini-reclamation centre and 11 sets of recovery package procured under the first tranche was distributed to beneficiary enterprises. o A further procurement of 10 sets of recovery package has been initiated in 2018 and will be distributed to additional companies.
Pilot replacement incentive support project for end-users	This component was not implemented during the first tranche of HPMP due to technological constraints associated with retrofit of equipment using HCFCs and non-availability of reliable technology or low GWP refrigerant.	o It was decided by the government and implementing agency that the retrofitting will be changed to the replacement of residential air-conditioners with up to 25-30% of subsidy from the HPMP. Brunei Darussalam plans to introduce HFC-32 as alternative in the room air-conditioning sector in 2018 to allow the implementation of this activity.

Component	Progress in the implementation	
	First Tranche	**Second Tranche**
		o Due to the safety concern by the safety related authorities, the safety assessment will be conducted to evaluate safety and efficiency on the use of HFC-32 in the room air-conditioning sector prior to the implementation.
Information, education, and communication		
Information, education and Communication (IEC)	o Producing video documentary on non-HCFC based equipment and disseminating to RAC technicians aiming to encourage them to attend the RAC technician workshop and also to the public. o Developing posters on non-HCFC based air-conditioner to emphasize the use of non-HCFC based air conditioners o Participating, on a request basis, to the schools to give information on the importance of ozone and the current activities undertaken under the HPMP. o Dedicating a section of DEPR event with information on the HPMP targets and activities being carried out under the HPMP.	o DEPR continued to organize awareness activities through activities held during local events and world events such as the World Ozone Day and Word Environment Day etc. o Moreover, DEPR is liaising with relevant agencies on RAC industry to develop and compile awareness programs that is to be used and given to the relevant target audience.
Project Management & Monitoring		
Project Management	DEPR was responsible for planning, implementation and monitoring of all activities during the first tranche of HPMP as described above. As a result, the first tranche is completed.	DEPR continued to be responsible for planning, implementation and monitoring of all activities during the second of HPMP as described above.

3. The overarching strategy

The overarching strategy of the HPMP Stage II for Brunei Darussalam will be built from the achievement received from HPMP Stage I e.g. strengthening the implementation of the existing quota and licensing system through the e-system, capacity of the customs authority in enforcing the licensing system including the onsite inspection of refrigerant traded in the domestic market, sustaining the capacity building of customs and enforcement officers and RAC servicing sector, harmonizing certification of RAC with Department of Mechanical and Electrical and capacity building for enforcement of RAC servicing sector given the penetration of flammable (A2L and A3) refrigerants. This is to take into account the Kigali Amendment in the implementation of HPMP Stage II to the possible extend.

The HPMP Stage II for Brunei Darussalam is aiming to support the country to achieve complete phase-out of HCFCs under the Montreal Protocol by 2030.

3.1. HCFC consumption

Since 2013, there is only one type of HCFC commonly used which is HCFC-22 as the government has banned the import of all other types of HCFCs (except HCFC-22). Brunei Darussalam is ODS import-dependent country. The exporting country is China, Malaysia and Singapore. HCFC consumption during 2013-2017 as per Ozone Secretariat is shown in Table below.

Table 2: HCFCs consumption in Brunei Darussalam during 2013-2017

Substances	HCFC Consumption (ODP Tonnes)				
	2013	2014	2015	2016	2017
HCFC-22[1]	4.27	4.00	3.57	3.75	3.45

3.2. Information to be collected

The preparation of HPMP Stage I for Brunei Darussalam was based on the information collected in 2010-2011. The strategies and approach in the implementation of HPMP Stage I was based on the given situation during that period. Therefore, in the preparation of HPMP Stage II for Brunei Darussalam, it is essential to understand the change in situation and contexts of HCFC phase-out in the country. The updated information would have to be collected, analysed with the Government of Brunei Darussalam to enable country to jointly determine, based on the updated circumstance, the period of the HPMP Stage II should be covered, until the complete phase-out HCFC consumption and what should be appropriate timeline that would not jeopardize the needs of the countries. This would also include the strategies and approaches to address emerging need of the country.

Information to be collected during the preparation of HPMP Stage II for Brunei Darussalam would include:

- The current HCFC quantities consumed by servicing workshop/end users (update of Stage I survey);
- Inventory of HCFC-based equipment especially for room air-conditioners and commercial HCFC-based equipment and the forecast on the future inventory to understand the demand of HCFC for servicing / installation in each country in the future;
- Analysis of the current situation of HCFC-based equipment and recent development trends of alternative technologies in the domestic market taking into account the fact that Brunei Darussalam is equipment import-dependent countries;
- Feedbacks from relevant national stakeholders e.g. the Customs Department, vocational training schools, RAC servicing sector and importers etc. on
    - Experiences, challenges and lessons learned from the implementation of HPMP Stage I that are to be taken into account the implementation of HPMP Stage II e.g. the licensing system of HCFC and HCFC-based equipment and other related regulatory frameworks, RAC servicing sector.
    - Strategies to be proposed under HPMP Stage II in the country context e.g. consideration of the need for additional actions for introduction of low-GWP alternatives to HCFCs into the country (standards, training, incentives) or possibility to set-up and enforce a robust refrigeration servicing technicians certificate system, as well as other policy initiatives and technical interventions.
    - The number of technicians, servicing workshop, national standards framework, alternatives in the market and development trends**,**
- The reports of National Survey on Ozone Depleting Substance (ODS) Alternatives in line with Decision XXXVI/9 of the Montreal Protocol on Substance that Deplete the Ozone Layer. The main objective of the survey was to enable Brunei Darussalam to better understand its consumption trends of ODS alternatives and their distribution by sectors and subsectors. Furthermore, the survey also focused on opportunities and challenges for adoption of the alternatives. The results of the survey will be incorporated into the HPMP Stage II.

[1] Official consumption based on Article 7.

3.3. Activities proposed under preparation request

This document aims to request the funds for the preparation of the HPMP Stage II for Brunei Darussalam. As requested by the Government, UN Environment is the lead implementing agency and UNDP is the cooperating implementing agency of the HPMP Stage II for Brunei Darussalam. All activities proposed under this preparation request will be undertaken by UN Environment and with support from the country and UNDP during the data collection and analysis as well as development and finalization of overarching strategy and national implementation plan.

Activities will include (i) conducting nation-wide survey, (ii) analyzing data and preparation of national strategies and project document of HPMP Stage II, (iii) conducting national consultation workshops to obtain feedback from the stakeholders and (iv) finalizing the national strategies and project document of HPMP Stage II. Two national consultation workshops will be organized at least:

- The first workshop is to be organized prior to the commence of national data collection to inform concerned stakeholders on the scope and methodology of the survey, finalization of questionnaire as well as expected data from the survey.
- The second workshop is to be organized with the objective to brainstorm on components of HPMP Stage II project document with the national stakeholders and to obtain their feedback according to the specific country context.
- In between, national consultations with stakeholders will also be organized on the data verification, phaseout strategy, policy coordination, activities, monitoring and implementation, etc.

International consultant will be hired to work closely with Brunei Darussalam and UN Environment for data collection and analysis, drafting and finalization of national strategy and country's action plan as input to the HPMP stage II development. The consultant will also support the development of the overarching HPMP Stage II project document. The consultant needs to conduct travel to the country to provide specific assistance during the preparation process.

With the above activities, the total funding is being requested from the Multilateral Fund for the preparation of HPMP Stage II for Brunei Darussalam to be implemented by UN Environment is 30,000 US$ as follows:

Activities	Proposed cost for UN Environment ($US)
Survey of HCFC servicing workshops, as well as HCFC importers for the HCFC consumption Survey of end users, importers of the HCFC-based equipment to update the inventory of the HCFC equipment Analysis of data and development of national strategies as inputs to HPMP Stage II	15,000
Two national consultation workshops and consultation meetings during the preparation of Stage II HPMP	5,000
International consultant for guiding data collection and analysis, drafting and finalizing Stage II HPMP (including travel costs)	10,000
Total ($US) without PSC	**30,000**

Note: The funding level of each activity is indicative and subject to changes based on the further discussion between the NOU, implementing agency and the national stakeholders during the Stage-II preparation.

Funding Request for the Preparation of Stage-II HCFC Phase-out Management Plan of The Republic of Chad

By: UNEP & UNIDO

Background

The HPMP for Chad was approved at the 62 Executive Committee meeting. The HPMP Stage I was approved to achieve the 35% reduction in HCFC consumption by 2020 at an estimated cost of US$630,000 (US$370,000 for UNEP and US$260,000 for UNIDO. The agency support costs were estimated as follows: US$48,100 for UNEP and US$19,600 for UNIDO.

The first implementation plan for 2011-2013 and the first tranche of stage I of the HPMP was approved at the amount of US$100,000 plus agency support costs of US$13,500 for UNEP and US$135,000 plus agency support costs of US$ 10,125 for UNIDO.

The implementation plan for 2013-2016 of second tranche of stage I of the HPMP was approved at ExCom 70, at the amount of US$70,000 plus agency support costs of US$9,100 for UNEP.

The implementation plan for 2016-2018 of third tranche of stage I of the HPMP was approved at ExCom 76, at the amount of US$45,000 plus agency support costs of US$5,850 for UNEP and US$ 100,000 plus agency support costs of US$ 7,500 for UNIDO.

The Agreement was updated based on the established HCFC baseline for compliance and the revised funding level, that the revised starting point for sustained aggregate reduction in HCFC consumption was 16.1 ODP tonnes, calculated using consumption of 26.0 ODP tonnes and 6.2 ODP tonnes reported for 2009 and 2010, respectively, under Article 7 of the Montreal Protocol, and that the revised funding level for stage I of the HPMP was US$560,000, in accordance with decision 60/44(f)(xii).

The Government of Chad committed to the following control measures with the support of funding and technical assistance from the Multilateral Fund and implementing agency:

(i) Freeze the consumption of HCFCs in 2013 to the agreed baseline figure.
(ii) Reduce consumption of HCFCs by 10% from 2015
(iii) Reduce consumption of HCFC by35% from 2020.

The HPMP for the Republic of Chad was approved based on the estimated baseline at the time of submission (16.1 ODP tonnes of HCFC-22).

The approved HPMP Stage I preparation funds have been fully used, and it is confirmed that there is no balance remaining.

The endorsement from the Government for the request of the Stage-II HPMP preparation has been received.

Progress in the implementation of the Stage-I (brief information)

	Activity	Progress In Implementation
1	*Legislation*	
	ODS import and Quota and licensing system;	Chad has in place an enforceable system of licensing and quotas for HCFC imports and that this system can ensure the country's compliance with the HCFC phase-out schedule. The HCFC licensing system is operating

	Activity	Progress In Implementation
		effectively and as of January 2013 the quota system became operational.
2	*Capacity Building*	
Tranche 1	Customs officers training programme to enhance the surveillance of import of HCFCs and HCFC based equipment;	A total of 50 Customs officers, 10 Civil servants from the Ministry of Environment, 15 officers of the Mobile Brigade and 05 economic operators were trained. The trainings were about control and identification of ODS and ODS based equipment including HCFCs and HCFCs based equipment. These trainings were conducted by the already trained customs trainers.
Tranche 2	Continuation of training programme for customs and enforcement officers	Ten (10) workshops for enforcement officers have been organised in from January 2014 to December 2015 . A total of One hundred fifty (150) customs officers, Fifty (50) environment inspectors, and Twenty (20) trade agents of the commerce department have been trained. The trainings were about control and identification of ODS and ODS based equipment including HCFCs and HCFCs based equipment. These trainings were conducted by the already trained customs trainers.
Tranche 3	Strengthening national capacities (Customs, Environment Inspectors) for monitoring and controlling the import and distribution of HCFCs	Ten (10) workshops for enforcement officers have been organised in from January 2017 to September 2018. A total of One hundred eighty two (182) customs officers, environment inspectors, and trade agents of the commerce department have been trained. The trainings were about control and identification of ODS and ODS based equipment including HCFCs and HCFCs based equipment. These trainings were conducted by the already trained customs trainers.
Tranche 1	Training of service technicians in good refrigeration practices including the use of hydrocarbon technologies.	A total of 25 trainers and 450 refrigeration technicians have been trained in good refrigeration practices including the use of hydrocarbon technologies from May 2011 to April 2012. The Refrigeration Associating of Chad is assisting in conducting further trainings and implementing certification program for technicians. Students and teachers of the Lycée Technique Industriel of N'Djamena (70 students and 10 teachers) were also trained on good practices in the field of refrigeration and air conditioning. Also, 80 refrigeration Technicians exercising in the refrigeration industrial sector received practical courses on the new materials and highly efficient refrigeration equipment.
Tranche 2	Continuation of the training of service technicians in good refrigeration practices including the use of hydrocarbon technologies in close cooperation with the refrigeration association in the country.	Twelve (12) workshops for Refrigeration technicians have been organised in from January 2014 to December 2015. A total of two hundred eight five (285) refrigeration technicians have been trained from January 2014 to December 2015.

	Activity	Progress In Implementation
		The trainings were in good practices in refrigeration, safe handling of Hydrocarbon and servicing of HCFC Air conditioning equipment
Tranche 3	Strengthening technical capacity of refrigeration expert in good practices in refrigeration	Seven (07) workshops for Refrigeration technicians have been organised in from January 2017 to September 2018. A total of One hundred seventy (170) refrigeration technicians have been trained from January 2017 to September 2018. The trainings were in good practices in refrigeration, safe handling of Hydrocarbon and servicing of HCFC Air conditioning equipment.
3	*Investment project*	
Tranche 1	UNIDO	Activities completed. Equipment was procured and distributed to the Centers of Excellence. A workshop was held for the training of trainers on the usage of the newly acquired equipment in 2013 Additional equipment was procured in 2014 for the Center located in N'Djamena The equipment is regularly used for the training of technicians
Tranche 3	UNIDO	Activities completed. Equipment was procured and distributed to the Centers of Excellence. A workshop was held for the training of trainers on the usage of the newly acquired equipment in 2017 The equipment is regularly used for the training of technicians
4	*Monitoring, evaluation of implementation of the HPMP*	
Tranches 1 ,2 and 3	Monitoring and evaluation	The NOU recruited two consultants (1 refrigeration expert and 1 customs expert) in addition to the existing NOU team to assist in the monitoring of the effective implementation of all the HPMP activities and collect accurate data for both tranches. Consultants provided to the NOU reports on the implementation of the HPMP.

Overarching Strategy

The overarching strategy that Chad expects to implement assumes that new commercially viable refrigeration and air-conditioning technologies that use zero-ODP and low-GWP refrigerants in energy efficient equipment will become available in the coming decade.

The overarching strategy will be based on strengthening the implementation of the existing quota and licensing system and technical capacity building of trainers and technicians, to support appropriate technology choices that align with the Kigali Amendment.

The HPMP Stage II for Chad is aiming to support the country to achieve complete phase-out of HCFCs under the Montreal Protocol by 2030.

HCFC Consumption

The Republic of Chad has reported HCFC consumption for 2017 as 11.91 ODP Tonnes .

Information to be collected

Information to be collected during the Stage-II HPMP preparation would include:

- The current HCFC quantities consumed by servicing workshop/end users and legally imported HCFCs under the licensing/quota system (update of Stage 1 survey);
- Analysis of the current situation and development trends;
- Inventory of the HCFC-based equipment especially for room air conditioners and commercial HCFC-based equipment;
- Feedbacks from national stakeholders on the possible set-up and enforcement method of a refrigeration servicing technicians certificate system, as well as other policy initiatives and technical interventions;
- Consideration of the need for additional actions for introduction of low-GWP alternatives to HCFCs into the country (standards, training, incentives);
- Estimate of market share of the HCFC-based equipment vs various alternative technologies to get a better understanding of how the ozone- and climate-friendly alternatives technologies are received.

Activities proposed for Stage II Preparation

As requested by the Government, the HPMP stage II would be developed with assistance of UNEP, as leading agency, and UNIDO, as cooperating agency. The proposed activities and budget are as per following:

Activities	**Proposed cost**	**UNEP**	**UNIDO**
Survey of the HCFC servicing workshops, as well as HCFC importers for the HCFC consumption	20,000	20,000	
Survey of end users, importers of the HCFC-based equipment to update the inventory of the HCFC equipment	5,000		5,000
National review, discussion and consultation meetings on the draft of Stage II HPMP	10,000	10,000	
Consultant for the draft and finalization of stage II HPMP	25,000	10,000	15,000
Total (USD) without PSC	**60,000**	**40,000**	**20,000**

Note: All the preparation activities including the stakeholder consultations and finalization of the Stage-II HPMP will be conducted in an integrated manner for both UNEP- and UNIDO-led components. Thus, the funding level of each activity is indicative and subject to changes based on the further discussion between the NOU, implementing agencies and the national stakeholders during the Stage-II preparation.

FUNDING REQUEST FOR THE PREPARATION OF STAGE-II HCFC PHASE-OUT MANAGEMENT PLAN FOR GAMBIA

Background

The first stage of the HCFC Phase-out Management Plan (HPMP) for the Gambia was approved at the 65th Meeting of the Executive Committee with a total funding of US$ $233,300 for the period 2011 to 2020 to reduce HCFC consumption by 35% of the baseline. The overreaching strategy has the main goal to provide Ozone and climate benefits through the integrated plan for ODS reductions for the refrigeration and air conditioning sector, promotion and adoption of energy efficiency alternative technologies. The first stage was aimed at phasing out the consumption of HCFCs in the country as required by the Montreal Protocol. The focus was at (a) ODS policy and regulation; (b) further training of customs and other law enforcement agents and strengthening of customs training schools; (c) strengthening of the Refrigeration Association of the Gambia, technical institutions and additional training of Refrigeration and Air Conditioning (RAC) technicians; (d) strengthening of Regional R/R Centers and incentive programmes for commercial and industrial refrigeration end-users; (e) development of a comprehensive programme for reduction of HCFCs and carbon emissions in the refrigeration and air conditioning sector.

The project has been implemented with support from UNEP as a lead agency and UNIDO as a cooperating agency.

The Government of the Gambia committed to the following control measures with the support of funding and technical assistance from the Multilateral Fund and implementing agencies:

(i) Freeze the consumption of HCFCs in 2013 to the agreed baseline figure.
(ii) Reduce consumption of HCFCs by 10% from 2015.
(iii) Reduce consumption of HCFCs by 35% from 2020.

At ExCom-71, the Agreement between the Government of Gambia and the Executive Committee was updated in relation to the paragraph 1, Appendices 1-A and 2-A based on the established HCFC baseline for compliance, and a new paragraph 16 had been added to indicate that the updated Agreement superseded the Agreement that was reached at the 65th meeting. The revised starting point for sustained aggregate reduction in HCFC consumption instead of 0.92 ODP tones becomes 1.50 ODP tones.

The Gambia has made tremendous progress in the implementation of stage 1 of its HPMP. Notable achievements include meeting the 2013 HCFC freeze and 10 percent reduction targets in 2015. Furthermore, the Gambia has built the capacity of refrigeration technicians on good refrigeration practices and has trained enforcement officers from various public and private agencies on monitoring trade in ODS.

The Executive Committee approved the verification report to be carried out in the Gambia for stage I of the HPMP. The verification report was carried out and confirmed that the Government is implementing a licensing and quota system for HCFC imports and exports and that the total consumption of HCFCs for 2015 was 0.72 ODP tones. The verification concluded that the Gambia was in compliance with the Montreal Protocol HCFC reduction schedule and with its Agreement with the Executive Committee.

The approved HPMP Stage I preparation funds have been fully used, and it is confirmed that there is no balance remaining.

The endorsement from the Government for the request of the Stage-II HPMP preparation has been received.

Progress in the implementation of HPMP Stage-I

	Activity	**Progress In Implementation**
1	*Legislation*	
	Dissemination of ODS policy and regulations.	The Government of the Gambia has established a licensing and quota system that supports the Country's HCFC phase-out activities. This included the control of the import of HCFC-based equipment, as well as the registration of importers. The quotas for importers are determined by the National Ozone Committee and implemented by the Customs Department in consultation with the National Ozone Unit (NOU). Five awareness meetings on the revised ODS regulations were conducted to key stakeholders including importers, distributors, technicians, district council members and policy makers. Posters with key messages from the regulations were produced and distributed to the public. In addition, the NOU has trained and oriented staff in 2 regions councils namely Upper River and Kanifing Municipality on the existing policies and legislations regarding the protection of the ozone layer. A total of 50 participants drawn from different government departments, the private sector and community representatives participated at such important meetings. These officers are playing a pivotal role on raising awareness of HCFC phase-out to the local communities.
2	*Capacity Building*	
Tranche 1	Training of Customs and other law enforcement officers and strengthening of customs training schools.	One training sessions for customs and other law enforcement officers on monitoring and enforcement of ODS policy and regulations were conducted. A total of twenty (20) enforcement officers were trained. Four refrigerant identifiers were procured and distributed to key entry points in the country. The training contributed to the reduction in cases of illegal trade and better control on imports of ODS and ODS-dependent equipment.
Tranche 2	Continuation of training programme	Three training sessions were conducted and a

	Activity	Progress In Implementation
	for customs and other enforcement officers	total of 60 officers were trained on control and enforcement of the legislations governing ODS in the country. The participants were drawn from Customs Department, Police, Clearing Agents and the Gambia Bureau of Standards across the country. The officers acquired skills and knowledge on ODS identification procedures and were also oriented on the control measures in place for the importation of HCFCs and other refrigerants. Furthermore, the NOU in collaboration with the Customs Department, the Gambia Bureau of Standards and the Police conducted three joint monitoring inspections to suppliers of refrigerants in the country. The NOU and reviewed and updated the Customs training curriculum to include issues related to the Montreal Protocol and the implementation of the quota system.
Tranche 3	Further training of customs and other enforcement officers.	Meeting with Customs and other enforcement officers on component's implementation activities under tranche 3 was held on 16th to the 17th of December 2016 at Jokor Brikama West coast Region. A total of 20 customs and enforcement officers were trained at the said workshop. In addition Two training workshops for customs and other law enforcement officers on enforcement of ODS policy, illegal trade of refrigerants, how to use the refrigerant identifier and regulations were conducted on: 6th to the 7th of February 2017 at the Farafenni Senior Secondary School Conference Centre, 6th to the 9th of May 10th 2017 at the Agricultural Conference Hall . A total of 40 customs and enforcement officers were trained during those two workshops.
Tranche 1	Training of service technicians in good refrigeration practices and strengthening of the Refrigeration Association and technical institutes.	The capacity of refrigeration technicians was strengthened through training and provision of necessary tool kits. A total of eighty (80) technicians were trained in good refrigeration practices including the use of hydrocarbon technologies and 10 super national trainers were also trained. Conducted a meeting with the Refrigeration association where code of conduct of the technicians was adopted for implementation. Conducted a meeting with the Refrigeration association were a code of conduct of the technicians was adopted for implementation.

	Activity	Progress In Implementation
		Developed a National Refrigeration Training Manual which is being used by training institutions in the country.
Tranche 2	Continuation of the training of service technicians in good refrigeration practices.	Three regional refrigeration training sessions on implementation of good refrigeration practices including use of hydrocarbons were conducted in the reporting period. In total, 60 RAC technicians were trained. The technicians have played a complimentary critical role in the dissemination of HCFCs phase-out information to the consumers, advising them on the type of refrigeration equipment and refrigerants that are legally accepted and the phase-out plan in the country. There is regular collaboration and sharing of information between the NOU and the refrigeration technicians in the country. Three monitoring inspections have been conducted to major refrigeration workshops in the country, one in each administrative region in the country (Southern, Central and Northern regions). The monitoring inspections were aimed at checking whether the technicians are following good refrigeration practices as advised during the trainings. The inspections established that the technicians are implementing good practices and are encouraging their clients to buy ozone friendly technologies including hydrocarbon technologies for ozone and climate benefits. The NOU also facilitated two meetings of the Refrigeration Association of the Gambia (RAM) which were held in GTTI and Brikama West Coast Region. The RAM meetings centered on the role of technicians on the HCFC phase-out process and enforcement of best practices in the refrigeration sector.
Tranche 3	Further Training of Refrigeration Technicians.	Three training sessions on implementation of good refrigeration practices were conducted in the third tranche of stage 1 HPMP whereby a total of 50 technicians were trained. The technicians have played a complimentary critical role in the dissemination of HCFCs phase-out information to the consumers, advising them on the type of refrigeration equipment and refrigerants that are legally accepted and the phase-out plan in the country. There is regular collaboration and sharing of information between

	Activity	Progress In Implementation
		the NOU and the refrigeration technicians in the country.
3	*Investment project UNIDO*	
Tranche 1	Provision of equipment and strengthening regional Centres of Excellence	A workshop was also held to launch the HPMP implementation. Awareness raising activities were conducted for policy makers, customs officers, refrigerant importers, suppliers, technicians and the general public. Equipment and tools were purchased and delivered to the R/R centers. Training was provided to 25 refrigeration experts on safe handling and working with hydrocarbon refrigerants. As part of the UNIDO component, 10 sets of tools and equipment (e.g., recovery cylinders, scales, filters, manifold gauges, and recovery kits) were provided to the Gambia Technical Training Institute as the main training centre, as well as to service technicians.
Tranche 3	Provision of equipment and strengthening regional Centres of Excellence	Additional refrigeration service equipment procured and to be distributed to the 2 centres of excellence
4	*Monitoring, evaluation of implementation of the HPMP*	
Tranches 1, 2 and 3	Monitoring and evaluation	To ensure effectiveness implementation of all projects within the HPMP, the NOU recruited national experts under the project to have continues monitoring of implementation of project activities.

Overarching Strategy

The overarching strategy for the Gambia is to implement an integrated plan for HCFC reductions in the RAC sector through promotion and adoption of energy efficiency alternative technologies to achieve climate benefits. The strategy will be based on strengthening the implementation of the existing policies and capacity development of refrigeration experts to support the adoption of appropriate ozone and climate friendly alternative technologies.

The Gambia implemented a staged approach strategy of HCFC Phase-out Management Plan (HPMP). Stage two will aim at implementing activities to phase out remaining HCFC consumption based on the promotion of the safe use of natural refrigerants. The Government of The Gambia conducted a National Survey on consumption of Ozone Depleting Substance (ODS) alternatives in line with Decision XXXVI/9 of the Montreal Protocol on the protection of ozone layer. The main objective of the survey was to enable The Gambia better understand its consumption trends of ODS alternatives and their distribution by sectors and subsectors. Furthermore, the survey also focused on opportunities and challenges for adoption of the alternatives. The results of the survey will be incorporated into the HPMP stage 2.

The HPMP Stage II for The Gambia is aiming to support the country to achieve the 2020 HCFC phase-out target under the Montreal Protocol.

HCFC Consumption

The HCFC consumption for the Gambia in 2016 was 0.5 ODP Tons and the consumption in 2017 was 0.82 ODP tons

Information to be collected

Information to be collected during the Stage-II HPMP preparation would include:

- Conduct surveys to collect information on the HCFC quantities currently consumed by RAC sector, inventory of HCFC-based equipment especially air conditioners and commercial HCFC-based equipment;
- Information on policy initiatives regarding the phase-out of HCFCs such as certification process of technicians, existing codes of practice and their enforcement;
- Identify and discuss with the relevant stakeholders, possible ways of reducing the current consumption of HCFCs in the country.
- Determine the market profile of HCFC-based equipment and equipment depending on the alternatives especially low GWP technologies which are ozone friendly. Incorporate results of the survey into the HPMP stage 2.

Activities proposed for Stage II Preparation

The HPMP stage II for the Gambia will be developed with assistance from UNEP as a leading agency and UNIDO, as a cooperating agency. The proposed activities and budget are provided in the table below:

Activities	**Proposed cost**	**UNEP**	**UNIDO**
Conduct surveys to determine HCFC quantities currently consumed by servicing workshops; and to establish inventory of existing HCFC-based equipment both domestic and commercial.	10,000	5,000	5,000
National review, discussion and consultation meetings on the draft of Stage II HPMP	5,000	5,000	
Recruitment of international / national experts to assist in the development of stage II HPMP	15,000	10,000	5,000
Total (USD) without PSC	**30,000**	**20,000**	**10,000**

**The funding level of each activity is indicative and subject to changes based on the further discussion between the NOU, implementing agency and the national stakeholders during the Stage-II preparation.*

Funding Request for the Preparation of Stage-II HCFC Phase-out Management Plan for GRENADA

Background

The first stage of the HCFC Phase-out Management Plan (HPMP) for Grenada was approved at the 62nd Meeting of the Executive Committee with a total funding of US$210,000 (excluding agency support costs) for the period 2010 to 2020 to reduce HCFC consumption by 35% of the baseline. The overreaching strategy has the main goal to provide ozone and climate benefits through the integrated plan for ozone depleting substances (ODS) reductions for the refrigeration sector, promotion and adoption of energy efficiency alternative technologies. The first stage sought to phase out the consumption of HCFCs in the country as required by the Montreal Protocol. Its focus was on the following components: (a) Training of technicians in good practice, recovery and reuse, handling of non-HCFC refrigerants and Certification of Technicians and Importers; (b) Training of customs and enforcement personnel and Customs Brokers and Importers in the Monitoring and Control of Trade in ODS (c) Awareness and Information Dissemination and; (d) Project monitoring, coordination and evaluation (including reporting).

The project has been implemented with support from UNEP as a lead agency and UNIDO as a cooperating agency. At the time of approval of Grenada's HPMP in 2010, the country had not selected a cooperating Agency and so there was no allocation for a Cooperating Agency. However, the country did select a UNIDO as cooperating agency at the time of implementing Tranche 2, which is still being implemented.

The Government of Grenada committed to the following control measures with the support of funding and technical assistance from the Multilateral Fund and implementing agencies:

(i) Freeze the consumption of HCFCs in 2013 to the agreed baseline figure.
(ii) Reduce consumption of HCFCs by 10% from 2015.
(iii) Reduce consumption of HCFCs by 35% from 2020.

In 2010 the Government of Grenada agreed its starting point for sustained aggregate reduction in HCFC consumption of 0.87 ODP tonnes as a baseline, calculated using actual consumption reported in 2009 and estimated consumption for 2010. This was then revised by 77th ExCom in December 2016 to 0.83 ODP tonnes based on the actual data reported by the Government of Grenada under Article 7 and the starting point for aggregated reduction was also revised to 0.58 ODP tonnes. Therefore, its revised phase-out schedule, the relevant paragraphs of the Agreement have been updated accordingly.

Grenada has progressed with implementation of Stage 1 of its HPMP. Notable achievements include meeting the 2013 HCFC freeze and 10 percent reduction targets in 2015 and building the capacity of refrigeration technicians in good refrigeration practices, recovery and recycling. Further, Grenada has transitioned to an electronic licensing and quota system (LQS) and has trained a number of Customs and enforcement officers. Additionally a number of public awareness activities were undertaken to promote the transition to low GWP, energy efficient technologies.

In 2017, the Multilateral Fund undertook a Field Mission for the Evaluation of HCFCs Phase-out in the Refrigeration Servicing Sector (RSS) in Grenada. The Mission concluded a number of key recommendations and lessons learnt.

The approved HPMP Stage I preparation funds have been fully used, and it is confirmed that there is no balance remaining.

The endorsement from the Government for the request of the Stage-II HPMP preparation has been received.

Progress in the implementation of HPMP Stage-I

	Activity	**Progress In Implementation**
Component I	**Policy Implementation – *UN Environment***	
Tranche 1	Review and update ODS legislation to ensure the implementation of a Licensing and Quota System (LQS). Implement mandatory reporting system by importers. Develop and implement a certification system for importers through training.	The NOU reviewed and updated the LQS. The Government of Grenada developed and implemented an Online LQS. Quotas issued in the year prior to the year of importation. Importers were required to submit annual consumption data to the NOU. A Certification System was developed and implemented. Importers were certified and registered and this requirement also applies to New importers.
	Establish import restrictions to prohibit the importation of very small HCFC based equipment.	Discussions commenced and is ongoing to determine the most suitable approach to be taken to implement this measure.
	Develop labelling and environmental safety standards for the Industry	Standards for Labelling of Refrigerant Containers, No. GDS 135:2016, was established in June 2016 and become effective. Additionally, standards related to the safe handling, storage and transportation of refrigerants including flammable refrigerants will be developed under Tranche 2 (see Tranche 2 for update).
	Establishment of fiscal incentives and dis-incentives	Initial discussions held with Department of trade and tax officers.
Tranche 2	Development of environmental safety standards for the RAC Industry	Standards related to the safe handling, storage and transportation of refrigerants including flammable refrigerants was established – "*Code of Practice for the safe use, handling, storage and transportation of refrigerants, including flammable refrigerants*".
	Review and update ODS legislation to ensure the implementation of a LQS.	The NOU commenced a review and update of the ODS legislation which will be continued during the Tranche.
Component II	**Training and Certification – UN Environment**	
Tranche 1	Review of training standards: Update training module to include new and emerging technologies and training methodologies.	The training module was revised to include safety in the use of flammable and toxic refrigerants.
	Deliver training in recovery and reuse including developing appropriate	76 technicians trained in over four groups during the period. Also, 2 technicians trained as Assessors and instructors for the Caribbean Vocational Qualification (CVQ).

	Activity	Progress In Implementation
	training modules, selection of technicians, assessment of individual training workshops and certification	
	Upgrade training modules for both Customs officers and Customs brokers Training	The training modules for both Customs officers and Customs brokers upgraded to include the new, HS codes, smuggling techniques, customs quick-tool and case studies among other inclusions.
	Conduct Customs Officers and Brokers training in Monitoring and Controlling Trade in ODS	58 Customs officers, 1 trade official and 22 customs brokers were trained in Monitoring and Controlling Trade in ODS. Strong emphasis was placed on proper HS classification of refrigerants, Reporting and record keeping and practical ODS identification.
	Establish additional R&R Centres in areas lacking centres to allow for wider access to equipment	3 new R&R Centres established bringing the total to 20.
Tranche 2	Deliver training in recovery and reuse including developing appropriate training modules, selection of technicians, assessment of individual training workshops and certification	40 RAC Technicians were trained in Natural Refrigerants. Counterpart training with GIZ in Natural refrigerants for 6 trainers
	Conduct Customs Officers and Brokers training in Monitoring and Controlling Trade in ODS	16 Customs officers were trained in Monitoring and Controlling Trade in ODS.
	Establish additional R&R Centres in areas lacking centres to allow for wider access to equipment	Three (3) new centres were established. Tools were either replaced or upgraded in some of the R&R Centres.
Component II	**Procurement of Equipment – UNIDO**	
Tranche 2	Procurement of Equipment	Through UNIDO, the following Tools and Equipment was procured under Tranche 2 (See Attachment).
	Distribution of Tools and Equipment	Two (2) secondary schools were fully equipped with tools and equipment for training. 1 tertiary institution was fully equipped with equipment and another tertiary institution was upgraded with tools and equipment. Provision of toolkits with tools to ten (10) women who are involved in RAC
	Training of RAC Technicians	Training under the EU F-GAS regulation and Natural Refrigeration Technology was delivered to 4 RAC Trainers as part of a Train the Trainers Programme. Support for international consultant to participate in WOD celebrations 2018
Component III	**Awareness and Information Dissemination**	
Tranche 1	Organization of technical seminars to promote alternative HCFC technologies	A Technology Update Seminar for the RAC Sector was held. The Grenada Refrigeration, Air Conditioning and Ventilation Association (GRAVA) was also relaunched in October 2016 to provide technical information on ODS alternatives.
	Promote RR&R market for HCFCs, educational	Several presentations were made to schools, groups, organizations and camps, reaching over 500 persons. Printed

	Activity	Progress In Implementation
	campaigns for schools, social groups, and other stakeholders. Energy efficiency of RAC equipment has been a key factor in promoting new and alternative technology	materials in the form of brochures, book marks, and factsheets were distributed. Also, Infomercials were developed on topics including: ozone layer protection, technology choices, Alternatives, linkages between ozone and climate.
Tranche 2	Organization of technical seminars to promote alternative HCFC technologies	The NOU participated in 2 energy efficiency exhibitions to promote energy efficiency in the cooling sector.
	Promote RR&R market for HCFCs, educational campaigns for schools, social groups, and other stakeholders. Energy efficiency of RAC equipment has been a key factor in promoting new and alternative technology	The NOU developed a further 200 brochures (on 2 different topics) and a number of posters on 14 various topics were distributed to target groups.
Component IV	***Monitoring and Evaluation***	
Tranche 1	Monitoring, Evaluation and Reporting (MER)	To ensure effectiveness implementation of all projects within the HPMP, the NOU contracted a national consultant under the project with responsibility for continuous monitoring of implementation of project activities. The consultant also provided support in the preparation of all reports and Tranche Requests required under the Project and identified solutions to challenges encountered.
	Monitoring implementation of LQ System	Monitoring conducted through the LQ System. Collaboration is maintained between the NOU, Department of Trade and the Customs Department. Grenada has achieved 73% phase out of HCFCs and is ahead of the phase out targets according to the HCFC phase-out schedule.
Tranche 2	Monitoring, Evaluation and Reporting (MER)	To ensure effectiveness implementation of all projects within the HPMP, the NOU contracted a national consultant under the project and with additional support from GIZ, with responsibility for continuous monitoring of implementation of project activities. The consultant also provided support in the preparation of all reports and Tranche Requests required under the Project and identified solutions to challenges encountered.
	Monitoring implementation of LQ System	Collaboration with stakeholders (importers, Customs and Trade) for verification of imports. Additionally, the NOU provides support for a Technical Consultant (Office Space and communication) to assist with monitoring and evaluation of the HPMP.

Overarching Strategy

The overarching strategy for Grenada is to implement an integrated plan for HCFC reductions in the RAC servicing sector (RSS) through the promotion and adoption of low GWP, energy efficient alternative technologies to achieve climate benefits. The strategy will be based on strengthening the implementation of the existing policies and capacity development of refrigeration experts to support the adoption of appropriate ozone and climate friendly alternative technologies.

Grenada implemented a staged approach strategy of HCFC Phase-out Management Plan (HPMP). Stage two will seek to implement activities to phase out remaining HCFC consumption based on the promotion of natural refrigerant use. The Government of Grenada conducted a National Survey on consumption of ODS alternatives in line with Decision XXXVI/9 of the Montreal Protocol on the protection of ozone layer. The main objective of the survey was to enable Grenada to better understand its consumption trends of ODS alternatives and their distribution by sectors and subsectors. Furthermore, the survey also focused on opportunities and challenges for adoption of the alternatives. The results of the survey will be incorporated into the HPMP stage 2.

The HPMP Stage II for Grenada is aiming to support the country to achieve complete phase-out of HCFCs under the Montreal Protocol by 2025.

HCFC Consumption

The HCFC consumption for Grenada in 2017 is 0.22 ODP tonnes and the estimated consumption for 2018 is 0.22 ODP tonnes

Information to be collected

Information to be collected during the Stage-II HPMP preparation would include:

- Conduct surveys to collect information on the HCFC quantities currently consumed by RAC sector, inventory of remaining HCFC-based equipment especially air conditioning and commercial HCFC-based equipment;
- Information on policy initiatives regarding the phase-out of HCFCs such as certification process of technicians, existing codes of practice and their enforcement;
- Identify and discuss with the relevant stakeholders, possible ways of reducing the current consumption of HCFCs in the country.
- Determine the market profile of HCFC-based equipment and equipment depending on the alternatives especially low GWP technologies which are ozone friendly. Incorporate results of the survey into the HPMP stage 2.

Activities proposed for Stage II Preparation

The HPMP stage II for Grenada will be developed with assistance from UN Environment as a leading agency. The proposed activities and budget are provided in the table below:

Activities	**Proposed cost**	**UNEP**
Review and update national surveys undertaken to verify HCFC quantities currently consumed by servicing workshops; and to confirm inventories of existing HCFC-based equipment both domestic and commercial.	10,000	10,000
National review, discussion and consultation meetings on the draft of Stage II HPMP	10,000	10,000
Recruitment of international / national experts to assist in the development of stage II HPMP	10,000	10,000
Total (USD) without PSC	**30,000**	**30,000**

Note: The funding level of each activity is indicative and subject to changes based on the further discussion between the NOU, implementing agency and the national stakeholders during the Stage-II preparation.

Funding Request for the Preparation of Stage II of HCFC Phase-out Management Plan of Lao People's Democratic Republic

Jointly developed by Lao PDR and UN Environment

1. Background

The HCFC Phase-out Management Plan (HPMP) Stage I for Lao PDR was developed by the Pollution Control Department (PCD), the Ministry of Natural Resources and Environment (MONRE) with the assistance of the United Nations Environment Programme (UN Environment) as the lead implementing agency and the Government of France as the co-operating implementing agency. The HPMP Stage I for Lao PDR was approved by the 63rd meeting of the Executive Committee (ExCom) in April 2011.

The overall objective of the HPMP Stage I for Lao PDR is to enable the country to comply HCFC phase-out obligations under the Montreal Protocol; freeze at baseline consumption in 2013, 10% reduction in 2015 and 35% reduction in 2020. The HPMP Stage I for Lao PDR has been implemented since 2011 and will be completed by 2020.

According to the agreement between Lao PDR and the ExCom, the funding level of US $210,000, excluding programme support cost, has been approved in principle to Lao PDR based on the previous HCFC baseline consumption of 1.77 ODP tonnes and excludes funds for the foam sector plan. As per Decision of the 23rd Meeting of the Parties (Decision XXIII/29), the Parties has approved the change of HCFC baseline consumption in 2009 from 22.03 MT to 39.09 MT so that the baseline consumption was changed to 2.03 ODP tonnes. The change in HCFC baseline consumption increased the funding level to US$ 280,000, which was approved by the 74th ExCom meeting in May 2015.

The above funding is scheduled to be released in three tranches: the first tranche upon approval of the project, the second tranche in 2015 and the third tranche in 2020. Since the approval of HPMP Stage I, Lao PDR has received two tranches as follows:

- The first tranche was approved at the 63rd ExCom meeting in conjunction with the approval of the HPMP, Stage I by the ExCom. The first tranche of US $ 113,625 (excluding programme support cost) was approved to Lao PDR through UN Environment to implement the first tranche implementation plan for 2011-2015.
- The second tranche was approved at the 74th ExCom meeting in May 2015. The total funding of US$ 138,375 (excluding programme support cost) was approved for Lao PDR to implement the activities during 2015-2019. Of which, US$ 97,875 was through UN Environment and US$ 41,000 was approved through France.
- With the above approved tranches, the final tranche will be requested in 2020 at the total amount of $US 28,000 (excluding support cost); US$ 23,500 through UN Environment and US$ 4,500 through France.

The Lao People's Democratic Republic is a low-volume-consuming (LVC) country, and was selected to submit an independent verification report along with the second tranche request (decision 70/15). The verification concluded that the Government of Lao has met the consumption targets specified in the Agreement between the Country and the Executive Committee.

The approved HPMP Stage I preparation funds have been fully used, and it is confirmed that there is no balance left to be returned to the Multilateral Fund.

The endorsement from the Government of Lao PDR for the request of the Stage-II HPMP preparation has been received.

2. Progress in the implementation of the stage I (brief information)

The HPMP Stage I for Lao PDR elaborates the three-pronged approaches: 1) limit the supply of HCFCs, 2) reduce demand of HCFCs for servicing existing equipment and 3) limit new demand of HCFCs, which have been implemented through a number of activities on policy and enforcement, non-investment and investment. Progress of implementation of these activities by tranche is elaborated below.

Table 2: Progress in the implementation of first and second tranche of the HPMP Stage I for Lao PDR

Component	Progress in the implementation	
	First Tranche	**Second Tranche**
Policy, regulations and enforcement		
Policy review and amendments of regulations	o Lao PDR revised the licensing system to control the import, export and transit of ODS through the Minister Decision on ODS Control dated November 9, 2012 (No. 7858/MoNRE), which mandates the Pollution Control Department (PCD) as the sole licensing authority of ODS import, export and transit in Lao PDR. The update phase-out schedule of HCFCs was also included in the Minister Decision on ODS Control. o The quota system for HCFCs has also been implemented since 2013 and quota is allocated on an annual basis. o The mandatory labelling requirement for HCFC containers prior to being released to the domestic market has been implemented since January 2014. Each cylinder will be attached with a sticker with different running number to facilitate PCD to track down source of cylinder.	o Licensing, quota and mandatory labelling requirement are continued under the second tranche. o In 2016, the National Parliament has endorsed the Chemical Management Law, which controls the productions, import, export, having in possession and use of controlled chemicals in Lao PDR. PCD has discussed with the Ministry of Industry and Commerce to include all other types of HCFCs (except HCFC-22) and HCFC-141b in pre-blended polyol under import and usage ban in Lao PDR. o PCD is still consulting with o The Steering Committee on the legal framework to ban the import of HCFC-based residential air-conditioner and ban the installation of HCFC-22 chillers and large commercial split-type air-conditioning units with cooling capacity above 20 RT. o Department of Enterprise Registration and Management and RAC Association and refrigerant importers to seek for ways to put in place the regulation to restrict the sale of refrigerant only to the certified technicians.
Training of enforcement officers	o With assistance of UN Environment, organizing an Enforcement Training Workshop during 14-16 January 2013 in Vientiane Capital (58 participants). o Organizing 10 refreshment training for the border customs officers at their border check points in the north, Vientiane Capital and the south. About 35 customs officers who has been assigned as the focal point of ODS control at the border check points were trained.	o With assistance of UN Environment, organizing the updated training workshop for Customs and enforcement officers in Vientiane on 18-19 September 2017 (25 participants). o Organizing one customs and enforcement training workshop during 8-9 January 2018 in Savannakhet (40 participants). o PCD has set up a joint inspection team consisting of Department of Domestic Trade, Environment Police Department, Department of Natural Resources and Environment to monitor domestic market for illegal ODS trade. The Minister of Natural Resources and

Component	Progress in the implementation	
	First Tranche	**Second Tranche**
	o 5 units of refrigerant identifiers were handed over to four Department of Natural Resources and Environment who jointly used refrigerant identifier with the Customs check points. The remaining one refrigerant identifier was kept at NOU for monitoring of refrigerant traded in the domestic market.	Environment has signed the Establishment Order. The inspection team is working on the inspection plan.
Refrigeration and air-conditioning servicing		
Training of technician on good practice	o Organizing a Train-the-Trainer Workshop for Good Practices in RAC Servicing during 27-30 November 2012 in Vientiane Capital (28 participants). o Organizing a RAC technicians training workshop during 17-19 December 2014 in Champasack Province (27 participants). o 3 sets of RAC servicing tools delivered to Lao PDR in March 2013 and have been already hand-over to three technical institutes.	o With assistance of UN Environment organizing an updated Train-the-Trainer Workshop that includes flammable refrigerant during 20 – 23 December 2016 in Khammouane province (42 participants). o Organizing 2 RAC technicians training workshop during 19-20 December 2017 and 2-3 August 2018 in Vientiane (105 participants). o NOU met Fire Prevention and Protection Police Department to discuss about emergency response to fire hazard in relation to flammable refrigerant.
Certification of refrigeration technician	PCD consulted key stakeholders comprising of training centers, RAC Association and the Ministry of Labour and Social Welfare regarding actions required for the certification of RAC technicians.	NOU had regular meetings with the Lao-Korea (South) Skill Development Institute to discuss the existing mechanism for certification of RAC technicians and the possible cooperation with the Institute to integrate the certification into the existing framework. The Lao-Korea Skill Development Institute has agreed to work with the NOU and RAC Association to implement the programme. It was agreed in principle that the Institute will conduct assessment and issue Certificate for RAC technicians. Detail discussion is on-going on the way forward.
Recovery and reuse initiative	Not applicable under first tranche.	PCD is coordinating with France to seek the possibility for reallocating budget that has been approved for acquiring recovery and reclamation equipment to be the servicing tools for training centers, which will be hand-over to the Lao-Korea Skill Development Institute.
Foam manufacturing sector		
Conversion to ODS-free alternative technology	Not applicable under first tranche.	PCD confirmed that two enterprises stopped the production of foam products, and the third enterprise converted to alternative technology in the manufacture of foam. Therefore, there is no financial support to be requested for the foam conversion projects.
Information, education, and communication		
Information, education and Communication (IEC)	o The poster giving tips for the customs officers to identify HCFC cylinders has been finalized. The poster will be produced and distributed to all the customs check points. o NOU organized a RAC industry awareness workshop on 19 April 2013 in Vientiane Capital to inform the government policy to phase-out HCFC, new licensing system to	o PCD organized media meeting in October 2015 to discuss the implementation of awareness activities in Lao PDR. o PCD has developed the facebook page that disseminate the Montreal Protocol activities to the public e.g. the labelling requirement to increase awareness of the public to pay attention to the cylinder with the government stickers.

Component	Progress in the implementation	
	First Tranche	Second Tranche
	control import and export of HCFC, training programme under HPMP. There were 65 attendances in the workshop.	
Project Management & Monitoring		
Project Management	PCD was responsible for planning, implementation and monitoring of all activities during the first tranche of HPMP as described above. As a result, the first tranche is completed.	PCD continued to be responsible for planning, implementation and monitoring of all activities during the second of HPMP as described above.

3. The overarching strategy

The overarching strategy of the HPMP Stage II for Lao PDR will be built from the achievement received from HPMP Stage I e.g. strengthening the implementation of the existing quota and licensing system by improving the tracking mechanism of HCFC import, capacity of the customs authority in enforcing the licensing system including the onsite inspection of refrigerant traded in the domestic market, sustaining the capacity building of customs and enforcement officers and RAC servicing sector, integrating certification of RAC technicians into the existing framework and capacity building for enforcement of RAC servicing sector given the penetration of flammable refrigerants. This is to take into account the Kigali Amendment in the implementation of HPMP Stage II to the possible extend.

The HPMP Stage II for Lao PDR is aiming to support the country to achieve complete phase-out of HCFCs under the Montreal Protocol by 2030.

3.1. HCFC consumption

At the moment, there is only one type of HCFC commonly used which is HCFC-22. Lao PDR is ODS import-dependent country. The exporting country is China via Thailand. HCFC consumption during 2013-2017 as per Ozone Secretariat is shown in Table below.

Table 2: HCFCs consumption in Lao PDR during 2013-2017

Substances	HCFC Consumption (ODP Tonnes)				
	2013	2014	2015	2016	2017
HCFC-22[1]	1.6	2.28	2.00	2.03	0.59
HCFC-141b in pre-blended polyol[2]	3.46	0	0	0	0

* From 2014 onwards, Lao PDR no longer reported HCFC-141b in imported pre-blended polyol in Country Programme Implementation Report. PCD confirmed that two enterprises stopped the production of foam products, and the third enterprise converted to alternative technology in the manufacture of foam. Therefore, there is no financial support to be requested for the foam conversion projects.

[1] Official consumption based on Article 7.

[2] Figure of HCFC-141b in pre-blended polyol is based on Country Programme Implementation Report.

3.2. Information to be collected

The preparation of HPMP Stage I for Lao PDR was based on the information collected in 2009-2010. The strategies and approach in the implementation of HPMP Stage I was based on the given situation during that period. Therefore, in the preparation of HPMP Stage II for Lao PDR, it is essential to understand the change in situation and contexts of HCFC phase-out in the country. The updated information would have to be collected, analysed with the Government of Lao PDR to enable country to jointly determine, based on the updated circumstance, the period of the HPMP Stage II should be covered, until the completely phase-out HCFC consumption and what should be appropriate timeline that would not jeopardize the needs of the countries. This would also include the strategies and approaches to address emerging need of the country.

Information to be collected during the preparation of HPMP Stage II for Lao PDR would include:

- The current HCFC quantities consumed by servicing workshop/end users (update of Stage I survey);
- Inventory of HCFC-based equipment especially for room air-conditioners and commercial HCFC-based equipment and the forecast on the future inventory to understand the demand of HCFC for servicing / installation in each country in the future;
- Analysis of the current situation of HCFC-based equipment and recent development trends of alternative technologies in the domestic market taking into account the fact that Lao PDR is equipment import-dependent countries;
- Feedbacks from relevant national stakeholders e.g. the Customs Department, vocational training schools, RAC Association, RAC servicing sector and importers etc. on
    - Experiences, challenges and lessons learned from the implementation of HPMP Stage I that are to be taken into account the implementation of HPMP Stage II e.g. the licensing system of HCFC and HCFC-based equipment and other related regulatory frameworks, RAC servicing sector.
    - Strategies to be proposed under HPMP Stage II in the country context e.g. consideration of the need for additional actions for introduction of low-GWP alternatives to HCFCs into the country (standards, training, incentives) or possibility to set-up and enforce a robust refrigeration servicing technicians certificate system, as well as other policy initiatives and technical interventions.
    - The number of technicians, servicing workshop, national standards framework, alternatives in the market and development trends**,**
- The reports of National Survey on Ozone Depleting Substance (ODS) Alternatives in line with Decision XXXVI/9 of the Montreal Protocol on Substance that Deplete the Ozone Layer. The main objective of the survey was to enable Lao PDR to better understand its consumption trends of ODS alternatives and their distribution by sectors and subsectors. Furthermore, the survey also focused on opportunities and challenges for adoption of the alternatives. The results of the survey will be incorporated into the HPMP Stage II.

3.3. Activities proposed under preparation request

This document aims to request the funds for the preparation of the HPMP Stage II for Lao PDR. As requested by the Government, UN Environment is the lead implementing agency of the HPMP Stage II for Lao PDR. All activities proposed under this preparation request will be undertaken by UN Environment

and with support from the country during the data collection and analysis as well as development and finalization of overarching strategy and national implementation plan.

Activities will include (i) conducting nation-wide survey, (ii) analyzing data and preparation of national strategies and project document of HPMP Stage II, (iii) conducting national consultation workshops to obtain feedback from the stakeholders and (iv) finalizing the national strategies and project document of HPMP Stage II. Two national consultation workshops will be organized at least:

- The first workshop is to be organized prior to the commence of national data collection to inform concerned stakeholders on the scope and methodology of the survey, finalization of questionnaire as well as expected data from the survey.
- The second workshop is to be organized with the objective to brainstorm on components of HPMP Stage II project document with the national stakeholders and to obtain their feedback according to the specific country context.
- In between, national consultations with stakeholders will also be organized on the data verification, phaseout strategy, policy coordination, activities, monitoring and implementation, etc.

International consultant will be hired to work closely with Lao PDR and UN Environment for data collection and analysis, drafting and finalization of national strategy and country's action plan as input to the HPMP stage II development. The consultant will also support the development of the overarching HPMP Stage II project document. The consultant needs to conduct travel to the country to provide specific assistance during the preparation process.

With the above activities, the total funding is being requested from the Multilateral Fund for the preparation of HPMP Stage II for Lao PDR to be implemented by UN Environment is 30,000 US$ as follows:

Activities	Proposed cost for UN Environment ($US)
Survey of HCFC servicing workshops, as well as HCFC importers for the HCFC consumption Survey of end users, importers of the HCFC-based equipment to update the inventory of the HCFC equipment Analysis of data and development of national strategies as inputs to HPMP Stage II	14,000
Two national consultation workshops and consultation meetings during the preparation of Stage II HPMP	8,000
International consultant for guiding data collection and analysis, drafting and finalizing Stage II HPMP (including travel costs)	8,000
Total ($US) without PSC	**30,000**

Note: The funding level of each activity is indicative and subject to changes based on the further discussion between the NOU, implementing agency and the national stakeholders during the Stage-II preparation.

Funding Request for the Preparation of Stage II For Mongolia HCFC Phase-Out Management Plan

1. Background

The HCFC Phase-out Management Plan (HPMP) for Mongolia was approved at the 63rd Meeting of the Executive Committee to the Multilateral Fund (ExCom) in April 2011 with UNEP as lead implementing Agency and the Government of Japan as bilateral cooperating partner. The second tranche was approved at the 71st ExCom Meeting (Decision 71/64) while the third tranche was approved at the 77th ExCom Meeting (Decision77/36). The HPMP is based on a staged approach to phase out the consumption (import) of HCFCs by 2030. The 1st Stage aims to reduce by 35% from the baseline of 1.4ODPT. The table below provides an overview of HPMP:

Table 1: HPMP Mongolia

Calculated HCFC baseline (2009-2010)	1.4 ODP tonnes
Total level of funding requested (for all the HPMP projects) including PSC	US$413,580
Level of funding received for the first 3 tranches including PSC	US$371,770
Lead Implementing Agency	UNEP
Cooperating Agency	Japan

The objective of the project preparation proposal is to assist Mongolia National Ozone Authority (NOU) in taking stock of market trends, achievements and lessons learned from the implementation of Montreal Protocol and further needs of stakeholders and in developing HPMP Stage II that meets effectively the national objectives for the HCFC use reduction and sustainable development. The requested funding for Stage II preparation is US$30,000 in line with ExCom Decision 71/42 and MLF/IACM.2018/1/14 Guide given that the remaining consumption for Stage II is 0.9 ODP tonnes. HPMP stage II for Mongolia will be developed with assistance from UNEP as a leading agency in cooperation with the Government of Japan.

2. Progress on HPMP Stage I

2.1 HCFC Consumption

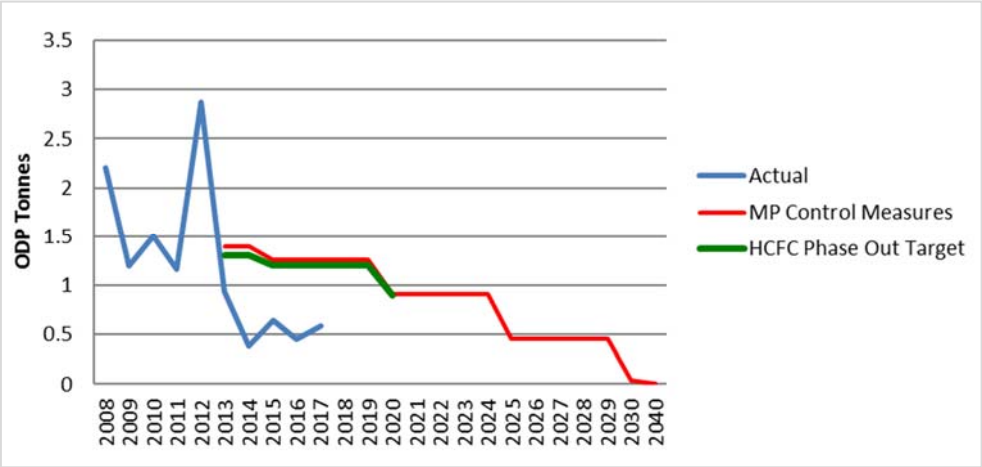
In view of its HCFC baseline consumption, Mongolia is considered as a low-volume consuming country. There is no production of HCFCs in the country and all HCFC needed in the market is imported. Mongolia has been using HCFCs for servicing of refrigeration and air-conditioning (RAC) equipment and in manufacturing of extruded polystyrene (XPS) insulation foam. The HCFCs consumption from 2011-2017 is shown in Table 3:

Table 2: HCFCs consumption trend

	2011	2012	2013	2014	2015	2016	2017
HCFC-22 (MT)	21.09	52.17	16.995	6.851	11.56	8.18	10.71
HCFC-142b in pre-blended polyol (MT)	-	-	0.064	0.004	0.015	-	-
Total (ODPt)	1.16	2.87	0.94	0.38	0.64	0.45	0.59

Source: Article 7 data report

Graphic 1: Mongolia scheduled and actual consumption



In 2016, the NOU conducted the ODS Alternatives survey and HFC Inventory to understand the consumption trend of alternatives to HCFC and identify opportunities for the introduction of low global warming potential (GWP) technologies in Mongolia. The studies showed that from 2012-2015 there was at least 21 types of HFC used of which the highest consumption was of HFC-134a and R-410A. Low-GWP options include R-744 (carbon dioxide) and R-704 (helium). There is an increasing trend of imports of new types of equipment such as vending machine, refrigerated milk tank, printing paper transformer, gas bag and skating equipment that depend on HFCs.

2.2 Phase-out activities in the XPS foam sector

Two foam manufacturing companies were selected under the investment component coordinated through bilateral assistance from the Government of Japan. Based on the agreements signed between the companies' management and the Government of Mongolia the companies agreed to stop using HCFC-22 for XPS foam production as of 30 June 2013. Companies made significant investment for the equipment conversion in addition to the support provided through the Multilateral Fund. The consumption of HCFCs by companies has been ceased which was verified by an independent verifier during HCFC consumption verification. An inspection by NOU was conducted to verify the disposal of obsolete equipment and safety procedures before the disbursement of a final instalment to both XPS manufacturing companies in 2017.

2.3 Strengthening of HCFC control policies and regulations

The country has a well-functioning quota and licensing system and NOU maintains a good collaboration with Customs Department for the control of imports. Mongolian Refrigeration Association (MRA) allocates the quota and sends the recommendation to the NOA housed at the Ministry of Environment and Tourism. In 2018 there were 15 importers including for HFCs. The recent changes in the licensing system made possible to remove inactive importers from the quota list. The license for imports is also required for HFCs and related equipment, but HFC are not yet controlled through the quota system.

The List of Toxic Chemicals Banned or Severely Restricted in Mongolia had been updated to include some 34 types of HCFCs including HCFC-141b, and the import of these substances has been subject to the license and quota system. The new format for quota application, reporting of the imported, sold,

charged in equipment with HCFCs, alternatives to HCFCs and relevant equipment was approved by a decree of the Minister of Environment and Tourism in March 2016.

An inventory of large HCFC-based equipment to establish a national database was conducted during the verification of the HCFC phase out management plan in 2015. It was updated to incorporate HFC and other ODS alternative technologies based on the results of the two afore-mentioned surveys.

NOU led active consultations with Mongolian Agency for Standardization and Metrology which led to setting up a Technical Committee to review ISO and EN standards and develop standard for the certification of the refrigeration and air-conditioning servicing technicians. A handbook ''International Standards in Refrigeration and Air-Conditioning'' and National Certification Schemes for Refrigeration and Air Conditioning Service Technicians provided to the MRA, Standardization and Technical Regulation Department of Mongolian Agency of Standardization and Metrology and National Expert of Standardization for purpose of further collaboration.

The Decree of State Secretariat of MoET of 2015 urged the NOU and other concerned parties to explore feasible ways to introduce the certification system for the refrigeration and air-conditioning servicing technicians. As the result of the working group on standards, the following standards have been reviewed, translated and considered for adoption ISO 817: 2014, ISO 5149:2014, ISO IES-17024:2012, EN 13313:2010 refrigeration systems and heat pumps-Competence of Personnel and EN 378: 2008 Refrigeration systems and heat pumps-Safety and environmental requirement. Standard EN 13313: 2010 was adopted in April 2017. This will provide the basis for setting up the national certification system for technicians. National stakeholder consultation took place in June 2018 to agree on the plan of action for the creation of an education/occupational standard for good practice in servicing the RAC equipment and integration into the national technical and vocational qualification system.

2.4 Capacity Building for Customs and Enforcement Officers

NOU maintains a good collaboration with the Customs Department in cooperation with which regular customs training workshops are conducted. The list of trainings delivered under Stage I provided below:

Table 3: List of Training Delivered under Stage I

Training	Location	Date	Numbers trained
1 Montreal Protocol Enforcement Training of Trainer	Ulaanbaatar	June 2012	25
3 training for customs officers	Provinces of Dornod and Selenge	July - December 2012	38
4 training for the State Environmental Inspectors	Customs stations in the Provinces of Zamin-Uud and Darkhan-Uul, and in Ulaanbaatar	July 2012 to January 2013	94
1 training for State Customs Inspectors	Ulaanbaatar	March 2013	45
2 training for customs officers	Ulaangom, Uvs and in Bayan-Ulgi province	June 2013	55
1 Training for customs officers	Zamin-Uud customs boarder	8-9 September 2014	61
1 Training for customs officers	Ulaanbaatar customs	15-17 June 2015	57
1 Training for customs officers	Ulaanbaatar customs	14-15 June 2017	48
Total			**423**

Total 3 refrigerant identifiers were received from UNEP and handed over to the Customs. The Mongolian NOU uses online iPIC and regularly updates the iPIC sheet. NOU has been exploring

options to establish an on-line licensing system and connecting with the internal Customs computerized system.

2.5 Good Practices Training Programme for Technicians

The good practices training programme on HCFCs and alternatives have been carried out as planned at the National Training Centre 'Master Potentials' of the Mongolian Refrigeration Association (MRA). The centre was established under the Montreal Protocol implementation framework. The centre is regularly involved in HPMP activities by conducting a series of technicians training and awareness-raising activities targeting the member companies of the MRA and also in the national celebrations of the World Ozone Day. Altogether 24 trainings on good practice for servicing technicians have been conducted under HPMP targeting 213 technicians including master trainers.

The staff of the Centre translated two following handbooks into Mongolian: "Good Practice in Refrigeration" by Proklima International and "Good Servicing Practices: Phasing out HCFCs in the Refrigeration and Air-Conditioning Servicing Sector" by UNEP.

The NOU also made effort to integrate the ozone protection and Montreal Protocol issues into the curriculum of key technical education institutions. Two credits – on the ozone layer protection and on handling of ODS and alternative refrigerants – have been included into the curriculum of the School of Food Engineering and Biotechnology at the Mongolian University of Science and Technology in April 2015 and two credits- Standard of Refrigerants have been included into the curriculum of Master's Degree at Mongolian University of Science and Technology in April 2016.

2.6 Awareness-Raising and Outreach

The HPMP activities also focus extensively on communication, awareness-raising and outreach targeting various key stakeholders. On 19 June 2015, the official letter with the recommendations on public procurement of Ozone and Climate friendly Refrigeration and Air-Conditioning equipment and technology was distributed to two Government implementation agencies and 15 following Ministries: Ministry of Foreign Affairs, Finance, Justice, Construction and Urban Development, Health, Energy, Economic Development, Population Development and Social Protection, Labour, Mining, Defence, Education and Science, Roads and Transportation, Culture, Sports and Tourism, Industry and Agriculture with signature of Minister of MEGD. In addition, the NOA sent a formal letter with recommendations for procurement to the Head of the "New Ulaanbaatar International Airport Construction" and a follow-up recommendation letter to the Project Implementation Unit not to procure RAC systems with HCFCs or their blends. Also, a similar letter with Guideline on "Ozone and Climate friendly public procurement of Refrigeration and Air-Conditioning equipment and technology" was distributed to 26 entities from the private sector, registered importers and members of MRA

Outreach activities also targeted building and construction stakeholders including the Ministry of Construction and Urban Development. NOU sent recommendations on the use of ODS and Montreal Protocol implications for the sector to include into the National Strategy for Construction Sector for 2018-2028.

Various awareness materials to achieve HCFC phase-out were developed, published (print) and distributed.

3. Overarching Strategy and Activities for the Stage II Preparation Project

The overarching strategy Stage II for Mongolia is to achieve a full phase-out of HCFC by 97.5% from the baseline of 1.4 ODP tonnes by 2030 by implementing an integrated management plan in consultation and cooperation with key national stakeholders. The overall objective is to facilitate the

market transition to HCFC alternatives while achieving climate benefits through the adoption of energy efficient HVRAC technologies based on climate-friendly refrigerants.

The strategy for Stage II HPMP will build on the achievements and results of Stage I and take into account market needs and demand, gaps in implementation and enforcement of policies, capacity development needs of key stakeholders and constraints in access to information by key market players including public at large as individual consumers. The strategy will also aim to maximize the HCFC phase-out as much as possible by targeting sectors using HVRAC technologies such as building and construction, hospitality and tourism, retail and cold chain. Various policy options such public procurement and regulations/codes/standards will be considered to further potential reductions in ODS consumption in these sectors. These findings of the recent ODS Alternatives Survey and HFC Inventory will be incorporated into the preparation of HPMP Stage II. There is an indication of growing inflow of HFC-based technologies in the market which are high-mid GWP options.

The full funding of US$ 30,000 is requested for the preparation project for HPMP Stage II for Mongolia. UNEP will be the implementing agency with inputs and cooperation from the Government of Japan. The description of activities needed to prepare HPMP Stage II is presented below:

(1) Data collection: a detailed survey will be organized and conducted to:

- Assess the HCFC quantities currently consumed by HVRAC sector, inventory of HCFC-based equipment especially residential and commercial refrigerators and air conditioners;
- Assess the needs of servicing sector including developing an updated national database of service technicians and understand their capacity needs to handle ODS alternatives and/or flammable ODS alternatives;
- Determine the market profile of HCFC-based equipment and equipment depending on the alternatives especially low GWP and ozone-friendly technologies;
- Review information on policy initiatives about the phase-out of HCFCs such as certification process of technicians, existing codes of practice and their enforcement with the aim of institutionalizing capacity building efforts under Stage II. The policy review will also aim to identify additional policy instruments such as standards and labelling and public procurement to be deployed in Stage II; and
- Understand potential user and consumer segments of the HVRAC technologies to expand phase-out efforts.

Activities will include mobilizing and training the survey team, local travels to key locations, data collection through bottom-up approach and interviews, top-down approach from the key institutional stakeholders, consolidation of data.

(2) Stakeholder coordination and consultation: During the data collection, several joint and targeted consultations including interviews will be organized and conducted with a range of stakeholders such as customs and enforcement agencies, relevant line ministries, servicing sector associations and individual entrepreneurs, importers/traders, large end-users, and experts. To formulate the final strategy and implementation plan for Stage II, stakeholder consultation workshops will be held to collect the feedback and revise accordingly the final document. The consultations on the final document will be conducted jointly for UNEP and Government of Japan.

(3) Preparation of HPMP Stage II: Based on information collected and analysis conducted including with the feedback from stakeholders, the proposal for HPMP Stage II will be prepared. The HPMP proposal for Stage II will outline the overarching strategy and implementation plan with detailed activities and funding requirement for policies & regulations, sector based ODS policies, refrigeration service sector training, service sector certification system, customs and enforcement capacity building, large end-user HCFC phase-out strategy and activities, and awareness and outreach activities. The draft proposal for HPMP Stage II will be circulated by NOU among national stakeholders for comments. The

overarching HPMP Stage II will be revised based on feedback collected, and the final proposal will be submitted to the first meeting of ExCom in 2020.

4. Budget

The break-down for an overall budget for PRP proposal is given in the table below:

Table 5: Proposed Budget for Stage II Preparation

Activities	Proposed cost
Data collection (local staff, regional expert, interviews, and local and regional travel)	15,000
Stakeholder coordination and consultation (meetings venue and catering, at least 5 meetings)	6,000
Preparation of Stage II (expert cost)	9,000
Total (USD) without PSC	**30,000**

**The funding level of each activity is indicative and subject to changes based on the further discussion between the NOU, implementing agency and the national stakeholders during the Stage-II preparation.*

Funding Request for the Preparation of Stage II for Nepal HCFC Phase-Out Management Plan

1. Background

The first stage of HCFC Phase-out Management Plan (HPMP) for Nepal was approved at the 62nd Meeting of the Executive Committee to the Multilateral Fund (ExCom) to reduce HCFC consumption by 35% of the baseline which is 23 MT (1.27 ODPT). Stage I covers the period of 2010-2020 with the total funding of US$210,000 without PSC. This includes US$126,000 for UN Environment as the lead agency for the implementation of non-investment activities, and US$84,000 for UNDP as cooperating agency for the implementation of investment-related activities. The funding for Stage I has been provided in the following order:

Tranches	Amount	UNEP	UNDP	Approved
The first tranche	US$105,000	US$63,000	US$42,000	66th ExCom upon the ratification of the Copenhagen Amendment
The second tranche	US$ 84,000	US$50,400	US$33,600	75th ExCom
The third/final tranche	US$ 21,000	US$12,600	US$8,400	to be requested in 2020

The Government of Nepal follows an accelerated HCFC phase-out schedule aiming to reduce 97.5% of HCFC consumption from the baseline by 2025 with a servicing tail of 2.5% until 2030. The objective of the project preparation (PRP) proposal is to assist Nepal's National Ozone Unit in taking stock of market trends, achievements with the implementation of Montreal Protocol and further needs of stakeholders and developing HPMP Stage II to meet effectively its national objective for the reduction of HCFC use. Considering that Nepal's remaining eligible consumption after the implementation of Stage I is 0.64ODP, the funding request is for US$30,000 in line with the ExCom decision 71/42 and MLF/IACM.2018/1/14 Guide.

2. Progress on HPMP Stage I

2.1 HCFC Consumption profile

The country has in place a fully operational HCFC licensing and quota. The country does not have manufacturing of Heating, Ventilation and Refrigeration and Air-Conditioning (HVRAC) and its registered importers bring in mainly HCFC-22 for the use in HVRAC servicing sector. The use of HVRAC equipment has been increasing in the country in the past decade due to the growth in tourism and hospitality sector, post-earthquake boom in building and construction and increasing consumer spending power. In addition, in recent years the country has also seen an increase in cold storages with the growth in the agri-food industry.

The Country Programme data submitted by the Government of Nepal illustrates a decrease in the consumption of the HCFC-22 as documented in the table below.

Year	2012	2013	2014	2015	2016	2017
HCFC-22 consumption in Service Sector (MT)	13.5	12	15	10	14.48	11.59

The result of the recent ODS Alternative survey conducted in the country indicate that most of the new RAC equipment imports are high GWP HFC options such as R-134a, R-410A, R-407c and R-404a.

Substantial number of R-600a based refrigerators is being imported into the country, and very small number of R-32 based ACs has penetrated into the market.

2.2 Policies & Regulations

The Government of Nepal has ratified all the amendments to the Montreal Protocol except for the Kigali Amendment. Nepal's National Ozone Unit (NOU) is housed in the Nepal Bureau of Standards and Metrology (NBSM) under the Ministry of Industry, Commerce & Supply. The NOU works through National Ozone Officer as per guidelines received from Ministry of Industry, Commerce & Supply and Ministry of Forest & Environment. Policy guidelines are developed by a Steering Committee as and when necessary and National Ozone Officer is the Member Secretary of the Implementation Committee.

The Government of Nepal has been successful in implementing its HPMP activities meeting the reduction targets despite various challenges including a 2015 earthquake. The earthquake caused structural damage to the NOU office which slowed the implementation of some activities of the HPMP. In addition, the earthquake also affected the capacity of the national partners to implement the HPMP activities within agreed timelines. For instance, the procurement and distribution of equipment and tools under service technicians' equipment support scheme had to be postponed due to trade limitations.

The Government of Nepal is implementing a licensing and quota system for HCFCs through the Ozone Depleting Substance Consumption Control Rules enacted in 2001. The regulations require all HCFC importers to comply with the reporting requirements. The import quota is regulated by the Ministry of Forest & Environment. At present, the NOU allocates 85% of maximum annual allowable consumption as the annual quota with the balance set aside as a buffer. Since January 2017, the Government has enforced a ban on the import of HCFC-based equipment.

Jointly with UNDP and UNEP, the NOU has also developed a HCFC equipment replacement rebate scheme in which financial incentive is provided to interested end-users to replace their present HCFC based equipment to non-ODP, low-GWP and energy efficient HVRAC technologies. The scheme is limited in scale aiming to demonstrate and promote Ozone Depleting Substances (ODS) alternatives.

2.3 Customs & Enforcement

The NOU has been closely collaborating with Nepal Customs Authority for the implementation of the Montreal Protocol in trade control of ODS. Under HPMP stage I, 4 enforcement training sessions including on Training of Trainers were organized for a total of 110 customs officers and other enforcement personnel. A manual on the national regulations, ODS import and exporting licensing system was published in 2013 and amended in 2015. Furthermore, the Customs and NOU representatives participated in 2 regional border dialogues with neighbouring countries (India, Bhutan, China, Bangladesh) meetings with neighbouring countries of which the first one in December 2016 was hosted by NOU in Kathmandu. The second border dialogue was held in May 2018 in Dhaka and included also representatives from Myanmar.

The issue of licenses for HCFC imports has been halted in Nepal for the year of 2018 with the idea of offsetting the total illegal stock of HCFC-22 seized in 2004 and 2016 in the amount of 17 MT (amount equivalent to 2018 quota) through auctioning to the market. Nepal Customs will oversee the auction in coordination with NOU.

2.4 Refrigeration Service Sector

There is an increase in the requirement of service technicians in Nepal due to the growth in the use of RAC equipment in the residential and commercial sector. It is estimated that there about 1,200 RAC service technicians in Nepal and majority of the RAC technicians have informal education and training background. Under HPMP stage I, one of the main objectives of the capacity building activities for refrigeration service sector was to reduce HCFC emissions during installation, maintenance and disposal for RAC equipment,

therefore, good servicing practices were the focus of the training of technicians and trainers. Up to now, 9 training workshops were organized training about 300 technicians.

Nepal Refrigeration and Electro-Mechanical Association (NREMA) is the primary association that represents the interests of the RAC servicing sector technicians in the country. The NOU has partnered with NREMA to carry out training activities and outreach to NREMA members. Trainers nominated by NREMA were trained in the Training of Trainers including on flammable refrigerants with the support from South-South cooperation of UNEP CAP at their training centre in Guangzhou, China. The NOU has also partnered with Technical Colleges under the Council for Technical and Vocational Education & Training (CTEVT) to train upcoming RAC technicians.

UNDP under investment component has two components: a) pilot replacement incentive programme and b) recovery and reclamation (R&R) programme. The NOU with the support of UNDP and UNEP organized stakeholders workshops for the organization of pilot replacement incentive programme to seek the interest of end users. Under R&R component, the following tools were procured and distributed: 50 vacuum pumps, 50 gauge manifold, 4 recovery machines, 6 tools kits, 1 electronic leak detector, and 8 recovery cylinders. The tools and equipment were handed over to 8 provincial units of Nepal Refrigeration and Electro Mechanical Engineers to be utilized by all the technicians of that province apart from the individual RAC technicians and technical training institutes. The hands-on training was provided to all the beneficiaries of tools and equipment on maintenance and proper use. The NREMA, CTEVT, and RAC technicians have requested to continue this support in future also.

2.5 Awareness & Outreach

The NOU regularly conducts awareness and outreach activities targeting industry and general public. Relevant awareness materials like posters, brochures and range of relevant international information on new alternative technologies and flammable refrigerants were distributed to the industry stakeholders. Key stakeholders are appraised of the development in new technologies in the market. Awareness workshop on Kigali Amendment was also organized for key public and private sector stakeholders in September 2017. On the annual World Ozone Day celebrations, a range of activities rolled out in the country targeting stakeholders from public, private sectors, students and public at large, e.g. a rally to march around the centre of Kathmandu, speech context, local media including TV coverage. Media awareness workshop are regularly organized on the eve of the World Ozone Day.

3. Overarching Strategy and Activities for the Stage II Preparation Project

The overarching strategy for Nepal is to implement an integrated plan for HCFC reductions in the RAC sector for the market transition to HCFC alternatives while achieving climate benefits through the adoption of energy efficient HVRAC technologies. The strategy will be based on capitalizing on the achievements and results of Stage I, taking into account the lessons learned in terms of the stakeholders and market needs and strengthening the implementation of policies, capacity development of key stakeholders and information access for key market players including public at large as consumers of HVRAC technologies to support their decision and choices towards the alternatives. The strategy will also aim to maximize the HCFC phase out by looking at additional sectors for potential reductions and leveraging additional policy instruments for effective phase-out and meeting the accelerate reduction objectives of the Government of Nepal.

The NOU of Nepal conducted a national Survey on consumption of ODS alternatives which main objective was to better understand consumption trends of ODS alternatives and their distribution by sectors and subsectors. It also focused on opportunities and challenges for adoption of the ODS alternatives. The results of the survey will be incorporated into the preparation of HPMP Stage 2. There is a clear indication that evolving technology trends in Nepal which is at the receiving side of the technology development would require the HPMP activities such as refrigeration service sector training workshops, customs and

enforcement capacity building activities and general awareness campaigns to be adjusted to match these market dynamics.

The full funding of US$ 30,000 is requested for the PRP of HPMP Stage-II including on behalf of UNDP. The implementation of PRP project and preparation of the overarching strategy for HPMP Stage II will be undertaken by NOU with the assistance from UN Environment. UNDP will provide technical advisory as part of the PRP advisory team of the NOU. The description of activities that need to be undertaken to prepare HPMP Stage II is presented below:

(1) Data collection: a detailed survey will be organized and conducted to:

- Assess the HCFC quantities currently consumed by HVRAC sector, inventory of HCFC-based equipment especially residential and commercial refrigerators and air conditioners;
- Assess the needs of servicing sector including developing an updated national database of service technicians and understand their capacity needs to handle ODS alternatives and/or flammable ODS alternatives;
- Determine the market profile of HCFC-based equipment and equipment depending on the alternatives especially low GWP and ozone-friendly technologies;
- Review information on policy initiatives regarding the phase-out of HCFCs such as certification process of technicians, existing codes of practice and their enforcement with the aim of institutionalizing capacity building efforts under Stage II. The policy review will also aim to identify additional policy instruments such as standards and labelling and public procurement to be deployed in Stage II; and
- Understand potential user and consumer segments of the HVRAC technologies such as retail and cold chain, tourism and hospitality, building and construction and health care to expand phase-out efforts;

(2) Stakeholder coordination and consultation: The NOU will establish a PRP team/committee that would guide the Stage II PRP implementation process. During the data collection, a number of joint and targeted consultations including interviews will be organized and conducted with a range of stakeholders such as customs and enforcement agencies, relevant line ministries, servicing sector associations and individual entrepreneurs, importers/traders, large end-users, and experts. To formulate Stage II strategy and implementation plan, stakeholder consultation workshops will be held to collect the feedback and revise accordingly the final document.

(3) Preparation of HPMP Stage II: Based on information collected and analysis conducted including with the feedback from stakeholders, the proposal for HPMP Stage II will be prepared. It will outline the overarching strategy and implementation plan with detailed activities and funding requirement for: policies & regulations, sector based ODS policies, refrigeration service sector training, service sector certification system, customs & enforcement capacity building, large end-user HCFC phase-out strategy & activities, procurement of equipment for RAC technicians and three vocational institutions, and awareness & outreach activities. The draft proposal for HPMP Stage II will be circulated by NOU among implementation agencies and national stakeholders for comments. The overarching HPMP Stage II will be revised based on the comments collected and the final proposal will be submitted to the first meeting of ExCom in 2020.

4. Timelines for preparation

The timeline for preparation of the overarching HPMP Stage II is as following:

	2019				2020
Activities	**Q1**	**Q2**	**Q3**	**Q4**	**Q1**
Inception/Planning meeting	X				
Expert Engagement/Survey Planning	X				
Market Survey & Report		X			

Policy Review	X	X			
Data Analysis		X			
HPMP Stage-II Project preparation		X	X		
Stakeholder consultations	X	X	X	X	X
Project document finalization				X	X

5. Budget

The Nepal Stage-II PRP budget break-down is given in the table below:

Component	Budget* (US$)
Data collection (local staff, regional expert, interviews and local and regional travel)	10,000
Stakeholder coordination and consultation (meetings venue and catering, at least 5 meetings)	7,000
Preparation of Stage II (expert cost)	13,000
Total	**30,000**

**the funding level of each activity is indicative and subject to changes based on the further discussion between the NOU, implementing agency and the national stakeholders during the Stage-II preparation.*

Annex-I: Endorsement Letter from Government of Nepal

PARAGUAY

HCFC PHASE-OUT MANAGEMENT PLAN

REQUEST FOR PRP FOR

THE SECOND STAGE

From 2020 – 2025

September 28th, 2018

PREPARED JOINTLY BY
UNEP, UNDP & NOO

1. Description

The Stage I HPMP for the Paraguay was approved at the 63th meeting of the ExCom in May 2011 for the period 2011 to 2020, at the amount of US $695,400, comprising US $330,000, plus agency support costs of US $42,900 for UNEP, and US $300,000, plus agency support costs of US $22,500 for UNDP.

2 out of 3 tranches with a total value of 624,210 US$ has been approved and the third tranche request, with a total value of 71,190US$, will be submitted for consideration at the 83rd meeting of the Executive Committee.

Of the already HPMP approved funds (tranches 1 and 2), about US$ 414.854,31 has been disbursed and committed as of today, which represents more than 66% of the total funds approved.

This request is for preparing the second stage of HPMP in order to Paraguay is able to meet the 67.5% HCFC baseline reduction by 2025 according to its country commitments under the Montreal Protocol.

2. Description of the current progress in implementation of the overall stage I of the HPMP

The Government of Republic of Paraguay is currently implementing the Second tranche of Stage 1 of its HCFCs Phase-out Management Plan (HPMP). The HCTC license and quota system is fully operational true an on-line system, the imports of R-22 air conditioning units is banned, and several technical standards for RAC sector were approved or revised. Furthermore, the NOU has successfully trained Customs and Enforcement Officers, refrigeration technicians, provided training equipment to vocational schools, gained stakeholders support through steering committee and consultation meetings and raised the public awareness on ozone layer protection.

3. Overall Strategy

3.1 Brief overview of the current HCFC consumption by substance.

The consumption of HCFC in Paraguay for the last 3 years is shown in the table below (in ODP tons).

HCFC	ODP	Baseline (ODP tonnes)	2015	2016	2017
HCFC-22	0.055	16.3	15.824	12.140	12.654
HCFC-123	0.02	0.2	0.057	0.014	0.084
HCFC-124	0.022	0.1	0.000	0.021	0.000
HCFC-141b	0.11	0.1	0.110	0.743	0.000
HCFC-142b	0.065	1.3	0.000	0.037	0.000
Subtotal		*18.0*	*15.991*	*12.954*	*12.737*

HCFC	ODP	Baseline (ODP tonnes)	2015	2016	2017
HCFC-141b imported in fully formulated polyols		1.4	3.16	3.61	1.34
Total					

As can be seen in the table above, Paraguay's consumption of HCFCs has experienced a progressive decrease in the consumption of HCFC-22, which has allowed the country to easily remain in compliance with its Montreal Protocol obligations as regards HCFCs.
Consumption in the foam sector, as HCFC-141b in fully formulated polyols, probably has increased due its increasing use in the construction sector.

3.2 Description of the information that needs to be gathered and updated

Paraguay will only have HCFC consumption in its servicing sector, and HCFC-22 will be the main HCFC consumed. The national survey for stage 2 will thus focus on further analyzing the consumption and trends in the servicing sector and the main actors involved. It will review the status of ODS regulations and the need to adapt them. It will review the HPMP strategy and amend it based on the outcome of Stage 1. An analysis of the specific phase-out targets by substance and/or subsector will be conducted, in order to meet upcoming obligations.

3.3 Indication of the activities that need to be undertaken for PRP

The planned activities in this PRP are included in the table below, indicating the estimated costs.

Activity	**Indicative funding (in USD)**		
	UNEP	**UNDP**	**TOTAL**
Assessment of current situation and needs of stakeholders (Survey update, Data analysis, Institutional coordination, etc.)	25,000		25,000
Technical support and updating of overall strategy for Stage 2, as well as specific strategy for the Servicing sector (International Consultant).		20,000	20,000
Stakeholders' meetings (2)	10,000		10,000
Reporting and monitoring	5,000		5,000
Total	**40,000**	**20,000**	**60,000**

All the activities listed in the table above are standard preparatory activities and are normally not included in the implementation phase of a project.

As per Decision 71/42(d), Paraguay is eligible to USD 60,000 for PRP of the overall strategy for Stage II, as remaining eligible HCFC consumption is approximately 11.7 ODP tonnes

3.4 Implementing Agencies

The Government of Paraguay designated UNEP as Lead Agency and UNDP as Cooperating Agency for this project preparation. Consequently, UNEP is requesting US$ 40,000 and UNDP is requesting US$ 20,000

Funding Request for the Preparation of Stage-II HCFC Phase-out Management Plan for SAINT LUCIA

Background

The first stage of the HCFC Phase-out Management Plan (HPMP) for Saint Lucia was approved at the 64th Meeting of the Executive Committee with a total funding of US$210,000 (excluding agency support costs) for the period 2011 to 2020 to reduce HCFC consumption by 35% of the baseline. The overreaching strategy has the main goal to provide ozone and climate benefits through the integrated plan for ozone depleting substances (ODS) reductions for the refrigeration sector, promotion and adoption of energy efficiency alternative technologies. The first stage sought to phase out the consumption of HCFCs in the country as required by the Montreal Protocol. Its focus was on the following components: (a) Training of customs officers and enforcement personnel, policy and procedures for labelling container and controls measures for HCFC containing equipment; (b) Training of technicians on good practice, recovery and reuse, handling of non-HCFC refrigerants, safety practice; (c) Provision of equipment and tools, including refrigerant recovery machine, recovery cylinder, sealing tools; (d) Public education and awareness programme and; (e) Project monitoring, coordination and reporting .

The project has been implemented with support from UNEP as a lead agency and UNIDO as a cooperating agency.

The Government of Saint Lucia committed to the following control measures with the support of funding and technical assistance from the Multilateral Fund and implementing agencies:

(i) Freeze the consumption of HCFCs in 2013 to the agreed baseline figure.
(ii) Reduce consumption of HCFCs by 10% from 2015.
(iii) Reduce consumption of HCFCs by 35% from 2020.

In 2011 the Government of Saint Lucia agreed its starting point for sustained aggregate reduction in HCFC consumption of 0.92 ODP tones as a baseline. This is based on the actual consumption reported under Article 7 of the Montreal Protocol for 2009 and 2010. This was then revised at the 76th ExCom in May 2016 to 1.09 ODP based on the data reported by the Government of Saint Lucia under Article 7. Therefore its revised phase-out schedule, the relevant paragraphs of the Agreement were updated accordingly.

Saint Lucia has made commendable progress in the implementation of stage 1 of its HPMP. Notable achievements include meeting the 2013 HCFC freeze and 10 percent reduction targets in 2015 and building the capacity of refrigeration technicians in good refrigeration practices, recovery and recycling. Further, Saint Lucia has updated its legislation to include all refrigerants and has restricted the sale of refrigerants to only Certified Technicians. Customs and enforcement officers were trained and a number of public awareness activities were undertaken to promotion low GWP, energy efficient technologies.

The Executive Committee approved the verification report to be carried out in Saint Lucia for stage I of the HPMP at its 71th Meeting. The verification report was carried out for the years 2013, 2014 and 2015 and confirmed that the Government is implementing a licensing and quota system for HCFC imports and exports and that the consumption of HCFC for those years were lower than the established baseline. The verification concluded that Saint Lucia

was in compliance with the Montreal Protocol HCFC reduction schedule and with its Agreement with the Executive Committee.

The approved HPMP Stage I preparation funds have been fully used, and it is confirmed that there is no balance remaining.

The endorsement from the Government for the request of the Stage-II HPMP preparation has been received.

Progress in the implementation of HPMP Stage-I

	Activity	**Progress In Implementation**
Component I	***Certification of Technicians – UN Environment***	
Tranche 1	Tranche 1 had no activity under this component	
Tranche 2	Train technicians in good refrigeration management practices as well as recovery and recycling of refrigerants Certify technicians that have successfully completed the course and comply with national standards set by the Government of Saint Lucia through the NOU.	3 workshops on Good Refrigeration Management Practices Recovery, Recycling, and Alternative Technologies were held training a total of 59 technicians. 46 of those attained Certification and issued with "Certified Technician" ID Cards.
Tranche 3	Certification of Technicians in Good Refrigeration Management Practices, Recovery, Recycling Alternative Technologies	4 workshops on Good Refrigeration Management Practices, Recovery, Recycling and Alternative Technologies held training a total of 40 Technicians.
Component II	***Policy and Institutional Framework***	
Tranche 1	Implementation of revised Act and Regulation	An import/export licensing and quota system (LQS) that supports the country's HCFC phase-out activities was established. This included the prohibition of the import of HCFC-based equipment, as well as the registration of importers and the restriction of sale of refrigerants to certified RAC Technicians. The quotas for importers are determined by the NOU and implemented with support by the Ministry of Commerce and the Department of Customs. Customs Brokers, recognized key stakeholders in the implementation of the LQS, were trained in ASYCUDA and the classification of Pesticides, Toxic Chemicals, ODS, Refrigerants and their Products. The NOU was actively monitoring the enforcement of the provisions under the Act and Regulations to ensure that the LQS is effective. During the Tranche, the NOU was called upon to assist the Customs and Excise Department with the handling of two cases of illegal ODS imports.
	Establishment of standards for the transportation, handling and storage of refrigerants	The Saint Lucia Bureau of Standards (SLBS), the national entity with the mandate to establish standards in Saint Lucia, was engaged to develop and establish national standards for the transportation, handling, storage and disposal of refrigerants. The SLBS recommended the development of Technical Regulations in order to achieve the objectives of this component

	Activity	Progress In Implementation
		in an effective manner. A proposal for this initiative was submitted to the SLBS by the NOU.
	Review of customs training manual and conduct training	The revised Customs Manual which includes recommendations from the Customs Training Workshop held in November 2013, was printed and disseminated to frontline Customs Officers. 2 one-day training workshops were conducted, training a total of 21 Customs Brokerage Agencies.
	Develop and implement procedures to monitoring servicing of Saint Lucian flagged vessels	Efforts to develop procedures to monitor the servicing of Saint Lucia flagged vessels revealed that the Saint Lucia Air and Sea Ports Authority Act Cap 8.13 and the Saint Lucia's Registration and Proprietary Interests in Ships Regulations No. 18 of 2010, requires ships to keep records which may include a list of ODSs and equipment that contain ODSs. MARPOL Annex VI require ships to maintain a list of ODS and ODS equipment onboard. In an effort to prepare for upcoming discussions with Parties on the treatment of ODS used onboard ships, the NOU entered into discussions with SLASPA on its intention to ratify MARPOL Annex VI. Ratification of Annex VI will provide a basis from which it will become mandatory for flag ships and ships in Saint Lucian waters to better manage ODS used onboard. These discussions will also allow the Saint Lucia to participate fruitfully at the upcoming negotiations, and to gain a better understanding of the interpretation of relevant international conventions, our national shipping legislation and to strengthen the enabling environment to allow Saint Lucia to remain compliant to the Montreal Protocol. SLASPA was requested to provide a list of all ships registered under Saint Lucia´s flag, in an effort to examine the number of ships directly implicated. SLASPA has indicated their support of ratification of MARPOL Annex VI.
	Introduction of climate and energy efficiency considerations of alternative refrigerants to replace HCFCs	The NOU worked closely with the Energy Unit to develop initiatives for the introduction and promotion of climate and energy efficient technologies in Saint Lucia and to incorporate such considerations into existing policies and future projects. Ministers and relevant heads have been sensitized about the benefits of selecting climate and energy efficient alternative refrigerants to replace HCFCs. The general public was aslo continually informed about the availability of climate-friendly and energy efficient technologies.
Tranche 2	Create and enforce an enabling policy, legal and institutional framework to support the phase out HCFCs along timelines consistent with the Montreal Protocol control measures Train Customs Officers and other Enforcement Personnel such as the Marine Police, in the Application of the HCFC LQS and in the Identification and Classification of ODS, Refrigerants and their	Two training sessions conducted training 21 Customs Brokers and 50 Customs and Marine Police Officers. The Customs Desk book were distributed to participants. In addition the UN Environment's Customs Quick Tool and Other material related to illegal trade included in the training material and the Quick Tool converted into a poster and distributed to air and sea ports as well as other areas within Customs.

	Activity	**Progress In Implementation**
	Products	
Tranche 3	Strengthen the policy, legal and institutional framework	3 training sessions conducted training a total of 30 Customs Officers. The Customs Desk book was printed and distributed to participants; the UNEP Customs Quick Tool and other material related to illegal trade were included in the training material.
Component III	***Education and Awareness***	
Tranche 1	Conduct public awareness activities to inform about HCFC alternatives among the private sector Plan and execute activities in commemoration of Ozone Day	A half-day symposium on energy efficient HCFC alternatives was hosted in September 2013 and it targeted mainly the management of all major users and retailers of refrigerators and air conditioning units and financing entities. A series of activities in commemoration of the International Day for the Preservation of the Ozone Layer during the week of 16th September 2013
Tranche 2	- Inform the general public about the HCFC phase out; - Provide information about emerging technology options to reduce HCFC consumption; the economic and environmental benefits of HCFC phase out; - Raise awareness on the health and safety issues related to the use of natural refrigerants and how these are to be handled; and - Provide information about the specific activities to achieve the targeted consumption reductions.	The general public was kept informed of HCFC phase out and Low GWP, energy efficient alternatives. A number of radio interviews and awareness programmes were held in collaboration with the various media houses, NOU and the National Air Condition Association (NARA). Meetings were held with importers to discuss progress with HCFC phase out, alternatives and the import/export licensing system. The Customs Quick tool reproduced and distributed to various key Customs areas. A Poster regarding restriction of sale of Refrigerants to Certified Technicians developed, published and distributed to retailers and brochures on the HCFC phase-out schedule and the policies and legal structure were produced and distributed to enable the transition to an HCFC free economy.
Tranche 3	Development and dissemination of public education and awareness material and supporting interventions	1. An ozone and climate brochure was developed and disseminated. UN Environment's Energy Efficiency in the RAC Sector also reproduced and distributed 2. A meeting was held with stakeholders to provide an update on the Act and revised Regulations. 3. Ozone Day 2017 was celebrated and included a Ministers Address; publication of an article in the Newspaper; a presentation to RAC students at the Sir Arthur Lewis Community College and launching of UNEP & ASHRAE's refrigeration literacy course; Media interviews; Dissemination of Information packages containing brochures on energy efficiency in the RAC sector, ozone and climate leaflet, and promotional items (bags, pens, pencils, notepads, caps) to key stakeholders; wearing ozone day polo shirts during the month of September to create awareness; Ozone day information was posted on Departments Facebook page
Component IV	***Monitoring, Evaluation and Reporting***	
Tranche 1,2 and 3	Monitoring, Evaluation and Reporting (MER)	To ensure effectiveness implementation of all projects within the HPMP, the NOU contracted a national consultant under the project with responsibility for continuous monitoring of implementation of project activities. The consultant also provided support in the preparation of all reports and Tranche Requests required under the Project and identified solutions to

	Activity	Progress In Implementation
		challenges encountered.
Component V	***Investment Component – UNIDO***	
Tranche 1 and 2	Provide support to the NOU to reduce consumption and introduce alternative refrigerants. Support the training program with the printing of manuals in good refrigeration practices and alternative refrigerants	A national expert was hired for the service sector implementing activities and also to carry out special training for trainers aiming to train 30 trainers at country level. 50 manuals were prepared.
Tranche 3	*Reduce the refrigerant consumption from leakage in the RSS through the promotion and training in the concept of "refrigerant in not consumable:* Train technicians, purchase tools and upgrade training centre for the introduction of HCs as an alternative.	This component, in consultation with UNIDO was reconstructed to meet the needs of the sector. It was decided to purchase equipment to upgrade a training facility and to conduct training on HCs. This component has not been completed. 2 refrigerant identifiers (HC compatible) were procured to assist with training of technicians and Customs Officers

Overarching Strategy

The overarching strategy for Saint Lucia is to implement an integrated plan for HCFC reductions in the RAC servicing sector (RSS) through the promotion and adoption of low GWP, energy efficient alternative technologies to achieve climate benefits. The strategy will be based on strengthening the implementation of the existing policies and capacity development of refrigeration experts to support the adoption of appropriate ozone and climate friendly alternative technologies.

Saint Lucia implemented a staged approach strategy of HCFC Phase-out Management Plan (HPMP). Stage two will seek to implement activities to phase out remaining HCFC consumption based on the promotion of natural refrigerant use. The Government of Saint Lucia conducted a National Survey on consumption of ODS alternatives in line with Decision XXXVI/9 of the Montreal Protocol on the protection of ozone layer. The main objective of the survey was to enable Saint Lucia to better understand its consumption trends of ODS alternatives and their distribution by sectors and subsectors. Furthermore, the survey also focused on opportunities and challenges for adoption of the alternatives. The results of the survey will be incorporated into the HPMP stage 2.

HCFC Consumption

The HCFC consumption for Saint Lucia in 2017 is 0.64 ODP tonnes and the estimated consumption for 2018 is 0.63 ODP tonnes

The HPMP Stage II for Saint Lucia is aiming to support the country to achieve complete phase-out of HCFCs under the Montreal Protocol by 2030.

Information to be collected

Information to be collected during the Stage-II HPMP preparation would include:

- Conduct surveys to collect information on the HCFC quantities currently consumed by RAC sector, inventory of remaining HCFC-based equipment especially commercial HCFC-based equipment;
- Information on policy initiatives regarding the phase-out of HCFCs such as certification process of technicians, existing codes of practice and their enforcement;
- Identify and discuss with the relevant stakeholders, possible ways of reducing the current consumption of HCFCs in the country.
- Determine the market profile of HCFC-based equipment and equipment depending on the alternatives especially low GWP technologies which are ozone friendly. Incorporate results of the survey into the HPMP stage 2.

Activities proposed for Stage II Preparation

The HPMP stage II for Saint Lucia will be developed with assistance from UN Environment as a leading agency and UNIDO, as a cooperating agency. The proposed activities and budget are provided in the table below:

Activities	**Proposed cost**	**UNEP**	**UNIDO**
Conduct surveys to determine HCFC quantities currently consumed by servicing workshops; and to establish inventory of existing HCFC-based equipment both domestic and commercial.	10,000		10,000
National review, discussion and consultation meetings on the draft of Stage II HPMP	8,000	8,000	
Recruitment of international / national experts to assist in the development of stage II HPMP	12,000	12,000	
Total (USD) without PSC	**30,000**	**20,000**	**10,000**

Note: The funding level of each activity is indicative and subject to changes based on the further discussion between the NOU, implementing agency and the national stakeholders during the Stage-II preparation.

Funding Request for the Preparation of Stage-II HCFC Phase-out Management Plan for TANZANIA

Background

Stage 1 of the HPMP for the Republic of Tanzania was approved at the 67th Executive Committee meeting. The project was approved to achieve the 35% reduction in HCFC consumption for the period 2012 to 2020 at the amount of US $210,000, consisting of US $110,000 plus agency support costs of US $14,300 for UNEP as the lead agency, and US $100,000 plus agency support costs of US $9,000 for UNIDO as the cooperating agency.

The strategy of the government of Tanzania is to achieve total phase out of HCFC ahead of the Montreal Protocol schedule through the promotion and adoption of energy efficiency alternative technologies with ozone and climate benefits. This can only be achieved if adequate support is made available to the Government and if proven alternative technologies are readily available to the end-users. The Government of Tanzania is promoting the use of natural refrigerants and other viable alternatives technologies that have high energy efficiency with low global warming.

The first stage of the HPMP focused on (a) training of customs and other law enforcement agents and strengthening of customs training schools; (b) strengthening Refrigeration Association, Technical training institutes and training of RAC technicians; (c) strengthening of Regional R/R Centers and incentive programme for commercial and industrial refrigeration end-users; (d) monitoring and evaluation of the implementation of HPMP.
The Government of Tanzania is committed to the following control measures with the support of funding and technical assistance from the Multilateral Fund and implementing agencies:

(i) Freeze the consumption of HCFCs in 2013 to the agreed baseline figure.
(ii) Reduce consumption of HCFCs by 10% from 2015.
(iii) Reduce consumption of HCFCs by 35% from 2020.

Tanzania agreed its starting point for sustained aggregate reduction in HCFC consumption of 1.7 ODP tones as a baseline. The Government of Tanzania has made tremendous progress in the implementation of stage 1 of its HPMP. Notable achievements include meeting the 2013 HCFC freeze and 10 percent reduction targets in 2015. In additional, the Government of Tanzania has strengthened the capacity of refrigeration technicians on good refrigeration practices and has trained enforcement officers from various public and private agencies on monitoring illegal trade in ODS.

The approved HPMP Stage I preparation funds have been fully used, and it is confirmed that there is no balance remaining.

The endorsement from the Government for the request of the Stage-II HPMP preparation has been received.

Progress in the implementation of HPMP Stage-I

	Activity	**Progress in Implementation**
1	*Capacity Building*	
Project 1	Training of Customs and other law enforcement officers and strengthening of customs training schools.	The project objective is to enable customs and other enforcement officers to be acquainted with ozone issues under the Montreal Protocol, ODS regulations and other legislation regarding ozone issues in Tanzania for effective enforcement. ***Tranche 1***: Three training sessions on the licensing and quota system, and on the monitoring and control of imports of ODS and ODS-based products were held for 110 customs officers. ***Tranche 2***: Two training session for customs and other law enforcement officers on motoring and enforcement of ODS policy and regulations were conducted. • One training workshop for customs officers in controlling and monitoring importation of Ozone Depleting Substances (ODS) to combat illegal trade of ODS, was held from 28 – 30 March, 2018 at the Center for Enhancement of Effective Malaria Interventions (CEEMI) conference hall, Dar es salaam. • Training for enforcement officers on prevention of illegal trade organized on 16 October, 2017 at NIMR Conference Hall in Dar es salaam region. In total 90 enforcement officers and other law enforcers were trained under tranche II. The trainings contributed to the reduction in cases of illegal trade and better control on imports of refrigerants.
Project 2	Training of service technicians in good refrigeration practices and strengthening of the Refrigeration Association and technical institutes.	The main aim of the training is to equip refrigeration technicians with knowledge and necessary skills in hydrocarbon technologies and good refrigeration practices. ***Tranche 1***: The training programme for refrigeration servicing technicians was implemented, and 35 trainers and 60 technicians were trained in good servicing practices, refrigerant recovery and recycling, and safety issues related to the use of

	Activity	Progress in Implementation
		hydrocarbons. A technician certification programme is being implemented to ensure good servicing practices. ***Tranche 2***: One training of 35 refrigeration service technicians were conducted in Dar es Salaam city from 24th to 25th February, 2017.The capacity of refrigeration technicians was strengthened through training. In total 35 technicians were trained in good refrigeration practices including the use of hydrocarbon technologies.Regional Train-the-Trainer Workshop on refrigerant quality control was held in Kibaha, Pwani region from 20 – 23, February, 2017. It was attended by 35 participants from different regions of the country. The targeted participants for this training workshop were Instructors/Trainers of Refrigeration and Air Conditioning Courses from Vocational Training Centres, Technical Colleges and Institutes of Science and Technology as well as some reputable and experienced refrigeration technicians in the country from Private Refrigeration and Air Conditioning servicing workshops; User maintenance personnel from industries; personnel/technicians from Government departments involved in refrigeration and air conditioning facilities.
2	*Investment project*	
Project 3	Provision of equipment and strengthening regional Centres of Excellence and incentive programme for commercial and industrial refrigeration end-users	***Tranche 1:*** Tools and equipment were purchased and distributed to six training centres and the Dar es Salaam Institute of Technology; facilities in these training centres were upgraded to deliver better training. Vocational training institutions and a few large repair workshops have been identified to serve as centers of excellence that will carry out technicians training, data collection and management of servicing equipment for rental purposes. ***Tranche 2:*** UNIDO started the implementing activities with mission to Tanzania specifically target the market availability of quality refrigerants through reinforced standards and awareness raising among re-sellers and end-users in 2017 in Dar es Salaam city. Based on the visits and conditions in the country the implementation approach was decided. Tanzania Bureau of Standards (TBS) and Dar es

	Activity	Progress in Implementation
		salaam Regional Vocational Training and Service Centre were equipped with two refrigerant identifiers. Special training was held for the use of R-290 and R-600a and training in good refrigeration practices in Kibaha.
3	*Monitoring, evaluation of implementation of the HPMP*	
Project 4	Monitoring and evaluation	The NOU performed its duties of ensuring the effectiveness of all activities within the HPMP through continuous monitoring of project implementation and regular collection of data to measure progress against performance criteria.

Overarching Strategy

The overarching strategy for the Republic of Tanzania is to implement an integrated approach to reduce consumption of HCFCs in the RAC sector through adoption of high energy efficiency alternative technologies to maximize climate benefits. The strategy will focus on strengthening implementation of policies and legislations related to the phase-out of ODS and capacity development of enforcement officers and refrigeration experts to support the adoption of appropriate ozone and climate friendly alternative technologies.

The Republic of Tanzania adopted a staged approach strategy on implementation of the stage 1 of the HPMP. Based on progress made in the implementation of stage1, Tanzania will aim to implement activities to phase out remaining HCFC consumption through the continued promotion of natural refrigerants use in its stage 2 of HPMP. Tanzania conducted a National Survey on consumption of Ozone Depleting Substance (ODS) alternatives in line with Decision XXXVI/9 of the Montreal Protocol on the protection of ozone layer. The survey provided and understanding of consumption trends of ODS alternatives and their distribution by sectors and subsectors in the country. It further provided information on opportunities and challenges for adoption of the alternatives which will be included in the stage 2 of the HPMP.

The HPMP Stage II for the Republic of Tanzania is aiming to support the country to achieve the 2030 Montreal Protocol phase-out target.

HCFC Consumption

The HCFC consumption for Tanzania for 2017 is 20.89 metric tons.

Information to be collected

The Government of Tanzania aims to collect the following information during the Stage-II HPMP preparation:

- Surveys to determine current consumption of HCFCs used by RAC sector, update inventory of HCFC-based equipment especially air conditioners and commercial HCFC-based equipment;
- Data and information on policies related to the phase-out of HCFCs such as licensing systems, certification process of technicians, existing codes of practice and their enforcement and standards;

- Discussion with stakeholders on innovative ways of reducing the current consumption of HCFCs in the country.
- Information on market profile of HCFC-based equipment and equipment depending on the alternatives especially low GWP technologies which are ozone friendly.

Activities proposed for Stage II Preparation

The HPMP stage II for the Government of Tanzania will be developed with technical support from UNEP as a lead agency and UNIDO, as a cooperating agency. The proposed activities and budget are provided in the table below:

Activities	**Proposed cost**	**UNEP**	**UNIDO**
Surveys to determine current consumption of HCFCs by servicing workshops; and to update inventory of HCFC-based equipment in the country.	10,000	5,000	5,000
Hold review, discussion and consultation meetings on the draft of Stage II HPMP	5,000	5,000	
Recruitment of international / national experts to assist in the development of stage II HPMP	15,000	10,000	5,000
Total (USD) without PSC	**30,000**	**20,000**	**10,000**

Note: The funding level of each activity is indicative and subject to changes based on the further discussion between the NOU, implementing agency and the national stakeholders during the Stage-II preparation.

Funding Request for the Preparation of Stage-II HCFC Phase-out Management Plan of UGANDA

Background

The first stage of the HCFC Phase-out Management Plan (HPMP) for Uganda was approved at the 68 Meeting of the Executive Committee with a total funding of US$ 164,500 plus support cost for the period 2012 to 2020 consisting of US $84,500 plus agency support costs of US $10,985 for UNEP as the lead agency, and US $80,000 plus agency support costs of US $7,200 for UNIDO as the cooperating agency.to reduce HCFC consumption by 35% of the baseline.

The overreaching strategy has the main goal to provide ozone and climate benefits through the integrated plan for ODS reductions for the refrigeration sector, promotion and adoption of energy efficiency alternative technologies.

The first stage is aimed at phasing out the consumption of HCFCs in the country as required by the Montreal Protocol. The focus is (a) ODS policy and regulation; (b) further training of customs and other law enforcement agents and strengthening of customs training schools; (c) strengthening of the Uganda National Association of Refrigeration and Air-conditioning (UNARA), technical institutions and additional training of RAC technicians; (d) strengthening of Regional R/R Centers and incentive programme for commercial and industrial refrigeration end-users; (e) development of a comprehensive programme for reduction of HCFC and carbon emissions in the refrigeration and air conditioning sector.

The project has been implemented with support from UNEP as a Lead Agency and UNIDO as a Cooperating Agency.

The Government of Uganda committed to the following control measures with the support of funding and technical assistance from the Multilateral Fund Secretariat and implementing agencies:

(i) Freeze the consumption of HCFCs in 2013 to the agreed baseline figure.
(ii) Reduce consumption of HCFCs by 10% from 2015.
(iii) Reduce consumption of HCFCs by 35% from 2020.

The Government of Uganda agreed its starting point for sustained aggregate reduction in HCFC consumption of **0.20** ODP tonnes as a baseline. This is based on the actual consumption reported under Article 7 of the Montreal Protocol for 2009 and 2010.

Uganda has made tremendous progress in the implementation of stage 1 of its HPMP. Notable achievements include meeting the 2013 HCFC freeze and 10 percent reduction targets in 2015. Furthermore, Uganda has built the capacity of refrigeration technicians on good refrigeration and air conditioning practices and has trained enforcement officers from various public and private agencies on monitoring trade in ODS. Uganda has also embarked on conducting training in good refrigeration practices in four selected Vocational Training Institutes.

The Executive Committee approved the verification report to be carried out in Uganda for stage I of the HPMP. The verification report was carried out and confirmed that the

Government is implementing a licensing and quota system for HCFC imports and exports and imports of HCFC from 2015. The verification concluded that Uganda was in compliance with the Montreal Protocol HCFC reduction schedule and with its Agreement with the Executive Committee. It is noted, however, that for the years 2016 and 2017 there was no importation of HCFCs into the country.

The approved HPMP Stage I preparation funds have been fully used, and it is confirmed that there is no balance remaining.

The endorsement from the Government for the request of the Stage-II HPMP preparation has been received.

Progress in the implementation of HPMP Stage-I

	Activity	**Progress In Implementation**
1	*Legislation*	
	Review of ODS policy and regulations.	The Government of Uganda is on course of reviewing the overall ODS phase-out policy, the national environment act, and ODS regulations. The aspects relating to HFC phase-down and climate change (Kigali Amendment) are also incorporated into the review of the said laws. ***Tranche 1:*** One meeting on the Montreal Protocol and national ODS regulations with the Uganda Revenue Authority was organized for enforcing import controls and licensing system. ***Tranche 2:*** Three meetings have been conducted in line with reviewing the ODS Regulations. The first (inception) meeting was held in December, 2017, the second in February, 2018 and the third in April, 2018. The first meeting comprised technical staff of NEMA. The , while the second and third meetings comprised the following stakeholders: Ministry of Justice and Constitutional Affairs, Ministry of Energy and Mineral Development, Ministry of Trade, Industry and Cooperatives, Ministry of Agriculture, Animal Industry and Fisheries, Chemistry Section/ Tax Investigations Department (Uganda Revenue Authority), Directorate of Industrial Training, Uganda National Association of Refrigeration and Air-conditioning (UNARA), Uganda National Bureau of Standards and the National Environment Management Authority.
2	*Capacity Building*	
Component 1	Training of Customs and other law enforcement officers and strengthening of customs training schools.	***Tranche 1:*** Training curriculum of the Customs school was revised to include modules on the ozone, and 5 newly recruited Customs officers were trained; 12 Customs and law enforcement officers were trained on compliance with and enforcement of ODS regulations, as well as techniques in preventing illegal trade. ***Tranche 2:*** One training session for customs and other law enforcement

	Activity	Progress In Implementation
		officers on motoring and enforcement of ODS policy and regulations were conducted. A total of Sixty (60) enforcement officers were trained. Participants were drawn from Customs Department and Tax Investigations Department (Uganda Revenue Authority), Uganda Police/ Criminal Investigations Department, Ministry of Trade, Industry and Cooperatives, Ministry of Agriculture, Animal Industry and Fisheries, Uganda Bureau of Standards and National Environment Management Authority. Customs Officers from different border posts attended this training. Refrigerant identifiers were procured and distributed to relevant enforcement entities. The training contributed to improvements in monitoring trade/imports of ODS and ODS-dependent equipment.
Component 2	Training of service technicians in Good Refrigeration and Air Conditioning (RAC) practices and strengthening of the Refrigeration Association and technical institutes.	***Tranche 1:*** Two-day training of trainers workshop on good servicing practices was organized for 18 technicians; they were also provided with toolkits (e.g., charging hoses, refrigerant release hose for HC, capillary tube cutter) for good service practices. Meetings were held with UNARA to implement the code of conduct of technicians, to start the certification process of technicians, to develop a database of technicians, and to undertake a capacity assessment of the institution that will conduct technicians' training. ***Tranche 2:*** The capacity of refrigeration technicians was strengthened through training and provision of necessary tool kits. A total of twenty five (25) technicians were trained in Good RAC practices at Lira Technical Institute including the use of hydrocarbon technologies, with a further sixty five (65) technicians trained at Bushenyi, Elgon and Ogolai Technical Institutes.The Administration of Lira Technical Institute committed themselves will start a RAC course at their institute with effect from the 2019/ 2020 academic year. Conducted a meeting with the Directorate of Industrial Training (DIT), a body which certifies RAC technicians, to agree on a common position for certifying RAC technicians and also incorporate the Montreal Protocol in the curriculum for the RAC courses at the different levels of certification. The NOU was provided with lists of certified RAC technicians for gazetting so as to ensure easy follow up of the RAC technicians and also ensure that only gazetted RAC technicians undertake servicing of the RAC equipment. A Code of Practice for RAC was drafted and it is used by owners of facilities that use refrigerants and RAC equipment.

	Activity	Progress In Implementation
Component 3 (UNIDO)	Provision of equipment and strengthening regional Centres of Excellence and incentive programme for commercial and industrial refrigeration end-users	***Tranche 1:*** Strengthening of six vocational centres, the Kyambogo University and Uganda National Association for Refrigeration and Air-conditioning (UNARA) through provision of service tools (e.g., refrigerant recovery machines, vacuum pumps, handheld electronic leak detectors, service manifolds and other tools) to upgrade the equipment of those centres, and procurement of one refrigerant identifier for the NOU; ***Tranche 2:*** Equipment and tools were purchased and deliver to establish new training centres in four different cities around the country. Two centres have been already established, the other two are pending for training of trainers.
Component 4	Monitoring and evaluation	To ensure effectiveness implementation of all projects within the HPMP, the NOU recruited national experts under the project to have continues monitoring of implementation of project activities.

Overarching Strategy

The overarching strategy for Uganda is to implement an integrated plan for HCFC reductions in the RAC sector through promotion and adoption of energy efficiency alternative technologies to achieve climate benefits. The strategy will be based on strengthening the implementation of the existing policies and capacity development of RAC experts to support the adoption of appropriate ozone and climate friendly alternative technologies.

Uganda implemented a staged approach strategy of HCFC Phase-out Management Plan (HPMP). Stage two will aim at implementing activities to sustain HCFC phase out and promote natural refrigerants use. The Government of Uganda conducted a National Survey on consumption of Ozone Depleting Substance (ODS) alternatives in line with Decision XXXVI/9 of the Montreal Protocol on the protection of ozone layer. The main objective of the survey was to enable Uganda better understand its consumption trends of ODS alternatives and their distribution by sectors and subsectors. Furthermore, the survey also focused on opportunities and challenges for adoption of the alternatives. The results of the survey will be incorporated into the HPMP stage 2.

The HPMP Stage II for Uganda is aiming to support the country to achieve complete phase-out of HCFCs under the Montreal Protocol by 2030. Currently the country has zero consumption and on track to achieve the 2030 target in advance.

HCFC Consumption

There was no importation of HCFCs in the 2016 – 2017 period, it is envisaged that the same trend will prevail in 2018 or less than 0.1 tonnes of HCFC would be imported.

Information to be collected

Information to be collected during the Stage-II HPMP preparation would include:

- Conduct surveys to collect information on the HCFC possible demand by RAC sector, inventory of HCFC-based equipment especially air conditioners and commercial HCFC-based equipment;
- Information on policy initiatives regarding the phase-out of HCFCs such as certification process of technicians, existing codes of practice and their enforcement;
- Identify and discuss with the relevant stakeholders, possible ways of keeping zero or lowest possible consumption of HCFCs in the country.
- Determine the market profile of HCFC-based equipment and equipment depending on the alternatives especially low GWP technologies which are ozone friendly. Incorporate results of the survey into the HPMP stage 2.

Activities proposed for Stage II Preparation

The HPMP Stage II for Uganda will be developed with assistance from UNEP as a Leading Agency and UNIDO as a Cooperating Agency. The proposed activities and budget are provided in the table below.

Activities	**Proposed cost**	**UNEP**	**UNIDO**
Conduct surveys to determine HCFC possible demand by servicing workshops; and to establish inventory of existing HCFC-based equipment both domestic and commercial.	10,000	5,000	5,000
National review, discussion and consultation meetings on the draft of Stage II HPMP	10,000	10,000	
Recruitment of international / national experts to assist in the development of Stage II HPMP	10,000	5,000	5,000
Total (USD) without PSC	**30,000**	**20,000**	**10,000**

Note: The funding level of each activity is indicative and subject to changes based on the further discussion between the NOU, implementing agency and the national stakeholders during the Stage-II preparation.