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EXECUTIVE COMMITTEE OF THE MULTILATERAL FUND FOR THE IMPLEMENTATION OF THE MONTREAL PROTOCOL Seventy-ninth Meeting Bangkok, 3-7 July 2017

**UNIDO'S WORK PROGRAMME FOR 2017** 

## COMMENTS AND RECOMMENDATION OF THE FUND SECRETARIAT

1. UNIDO is requesting approval from the Executive Committee of US \$740,080, plus agency support costs of US \$51,806 for its 2017 work programme listed in Table 1. The submission is attached to the present document.

Table 1: UNIDO's work programme for 2017

Country	Activity/Project	Amount Requested (US \$)	Amount Recommended (US \$)
	ΓΙVITIES RECOMMENDED FOR BLANKET APPROVAL		
	stitutional strengthening projects		
Mexico	Renewal of institutional strengthening project (phase XIII)	316,160	316,160
Qatar	Renewal of institutional strengthening project (phase IV)	113,920	113,920
	Subtotal for A1	430,080	430,080
Agency support cos	sts (7 per cent for institutional strengthening) for A1:	30,106	30,106
	Total for A1	460,186	460,186
A2: Project prepa	ration		
Democratic People's Republic of Korea (the)	Preparation of an HCFC phase-out management plan (HPMP) (stage II) (overarching strategy)	70,000	70,000
Democratic People's Republic of Korea (the)	Preparation for HCFC phase-out investment activities (stage II) (refrigeration manufacturing sector)	60,000	60,000
	Subtotal for A2	130,000	130,000
Agency support cos	9,100	9,100	
	Total for A2	139,100	139,100
SECTION B: ACT	TIVITIES RECOMMENDED FOR INDIVIDUAL CONSIDERA	TION	
B1: Project prepa	ration for demonstration projects (Decision 78/3 (g))		
Ecuador	Project preparation for HFC-related projects in the manufacturing sector at Ecasa and Indurama enterprises to gain experience in ICCs and IOCs associated with the phase-down of HFCs	60,000	*
Lebanon	Project preparation for HFC-related project in the manufacturing sector at Lematic Industries to gain experience in ICCs and IOCs associated with the phase-down of HFCs in domestic refrigeration	30,000	*
Mexico	Project preparation for HFC-related projects in the manufacturing sector at Fersa and Imbera enterprises to gain experience in ICCs and IOCs associated with the phase-down of HFCs	60,000	*
Viet Nam	Project preparation for HFC-related projects in the manufacturing sector at Nagakawa Vietnam Company to gain experience in ICCs and IOCs associated with the phase-down of HFCs	30,000	*
	Subtotal for B1	180,000	
Agency support cos	sts (7 per cent for project preparation):	12,600	
	Total for B1	192,600	
	Grand total (A1, A2, B1):	791,886	599,286

<sup>\*</sup>Individual consideration

#### SECTION A: ACTIVITIES RECOMMENDED FOR BLANKET APPROVAL

## A1: Institutional strengthening

## **Project description**

2. UNIDO submitted the requests for the renewal of the institutional strengthening (IS) projects for the countries listed in Table 1. The description for these projects is presented in Annex I to the present document.

#### **Secretariat's comments**

3. The Secretariat reviewed the requests for the renewal of two IS projects submitted by UNIDO on behalf of the Governments concerned against the guidelines and relevant decisions regarding eligibility and funding levels. The requests were cross-checked against the original IS work plan for the previous phase, country programme and Article 7 data, the latest report on implementation of the HCFC phase-out management plan (HPMP), the agency's progress report, and any relevant decisions of the Meeting of the Parties. It was noted that these countries are in compliance with the ODS phase-out targets under the Montreal Protocol and that their annual HCFC consumption does not exceed the annual maximum allowable consumption indicated in their respective HPMP agreements with the Executive Committee. Furthermore, all requests submitted included performance indicators for the planned activities for the next phase of the IS projects in accordance with decision 74/51(e)<sup>1</sup>.

#### Secretariat's recommendations

4. The Secretariat recommends blanket approval of the IS renewal requests for Mexico and Qatar at the level of funding indicated in Table 1 of this document. The Executive Committee may wish to express to the aforementioned Governments the comments which appear in Annex II to this document.

## **A2: Project preparation**

<u>Democratic People's Republic of Korea (the): Preparation for an HPMP (stage II) (overarching strategy):</u> US \$70,000

<u>Democratic People's Republic of Korea (the): Preparation for HCFC phase-out investment activities (stage II) (refrigeration manufacturing sector): US \$60,000</u>

## **Project description**

5. On behalf of the Government of the Democratic People's Republic of Korea, UNIDO as the lead implementing agency, has submitted requests for the preparation of the overarching strategy for stage II of the HCFC phase-out management plan (HPMP) and investment activities for two commercial refrigeration equipment and compressor manufacturers, as shown in Table 1. The submission included an update on the implementation of stage I of the HPMP, justification for the requested funding, the activities to be implemented and the corresponding budgets.

#### **Secretariat's comments**

6. The Secretariat reviewed the project preparation request in line with stage I of the HPMP approved at the 73<sup>rd</sup> meeting to meet the 15 per cent reduction of the HCFC baseline in 2018, and the guidelines for funding preparation of stage II of the HPMPs for Article 5 countries contained in

<sup>&</sup>lt;sup>1</sup> The Executive Committee decided to continue to use the existing format for IS renewals as approved at the 61<sup>st</sup> meeting (decision 61/43(c)) with a modification in section 10, to indicate that performance indicators should be included, as contained in Annex XIX to document UNEP/OzL.Pro/ExCom/74/56 (decision 74/51(e)).

decision 71/42. The Democratic People's Republic of Korea has an HCFC baseline of 78.0 ODP tonnes and reported consumption in 2015 under Article 7 of the Montreal Protocol of 70.02 ODP tonnes. It has also reported consumption of 69.91 ODP tonnes for 2016 under its CP data reporting.

- The Secretariat noted that the report on the progress of stage I implementation appeared to be on 7. track for a number of activities, and that the country has implemented a quota system for HCFC imports and exports. The last tranche of stage I of the HPMP is in 2018. Implementation of the activities is in full accordance with the UN Security Council (UNSC) resolution.
- 8. The Secretariat expressed concern with regard to the sustainability of alternatives for the commercial refrigeration sector pursuant to decision  $77/35(a)(v)^2$  and the complexities in implementing projects in the country due to the UNSC resolution. UNIDO assured the Secretariat that activities are currently ongoing as planned and explained the importance of approving the project preparation funding at this time, in order to meet compliance with the Montreal Protocol.
- After discussions, the Secretariat concluded that the request for funding, for the overarching strategy for stage II of the HPMP and phase-out investment activities met the requirements of decision 71/42.

#### **Secretariat's recommendation**

The Secretariat recommends blanket approval of the request of UNIDO for project preparation for stage II of the HCFC phase-out management plan and HCFC phase-out investment activities for the Democratic People's Republic of Korea at the level of funding shown in Table 1 of this document.

#### SECTION B: ACTIVITIES RECOMMENDED FOR INDIVIDUAL CONSIDERATION

## B1: Project preparation for HFC-related projects (decision 78/3 (g))

#### **Project description**

11.

- UNIDO submitted four requests for preparation funding for HFC-related projects in the manufacturing sector as listed in Table 1. One of these proposals was for the replacement of HFC-134a to non-HFC alternatives in the domestic refrigeration sector, and the other three requests were for considering alternatives to HFCs for self-contained commercial refrigeration equipment. The submissions were made in line with decision 78/3(g).<sup>3</sup>
- Each of the project preparation requests included information on the concept of the project, the 12. activities to be undertaken during project preparation and the associated costs of these activities. All project preparation requests were submitted with endorsement letters from the respective governments in line with the requirements of decision 78/3(g). The details of each request are contained in the attachment to the present document.

<sup>&</sup>lt;sup>2</sup> To assess, during project preparation, the availability of the chosen technology in the country, including the necessary components, refrigerants, oils, blowing agents, etc.

<sup>&</sup>lt;sup>3</sup> To consider, *inter alia*, approving a limited number of HFC-related projects in the manufacturing sector only, without prejudice to different kinds of technology, no later than at the first meeting of 2019, to allow the Committee to gain experience in the ICCs and IOCs that might be associated with phasing down HFCs in Article 5 countries, on the understanding: that any Article 5 country that submitted a project should have ratified the Kigali Amendment or submitted a formal letter indicating the government's intention to ratify the Amendment; that no further funding would be available until the instrument of ratification had been received by the depositary at the Headquarters of the United Nations in New York; and that any amount of HFC reduced as a result of the project would be deducted from the starting point

#### **Secretariat's comments**

- 13. At the 78<sup>th</sup> meeting, during the discussion of the information relevant to the development of criteria for funding the phase-down of HFCs, it was pointed out that additional information is required to be able to reach a decision on eligible incremental costs. After further discussion, the Executive Committee agreed to decision 78/3(g).
- 14. The Secretariat noted that while the projects were submitted consistent with costs considered by the Executive Committee for project preparation funding, and that the submissions contained sufficient detail to allow consideration of these requests, further guidance is required to determine project priorities. The criteria, scope, and type of projects to be covered, total funding that would be made available for these projects, duration of project implementation, and reporting requirements after completion, need to be defined to enable the Secretariat to review these requests and provide recommendations for the Executive Committee.
- 15. The Secretariat has considered this issue in the document on the Overview of issues identified during project review.<sup>4</sup>

## **Secretariat's recommendation**

16. The Executive Committee may wish to consider the proposals for the preparation of HFC-related projects for the manufacturing sector as listed in Table 1 in the context of its discussion of the proposals for HFC-related projects described in the document on Overview of issues identified during project review (UNEP/OzL.Pro/ExCom/79/19).

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<sup>&</sup>lt;sup>4</sup> UNEP/OzL.Pro/ExCom/79/19

## Annex I

# INSTITUTIONAL STRENGTHENING PROJECT PROPOSALS

# Mexico: Renewal of institutional strengthening

Summary of the project and country profile			
Implementing agency:			UNIDO
Amounts previously approved for institutional str			
	Phase I:	Jun-92 & Dec-94	350,000
	Phase II:	Jul-95	95,000
	Phase III:	Oct-96	190,000
	Phase IV:	Jul-98	190,000
	Phase V:	Jul-00	190,000
	Phase VI:	Jul-02	247,000
	Phase VII:	Apr-05	247,000
	Phase VIII:	Jul-07	247,000
	Phase IX:	Jul-09	185,250
	Phase X:	Dec-10	247,000
	Phase XI:	Dec-12	247,000
	Phase XII	Nov-14	247,000
		Total:	2,682,250
Amount requested for renewal (phase XIII) (US \$			316,160
Amount recommended for approval for phase XII	I (US \$):		316,160
Agency support costs (US \$):			22,131
Total cost of institutional strengthening phase XII	338,291		
Date of approval of country programme:			1992
Date of approval of HCFC phase-out managemen	1 \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		2011
Date of approval of HCFC phase-out managemen	t plan (stage II):		2014
Baseline consumption of controlled substances (C	DDP tonnes):		
Annex B, Group III (methyl chloroform) (average	1998-2000)		56.4
Annex C, Group I (HCFCs) (average 2009-2010)			1,148.8
Annex E (methyl bromide) (average 1995-1998)			1,130.8
Latest reported ODS consumption (2016) (ODP to	onnes) as per Article 7:		
Annex B, Group III (methyl chloroform)	, <u>i</u>		0.00
Annex C, Group I (HCFCs)			519.66
Annex E (methyl bromide)			49.4
		Total:	569.06
Year of reported country programme implementation	tion data:		2016
Amount approved for projects (as at November 20			120,301,580
Amount disbursed (as at December 2015) (US \$):	/ \ /		102,425,874
ODS to be phased out (as at November 2016) (O			6,856.9
ODS phased out (as at December 2015) (ODP ton			6,654.6

# 1. Summary of activities and funds approved by the Executive Committee:

Sun	nmary of activities	Funds approved (US \$)
(a)	Investment projects:	106,560,917
(b)	Institutional strengthening:	2,682,250
(c)	Project preparation, technical assistance, training and other non-investment projects:	11,058,413
	Total:	120,301,580

## Progress report

During phase XII of the IS project the priorities of the NOU, which is located in the General Direction of Air Quality Management, included HCFC control, project implementation, and the quota system in order to meet the reduction targets set out in the stage II HPMP agreement with the Executive Committee. Further work was undertaken to reinforce the control of imports of ODS into Mexico including work on illegal trade with the Commission for Environmental Cooperation to strengthen coordination in the North American region. Other activities included: consultations with the national steering committee in the General Direction Coordination with Ministry of Foreign Affairs, industry associations, and other stakeholders; public awareness activities including videos on MB phase-out, HCFC phase-out in the foam sector, and ODS destruction; and training on good practices in refrigeration servicing. All these activities and the implementation of phase out projects allowed Mexico to reduce its HCFC consumption by 55 per cent as compared to its baseline by 2016.

#### Plan of action

2. For phase XIII of the IS project the NOU will continue to coordinate the national Montreal Protocol programme and prepare the basis for legislative and regulatory measures to be adopted by the responsible government authorities with an emphasis on the HCFC phase-out and HFC phase-down targets. The NOU will organize meetings and consultations with relevant government entities to facilitate the ratification of the Kigali Amendment and will continue to prioritize improvements in the control of HCFCs, project implementation and the quota system in order to ensure compliance with the phase-out schedule in stage II of the HPMP.

**Qatar:** Renewal of institutional strengthening

Summary of the project and country profile	
Implementing Agency:	UNIDO
Amounts previously approved for institutional strengthening (US \$):	
Phase I: Mar-99	68,450
Phase II: Dec-03 & Jul-06	89,000
Phase III: Nov-2009	89,000
Total	246,450
Amount requested for renewal (Phase IV) (US \$):	113,920
Amount recommended for approval for Phase IV (US \$):	113,920
Agency support costs (US \$):	7,974
Total cost of institutional strengthening Phase IV to the Multilateral Fund (US \$):	121,894
Date of approval of country programme:	1999
Date of approval of HCFC phase-out management plan:	2011
Baseline consumption of controlled substances (ODP tonnes):	
Annex B, Group III (methyl chloroform) (average 1998-2000)	0
Annex C, Group I (HCFCs) (average 2009-2010)	86.9
Annex E (methyl bromide) (average 1995-1998)	0
Latest reported ODS consumption (2015) (ODP tonnes) as per Article 7:	
Annex B Group III (Methyl chloroform)	0
Annex E (Methyl bromide)	0
Annex C Group I (HCFCs)	65.89
Total	65.89
Year of reported country programme implementation data:	2016
Amount approved for projects (as at November 2016) (US \$):	2,634,857
Amount disbursed (as at December 2015) (US \$):	2,150,560
ODS to be phased out (as at November 2016) (ODP tonnes):	123.5
ODS phased out (as at December 2015) (ODP tonnes):	101.3

3. Summary of activities and funds approved by the Executive Committee:

	Summary of activities	Funds approved (US \$)
(a)	Investment projects:	1,358,407
(b)	Institutional strengthening:	246,450
(c)	Project preparation, technical assistance, training and other non-investment projects:	1,030,000
	Total:	2,634,857

#### Progress report

4. Phase III of the IS project was inactive from 2010 to mid-2016 when the NOU was re-established under the overall supervision of the Director of the Radiation and Chemical Protection Department of the Office of Environmental Affairs. In July 2016, the Head of Environmental Monitoring was designated as national ozone officer assisting with the licensing system, import inspections, public awareness and participation in relevant meetings. In spite of the delays in the IS project, ODS phase-out activities in the country were maintained and contributed to the compliance of the country with the HCFC control measures. All controlled substances have been subjected to pre-import permissions by the NOU. Furthermore, relevant law was revised and issued to ensure proper control of HCFCs. The NOU also coordinated the preparation of the request for the second and third tranches of the HPMP. Qatar submitted its country programme data in advance of the 1 May deadline and has attended regional network and Montreal Protocol meetings.

## Plan of action

5. During phase IV of the IS project, funding will continue to assist the Government to meet its obligations under the Montreal Protocol and the annual HCFC consumption phase-out targets set out in the HPMP Agreement with the Executive Committee. The NOU will follow up on policies and regulations that require further improvements, with a view to move forward the administrative procedures for the ratification of the Kigali Amendment. The NOU will continue to cooperate with ministries and inter-ministerial bodies as well as with advisory groups such as non-governmental organizations, and those in the refrigeration and air-conditioning and other sectors.

#### Annex II

# DRAFT VIEWS EXPRESSED BY THE EXECUTIVE COMMITTEE ON RENEWAL OF INSTITUTIONAL STRENGTHENING PROJECTS SUBMITTED TO THE 79<sup>th</sup> MEETING

## Mexico

1. The Executive Committee reviewed the report presented with request for the institutional strengthening (IS) project for Mexico (phase XIII) and noted with appreciation that Mexico is in compliance with the Montreal Protocol phase-out targets and the reporting obligations, and has strengthened the capacity of the National Ozone Unite (NOU) for the control of HCFCs. The Committee acknowledged that Mexico has provided support to countries in the Latin America region through information dissemination, the organization of workshops, and technical visits. The Executive Committee supports the efforts of Mexico to implement stages I and II of the HCFC phase-out management plan (HPMP) and to prioritize the ratification of the Kigali Amendment.

#### **Oatar**

2. The Executive Committee reviewed the report presented with the request for the institutional strengthening (IS) project for Qatar (phase IV) and noted with appreciation that Qatar reported its 2016 country programme data in advance of the 1 May deadline. The Executive Committee also noted that the NOU was re-established and is operational, and encourages Qatar to allow the NOU to continue to assist the Government to meet its Montreal Protocol obligations and the annual HCFC consumption reduction targets set out in the HPMP for Qatar. The Executive Committee expresses the hope that the NOU will further follow up on the administrative procedures for ratification of the Kigali Amendment that were initiated in phase III. The Executive Committee acknowledged the country's progress in preparing the second and third tranches of stage I of its HPMP, and looks forward to their submission to the 80<sup>th</sup> meeting.



# UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

79<sup>th</sup> Executive Committee of the Multilateral Fund for the Implementation of the Montreal Protocol

**UNIDO** Work Programme

79<sup>th</sup> Meeting of the Executive Committee

#### Introduction

The UNIDO Work Programme for the consideration of the 79<sup>th</sup> Meeting of the Executive Committee (ExCom) of the Multilateral Fund (MLF) has been prepared following the Government requests as well as based on ongoing and planned activities. The Work Programme will support the implementation of UNIDO's three year Rolling Business Plan 2017-2019.

The 79<sup>th</sup> UNIDO WPA is addressing preparatory assistance and institutional strengthening requests.

Preparatory assistance is submitted for the 79<sup>th</sup> Executive Committee Meeting consideration for Democratic People's Republic of Korea to enable the country to overview and update data necessary for the launch and implementation of HPMP Stage II in the refrigeration servicing and refrigeration manufacturing sectors.

Further preparatory assistance requests for demonstration projects in the refrigeration manufacturing sector are being submitted in four countries (Ecuador, Lebanon, Mexico and Viet Nam) in line with the Executive Committee Decision 78/3 (g), to facilitate the analysis of ICCs and IOCs associated with the phase-down on HFCs.

Institutional strengthening extension requests are submitted based on the country requests for Mexico and Qatar.

The UNIDO Work Programme Amendment for the consideration of the 79<sup>th</sup> ExCom Meeting comprises the following sections:

- Section 1: Consolidated list of activities foreseen for the above requests by project types and country;
- Section 2: Project concepts indicating details and funding requirements.

Funding is requested as follows:

- Preparatory assistance funding for HPMP Stage II in DPR Korea amounting to US\$ 139,100 (including US\$ 9,100 representing 7.0 % A.S.C);
- Preparatory assistance funding for demonstration projects amounting to US\$ 192,600 (including US\$ 12,600 representing 7.0 % A.S.C);
- Institutional strengthening projects amounting to US\$ 460,186 (including US\$ 30,106 representing 7.0 % A.S.C);

Total: US\$ 791,886 (	(including US\$ 51,806 ag	gency support cost).	
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# **SECTION 1**

Country	MLF HCFC Status	Туре	Substance	Sector and Sub-Sector	Title of Project	Requested amount USD	A.S.C. USD	Total (incl ASC) USD	A.S.C. %	P.D.
					Preparatory Assistance for HPMP					
Democratic Peopt Republic of Korea	Non-LVC	PRP	HCFC-22	REF- Manufacturing	Preparation of Stage II HPMP	60,000	4,200	64,200	7%	12
Democratic People's Republic of Korea	Non-LVC	PRP	HCFC-22	HPMP overarching strategy	Preparation of Stage II HPMP	70,000	4,900	74,900	7%	12
			SU	BTOTAL		130,000	9,100	139,100		
	1	Prepar	atory Assist	ance for Demo	nstration Projects - Based on Executive Com	mittee Decision 78/3	(g)			
Ecuador	Non-LVC	PRP	HFC-134a	REF- Manufacturing	Project preparation for HFC-related projects in the manufacturing sector at Ecasa and Indurama enterprises to gain experience in ICCs and IOCs associated with the phase- down of HFCs		4,200	64,200	7%	12
Lebanon	LVC	PRP	HFC-134a	REF- Manufacturing	Project preparation for HFC-related projects in the manufacturing sector at Lematic Industries to gain experience in ICCs and IOCs associated with the phase-down of HFCs in domestic refrigeration	30,000	2,100	32,100	7%	12
Mexico	Non-LVC	PRP	HFC-134a	REF- Manufacturing	Project preparation for HFC-related projects in the manufacturing sector at Ecasa and Indurama enterprises to gain experience in ICCs and IOCs associated with the phase- down of HFCs		4,200	64,200	7%	12
Viet Nam	Non-LVC	PRP	HFC-134a/ HFC-404a	REF- Manufacturing	Project preparation for HFC-related projects in the manufacturing sector at Nagakawa Vietnam Company to gain experience in ICCs and IOCs associated with the phase-down of HFCs	30,000	2,100	32,100	7%	12
			SU	BTOTAL		180,000	12,600	192,600		
Insitutional Strengthening										
Mexico	Non-LVC	INS	A11	SEV	Institutional strengthening	316,160	22,131	338,291	7%	24
Qatar	Non-LVC	INS	A11	SEV	Institutional strengthening	113,920	7,974	121,894	7%	24
	SUBTOTAL					430,080	30,106	460,186		
			GRA	ND TOTAL		740,080	51,806	791,886		

#### **SECTION 2**

#### PROJECT CONCEPT

Country: Democratic People's Republic of Korea (DPR Korea)

**Title:** Preparatory funding request – Stage II of HPMP

Refrigeration and air-conditioning servicing

Refrigeration equipment and compressor manufacturing

**Project Duration:** 12 months

**Project Budget:** US\$ 130,000 (excl. 7.0% Agency Support Costs)

US\$ 70,000 for overarching strategy for Stage II

US\$ 60,000 for REF manufacturing sector

**Implementing Agency:** UNIDO

Coordinating Agency: National Coordination Committee for Environment (NCCE) under

Ministry of Land and Environment Protection (MLEP)

## **Project Summary**

The Implementing Agency has received an official request from the Government of DPR Korea for preparatory funding for the Stage II of HPMP. In response to the decision 71/42(b) UNIDO is submitting a request for funds for the preparation of Stage II of HPMP.

DPR Korea's baseline consumption of HCFCs amounted to 78.0 ODP tonnes. During the implementation of the first phase, 16.0 ODP tonnes of HCFC-141b are planned to be eliminated by 2018, while the remaining eligible consumption amounts to 57.97 ODP tonnes of HCFC-22.

In the Stage II of HPMP, DPR Korea will address the servicing and refrigeration equipment and compressor manufacturing sectors aiming to reach a 67.5% reduction in HCFCs consumption by the year 2025. The Stage II strategy will also include activities for conversion of the HCFC production facility in the country.

## **Description of current implementation**

The Executive Committee for the Implementation of the Montreal Protocol (ExCom) approved, at its 73rd Meeting (November 2014) Stage I of the HCFC Phase-Out Management Plan (HPMP) for DPR Korea for the period 2014-2018 (Decision 73/62) to reduce HCFC consumption by 15 per cent of the baseline of 78.0 ODP tonnes. Under this framework, the first tranche of Stage I of the HPMP for DPR Korea and the corresponding 2014–2015 implementation plan were approved. At its 75<sup>th</sup> Meeting (November 2015) and 77<sup>th</sup> Meeting (November/December 2016) the ExCom approved the second and third tranches of Stage I for DPR Korea corresponding to the period 2016–2017.

At its 75th meeting, the Executive Committee also decided to transfer the funding for the non-investment component associated with the remainder of the 1<sup>st</sup> tranche as well as consecutive tranches of the HPMP that had originally been approved for UNEP to UNIDO.

Since the approval of HPMP Stage I for DPR Korea, activities have been implemented in relation with all the corresponding activities identified in the project document. After the HPMP approval in November

2014, the country has adopted a decision for full implementation of the quota system in the field of import and production of HCFCs.

The consumption of HCFC-141b in DPR Korea is only in the foam production sector, by three polyurethane (PU) foam manufacturing enterprises. Two of the enterprises are eligible for funding under the Multilateral Fund and have been converted in Stage I: Pyongyang Sonbong PU Foam (PU rigid foam) and Puhung Building Material (spray foam for building insulation). The third enterprise, Chongjin Sonbong PU Foam will convert with its own resources.

Investment projects linked to the use of HCFC-141b in the PU foam manufacturing sector have made substantial progress as follows:

Equipment and related services for conversion of the Puhung Building Materials Factory, specialized in building spray insulation, to methyl formate have been procured and had been delivered to the beneficiary in December 2015. Installation and commissioning had to be postponed because of missing auxiliary equipment and tools required for the continuous smooth operation of the main equipment, namely air compressor and electricity generator. The auxiliary equipment had been procured in July 2016, however, the contract award and shipment of the auxiliary equipment was delayed since a request for clearance had to be submitted to the UN Security Council Committee 1718. The approval of the UNSCC was finally obtained on 1 September 2016. The shipment was delayed since the Chinese Customs required submission of Application for Export License of Sensitive Items and Technologies to the Bureau of Industry, Security, Import and Export Control at the Ministry of Commerce of the People's Republic of China. The decision of BISIEC is expected in early May 2017.

Procurement for conversion of the Pyongyang Sonbong Foam Factory, manufacturing rigid PU foam, to methyl formate technology had been conducted in March-October 2016. Clearance from the UNSCC for export of the conversion equipment, composed of a premixing station, methyl formate buffer tank; polyol and MDI tanks, mixed polyol-MDI buffer tank, a high-pressure foaming machine suitable for methyl formate foam blowing agent, was obtained in September 2016. The supplier indicates that shipment will be initiated at the end of May 2017.

Implementation of the non-investment component was severely hampered by the closure of the funds transfer channel to DPR Korea during 2015 and 2016 that prevented UNEP and later, after the ExCom decision on funds transfer from UNEP to UNIDO, also the latter agency to implement in-country activities such as training and establishment of Project Management Unit (PMU). Nevertheless, procurement of equipment to support training activities was conducted according to the work plan. Three units of advanced refrigerant identifiers were delivered in May 2015 and one set of training equipment for RAC service technicians was delivered to the country in September 2016. On expectation of establishment of a new funds transfer modality, a train-the-trainers workshop for 40 RAC service technicians was organized in August/September 2016. Moreover, a study tour to India for a core group of RAC trainers was organized in December 2016.

Opening of a new dedicated funds transfer modality for UN agencies in early 2017 enabled the organization of the first train-the-trainers workshop for 30 customs officers in May 2017 as well as the establishment of the PMU according to the HPMP project. Also, follow-up workshops for RAC service technicians are being planned and procurement of equipment for upgrade of existing R&R centers has been initiated.

## Overarching strategy 2019 – 2024

## Current HCFC consumption

Progress of HCFC consumption in the last five years is shown in the following Table 1.

**Table 1:** HCFC consumption in the DPR Korea in 2009-2015 (Article 7 data)

HCFC	2009	2010	2011	2012	2013	2014	2015	Baseline
Metric tonnes								
HCFC-22	865.1	1387.4	1301.0	1275.5	1282.6	1153.0	1083	1126.2
HCFC-141b	129.0	162.0	168.0	171.0	182.0	145.0	95	145.5
Total (MT)	994.1	1549.4	1469.0	1446.5	1464.6	1298.0	1178	1271.7
ODP tonnes								
HCFC-22	47.6	76.3	71.6	70.2	70.5	63.4	59.6	62.0
HCFC-141b	14.2	17.8	18.5	18.8	20.0	16.0	10.4	16.0
Total (ODPt)	61.8	94.1	90.0	89.0	90.6	79.4	70.0	78.0

Table 2 displays information on the import quotas as well as actual imports for 2015

**Table 2:** Actual import vs. quota by the authorized importers (source 2015 Verification Report)

HCFC type	Name of importer	Actual import (Mt)	Quota (Mt)
	Korea Duty Free General Trade Company	100	103
	Korea Electronics Industry General Trade Company	70	73
HCFC-22	Korea Chemistry External Economic Cooperation Co	115	117
	Samhung Kost J.V. Co	100	113
	Taedong Technology J.V. Co	200	179
	Total	585	585
	Korea Samjin Trade Co	33	33
	Samhung Kost J.V. Co	42	42
HCFC-141b	Korea Electronics Industry General Trade Company	20	20
	Total	95	95

According to the Updated Agreement between the Government of DPR Korea and the Executive Committee of the MLF for the reduction of the consumption of HCFCs in DPR Korea, the remaining eligible consumption of HCFC-22 after HPMP Stage I is 57.97 ODP tonnes.

## Information to be gathered

For addressing the Stage II in the servicing sector, a comprehensive survey will be required to give response to the servicing needs after 2018, considering also the large number (more than 200) of registered refrigeration service workshops throughout the country. Servicing of residential and small commercial refrigeration and air-conditioning systems is provided by several small service workshops, while servicing of large installations is provided by in-house technicians.

Besides gathering and updating information on consumption of HCFCs according to sectors, additional information will be compiled and subsequently updated on all aspects related to the expected activities of Stage II.

Information will be collected on the number of RAC service workshops and service technicians in order to develop a plan for implementation of the servicing sector related activities to be integrated in the overall strategy (including assessment of steps required for introduction of a scheme for RAC service workshops licensing and certification).

Further activities will include several stakeholder consultation workshops:

a) Inception workshop to sensitize the stakeholders on all issues related to the conversion

- b) Mid-term workshop to review the results of the field surveys and to get the stakeholders views and comments on the possible ways forward
- c) Final workshop to agree on the phase-out strategy for the RAC sector taking into consideration the overall phase-out possibilities in other sectors as well.

Furthermore, there will be several ad-hoc consultation meetings according to the needs to discuss technology options taking into consideration global technology development and availability of advanced technologies for HCFC-22 phase-out.

Stage II will also include investment project to address consumption of HCFC-22 at two manufacturers of commercial refrigeration equipment and compressors as described below.

## **Investment Project**

## <u>Information on Enterprises</u>

According to information obtained during HPMP preparation there are two commercial refrigeration equipment and compressor manufacturers in the country, namely Hamhung Commercial Machinery Factory and Pyongyang Automation Equipment Factory. No activities for these enterprises have been included in Stage I.

Table 3 shows consumption of HCFC-22 in the commercial refrigeration and compressors manufacturing sector by the existing two companies.

**Table 3.** Consumption of HCFC-22 in commercial refrigeration and compressor manufacturing (source HPMP Project Document)

			Consumption of HCFC-22				
		2009	2010	2011	2012	2013	Baseline
Metric tonne	es (mt)						
Commercial	refrigeration and	149.0	139.2	111.9	120.3	123.8	144.1
compressors	manufacturing (Hamhung)						
Commercial	refrigeration and	69.9	81.2	89.2	70.6	71.5	75.6
compressors manufacturing (Pyongyang							
Automation)							
<b>ODP</b> tonnes							
Commercial	refrigeration and	8.2	7.7	6.2	6.6	6.8	7.9
compressors							
Commercial	refrigeration and	3.8	4.5	4.9	3.9	3.9	4.2
compressors	manufacturing (Pyongyang						
Automation)							

#### Information to be gathered

In light of the above and in order to properly develop a sustainable Stage II strategy in the commercial refrigeration and compressor manufacturing sub-sector, the project preparation will focus, but will not be limited to the following main activities:

- a) Update of information on consumption in the refrigeration manufacturing and compressor sub-sector for the recent 3 years
- b) Visits to the two enterprises by a team of national experts under guidance of an international expert. When visiting enterprises, the team will examine production processes at the enterprises, their competence and capabilities and will collect information on the HCFC consumption, production lines, applications, market share, etc.

c) Consultations with the two manufacturers on availability and acceptance of future technology options in order to identify any difficulties and challenges to be faced by the enterprises in the conversion

# **Funding requirement for PRP**

In accordance with the guideline MLF/IACM.2016/2/18 the preparatory activities and the corresponding funds requested for UNIDO, are as follows:

Table 4: Funding requirements for the overarching strategy and refrigeration manufacturing sector

Activities	Total [USD]
Preparation of Overarching Strategy	70,000
Survey to update consumption all over the country	10,000
Survey to update numbers of technicians (including visits of all provinces)	10,000
Stakeholders workshops	15,000
International consultant (guidance to national experts, data collection/analysis)	15,000
National consultants and data validation	10,000
International travel for stakeholders workshops	10,000
Preparation of investment activities in refrigeration equipment and compressor manufacturing	60,000
Survey on update of information	10,000
Visits of the enterprises	10,000
Stakeholders consultation meetings	15,000
International consultant (guidance to national experts, data collection/analysis)	15,000
International travel for national experts for technology consultations	10,000
Grand total	130,000

Country: Ecuador

**Title:** Project preparation for HFC-related projects in the manufacturing sector

at Ecasa and Indurama enterprises to gain experience in ICCs and IOCs

associated with the phase-down of HFCs

**Project Duration:** 12 months

**Project Budget:** US\$ 60,000 (excl. 7.0% Agency Support Costs)

**Implementing Agency:** UNIDO

**Coordinating Agency:** MIPRO - National Ozone Unit

## **Project Summary**

The Executive Committee has decided in Decision 78/3 (g) "To consider approving a limited number of HFC-related projects in the manufacturing sector only, without prejudice to different kinds of technology, no later than at the first meeting of 2019, to allow the Committee to gain experience in the ICCs and IOCs that might be associated with phasing down HFCs in Article 5 countries..."

In response to that above decision, UNIDO has received an official request from the Government of Ecuador for the preparation of an umbrella project in the manufacturing sector in order to convert from HFCs to low-GWP alternatives and to gain relevant experience in the associated ICCs and IOCs.

Ecuador is planning to ratify the Kigali Amendment as soon as possible.

Two enterprises, Ecasa and Indurama, have been identified, which would be willing to initiate early actions and convert from HFCs to low-GWP alternatives in the commercial refrigeration sector, where alternative technology is mature and readily available, in order to gain experience in ICCs and IOCs.

The strategy followed by Ecuador is based on the following criteria and priorities:

- I. Application of well-known, affordable, available and widely used replacement alternatives and related technologies, while supporting efforts for identification and selection of such alternatives.
- II. To start phasing-down HFCs in those HFC consuming manufacturing sectors, where low-GWP and mature alternatives are available.
- III. Through adoption of appropriate alternative technologies, limit climate and adverse environmental impact of converted enterprises and comply with safety, economic and sustainability requirements.

## **Background on Ecasa and Indurama (Induglob)**

Ecasa and Indurama are 100% Ecuadorian-owned enterprises.

Both enterprises manufacture self-contained domestic refrigeration, vertical and horizontal coolers, typically used to cool soda, water, energy drinks, juices, beer, milk, dairy products. Each of them with different temperature range.

Both enterprises use metal mechanical process for cabinets with cyclopentane insulation. Ecasa uses premixed polyol with cyclopentane and Indurama was converted by UNIDO from HCFC-141b to cyclopentane. The refrigerants used are R-134a and R-404A.

Item	Ecasa	Indurama
Maximum charge R-134a		
Number of units produced	Average per unit 115 gr of R-134a Average per unit 330 gr of R-404A	Average per unit 115 gr of R-134a
HFC consumption in 2016 R-134a	56,590 units produced in 2016 6.5 tons of R-134a in 2016	158,578 units produced in 2016 18.23 tons of R-134a in 2016
R-404A	6,587 units of R-404A 2.17 tons of R-404A	

In the framework of the proposed project, it is planned that the R134a based products will be converted to R600a.

## Standards compliance for the use of hydrocarbons as refrigerant

For R600a refrigerant, the recommended charge limit is 150 grams, according to standard IEC 60335-2-89. The manufacturing facility for R600a is special to prevent explosions of refrigerant.

## **Funding Requirements**

The preparatory funds are requested for UNIDO, as follows:

Activities	Cost US\$
Local activities (national expert, local travel costs, coordination meetings etc.)	15,000
International consultant (project preparation and development)	35,000
International travel costs (staff)	10,000
TOTAL	60,000

## Activities to be undertaken to develop the umbrella project

- Detailed data collection, verification and validation at the enterprises
- Technology review of available, mature alternatives and discussion with the enterprises and the Government on the selection of a suitable low-GWP alternatives
- Cost assessment of conversion (ICC and IOC)
- Evaluation of the climate co-benefits of the selected alternative and possible interventions and related costs for additional climate benefits
- Preparation, review, endorsement and submission of the project document

Country: Lebanon

**Title:** Project preparation for HFC-related project in the manufacturing sector at

Lematic Industries to gain experience in ICCs and IOCs associated with

the phase-down of HFCs in domestic refrigeration

**Project Duration:** 12 months

**Project Budget:** US\$ 30,000 (excl. 7.0% Agency Support Costs)

**Implementing Agency:** UNIDO

**Coordinating Agency:** National Ozone Unit

## **Project Summary**

The Executive Committee has decided in Decision 78/3 (g) "To consider approving a limited number of HFC-related projects in the manufacturing sector only, without prejudice to different kinds of technology, no later than at the first meeting of 2019, to allow the Committee to gain experience in the ICCs and IOCs that might be associated with phasing down HFCs in Article 5 countries..."

In response to that above decision, UNIDO has received an official request from the Government of Lebanon for the preparation of an investment project in the domestic refrigeration sector in order to convert from HFC-134a to R-600a (isobutane) to gain relevant experience in actual ICCs and IOCs.

Lebanon is planning for a quick ratification of the Kigali Amendment by the end of 2017.

The enterprise, Lematic Industries, has been identified, being willing to initiate early actions and convert from HFC-134a to R-600a in the domestic refrigeration sector, where alternative technology is mature and readily available, in order to gain experience in ICCs and IOCs.

The strategy followed by Lebanon is based on the following criteria and priorities:

- I. Application of well-known, affordable, available and widely used replacement alternatives and related technologies, while supporting efforts for identification and selection of such alternatives.
- II. To start phasing-down HFCs in those HFC consuming manufacturing sectors, where low-GWP and mature alternatives are available.
- III. Through adoption of appropriate alternative technologies, limit climate and adverse environmental impact of converted enterprises and comply with safety, economic and sustainability requirements.
- 3. Background

Lematic is a 100% Lebanese company that is specialized in the production of household appliances and appliance industries. Lematic is now one of the major producers of appliances and equipment as a result of steady international growth over the last 50 years.

Lematic products are world leader in design and among the most competitive in the market. The range of household domestic and industrial appliances has resulted in the reputation for manufacturing top quality products.



The company began operation in the 1940s, has accumulated considerable experience, especially in the technology and production of all types of refrigeration and air-conditioning appliances.

Lematic has several factories located in Lebanon, Saudi Arabia and Syria, over 1800 employees and annual sales exceeding half a million units/per year.

Lematic's expertise also extends to the establishment of appliance industries in the countries where often little manufacturing activity exists specially in the Middle East, Africa, Central Asia and South America.

Lematic takes full responsibility for complex, logistical tasks such as design, construction, installation and commissioning up to optimum production so that maximum efficiency and profitability is achieved.



Lematic subsequently offers a complete service package since the company believes that an ongoing commitment is of a great importance to the plant operation. These services range from engineering support to the supply of raw materials, semi-finished components and spare parts as well as the coordination of all the support facilities needed for any type of projects.

Lematic produces products branded as Concorde such as:

- \* Refrigerators:
  - Side by Side
  - NoFrost Two Doors
  - DeFrost Two Doors
  - Single Door
- Freezers:
  - Chest Freezers
  - Vertical Freezers
- Coolers:
  - Chest Bottle Cooler
  - Vertical Bottle Cooler

In year 2000, Lematic has received assistance under the Montreal Protocol in the refrigeration production sector through the conversion of the insulation foam blowing system, redesign of the refrigeration system prototype, performance testing, trial manufacturing and adaptation, reliability tests, and HFC 134a recovery/recycling at the repairing line within the plant only. The adopted alternatives were:

• Refrigerant: HFC-134a

• Blowing Agent: Hydrocarbons (Pentane)

## **Funding Requirements**

The preparatory funds are requested for UNIDO, as follows:

Activities	Cost US\$
Local activities (national expert, local travel costs, coordination meetings etc.)	15,000
International consultant (project preparation and development)	10,000
International travel costs (staff)	5,000
TOTAL	30,000

## Activities to be undertaken to develop the project

- Detailed data collection, verification and validation Lematic Industries.
- Cost assessment of conversion (ICC and IOC).
- Evaluation of the climate co-benefits of the selected alternative and possible interventions and related costs for additional climate benefits
- Preparation, review, endorsement and submission of the project document

Country: Mexico

**Title:** Project preparation for HFC-related projects in the manufacturing sector

at Fersa and Imbera enterprises to gain experience in ICCs and IOCs

associated with the phase-down of HFCs

**Project Duration:** 12 months

**Project Budget:** US\$ 60,000 (excl. 7.0% Agency Support Costs)

**Implementing Agency:** UNIDO

**Coordinating Agency:** SEMARNAT - National Ozone Unit

### **Project Summary**

The Executive Committee has decided in Decision 78/3 (g) "To consider approving a limited number of HFC-related projects in the manufacturing sector only, without prejudice to different kinds of technology, no later than at the first meeting of 2019, to allow the Committee to gain experience in the ICCs and IOCs that might be associated with phasing down HFCs in Article 5 countries..."

In response to that above decision, UNIDO has received an official request from the Government of Mexico for the preparation of an umbrella project in the manufacturing sector in order to convert from HFCs to low-GWP alternatives and to gain relevant experience in the commercialization of low-GWP alternatives and the associated ICCs and IOCs.

Mexico was one of the proponents of the HFC phase-down under the Montreal Protocol and is planning to ratify the Kigali Amendment by July 2018.

Two enterprises, Fersa and Imbera, have been identified, which would be willing to initiate early actions and convert from HFCs to low-GWP alternatives in the commercial refrigeration sector, where alternative technology is mature and readily available, in order to gain experience in ICCs and IOCs.

The strategy followed by Mexico is based on the following criteria and priorities:

- I. Application of well-known, affordable, available and widely used replacement alternatives and related technologies, while supporting efforts for identification and selection of such alternatives.
  - II. To start phasing-down HFCs in those HFC consuming manufacturing sectors, where low-GWP and mature alternatives are available.
- III. Through adoption of appropriate alternative technologies, limit climate and adverse environmental impact of converted enterprises and comply with safety, economic and sustainability requirements.

## **Background on Fersa and Imbera**

FERSA and IMBERA are 100% Mexican-owned enterprises.

Both enterprises manufacture self-contained commercial refrigeration equipment (self-contained equipment, is one that incorporates the condensing unit as its part), such as glass door refrigerators, show cases, solid door refrigerators, solid door freezers, display cases, glass door freezers. More specifically they produce:

- Vertical and horizontal coolers, counter top, and specialties, typically used to cool soda, water, energy drinks, juices, bear, milk, dairy products. Each of them, with different temperature range.
- Vertical and horizontal freezers of low temperature (-23 °C), used for storage of ice cream.
- Vertical and horizontal freezers of medium temperature (-18 ° C), used for preserving meats and other frozen food.
- Refrigerated Deli-cases, for preservation of beverages, dairy products and meats.
- Open air merchandisers, used for storage of refrigerated products for easy display and easy access.
- Special refrigeration equipment for storage for: drugs and vaccines, wine, etc.

Both enterprises use metal mechanical process for cabinets with cyclopentane PU insulation. The refrigerants used are R134a, R404a and Imbera also uses R744.

Item	Fersa		Imbera	
Maximum charge R-134a	530g (manual) - 600g (machine)		850g	
Maximum charge R-404a	1,125g (manual)		500g	
Number of units produced				
HFC consumption in 2016				
R-134a based:	19,744 units	11,116 kg of R134a	102,111 units	33,640 kg of R134a
R-404a based:	2,243 units	2,094 kg of R404a	5,370 units	1,700 kg of R404a

In the framework of the proposed project, it is planned that the R134a based products will be converted to R290.

## Standards compliance for the use of hydrocarbons as refrigerant

For R290 refrigerant, the recommended charge limit is 150 grams, according to standard IEC 60335-2-89. It is to be noted however, that the amount of R290 refrigerant charged into the appliance only around 40%-50% of the same for R134a.

The manufacturing facility for charging and handling of R290 refrigerant is designed and manufactured specifically to prevent explosions of refrigerant during the manufacturing process.

Use of R744 needs reinforced components of the refrigerant system and special manufacturing facilities, to handle the high pressure of the refrigerant. The maintenance and servicing of appliances using both types of refrigerants must be performed by qualified personnel.

In Mexico, there are no regulations for R290 and R744. Development of more equipment is limited by the availability and variety of specialized compressors, however compressors for R290 are easy to find and the range of R744 is developing rapidly.

## **Funding Requirements**

The preparatory funds are requested for UNIDO, as follows:

Activities	Cost US\$
Local activities (national expert, local travel costs, coordination meetings etc.)	15,000
International consultant (project preparation and development)	35,000
International travel costs (staff)	10,000
TOTAL	60,000

## Activities to be undertaken to develop the umbrella project

- Detailed data collection, verification and validation at the enterprises
- Technology review of available, mature alternatives and discussion with the enterprises and the Government on the selection of a suitable low-GWP alternatives
- Cost assessment of conversion (ICC and IOC)
- Evaluation of the climate co-benefits of the selected alternative and possible interventions and related costs for additional climate benefits
- Preparation, review, endorsement and submission of the project document

Country: Viet Nam

**Title:** Project preparation for HFC-related projects in the manufacturing sector

at Nagakawa Vietnam Company to gain experience in ICCs and IOCs

associated with the phase-down of HFCs

**Project Duration:** 12 months

**Project Budget:** US\$ 30,000 (excl. 7.0% Agency Support Costs)

**Implementing Agency:** UNIDO

Coordinating Agency: National Ozone Unit - Ministry of Natural Resources and Environment

## **Project Summary**

The Executive Committee has decided in Decision 78/3 (g) "To consider approving a limited number of HFC-related projects in the manufacturing sector only, without prejudice to different kinds of technology, no later than at the first meeting of 2019, to allow the Committee to gain experience in the ICCs and IOCs that might be associated with phasing down HFCs in Article 5 countries..."

In response to that above decision, UNIDO has received an official request from the Government of Viet Nam for the preparation of a demonstration project in the manufacturing sector in order to convert from HFCs to low-GWP alternatives and to gain relevant experience in the associated ICCs and IOCs.

The enterprise Nagakawa Vietnam Company has been identified, which would be willing to initiate early actions and convert from HFCs to low-GWP alternatives in the commercial refrigeration sector, where alternative technology is mature and readily available, in order to gain experience in ICCs and IOCs.

The strategy followed by Viet Nam is based on the following criteria and priorities:

- I. Application of well-known, affordable, available and widely used replacement alternatives and related technologies, while supporting efforts for identification and selection of such alternatives.
- II. To start phasing-down HFCs in those HFC consuming manufacturing sectors, where low-GWP and mature alternatives are available.
- III. Through adoption of appropriate alternative technologies, limit climate and adverse environmental impact of converted enterprises and comply with safety, economic and sustainability requirements.

#### **Background on Nagakawa Vietnam Company**

Nagakawa Vietnam Company is a 100% Viet Nam-owned enterprise.

The enterprise manufactures self-contained commercial refrigeration equipment (self-contained equipment, is one that contains within its own body, the condensing unit.

	Nagakawa Vietnam Company	
Ownership	100% national	
HFC-based equipment	- single chamber freezers	

	- two chamber freezers - ice-cream freezers - bottle coolers
Baseline equipment	<ul> <li>R-134a charging machine</li> <li>vacuum pump</li> <li>fixed gas detector</li> <li>portable gas detector</li> <li>mold for heat exchanger</li> </ul>

In the framework of the proposed project, it is planned that the HFC-134a (or R-404a) based products will be converted to R-290.

The company is still using HCFC-141b foam insulation, but a conversion under the HPP is currently taking place. However, a conversion of the refrigerants used has never been carried out under the HPMP stages yet.

## Standards compliance for the use of hydrocarbons as refrigerant

Because of their flammability, HCs are subject to international safety guidelines and legislation. Their use is limited to a per-system charge of no more than 150 grams according to standard IEC 60335-2-89. All manufacturers of HC systems must follow equipment safety guidelines, and service personnel must understand and comply with specified safe handling procedures. Safety legislation demands leakage-simulation testing, and strict specifications govern the sealing of electrical components in the vicinity of HC flows. Furthermore, many common domestic and commercial appliances, such as domestic fridges and freezers, heat pumps, commercial refrigerators, and motor compressors are subject to international safety directives.

## **Funding Requirements**

The preparatory funds are requested for UNIDO, as follows:

Activities	Cost US\$
Local activities (national expert, local travel costs, coordination meetings etc.)	10,000
International consultant (project preparation and development)	15,000
International travel costs (staff)	5,000
TOTAL	30,000

## Activities to be undertaken to develop the project

- Detailed data collection, verification and validation at the enterprises
- Technology review of available, mature alternatives and discussion with the enterprises and the Government on the selection of a suitable low-GWP alternatives
- Cost assessment of conversion (ICC and IOC)
- Evaluation of the climate co-benefits of the selected alternative and possible interventions and related costs for additional climate benefits
- Preparation, review, endorsement and submission of the project document

Country: Mexico

Title: Extension of Institutional Strengthening for the implementation of

Montreal Protocol in Mexico - Phase XIII

**Project Duration:** 24 months (1 July 2017 – 30 June 2019)

**Project Budget:** USD 316,160 (excluding USD 22,131 representing 7.0% Agency

Support Costs)

**Implementing Agency:** UNIDO

Coordinating Agency: National Ozone Unit, Environmental and Natural Resources Secretariat

(SEMARNAT)

## **Project Summary**

The project aims to support the institutional strengthening and capacity building of the National Ozone Unit in Mexico and will ensure in helping the Government meet its obligations under the Montreal Protocol on the substances that deplete the ozone layer.

The NOU office in Mexico is under the direct supervision of the General Direction of Air Quality Management and by the Vice Minister for Environmental Protection of SEMARNAT (Ministry of Environment); this enables the central authority for environment to direct the policies, strategies and priorities for the ODSs phase-out as an integrated component of the environmental policies of México. The NOU will continue its role and responsibilities as a driver for the implementation of the Montreal Protocol and for the compliance of the country with its ODS phase-out obligations. The NOU is the focal point for Montreal Protocol activities and mainly coordinates the whole Montreal Protocol programme in the country and prepares the basis for legislative and regulatory measures to be adopted by the responsible government authorities with an emphasis on the HCFC phase-out and HFC phase-down targets. The programme of activities relating to the Montreal Protocol forms part of Mexico's commitment to phase out the consumption of HCFCs in a controlled and cost-effective manner. The strategic objective of the Government is to ensure the sustainability of the NOU office and to increase its visibility.

The NOU is also responsible for monitoring the ODS import and consumption data and has for this purpose developed the Information and Monitoring System (SISSAO).

The NOU will follow-up with priority to improve the control of HCFCs, and to implement projects and the quota system in order to meet the 35% reduction target in 2018, as per the approved phase-out schedule in the HPMP stage II, or any other reduction targets agreed with the Executive Committee of the Montreal Protocol, depending on a further approval of HPMP stage III and / or HFC conversion projects.

Country: State of Qatar

**Title:** Extension of Institutional Strengthening for the implementation of

Montreal Protocol in Oman - Phase IV

**Project Duration:** 24 months (1 August 2017 – 31 July 2019)

**Project Budget:** 121,894 USD (including 7,974 USD representing 7.0% Agency Support

Costs)

**Implementing Agency:** UNIDO

**Coordinating Agency:** Ministry of Municipality and Environment, Ozone Unit

## **Project Summary**

Three phases of institutional strengthening support have been approved for Qatar. The NOU is located under Department of Radiation and Chemicals Protection, under the supervision of the office of Under-Secretary for Environmental Affairs, Ministry of Municipality and Environment. Its roles are:

- Integrate ozone issues within the National Action Plan.
- Monitoring and controlling import and uses of ODS
- Implementing and updating the existing national ODSs regulations.
- Continue implementation of HPMP.
- Follow up the parties and ExCom action
- Coordinating and managing the activities of the implementing agencies
- Outreach and regional/international co-operation
- Promoting and organizing awareness activities

In spite of the delay in the implementation of the IS Phase III, due to administrative restructuring and changes in the responsibilities for staff in charge of NOU, the NOU was maintained and the country is in compliance with the MP phase-out targets. The IS Phase IV will further support the HCFCs Phase out process by ensuring coordination for the HPMP components implementation and cooperation with the relevant stakeholders in the country. In addition, the IS project will support the initiation of the administrative procedures for the ratification of the Kigali Amendment, and will promote awareness activities for the newly controlled group of ODSs, the HFCs.

The project aims at further institutional strengthening and capacity building of the Ozone Unit with a view to the HFCs and will ensure helping the Government meet its obligations under the Montreal Protocol on the substances that deplete the Ozone Layer.

The NOU will continue to actively cooperate with ministries and inter-ministerial bodies as well as with advisory groups such as NGOs, RAC and others.