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EXECUTIVE COMMITTEE OF  
THE MULTILATERAL FUND FOR THE  
IMPLEMENTATION OF THE MONTREAL PROTOCOL  
Eighty-second Meeting  
Montreal, 3-7 December 2018

**UNIDO'S WORK PROGRAMME AMENDMENTS FOR 2018**

## COMMENTS AND RECOMMENDATION OF THE FUND SECRETARIAT

1. UNIDO is requesting approval from the Executive Committee of US \$1,812,398, plus agency support costs of US \$129,268 for its 2018 work programme amendments listed in Table 1. The submission is attached to the present document.

**Table 1: UNIDO's work programme amendments for 2018**

Country	Activity/Project	Amount Requested (US \$)	Amount Recommended (US \$)
<b>SECTION A: ACTIVITIES RECOMMENDED FOR BLANKET APPROVAL</b>			
<b>A1: Renewal of institutional strengthening projects</b>			
Armenia	Renewal of institutional strengthening project (phase VI)	153,600	153,600
Mexico	Renewal of institutional strengthening project (phase XIV)	316,160	316,160
Oman	Renewal of institutional strengthening project (phase VII)	87,638	87,638
Subtotal for A1		557,398	557,398
Agency support costs (7 per cent for institutional strengthening)		39,018	39,018
Total for A1		596,416	596,416
<b>A2: Technical assistance for preparation for verification reports</b>			
Albania	Verification report for stage I of HCFC phase-out management plan (HPMP)	30,000	30,000
Niger (the)	Verification report for stage I of HPMP	30,000	30,000
Serbia	Verification report for stage I of HPMP	30,000	30,000
Turkmenistan	Verification report for stage I of HPMP	30,000	30,000
Subtotal for A2		120,000	120,000
Agency support costs (9 per cent for technical assistance)		10,800	10,800
Total for A2		130,800	130,800
<b>A3: Project preparation for HPMP (stage II)</b>			
Afghanistan*	Preparation of an HCFC phase-out management plan (HPMP) (stage II)	20,000	20,000
Bolivia (Plurinational State of)	Preparation of an HPMP (stage II)	30,000	30,000
Bosnia and Herzegovina	Preparation of an HPMP (stage II)	30,000	30,000
Chad*	Preparation of an HPMP (stage II)	20,000	20,000
Ecuador**	Preparation of an HPMP (stage II)	40,000	40,000
Gambia (the)*	Preparation of an HPMP (stage II)	10,000	10,000
Guatemala**	Preparation of an HPMP (stage II)	25,000	25,000
Honduras**	Preparation of an HPMP (stage II)	40,000	40,000
Libya	Preparation of an HPMP (stage II)	70,000	70,000
	Preparation for HCFC phase-out investment activities (stage II) (foam sector)	80,000	80,000
Montenegro	Preparation of an HPMP (stage II)	30,000	30,000
Niger (the)**	Preparation of an HPMP (stage II)	40,000	40,000
Saint Lucia*	Preparation of an HPMP (stage II)	10,000	10,000
Serbia	Preparation of an HPMP (stage II)	30,000	30,000
South Africa	Preparation of an HPMP (stage II)	90,000	90,000
The former Yugoslav Republic of Macedonia	Preparation of an HPMP (stage II)	30,000	30,000
Turkmenistan	Preparation of an HPMP (stage II)	30,000	30,000
Uganda*	Preparation of an HPMP (stage II)	10,000	10,000

Country	Activity/Project	Amount Requested (US \$)	Amount Recommended (US \$)
United Republic of Tanzania*	Preparation of an HPMP (stage II)	10,000	10,000
Subtotal for A3		645,000	645,000
Agency support costs (7 per cent for project preparation)		45,150	45,150
Total for A3		690,150	690,150
<b>A4: Technical assistance for enabling activities (decision 79/46)</b>			
Jordan	Enabling activities for HFC phase-down	150,000	150,000
Qatar**	Enabling activities for HFC phase-down	100,000	100,000
South Africa	Enabling activities for HFC phase-down	240,000	240,000
Subtotal for A4		490,000	490,000
Agency support costs (7 per cent for enabling activities)		34,300	34,300
Total for A4		524,300	524,300
Grand total (A1, A2, A3, A4)		1,941,666	1,941,666

\* UNEP as lead implementing agency

\*\* Lead implementing agency in cooperation with UNEP

## 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 section A1 of 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 three 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 and performance indicators 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 had submitted 2017 country programme data, and 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).

#### Secretariat's recommendations

4. The Secretariat recommends blanket approval of the IS renewal requests for Armenia, Mexico, and Oman at the level of funding indicated in section A1 of 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: Technical assistance to prepare verification reports on HCFC consumption**

### **Project description**

5. The Executive Committee in decision 81/33, requested relevant bilateral and implementing agencies to include in their respective work programme amendments for submission to the 82<sup>nd</sup> meeting, funding for verification reports for stage I of the HPMPs for Albania, the Niger, Serbia and Turkmenistan where UNIDO is the lead implementing agency.

### **Secretariat's comments**

6. The Secretariat noted that the funding requested was consistent with the funds approved for similar verifications in previous meetings. It further noted that the verification report has to be submitted at least 60 days prior to the applicable Executive Committee meeting where the next funding tranche for the HPMP is being sought.

### **Secretariat's recommendations**

7. The Secretariat recommends blanket approval for the verification report for stage I of the HCFC phase-out management plans for Albania, the Niger, Serbia, and Turkmenistan at the level of funding shown in section A2 of Table 1, on the understanding that the verification reports should be submitted at least 60 days prior to the applicable Executive Committee meeting where the next funding tranche for the HPMPs of these countries are being sought.

## **A3: Project preparation for HCFC phase-out management plans (HPMPs) (stage II)**

### **Project description**

8. UNIDO submitted requests for 18 countries for the preparation of stage II of the HPMPs (i.e., eight countries as the designated agency; four countries as lead implementing agency with UNEP as cooperating implementing agency, and six countries as cooperating implementing agency), as shown in section A3 of Table 1.

9. UNIDO provided descriptions of the activities to support the request for project preparation for Bolivia (Plurinational State of), Bosnia and Herzegovina, Ecuador, Guatemala, Honduras, Libya, Montenegro, the Niger, Serbia, South Africa, the former Yugoslav Republic of Macedonia, and Turkmenistan, and UNEP, for the other six countries.<sup>1</sup> The request for Libya included project preparation for an investment project in the foam sector to phase-out 7.30 ODP tonnes of HCFC-141b in seven enterprises; consumption data was provided. The submissions for each country included: justification for the requested project preparation funding; a progress report on the implementation of stage I of their respective HPMPs; and the list of potential activities and the corresponding budgets. UNEP as lead implementing agency for six countries and cooperating implementing agency for four countries, has requested US \$160,000 plus agency support costs, and US \$75,000 plus agency support costs, respectively in its work programme amendments for 2018.<sup>2</sup>

10. Stage II of the HPMPs for Bolivia (Plurinational State of), Bosnia and Herzegovina, Ecuador, Guatemala, Honduras, Libya, Montenegro, the Niger, South Africa and Turkmenistan will meet the 67.5 per cent reduction in HCFC consumption by 2025; for Serbia, 75 per cent reduction in consumption by 2025, and 100 per cent reduction by 2030 for the former Yugoslav Republic of Macedonia.

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<sup>1</sup> UNEP/OzL.Pro/ExCom/82/34.

<sup>2</sup> Ibid.

### Secretariat's comments

11. In reviewing the 18 requests, the Secretariat took into account the guidelines for funding the preparation of stage II of the HPMPs for Article 5 countries as contained in decision 71/42; stage I of HPMPs as approved, and the status of implementation of the tranches as at the preparation of the present document. The remaining funding tranches of the HPMPs for Bolivia (Plurinational State of), Bosnia and Herzegovina, Ecuador, Guatemala, Honduras, Montenegro, the Niger, Serbia, South Africa, the former Yugoslav Republic of Macedonia, and Turkmenistan would be submitted according to schedule indicated in the respective Agreements with the Executive Committee. Libya has submitted the remaining funding tranche for stage I of the HPMP to the present meeting.

12. The Secretariat noted that the funding requested for each country is in line with decision 71/42. The amounts indicated for the countries in section A3 of Table 1 are for UNIDO only.

### Secretariat's recommendations

13. The Secretariat recommends blanket approval of UNIDO's requests for project preparation for stage II of the HCFC phase-out management plans for Afghanistan, Bolivia (Plurinational State of), Bosnia and Herzegovina, Chad, Ecuador, the Gambia, Guatemala, Honduras, Libya, Montenegro, the Niger, Saint Lucia, Serbia, South Africa, the former Yugoslav Republic of Macedonia, Turkmenistan, Uganda and the United Republic of Tanzania, at the level of funding shown in section A3 of Table 1.

### A4: Technical assistance for enabling activities (decision 79/46)

#### Background

14. In line with decision 79/46,<sup>3</sup> UNIDO submitted funding requests for the implementation of enabling activities in the three Article 5 countries (consisting of two Article 5 group 1 and one Article 5 group 2 under the Kigali Amendment) listed in section A4 of Table 1. The detailed proposals are contained in UNIDO's submission. UNEP, as cooperating implementing agency for one country has requested US \$150,000, plus agency support costs, in its work programme amendments for 2018.<sup>4</sup>

15. The proposals for enabling activities consist of various combinations of the following elements:

- (a) Support for the early ratification of the Kigali Amendment including coordination with Government representatives to provide information on the Kigali Amendment and commitments for HFC phase-down; and preparation of supporting documents for ministers and legislators;
- (b) Support for institutional arrangements including review of codes and standards, permits, inspections, operating standards for HFC, flammable/toxic, and low-/zero-GWP alternatives, testing, labelling (Customs, wholesalers or distributors);
- (c) Enhancing the import and export licensing systems to include HFCs and other alternatives, and data recording procedures to include consumption/production of HFCs and other alternatives;

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<sup>3</sup> The Executive Committee decided *inter alia* to approve enabling activities on the basis that countries would be allowed the flexibility to undertake a range of activities to fulfil their initial obligations in line with the Kigali Amendment; enabling activities could consist of, but were not limited to, activities to: facilitate and support the early ratification of the Kigali Amendment; initiating supporting institutional arrangements; the review of licensing systems; data reporting on HFCs; and demonstration of non-investment activities.

<sup>4</sup> UNEP/OzL.Pro/ExCom/82/34.

- (d) Assessment of national barriers and opportunities for the use and further uptake of low- and zero-GWP ODS alternatives, with a special focus on their availability and their related equipment; including a survey of HFC consumption, distribution and uses, and forecast of consumption in relevant sectors; and
- (e) Carrying out information, education and communication activities to raise the awareness on the Kigali Amendment, HFC phase-down and energy efficiency improvement options.

### **Secretariat's comments**

16. To facilitate the preparation and submission of requests for enabling activities, the Secretariat updated the Guide for the submission of enabling activities for HFC phase-down<sup>5</sup> and presented it to bilateral and implementing agencies at the Inter-agency coordination meeting.<sup>6</sup> The Secretariat notes that the requests for enabling activities submitted by UNIDO followed the Guide.

17. The Secretariat reviewed the requests for enabling activities and concluded that they fulfilled all the requirements of decision 79/46, as noted below:

- (a) Endorsement letters from the Governments of the three Article 5 countries indicating their intent to make best efforts to ratify the Kigali Amendment as early as possible was submitted by UNIDO as the lead implementing agency;
- (b) The three project proposals included a description of each of the enabling activities, institutional arrangements, cost breakdown and the schedule for implementation;
- (c) Project implementation will be 18 months.

18. The funding requested for each country was consistent with decision 79/46(c) and calculated based on each country's HCFC baseline. The requests for enabling activities for Jordan and South Africa would be funded from the additional voluntary contributions, and for Qatar, from the regular contributions to the Multilateral Fund, in line with decision 81/31(a)(ii) and decision 81/31(a)(iii), respectively.

### **Secretariat's recommendation**

19. The Secretariat recommends blanket approval for the requests for enabling activities for HFC phase-down for Jordan, Qatar and South Africa, at the level of funding indicated in section A4 of Table 1 above.

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<sup>5</sup> MLF/IACM.2018/2/20.

<sup>6</sup> Montreal, 4-6 September 2018.

**Annex I**

**INSTITUTIONAL STRENGTHENING PROJECT PROPOSALS**

**Armenia: Renewal of institutional strengthening**

<b>Summary of the project and country profile</b>		
Implementing agency:		UNIDO
Amounts previously approved for institutional strengthening (US \$):		
	Phase I: Apr-09	120,000
	Phase II: Dec-10	120,000
	Phase III: Dec-12	120,000
	Phase IV: Nov-14	120,000
	Phase V: May-16	153,600
	Total:	633,600
Amount requested for renewal (phase VI) (US \$):		153,600
Amount recommended for approval for phase VI (US \$):		153,600
Agency support costs (US \$):		10,752
Total cost of institutional strengthening phase VI to the Multilateral Fund (US \$):		164,352
Date of approval of country programme:		2009
Date of approval of HCFC phase-out management plan:		2010
Baseline consumption of controlled substances (ODP tonnes):		
Annex B, Group III (methyl chloroform) (average 1998-2000)		0.0
Annex C, Group I (HCFCs) (average 2009-2010)		7.0
Annex E (methyl bromide) (average 1995-1998)		0.0
Latest reported ODS consumption (2017) (ODP tonnes) as per Article 7:		
Annex B, Group III (methyl chloroform)		0.00
Annex C, Group I (HCFCs)		0.94
Annex E (methyl bromide)		0.00
	Total:	0.94
Year of reported country programme implementation data:		2017
Amount approved for projects (as at June 2018) (US \$):		1,803,438
Amount disbursed (as at December 2016) (US \$):		1,124,670
ODS to be phased out (as at June 2018) (ODP tonnes):		2.22
ODS phased out (as at December 2016) (ODP tonnes):		2.20

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

<b>Summary of activities</b>	<b>Funds approved (US \$)</b>
(a) Investment projects:	670,838
(b) Institutional strengthening:	633,600
(c) Project preparation, technical assistance, training and other non-investment projects:	499,000
	Total: 1,803,438
(d) HFC activities funded from additional voluntary contributions	150,000

Progress report

2. Under phase V, the NOU in the Ministry of Nature Protection made progress in reviewing the specific national regulations to control imports, transits and movement of ODS. In addition, Armenia improved the HCFCs control in conformity with the Eurasian Economic Community. IS activities included: cooperation with customs authority to prevent illegal trade; the development of an e-licencing system, which should be completed by February 2019; awareness raising and training on the HCFC licensing and quota system; submission of CP and Article 7 data to the Fund and Ozone Secretariats, respectively; a

public awareness programme targeting school children; organization of events to celebrate international ozone day; weekly updates providing the information on Armenia's Montreal Protocol achievements, and relevant regulations, and national policy<sup>7</sup>. The IS project ensured a strong awareness component in the country which facilitated the process towards ratification of the Kigali Amendment. Of the 18 performance indicators, targets for 16 were fully achieved and two were partially achieved.

### Plan of action

3. Phase VI aims to ensure the continuity of NOU staffing and thus assist the Government of Armenia to meet its obligations under the Montreal Protocol. IS will focus on coordination of the HCFC phase-out process, and, with additional support from the enabling activities, prepare the country for HFCs restrictions. The NOU will: continue to monitor and identify the consumption of controlled substances and will follow up on policies and regulations that require further improvements; coordinate matters related to illegal trade in close collaboration with the Customs; continue awareness-raising of technicians with regard to refrigerant recycling and recovery; cooperate and coordinate with ministries and inter-ministerial bodies, advisory groups, and stakeholders; collect and submit CP and Article 7 data in a timely manner; organize Ozone Day celebrations; and participate in regional network and Montreal Protocol meetings.

### **Mexico: Renewal of institutional strengthening**

<b>Summary of the project and country profile</b>		
Implementing agency:		UNIDO
Amounts previously approved for institutional strengthening (US \$):		
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
Phase XIII:	Jul-17	316,160
	Total:	2,998,410
Amount requested for renewal (phase XIV) (US \$):		316,160
Amount recommended for approval for phase XIV (US \$):		316,160
Agency support costs (US \$):		22,131
Total cost of institutional strengthening phase XIV to the Multilateral Fund (US \$):		338,291
Date of approval of country programme:		1992
Date of approval of HCFC phase-out management plan (stage I):		2011
Date of approval of HCFC phase-out management plan (stage II):		2014
Baseline consumption of controlled substances (ODP 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 (2017) (ODP tonnes) as per Article 7:		
Annex B, Group III (methyl chloroform)		0.00
Annex C, Group I (HCFCs)		414.22
Annex E (methyl bromide)		0
Total:		414.22

<sup>7</sup> <https://www.armozone.am/en/>



<b>Summary of the project and country profile</b>	
Year of reported country programme implementation data:	2017
Amount approved for projects (as at June 2018) (US \$):	127,825,582
Amount disbursed (as at December 2016) (US \$):	108,773,232
ODS to be phased out (as at June 2018) (ODP tonnes):	7,157.37
ODS phased out (as at December 2016) (ODP tonnes):	6,740.34

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

<b>Summary of activities</b>	<b>Funds approved (US \$)</b>
(a) Investment projects:	112,418,759
(b) Institutional strengthening:	2,998,410
(c) Project preparation, technical assistance, training and other non-investment projects:	12,408,413
Total:	127,825,582
(d) HFC activities funded from additional voluntary contributions	1,298,123

Progress report

5. Under phase XIII, the NOU gave priority to the reduction of HCFC consumption through the implementation of approved projects and application of the quota system in order to ensure compliance with the country's commitment to reduce HCFC consumption by 35 per cent of the baseline in 2018. Activities undertaken included: improving the HCFC quota system and issuing quotas; coordinating consultations with the national steering committee, the Ministry of Foreign Affairs, industry associations, and other stakeholders; public awareness activities including videos on ODS destruction and the foam and aerosol sectors; training on good practices in refrigeration servicing; and participation in regional network and Montreal Protocol meetings. Additionally, the NOU initiated HFC enabling activities facilitating early ratification of the Kigali Amendment; the instrument of ratification was deposited at the United Nations on 25 September 2018. Of the 14 performance indicators, targets for 13 were fully achieved and one was partially achieved.

Plan of action

6. During phase XIV, Mexico will continue its commitment to reductions in HCFC consumption, and additionally start the implementation of the Kigali Amendment to phase down HFC consumption. The NOU, in the General Direction of Air Quality Management and Pollutant Release and Transfer Registry of the Environmental and Natural Resources Ministry will: prepare the basis for legislative and regulatory measures to be adopted; continue monitoring ODS import and consumption data; collect and submit CP and Article 7 data; implement the quota system to ensure sustainability of the 35 per cent reduction in HCFC consumption in 2018 and 2019; continue implementation of stage II of the HPMP, and the HFC conversion projects; coordinate the HFC enabling activities project; and participate in regional network and Montreal Protocol meetings.

**Oman: Renewal of institutional strengthening**

<b>Summary of the project and country profile</b>		
Implementing agency:		UNIDO
Amounts previously approved for institutional strengthening (US \$):		
Phase I:	Dec-00	79,000
Phase II:	Jul-05	68,467
Phase III:	Nov-08	68,467
Phase IV:	Nov-11	68,467
Phase V:	Dec-13	68,467
Phase VI:	May-15	68,467
	Total:	421,335
Amount requested for renewal (phase VII) (US \$):		87,638
Amount recommended for approval for phase VII (US \$):		87,638
Agency support costs (US \$):		6,135
Total cost of institutional strengthening phase VII to the Multilateral Fund (US \$):		93,773
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)		0.0
Annex C, Group I (HCFCs) (average 2009-2010)		31.5
Annex E (methyl bromide) (average 1995-1998)		1.0
Latest reported ODS consumption (2017) (ODP tonnes) as per Article 7:		
Annex B, Group III (methyl chloroform)		0.00
Annex C, Group I (HCFCs)		17.43
Annex E (methyl bromide)		0.00
	Total:	17.43
Year of reported country programme implementation data:		2017
Amount approved for projects (as at June 2018) (US \$):		2,950,155
Amount disbursed (as at December 2016) (US \$):		2,153,085
ODS to be phased out (as at June 2018) (ODP tonnes):		258.3
ODS phased out (as at December 2016) (ODP tonnes):		257.75

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

<b>Summary of activities</b>	<b>Funds approved (US \$)</b>
(a) Investment projects:	1,034,120
(b) Institutional strengthening:	421,335
(c) Project preparation, technical assistance, training and other non-investment projects:	1,414,700*
	Total:
	2,870,155
(d) HFC activities funded from additional voluntary contributions	0

\* Includes US \$150,000 for HFC enabling activities

Progress report

8. Under phase VI, the Ozone Layer Protection Section of the General Directorate for Climate Affairs of Oman carried out the following activities: monitoring of HCFC trade through the national ODS regulatory framework; introduction of the import ban on HCFC-141b in bulk and contained in pre-blended polyols (January 2017); information dissemination on technologies and/or new refrigerants to relevant refrigeration and air-conditioning (RAC) and foam sector stakeholders; ongoing cooperation with customs authorities, development of new customs training modules and distribution of refrigerant identifiers to ports; updating the National Ozone Committee on Montreal Protocol matters; cooperation with industry associations; coordination of the activities under the HPMP; completion of the ODS alternatives survey; submission of the HFC enabling activities project; public awareness activities including celebration of

International Ozone Day; CP and Article 7 data reporting; and, participation in regional network and Montreal Protocol meetings. Of the 13 performance indicators, the 13 targets were fully achieved.

Plan of action

9. During phase VII, the NOU's will submit: CP and Article 7 data reports; continued monitoring the licensing system and allocation of quotas on HCFC imports; assisting in further developing appropriate activities for the implementation of stage II of the HPMP; enforcing regulatory controls on HCFC-based equipment; continued cooperation with custom authorities including customs training and distribution of refrigerant identifiers; updating national regulations to include HFCs and facilitating the ratification process of the Kigali Amendment through implementation of the enabling activities project; celebration of International Ozone Day; and participation in regional network and Montreal Protocol meetings.



## **Annex II**

### **DRAFT VIEWS EXPRESSED BY THE EXECUTIVE COMMITTEE ON RENEWAL OF INSTITUTIONAL STRENGTHENING (IS) PROJECTS SUBMITTED TO THE 82<sup>nd</sup> MEETING**

#### **Armenia**

1. The Executive Committee reviewed the report presented with the request for the renewal of the IS project for Armenia (phase VI) and noted with appreciation that the country reported 2017 country programme implementation data to the Fund Secretariat and Article 7 data to the Ozone Secretariat indicating that the country is compliance with the Montreal Protocol phase-out schedule. The Executive Committee acknowledged with appreciation that the national ozone unit (NOU) was fully staffed and progress was achieved in enforcing legislation aimed at improving import controls and ODS movement in the country. The Executive Committee hopes the country will continue to monitor HCFC and to take actions to prepare the country for future HFC control measures under the Kigali Amendment. The Executive Committee is hopeful that, in the next two years, Armenia will continue to implement IS activities and stage II of the HCFC phase-out management plan (HPMP) with success in order to reduce HCFC consumption by 66.6 per cent of the baseline in 2020 in accordance with the Agreement with the Executive Committee.

#### **Mexico**

2. The Executive Committee reviewed the report presented with the request for the renewal of the IS project for Mexico (phase XIV) and noted with appreciation that the country is in compliance with its country programme and Article 7 data reporting obligations. The Executive Committee also noted that within the framework of the IS project, Mexico has strengthened the capacity of the NOU to control HCFCs. The Executive Committee expressed appreciation for the efforts of Mexico to implement stage I and II of the HPMP and is therefore confident that your Government will continue activities both at the policy and project levels to reduce HCFC consumption by 35 per cent of the baseline in 2018, and 50 per cent in 2020 in accordance with its Agreement with the Executive Committee. Furthermore, the Executive Committee commended the Government for the deposit of its instrument of ratification of the Kigali Amendment to the Montreal Protocol on 25 September 2018 and for initiating activities related to the phase-down of HFC consumption.

#### **Oman**

3. The Executive Committee reviewed the report presented with the request for the renewal of the IS project for Oman (phase VII) and noted with appreciation that the country reported 2017 country programme implementation data and Article 7 data to the Fund and Ozone Secretariats, respectively, and is in compliance with the Montreal Protocol. The Executive Committee noted with appreciation the efforts of Oman to reduce HCFC consumption and is therefore hopeful that, within the next two years, the country will continue with the implementation of stage II of the HPMP, IS project and enabling activities project to assist the country to achieve 35 per cent reduction in HCFC consumption by 1 January 2020 and lay the groundwork for ratification of the Kigali Amendment



**UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION**

82<sup>nd</sup> Executive Committee of the  
Multilateral Fund for the Implementation of the Montreal Protocol

**UNIDO Work Programme**

**82<sup>nd</sup> Meeting of the Executive Committee**

## Introduction

The UNIDO Work Programme for the consideration of the 82<sup>nd</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 2018-2020.

The 82<sup>nd</sup> UNIDO WP is addressing preparatory assistance, institutional strengthening, verification report and enabling activities requests.

Preparatory assistance is submitted for the 82<sup>nd</sup> Executive Committee Meeting consideration for Afghanistan, Bolivia (Plurinational State of), Bosnia and Herzegovina, Chad, Ecuador, Gambia, Guatemala, Honduras, Libya, Montenegro, the Niger, Saint Lucia, Serbia, South Africa, the former Yugoslav Republic of Macedonia, Turkmenistan, Uganda and United Republic of Tanzania to enable the countries to overview and update data necessary for the launch and implementation of HPMP Stage II.

Institutional strengthening extension requests are submitted based on the country requests for Armenia, Mexico and Oman.

Verification Report related funding is required in line with the Decisions 61/46(c) and 81/33 for Albania, the Niger, Serbia and Turkmenistan.

Requests for funding of enabling activities are submitted in line with Decision 79/46 in Jordan, Qatar and South Africa. UNIDO is the only or lead implementing agency in Jordan, Qatar and South Africa, in line with the country's request; activities will be shared with other implementing agency in Qatar, as per the table shown in Section 1. Since UNIDO is the lead implementing agency for Jordan, Qatar South and Africa, the proposals are submitted as part of UNIDO's WPA. Detailed description of tasks and budget is included in the project concepts.

The UNIDO Work Programme Amendment for the consideration of the 82<sup>nd</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 Afghanistan, Bolivia (Plurinational State of), Bosnia and Herzegovina, Chad, Ecuador, Gambia, Guatemala, Honduras, Libya, Montenegro, the Niger, Saint Lucia, Serbia, South Africa, the former Yugoslav Republic

of Macedonia, Turkmenistan, Uganda and United Republic of Tanzania<sup>1</sup> amounting to US\$ 690,150 (including US\$ 45,150 representing 7.0 % A.S.C);

- Institutional strengthening projects amounting to US\$ 596,416 (including US\$ 39,018 representing 7.0 % A.S.C);
- Verification Report funding amounting to US\$ 130,800 (including US\$ 10,800 representing 9.0 % A.S.C);
- Enabling activities funding amounting to US\$ 524,300 (including US\$ 34,300 representing 7.0 % A.S.C).

**Total: US\$ 1,941,666 (including US\$ 129,268 agency support cost).**

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<sup>1</sup> The Project Concepts for Afghanistan, Chad, Gambia, Saint Lucia, Uganda and United Republic of Tanzania are included in the Lead Agency (UN Environment) Work Programme.



## SECTION 1

Country	MLF HCFC Status	Type	Substance	Sector and Sub-Sector	Title of Project	Total amount USD	A.S.C.	Total (incl ASC) USD	A.S.C. %	P.D.	Remarks
<b>Preparatory Assistance for HPMP</b>											
Afghanistan	Non-LVC	PRP	HCFC-22	REF-Servicing	Preparation of Stage II HPMP	20,000	1,400	21,400	7%	12	In cooperation with UN Environment. Concept is submitted by UN Environment.
Bolivia (Plurinational State of)	LVC	PRP	HCFC-22	REF-Servicing	Preparation of Stage II HPMP	30,000	2,100	32,100	7%	12	
Bosnia and Herzegovina	LVC	PRP	HCFC-22	REF-Servicing	Preparation of Stage II HPMP	30,000	2,100	32,100	7%	12	
Chad	LVC	PRP	HCFC-22	REF-Servicing	Preparation of Stage II HPMP	20,000	1,400	21,400	7%	12	In cooperation with UN Environment. Concept is submitted by UN Environment.
Ecuador	Non-LVC	PRP	HCFC-22	REF-Servicing	Preparation of Stage II HPMP	40,000	2,800	42,800	7%	12	In cooperation with UN Environment.
Gambia	LVC	PRP	HCFC-22	REF-Servicing	Preparation of Stage II HPMP	10,000	700	10,700	7%	12	In cooperation with UN Environment. Concept is submitted by UN Environment.
Guatemala	LVC	PRP	HCFC-22	REF-Servicing	Preparation of Stage II HPMP	25,000	1,750	26,750	7%	12	In cooperation with UN Environment.
Honduras	LVC	PRP	HCFC-22	REF-Servicing	Preparation of Stage II HPMP	40,000	2,800	42,800	7%	12	In cooperation with UN Environment.
Libya	Non-LVC	PRP	HCFC-141b	FOA-Rigid PU foam	Preparation of Stage II HPMP	80,000	5,600	85,600	7%	12	
Libya	Non-LVC	PRP	HCFC-22	REF-Servicing	Preparation of Stage II HPMP	70,000	4,900	74,900	7%	12	
Montenegro	LVC	PRP	HCFC-22	REF-Servicing	Preparation of Stage II HPMP	30,000	2,100	32,100	7%	12	

Country	MLF HCFC Status	Type	Substance	Sector and Sub-Sector	Title of Project	Total amount USD	A.S.C.	Total (incl ASC) USD	A.S.C. %	P.D.	Remarks
Niger	LVC	PRP	HCFC-22	REF-Servicing	Preparation of Stage II HPMP	40,000	2,800	42,800	7%	12	In cooperation with UN Environment.
Saint Lucia	LVC	PRP	HCFC-22	REF-Servicing	Preparation of Stage II HPMP	10,000	700	10,700	7%	12	In cooperation with UN Environment. Concept is submitted by UN Environment.
Serbia	LVC	PRP	HCFC-22	REF-Servicing	Preparation of Stage II HPMP	30,000	2,100	32,100	7%	12	
South Africa	Non-LVC	PRP	HCFC-22	REF-Servicing	Preparation of Stage II HPMP	90,000	6,300	96,300	7%	12	
the former Yugoslav Republic of Macedonia	LVC	PRP	HCFC-22	REF-Servicing	Preparation of Stage II HPMP	30,000	2,100	32,100	7%	12	
Turkmenistan	LVC	PRP	HCFC-22	REF-Servicing	Preparation of Stage II HPMP	30,000	2,100	32,100	7%	12	
Uganda	LVC	PRP	HCFC-22	REF-Servicing	Preparation of Stage II HPMP	10,000	700	10,700	7%	12	In cooperation with UN Environment. Concept is submitted by UN Environment.
United Republic of Tanzania	LVC	PRP	HCFC-22	REF-Servicing	Preparation of Stage II HPMP	10,000	700	10,700	7%	12	In cooperation with UN Environment. Concept is submitted by UN Environment.
<b>SUBTOTAL</b>						<b>645,000</b>	<b>45,150</b>	<b>690,150</b>			
<b>Institutional Strengthening</b>											
Armenia	LVC	INS	All	SEV	Institutional strengthening	153,600	10,752	164,352	7%	24	
Mexico	Non-LVC	INS	All	SEV	Institutional strengthening	316,160	22,131	338,291	7%	24	
Oman	Non-LVC	INS	All	SEV	Institutional strengthening	87,638	6,135	93,773	7%	24	

Country	MLF HCFC Status	Type	Substance	Sector and Sub-Sector	Title of Project	Total amount USD	A.S.C.	Total (incl ASC) USD	A.S.C. %	P.D.	Remarks
<b>SUBTOTAL</b>						<b>557,398</b>	<b>39,018</b>	<b>596,416</b>			
<b>Verification Reports</b>											
Albania	LVC	TAS	HCFC-22	SEV	Verification report	30,000	2,700	32,700	9%	24	
Niger	LVC	TAS	HCFC-22	SEV	Verification report	30,000	2,700	32,700	9%	24	
Serbia	LVC	TAS	HCFC-22	SEV	Verification report	30,000	2,700	32,700	9%	24	
Turkmenistan	LVC	TAS	HCFC-22	SEV	Verification report	30,000	2,700	32,700	9%	24	
<b>SUBTOTAL</b>						<b>120,000</b>	<b>10,800</b>	<b>130,800</b>			
<b>Enabling Activities</b>											
Jordan	Non-LVC	TAS	SEV	SEV	Enabling activities	150,000	10,500	160,500	7%	18	
Qatar	Non-LVC	TAS	SEV	SEV	Enabling activities	100,000	7,000	107,000	7%	18	In cooperation with UN Environment.
South Africa	Non-LVC	TAS	SEV	SEV	Enabling activities	240,000	16,800	256,800	7%	18	
<b>SUBTOTAL</b>						<b>490,000</b>	<b>34,300</b>	<b>524,300</b>			
<b>GRAND TOTAL</b>						<b>1,812,398</b>	<b>129,268</b>	<b>1,941,666</b>			

## SECTION 2

### PROJECT CONCEPT

<b>Country:</b>	Bolivia (Plurinational State of)
<b>Title:</b>	Preparation of HCFC Phase-out Management Plan Stage II
<b>Project Duration:</b>	12 months
<b>Project Budget:</b>	US\$ 30,000 (excl. 7% Agency Support Costs)
<b>Implementing Agency:</b>	UNIDO
<b>Coordinating Agency:</b>	National Ozone Unit

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#### Project Summary

The HCFC Phase-out Management Plan for the Plurinational State of Bolivia was approved in July 2011 at the 64th Meeting of Executive Committee of the Multilateral Fund for the implementation of the Montreal Protocol. The project was approved in accordance with the Agreement between the Government and the Executive Committee for the period 2011 to 2020 to reduce HCFC consumption by 35 per cent of the baseline 4.8 ODP tonnes, in line with decision 64/27. Stage I of the HPMP for Bolivia was approved for the amount of US \$315,000 plus agency support costs of US \$40,950 for the Government of Germany. The Agreement for the reduction in consumption was amended at the 72nd ExCom in May 2014 increasing the amounts to be phased out from 4.8 ODP tonnes to 6.1 ODP tonnes. The transfer of project implementation to UNIDO was approved during 74th ExCom in May 2015 as per Decision 74/14. The implementing agency for this project is UNIDO.

Stage I of the HPMP will lead to the reduction of 2.13 ODP tonnes in the RAC sector. Some of the achievements and progress made of stage I include i) defined the project implementation and analysing the requirement in the refrigeration sector; ii) established a long term program in the refrigeration service sector; iii) conducted a program for technicians training where a total of 30 trainers received training and certification and ca. 80 technicians from different refrigeration technician associations received certification including 50 technicians received training and access to the center to use the tools procured by the project; iv) updated the curriculum for training program; v) established the certification program for technicians (however implementation is pending); vi) reached an agreement with the National Director to establish 5 new centres (Trinidad, Tarija, Oruro, Sucre and Cobija) in the premises of INFOCAL, vii) defined the Terms of Reference, based on the actual needs and requirements, for the purchase of tools required for INFOCAL centres; viii) established new centres in Trinidad, Tarija and Cobija, as per decision of the authorities; ix) procured and delivered additional tools during project activities; x) and, National Ozone Unit installed the ‘Solmaforo’ Sunmaphore or equipment designed to measure UV

radiation.

The Plurinational State of Bolivia is seeking assistance to initiate the preparation of the phase-out of HCFCs post 2020 under the stage II of HPMP to design the required intervention for further compliance with the Montreal Protocol HCFCs phase-out targets.

The overarching strategy for Bolivia 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.

Bolivia 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 natural refrigerants use. The Government of Bolivia 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 Bolivia 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.

A brief overview of the current HCFC consumption by substance is provided in the table below.

Substance	2015		2016		2017	
	Consumption	ODP	Consumption	ODP	Consumption	ODP
HCFC-22	40.45	2.22	55.67	3.06	35.60	1.96
HCFC-123		0	0	0	0	0
HCFC-141b	0.23	0.03	0	0	0.94	0.10
HCFC-142b	0	0	0	0	0	0
HCFC-124	0	0	0	0	0	0
HCFC-141b included in premixed polyol	2.42		1.03		0.99	
<b>Total Audited</b>	<b>43.1</b>	<b>2.25</b>	<b>56.7</b>	<b>3.06</b>		
<b>Reported</b>		<b>1.74</b>		<b>3.06</b>		<b>2.06</b>

From the previous reports and country program reports, it can be seen that the country is in compliance with the Agreement. There were some consumptions of HCFC-141b in 2015; some importers were promoting the use for cleaning, trials for cleaning circuits were not successful due to high cost. Since 2015, the consumption in HCFC-141b in premixed polyol is included in the reports. Consumption has maintained normal tendency.

The Plurinational State of Bolivia request meets the level of funding for PRP stage II of HPMPs set in guideline 71/42(d), for the remaining eligible consumption of 3.97 ODP tonnes of HCFCs in the RAC sector and the request is in line with the guidelines for submitting preparation funding request for the stage II as stated in the Business Plan. Decision 71/42(b) states that approval of stage II of the HPMP did not preclude Bolivia from submitting not earlier than 2020, end of stage I of the HPMP.

UNIDO will continue in stage II of HPMP to reduce HCFC consumption in the refrigeration and air conditioning servicing sector through training on responsible use of HCFCs, including good operation, maintenance and servicing practices in the refrigeration and air conditioning sector, including recovery and recycling. The goal will still be to improve the knowledge of the custom officers on the ODS substances and cooperation with the National Ozone Unit. UNIDO continue to provide the platform for the implementation of the HPMP action plan, thus ensuring its success and the country's compliance with its obligations under the Montreal Protocol. Compliance target for HPMP Stage II is 67.5 per cent in 2025.

The following activities shall be undertaken for the preparation of stage-II HPMP to be prepared from the proposed funding:

- Data Collection and Surveys;
- Collection, verification and validation of HCFC consumption in the RAC sector through survey of Government departments, traders, distributors, importers and manufacturers to assess the distribution of HCFC consumption (update previous data collection);
- Develop a plan for implementation of the manufacturing related activities to be integrated in the overall strategy;
- Evaluate the climate co-benefits;
- Prepare a project document.

In accordance with the guideline 71/42 the preparatory funds requested for UNIDO is as follows:

Activities	Total
Preparation of HPMP Stage II	
Survey to update consumption by sub-sectors all over the country (subcontract or international/national consultants)	10,000
Consultation meetings on air-conditioning	10,000
International / national consultants (monitoring and coordination)	10,000
<b>TOTAL PRP II</b>	<b>30,000</b>

The requested funding level of USD 30,000 is fully in compliance with ExCom Decision 71/42.

## Project Concept

<b>Country:</b>	Bosnia and Herzegovina
<b>Title:</b>	Preparation of HCFC Phase-out Management Plan Stage II (refrigeration servicing sector)
<b>Project Duration:</b>	12 months
<b>Project Budget:</b>	US\$ 30,000 (excl. 7% Agency Support Costs)
<b>Implementing Agency:</b>	UNIDO
<b>Coordinating Agency:</b>	The National Ozone Unit of Bosnia and Herzegovina The Ministry of Foreign Trade and Economic Relations (MoFTER)

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## Project Summary

HCFCs Phase-out Management Plan for the Republic of Bosnia Herzegovina was approved at the 66th Meeting of the Executive Committee. The Government of Bosnia Herzegovina committed to reduce the consumption of HCFCs by 35% from the calculated baseline by the year 2020.

The First stage of the HCFC Management Plan covered at the amount of US\$953,284, UNIDO being the Implementing Agency; HCFC consumption in the refrigeration servicing sector was funded with a grant amounting US\$280,000, and US \$673,284 were provided for the investment component and the associated technical assistance component for the phase-out of 5.76 ODP tonnes of HCFCs used in the polyurethane foam and commercial refrigeration manufacturing sectors.

The first tranche of stage I of the HPMP for Bosnia and Herzegovina, and the corresponding implementation plan, was approved at the amount of US \$631,282, plus agency support costs of US\$ 47,346 for UNIDO.

Second tranche of stage I of the HPMP was approved US\$143,282 plus agency support costs of US\$ 10,748 for UNIDO.

Third tranche of stage I of the HPMP was approved US\$117,692 plus agency support costs of US\$ 8,827 for UNIDO.

The Government of Bosnia and Herzegovina is seeking assistance to initiate the preparation of the ODS phase-out plan post 2020 under the Stage II of HPMP, to design the required intervention for the further compliance with the Montreal Protocol HCFCs phase-out targets.

The Government of Bosnia and Herzegovina request meets the levels of funding for PRP for stage

II of HPMPs set by Decision 71/42(d), for remaining eligible of consumption of 1.59 ODP HCFC-22 and the request is in line with the Guidelines for submitting a preparatory funding request for the Stage II, less than 2 years before completion of the HPMP Stage I, and as per the approved Business Plan.

The 4th tranche of Bosnia Herzegovina is currently subject to approval and this is generating the need for the preparation of the HPMP Stage II to clarify the national phase-out strategy post 2020, addressing the future HCFCs phase-out in line with MP consumption reduction targets. This will enable the country to maintain the momentum achieved as well as the same level of commitment from the counterparts and key stakeholders. The country annual consumption for the last three years is provided in the table below.

<i>Year</i>	<i>Annual Consumption (MT)</i>				<i>Total (ODP t)</i>
	<i>HCFC-22</i>	<i>HCFC-141b*</i>	<i>HCFC-142b**</i>	<i>Total</i>	
2015	37.18	0.0	0.69	37.87	2.11
2016	41.53	0.0	0.94	42.47	2.34
2017	41.80	0.0	1.14	42.94	2.36

The Stage II of the HPMP preparation have to be achieved, as per the country needs, before completion of the Stage I implementation, to support and draw the scenario to address exclusively and in a sustained manner the servicing-sector phase-out planning post 2020, respectively a reduction of 67.5% reduction by 2025.

The remaining eligible consumption for HCFC-22 amounts 1.59 ODP tonnes in servicing sector.

The relevant progress achieved with the HPMP Stage I implementation is demonstrated by the HCFCs consumption levels that are below the consumption target.

One of the main achievements of the HPMP Stage I in Bosnia Herzegovina was the review of the whole legislative system for certification scheme, that occurred in 2 steps: introducing the mandatory certification for the use of HCFCs on one side and improving the certification scheme by up-grading the secondary legislation for minimum requirements of training and certification for service technicians on another side.

UNIDO will to undertake a comprehensive survey for the servicing refrigeration sector to collect updated HCFC consumption data, ownership information, details on where the refrigerants is used as well as the type of equipment. There is a need to hold several stakeholder consultation meetings including the Government to design a proper plan to be incorporated into the overall strategy for the servicing sector.

Stage II of HPMP will be based on data collected over implementation of Stage I, however, deeper



assessment is required for such data in servicing sector and for ensuring relevant contribution from stakeholders.

The following activities shall be undertaken for the preparation of stage-II HPMP to be prepared from the proposed funding:

- Data Collection and Surveys
  - Collection, verification and validation of HCFC consumption in both sectors (Refrigeration) through survey of Government departments, traders, distributors, importers and manufacturers to assess the distribution of HCFC consumption (update previous data collection)
- Develop a plan for implementation of the servicing related activities to be integrated in the overall strategy
- Evaluate the climate co-benefits
- Prepare a project document

In accordance with the guideline 71/55 the preparatory funds are requested for UNIDO, as follows:

Activities	Total
Preparation of Refrigeration Servicing strategy post 2020	
Survey to update consumption by sub-sectors all over the country	10,000
National Stakeholders consultation meetings (public institutions)	3,000
Private sector consultations meetings	7,000
Consultancy (national and international consultant)	6,000
Preparing document	4,000
<b>TOTAL PRP II</b>	<b>30,000</b>

The requested funding level of USD 30,000 is fully in compliance with ExCom Decision 71/42.

## Project Concept

**Country:** Ecuador

**Title:** Preparation of HCFC Phase-out Management Plan Stage II

**Project Duration:** 12 months

**Project Budget:** US\$ 40,000 (excl. 7% Agency Support Costs)

**Implementing Agency:** UNIDO

**Cooperating Agency:** UNEP

**Coordinating Agency:** National Ozone Unit

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## Project Summary

The HCFC Phase-out Management Plan for Ecuador was approved in November 2011 at the 65th Meeting of Executive Committee of the Multilateral Fund for the implementation of the Montreal Protocol. The project was approved in accordance with the Agreement between the Government and the Executive Committee for the period 2011 to 2020 to reduce HCFC consumption by 35 per cent of the baseline 17.49 ODP tonnes, and on the understanding that US\$ 630,000 was provided to address HCFC consumption in the refrigeration servicing sector to reach up to and include the 35 per cent reduction in 2020 (in line with decision 60/44) and US \$1,331,440 were provided for the investment component for the phase-out of 14.96 ODP tonnes of HCFC-141b contained in imported pre-blended polyols used in the foam manufacturing sector, in line with decision 65/25. The Agreement for the reduction in consumption was amended at the 70th ExCom in Jul 2013 increasing the amounts to be phased out from 17.49 ODP tonnes to 23.49 ODP tonnes. Stage I of the HPMP for Ecuador was approved at the amount of US \$2,114,873, consisting of US \$1,846,440, plus agency support costs of US \$138,483 for UNIDO, and US \$115,000, plus agency support costs of US \$14,950 for UNEP. The implementing agencies for this project include UNIDO and UNEP.

Stage I of the HPMP led to the reduction of 8.22 ODP tonnes in the RAC service sector. Some of the achievements and progress made of stage I include: i) trained 30 trainers from SECAP in refrigeration and the importance of proper use and management of refrigerant technicians on good refrigeration practices and service for hydrocarbon; ii) upgraded the training centres with didactic tools and training of trainers; iii) introduced hydrocarbons as HCFC-22 alternative refrigerants in different scenarios; iv) conducted several trainings for managers, trainers and experts during project implementation; v) introduced to experts the refrigeration program, certification scheme, reclaiming facilities and operation, and refrigeration workshops; vi) installed and commissioned the first reclaiming machine. vii) supported the RENOVA program in the management of refrigerant training trainers from SECAP; viii) provided a training course for experts, refrigerant

suppliers and refrigeration technicians within the context of establishing a refrigerant recovery and recycling scheme in Galapagos Islands.

The Government of Ecuador is seeking assistance to initiate the preparation of the phase-out of HCFCs post 2020 under the stage II of HPMP to design the required intervention for further compliance with the Montreal Protocol HCFCs phase-out targets.

The overarching strategy for Ecuador 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, end user programs and capacity development of refrigeration experts to support the adoption of appropriate ozone and climate friendly alternative technologies.

Ecuador 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 natural refrigerants use. The Government of Ecuador 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 Ecuador 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.

A brief overview of the current HCFC consumption by substance is provided in the table below.

Substance	2015		2016		2017	
	Consumption	ODP	Consumption	ODP	Consumption	ODP
<b>HCFC-22</b>	347.10	19.09	310.21	17.06	288.95	15.89
<b>HCFC-123</b>	1.27	0.03	4.43	0.09	1.74	0.03
<b>HCFC-141b</b>	8.70	0.03	9.91	1.09	19.73	2.17
<b>HCFC-142b</b>	0.27	0.96	0.18	0.01	0.33	0.02
<b>HCFC-124</b>	0.44	0	0.30	0.006	0.54	0.01
<b>HCFC-141b included in premixed polyol</b>	142.56		181.07		118.09	
<b>Total Audited</b>	<b>500.34</b>	<b>20.11</b>	<b>506.1</b>	<b>18.26</b>	<b>409.23</b>	<b>18.12</b>
<b>Reported</b>		<b>20.10</b>		<b>18.26</b>		<b>18.13</b>

From the previous reports and country program reports, it can be seen that the country is in compliance with the Agreement. Since 2015, the consumption of HCFC-22 is showing reduction, however the HCFC-141b is being increased. Some importers were promoting the use as cleaning for refrigeration circuits.

The Government of Ecuador request meets the level of funding for PRP stage II of HPMPs set in guideline 71/42(d), for the remaining eligible consumption of 11.37 ODP tonnes of HCFCs in the RAC sector and the request is in line with the guidelines for submitting preparation funding request

for the stage II as stated in the Business Plan. Decision 71/42(b) states that approval of stage II of the HPMP did not preclude Ecuador from submitting not earlier than 2020, end of stage I of the HPMP.

UNIDO will continue in stage II of HPMP with the reduction of HCFC consumption in the domestic refrigeration manufacturing and service sector through training on responsible use of HCFCs, including good operation, maintenance and servicing practices in the refrigeration and air conditioning sector, including containment and recovery and recycling. An End User program for containment aiming the reduction of refrigerant leakage and therefore consumption will be implemented including the implementation a second phase ODS phase-out in Galapagos Islands. Also, reduce the availability of equipment with HCFC based technology and strengthening the capacity of the government institutions and other key stakeholders to effectively control the HCFCs and the HCFCs based technology. Project implementation will continue to provide the platform for the implementation of the HPMP action plan, thus ensuring its success and the country's compliance with its obligations under the Montreal Protocol. Compliance target for HPMP Stage II is 67.5 per cent in 2025.

The following activities shall be undertaken for the preparation of stage-II HPMP to be prepared from the proposed funding:

#### Data Collection and Surveys

- Collection, verification and validation of HCFC consumption in the RAC sector (Refrigeration and Air Conditioning) through survey of Government departments, traders, distributors, importers and manufacturers to assess the distribution of HCFC consumption (update previous data collection);
- Develop a plan for implementation of the manufacturing related activities to be integrated in the overall strategy;
- Evaluate the climate co-benefits;
- Prepare a project document.

In accordance with the guideline 71/42 the preparatory funds requested for UNIDO is as follows:

Activities	Total	UNIDO	UNEP
Preparation of HPMP Stage II			
Survey to update consumption by sub-sectors all over the country (subcontract or international/national consultants)	25,000	15,000	10,000
National review, discussion and consultation meetings on the draft of Stage II HPMP	20,000	15,000	5,000
National consultants (monitoring and coordination)	15,000	10,000	5,000
<b>TOTAL PRP II</b>	<b>60,000</b>	<b>40,000</b>	<b>20,000</b>

The requested funding level of USD 60,000 is fully in compliance with ExCom Decision 71/42.

## Project Concept

<b>Country:</b>	Guatemala
<b>Title:</b>	Preparation of HCFC Phase-out Management Plan Stage II
<b>Project Duration:</b>	12 months
<b>Project Budget:</b>	US\$ 25,000 (excl. 7% Agency Support Costs)
<b>Implementing Agency:</b>	UNIDO
<b>Cooperating Agency:</b>	UNEP
<b>Coordinating Agency:</b>	National Ozone Unit

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## Project Summary

The HCFC Phase-out Management Plan for Guatemala was approved in July 2011 at the 64th Meeting of Executive Committee of the Multilateral Fund for the implementation of the Montreal Protocol. The project was approved in accordance with the Agreement between the Government and the Executive Committee for the period 2011 to 2020 to reduce HCFC consumption by 35 per cent of the baseline 8.3 ODP tonnes, and on the understanding that US\$332,500 was provided to address HCFC consumption in the refrigeration servicing sector to reach up to and include the 35 per cent reduction in 2020 (in line with decision 60/44) and US \$109,637 was provided for the investment component for the phase-out of 1.4 ODP tonnes of HCFC-141b used in the foam sector, in line with decision 64/32. Stage I of the HPMP for Guatemala was approved at the amount of US \$480,605, consisting of US \$345,637 plus agency support costs of US \$25,923 for UNIDO, and US \$96,500 plus agency support costs of US \$12,545 for UNEP. US\$ 31,923 including support cost for UNEP. The implementing agencies for this project include UNIDO and UNEP.

Stage I of the HPMP led to the reduction of 2.9 ODP tonnes in the domestic refrigeration manufacturing and service sector. Some of the achievements and progress made of stage I include: i) the domestic refrigerator producer Fogel de Centroamerica agreed to phase out the premixed polyol as priority, and UNIDO started with the implementation activities as soon as the project was approved; ii) defined the Terms of Reference to upgrade the training centers INTECAP and KINAL, and equip certified technicians based on the actual needs and requirements; iii) distributed procured tools to six INTECAP training centres at national level including KINAL located in Guatemala City; iii) with the aim to establish a recovery and recycling centre in one of the training centres, a refrigerant reclaiming unit was purchased. The equipment was installed and commissioned in the training centre INTECAP in Guatemala City; iv) conducted a training workshop in August 2013 for training of technicians in 4 cities. More than 100 technicians located in Guatemala City, Flores, Chiquimula and Puerto Barrios were trained in good refrigeration practices, recovery and recycling, vacuum, leak detection and also some demonstrations of drop-

in with hydrocarbon; v) conducted a training workshop in May 2014 for training technician in six provinces: Peten, Izabal, Chiquimula, Escuintla, Retalhuleu and Guatemala. A total of 423 refrigeration technicians were trained and certified.

The Government of Guatemala is seeking assistance to initiate the preparation of the phase-out of HCFCs post 2020 under the stage II of HPMP to design the required intervention for further compliance with the Montreal Protocol HCFCs phase-out targets.

The overarching strategy for Guatemala 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, work with end users, experts to support the adoption of appropriate ozone and climate friendly alternative technologies.

Guatemala 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 natural refrigerants use and ensures the containment. The Government of Guatemala 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 Guatemala 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.

A brief overview of the current HCFC consumption by substance is provided in the table below.

Substance	2015		2016		2017	
	Consumption	ODP	Consumption	ODP	Consumption	ODP
<b>HCFC-22</b>	61.80	3.40	66.97	3.68	49.66	2.73
<b>HCFC-123</b>	0	0	0	0	0.73	0.05
<b>HCFC-141b</b>	9.89	1.09	17.29	1.90	5.53	0.61
<b>HCFC-142b</b>	0	0	0	0	0	-
<b>HCFC-124</b>	0.49	0.01	0.45	0.01	-	-
<b>HCFC-141b included in premixed polyol</b>	13.81		7.74		0.27	0.003
<b>Total</b>	<b>85.99</b>	<b>4.49</b>	<b>92.45</b>	<b>5.59</b>	<b>56.19</b>	<b>3.37</b>
<b>Reported</b>		<b>4.50</b>		<b>5.60</b>		<b>3.37</b>

From the previous reports and country program reports, it can be seen that the country is in compliance with the Agreement. Since 2015, the consumption of HCFC-22 is showing reduction, however the HCFC-141b was increased in 2016 but reduce again last year.

The Government of Guatemala request meets the level of funding for PRP stage II of HPMPs set

in guideline 71/42(d), for the remaining eligible consumption of 5.4 ODP tonnes of HCFCs in the RAC sector and the request is in line with the guidelines for submitting preparation funding request for the stage II as stated in the Business Plan. Decision 71/42(b) states that approval of stage II of the HPMP did not preclude Guatemala from submitting not earlier than 2020, end of stage I of the HPMP. Compliance target for HPMP Stage II is 67.5 per cent in 2025.

UNIDO will continue in stage II of HPMP with the training program and certification program “Refrigeration Training and Certification Programme” and with the certification system to make it part of a more institutional arrangement linking it with the efforts being made at the regional level concerning the standardization of training programmes and technicians’ certification requirements. UNIDO will continue purchasing tools for trained technicians and training centres and enhance the service provided through the reclaim of refrigerants and promote the reclaiming to the big end users. The scope of activities will also include the establishment of an end user program to promote the refrigerant containment and saving in electricity consumption through the leak reduction and good refrigeration practices.

Stage II of HPMP will be based *on upgrading of ODS related policies for inclusion of HCFCs including regular analysis of market trends and developments at the national and international levels in order to incorporate into the relevant activities and inform stakeholders.*

The following activities shall be undertaken for the preparation of stage-II HPMP to be prepared from the proposed funding:

- Data Collection and Surveys
- Collection, verification and validation of HCFC consumption in the RAC sector through survey of Government departments, traders, distributors, importers and manufacturers to assess the distribution of HCFC consumption (update previous data collection)
- Develop a plan for implementation of the manufacturing related activities to be integrated in the overall strategy
- Evaluate the climate co-benefits
- Prepare a project document

In accordance with the guideline 71/42 the preparatory funds requested for UNIDO is as follows:

Activities	Total	UNIDO	UNEP
Preparation of HPMP Stage II			
Survey to update consumption by sub-sectors all over the country (subcontract or international/national consultants)	10,000	10,000	
Consultation meetings on commercial refrigeration	10,000	5,000	5,000
Consultation meetings on air-conditioning	10,000	5,000	5,000
National consultants (monitoring and coordination)	10,000	5,000	5,000

TOTAL PRP II	40,000	25,000	15,000
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The requested funding level of USD 40,000 is fully in compliance with ExCom Decision 71/42.



## Project Concept

**Country:** Honduras

**Title:** Preparation of HCFC Phase-out Management Plan Stage II

**Project Duration:** 12 months

**Project Budget:** US\$ 40,000 (excl. 7% Agency Support Costs)

**Implementing Agency:** UNIDO

**Cooperating Agency:** UNEP

**Coordinating Agency:** National Ozone Unit

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## Project Summary

The HCFC Phase-out Management Plan for Honduras was approved in April 2011 at the 63rd Meeting of Executive Committee of the Multilateral Fund for the implementation of the Montreal Protocol. The project was approved in accordance with the Agreement between the Government and the Executive Committee for the period 2011 to 2020 reduce HCFC consumption by 35 per cent of the baseline 19.9 ODP tonnes, in line with decision 63/34. Stage I of the HPMP for Honduras was approved at the amount of US \$691,000, comprising US \$380,000, plus agency support costs of US \$28,500 for UNIDO, and US \$250,000, plus agency support costs of US \$32,500 for UNEP. The implementing agencies for this project include UNIDO and UNEP.

Stage I of the HPMP led to the reduction of 7 ODP tonnes in the refrigeration air conditioning service sector. Some of the achievements and progress made of stage I include: i) conducted a training of trainers and technicians in refrigeration equipment cleaning alternatives through a series of workshops for a total of 109 participants from 26 private companies and vocational institutes in good refrigeration practices with an emphasis on the use of the correct tools, refrigeration systems cleaning, introduction to hydrocarbons, and recovery and recycling; ii) delivered tools purchased to upgrade the training and recovery and recycling centres and training in the proper use of the tools; iii) and, established a recovery and recycling centre in Tegucigalpa with equipment and tools, including cylinders, a reclaim unit, refrigerant recovery unit, and multi-refrigerant identifiers to recovery and recycling centres, and training of technicians in the use of those tools and initiation of a public awareness campaign targeting end-users with a large amounts of refrigerants to promote recovery and recycling.

The Government of Honduras is seeking assistance to initiate the preparation of the phase-out of HCFCs post 2020 under the stage II of HPMP to design the required intervention for further compliance with the Montreal Protocol HCFCs phase-out targets.

The overarching strategy for Honduras 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, end user programs and capacity development of refrigeration experts to support the adoption of appropriate ozone and climate friendly alternative technologies.

Honduras 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 natural refrigerants use. The Government of Honduras 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 Honduras 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.

The table below provides a brief overview of the current HCFC consumption by substance. There HCFC-141b is banned in the country and since 2017 there is no consumption. HCFC-22 Consumption has maintained normal tendency, the country is in compliance.

Substance	2015		2016		2017	
	Consumption	ODP	Consumption	ODP	Consumption	ODP
<b>HCFC-22</b>	184.02	10.12	225.5	12.40	196.45	10.80
<b>HCFC-123</b>	0	0	0	0	-	-
<b>HCFC-141b</b>	9.72	1.07	9.4	1.03	-	-
<b>HCFC-142b</b>	0	0	0	0	-	-
<b>HCFC-124</b>	0	0	0	0	-	-
<b>HCFC-141b included in premixed polyol</b>	0		0		-	-
<b>Total</b>	<b>193.74</b>	<b>11.19</b>	<b>234.9</b>	<b>13.43</b>	<b>196.45</b>	<b>10.80</b>
<b>Reported</b>		<b>10.85</b>		<b>13.44</b>		<b>10.80</b>

The Government of Honduras request meets the level of funding for PRP stage II of HPMPs set in guideline 71/42(d), for the remaining eligible consumption of 12.9 ODP tonnes of HCFCs in the RAC sector and the request is in line with the guidelines for submitting preparation funding request for the stage II as stated in the Business Plan. Decision 71/42(b) states that approval of stage II of the HPMP did not preclude Honduras from submitting not earlier than 2020, end of stage I of the HPMP. Compliance target for HPMP Stage II is 67.5 per cent in 2025.

UNIDO will continue in stage II of HPMP with the promotion of reclaiming of refrigerants, training in proper use of natural refrigerants; enhancement of the certification programme for

refrigeration technicians; establishment of an end-user program to promote the refrigerant containment to reduce electricity consumption through leak reduction and good refrigeration practices; and provision of technical updates to the recovery and recycling centre.

The following activities shall be undertaken for the preparation of stage-II HPMP to be prepared from the proposed funding:

- Data Collection and Surveys
- Collection, verification and validation of HCFC consumption in the RAC sector through survey of Government departments, traders, distributors, importers and manufacturers to assess the distribution of HCFC consumption (update previous data collection)
- Develop a plan for implementation of the manufacturing related activities to be integrated in the overall strategy
- Evaluate the climate co-benefits
- Prepare a project document

In accordance with the guideline 71/42 the preparatory funds requested for UNIDO is as follows:

Activities	Total	UNIDO	UNEP
Preparation of HPMP Stage II			
Survey to update consumption by sub-sectors all over the country (subcontract or international/national consultants)	30,000	10,000	
Consultation meetings on commercial refrigeration	10,000	10,000	10,000
Consultation meetings on air-conditioning	10,000	10,000	5,000
National consultants (monitoring and coordination)	10,000	10,000	5,000
<b>TOTAL PRP II</b>	<b>60,000</b>	<b>40,000</b>	<b>20,000</b>

The requested funding level of USD 60,000 is fully in compliance with ExCom Decision 71/42.

## Project Concept

<b>Country:</b>	Libya
<b>Title:</b>	Preparation of HCFC Phase-out Management Plan Stage II (rigid polyurethane foam sector)
<b>Project Duration:</b>	12 months
<b>Project Budget:</b>	US\$ 80,000 (excl. 7% Agency Support Costs)
<b>Implementing Agency:</b>	UNIDO
<b>Coordinating Agency:</b>	Ministry of Environment (Ozone Unit)

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## Project Summary

The HPMP Stage-I project was submitted to 72<sup>nd</sup> ExCom but withdrawn because of licensing system was not fully operational due to the security situation prevailing in the country at that time.

HCFC Phase out Management Plan Stage-1 was resubmitted in the 75<sup>th</sup> ExCom by the Government of Libya and was approved at a total cost of US\$ 1,908,843 plus agencies support cost of US\$ 133,619 to phase out 216.73 MT (23.84 ODPT) of HCFC 141b in 3 industries in PU Sandwich Panel subsector and 48.55 MT (2.67 ODPT) of HCFC-22 in servicing sector. US\$ 1,717,950 was approved in the 1<sup>st</sup> tranche to cover US\$ 1,690,627 for phasing out of HCFC-141b in manufacturing sector and US\$ 27,323 in servicing sector.

Due to non-compliance, an Action Plan has been prepared and Government of Libya made commitment to reduce HCFC consumption by 10% by 2018 and reduction of 35% target by 2020 to achieve the reduction in HCFC consumption required by Decision no. XXVII/11 of the parties to the Montreal Protocol.

Subject stipulations of the Action Plan as submitted to the 55<sup>th</sup> meeting of the Implementation Committee in 2015 permits to request preparatory funds for HPMP Stage II to ensure compliance with next control target of 2020 35% reduction and also to prepare solid base for further sustainability of Country's compliance with further control targets till 100% HCFC phase out latest in 2040.

The last tranche HPMP Stage I was submitted for consideration at the 82<sup>nd</sup> meeting.

The Government of Libya is seeking assistance for preparations of the HCFCs phase out activities in relevant sectors of refrigeration servicing and in the rigid polyurethane foam sector to design necessary intervention to ensure compliance with the Montreal Protocol HCFCs phase-out targets.

The remaining eligible consumption for HCFC-141b which is not covered by HPMP Stage I is 7.3 ODP tonnes.

The country consumption in the last three years is as following:

Year	Consumption
2015	119.81 ODP tons
2016	118.36 ODP tons
2017	117.68 ODP tons

The phasing out of HCFCs in the foam sector in Libya has been planned for implementation through two stages. The phasing out of HCFCs under both the stages is provided in the table below:

Name of the Company	Baseline ODPT	HCFC Phase-out	
		Stage-1	Stage-2
Alyem Engineering, Tripoli	10.54	10.54	
Al-Najah Company, Tripoli	11.59	11.59	
Al-Amal Alkhadar Company, Tripoli	1.71	1.71	
Al-Shorooq, Misurata	1.71		1.71
Al-Shami, Benghazi	1.53		1.53
Nagem, Benghazi	1.39		1.39
Unidentified SMEs in Spray Foam	1.96		1.96
Electrical Household Appliance-Tajura	0.33		0.33
Brothers Company, Tripoli	0.22		0.22
Tasharoukiat Marwa, Tripoli	0.17		0.17
<b>Total of 141b</b>	<b>31.14</b>	<b>23.84</b>	<b>7.30</b>

In addition to formulation of technology conversion activities and investment projects for above mentioned 7 companies, a revisiting of entire foam sector for necessary updates are essential.

The following activities shall be undertaken for the preparation of HPMP Stage-II in the foam sector to be funded from the proposed funding:

- Data Collection and Surveys;
- Collection, verification and validation of HCFC consumption in both sectors (foam and commercial refrigeration which also contain foam manufacturing) through survey of Government departments, traders, distributors, importers and manufacturers to assess the distribution of HCFC consumption (update previous data collection);
- Develop a plan for implementation of the foam technology conversion activities to be integrated in the overall strategy;
- Evaluate the climate co-benefits; and
- Prepare project document(s).

In accordance with the guideline 71/55 the preparatory funds are requested for UNIDO, as follows:

Activities	Total
Preparation/revision of foam sector strategy	4,000
Survey to update consumption by sub-sectors all over the country	35,000
National Stakeholders consultation meetings (public institutions)	5,000
Private sector consultations meetings	3,000
Consultancy (national and international consultant)	30,000
Preparing document	3,000
<b>TOTAL PRP II</b>	<b>80,000</b>

The requested funding level of USD 80,000 is fully in compliance with ExCom Decision 71/42.

## Project Concept

<b>Country:</b>	Libya
<b>Title:</b>	Preparation of HCFC Phase-out Management Plan Stage II (refrigeration servicing sector)
<b>Project Duration:</b>	12 months
<b>Project Budget:</b>	US\$ 70,000 (excl. 7% Agency Support Costs)
<b>Implementing Agency:</b>	UNIDO
<b>Coordinating Agency:</b>	Ministry of Environment (Ozone Unit)

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## Project Summary

The HPMP Stage-I project was submitted to 72<sup>nd</sup> ExCom but withdrawn because of licensing system was not fully operational due to the security situation prevailing in the country at that time.

HCFC Phase out Management Plan Stage-1 was resubmitted in the 75<sup>th</sup> ExCom by the Government of Libya and was approved at a total cost of US\$ 1,908,843 plus agencies support cost of US\$ 133,619 to phase out 216.73 MT (23.84 ODPT) of HCFC 141b in 3 industries in PU Sandwich Panel subsector and 48.55 MT (2.67 ODPT) of HCFC-22 in servicing sector. US\$ 1,717,950 was approved in the 1<sup>st</sup> tranche to cover US\$ 1,690,627 for phasing out of HCFC-141b in manufacturing sector and US\$ 27,323 in servicing sector.

Due to non-compliance, an Action Plan has been prepared and Government of Libya made commitment to reduce HCFC consumption by 10% by 2018 and reduction of 35% target by 2020 to achieve the reduction in HCFC consumption required by Decision no. XXVII/11 of the parties to the Montreal Protocol.

Subject stipulations of the Action Plan as submitted to the 55<sup>th</sup> meeting of the Implementation Committee in 2015 permits to request preparatory funds for HPMP Stage II to ensure compliance with next control target of 2020 35% reduction and also to prepare solid base for further sustainability of Country's compliance with further control targets till 100% HCFC phase out latest in 2040.

The last tranche HPMP Stage I was submitted for consideration at the 82<sup>nd</sup> meeting.

The Government of Libya is seeking assistance for preparations of the HCFCs phase out activities in relevant sectors of refrigeration servicing and in the rigid polyurethane foam sector to design necessary intervention to ensure compliance with the Montreal Protocol HCFCs phase-out targets.

Total phase-out of HCFC-22 agreed to be achieved under HPMP Stage I, is 2.67 ODP tones and it constitutes only around 3% of total consumption eligible for funding.

The remaining eligible consumption for HCFC- 22 which is not covered by HPMP Stage I is 79.85 ODP tonnes.

The country consumption in the last three years is as following:

<b>Year</b>	<b>Consumption</b>
2015	119.81 ODP tons
2016	118.36 ODP tons
2017	117.68 ODP tons

Based on this overarching strategy, the phasing out of HCFCs in Libya has been planned for implementation through two stages. The phasing out of HCFCs under both the stages is provided in the table below:

<b>Name of the Company</b>	<b>Baseline ODPT</b>	<b>HCFC Phase-out</b>	
		<b>Stage-1</b>	<b>Stage-2</b>
Servicing Sector R-22	87.23	2.50	84.73
<b>Total of HCFCs</b>	<b>87.23</b>	<b>2.50</b>	<b>84.73</b>

The following activities shall be undertaken for the preparation of stage-II HPMP to be prepared from the proposed funding:

- Data Collection and Surveys;
- Collection, verification and validation of HCFC consumption in all sub-sectors (Domestic and commercial refrigeration, household and central air conditioning etc.) through survey of Government departments, traders, distributors, importers and manufacturers to assess the distribution of HCFC consumption (update previous data collection);
- Develop a plan for implementation of the servicing related activities to be integrated in the overall strategy;
- Evaluate the climate co-benefits; and
- Prepare a project document.

Activities	Total
Preparation/revision of foam sector strategy	2,000
Survey to update consumption by sub-sectors all over the country	34,000
National Stakeholders consultation meetings (public institutions)	2,000
Private sector consultations meetings	2,000
Consultancy (national and international consultant)	28,000
Preparing document	2,000
<b>TOTAL PRP II</b>	<b>70,000</b>

The requested funding level of USD 70,000 is fully in compliance with ExCom Decision 71/42.



## Project Concept

<b>Country:</b>	Montenegro
<b>Title:</b>	Preparation of HCFC Phase-out Management Plan Stage II (refrigeration servicing sector)
<b>Project Duration:</b>	12 months
<b>Project Budget:</b>	US\$ 30,000 (excl. 7% Agency Support Costs)
<b>Implementing Agency:</b>	UNIDO
<b>Coordinating Agency:</b>	Agency for Nature and Environmental Protection

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## Project Summary

The HCFC Phase-out management plan (HPMP) for Montenegro was approved by the 63th Meeting of the Executive Committee (ExCom) of the Multilateral Fund for the Implementation of the Montreal Protocol in April 2011<sup>2</sup>. Based on the subject to compliance within its obligations, set out in the Agreement between the ExCom and Montenegro, the ExCom agreed to provide a funding of US\$ 404,500 plus agency support cost of US\$ 30,338, for Montenegro for 35% reduction of Annex C ODSs consumption by 31 December 2020.

The first stage of the HPMP includes the freeze of HCFC-s consumption in 2013, 10% reduction of HCFC-s consumption by 2015 and subsequent 5% reduction each year till 2020. The Government of Montenegro agreed to establish as its starting point for sustained aggregate reduction in HCFC consumption the level of consumption in 2009.

The first tranche of the Stage I of the HPMP for Montenegro was approved in the amount of US\$ 155,000 plus agency support costs of US \$11,625, to be implemented by UNIDO.

The second tranche of the HPMP was approved by the Executive Committee at its 71st meeting in December 2013, at the amount of US \$100,000, plus agency support costs of US \$7,500. Third tranche of the HPMP Stage I was approved at the 75th Executive Committee meeting in November 2015 and is currently under implementation (project funds US\$98,500 plus agency support cost US \$7,388). The fourth tranche is included in UNIDO's Business Plan for 2019 and is planned to be submitted at the 83rd meeting, after receiving an official endorsement from the country.

Furthermore, the Government of Montenegro is seeking assistance to initiate the preparation of the ODS phase-out plan post 2020 under the Stage II of HPMP. It will aim to design the required

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<sup>2</sup> Montenegro has developed its HCFC phase-out management plan (HPMP) covering Annex C Ozone Depleting Substances (ODSs)

intervention for the further compliance with the Montreal Protocol HCFCs phase-out target obligations. The request is to meet the levels of funding for PRP for stage II of HPMPs set by Decision 71/42(d), for the remaining eligible consumption of 0,52 ODP HCFC-22. This is in line with the Guidelines for submitting a preparatory funding request for the Stage II, less than 2 years before completion of the Stage I of HPMP, and as per the approved Business Plan.

There is a need for the preparation of the HPMP Stage II to clarify the national phase-out strategy post 2020, addressing the future HCFCs phase-out to be in line with MP consumption reduction targets. This will enable the country to maintain the momentum achieved as well as the same level of commitment from the counterparts and key stakeholders.

The preparation for Stage II of the HPMP has to be achieved, as per the country needs, before completion of the Stage I implementation, to provide support and draw the scenario to address exclusively and in a sustained manner the servicing-sector phase-out planning post 2020, respectively a reduction of 67.5% reduction by 2025. The remaining eligible consumption for HCFC-22 amounts of 0,52 ODP tonnes in servicing sector.

The relevant progress achieved with the HPMP Stage I implementation is demonstrated by the HCFCs consumption level of 2015 (0,67 ODP), level of 2016 (0,62 ODP) and level of 2017 (0,19 ODP) respectively, that are below the consumption target.

Implementation of Stage I of HPMP in Montenegro included the revision of the legislative system for certification scheme, initiation of an industry association and further development and implementation of a Code of Good Practice and provision to the customs and enforcement officers of Montenegro with the necessary practical skills and knowledge to identify HCFCs and HCFCs containing equipment, as well as service equipment in the servicing sector was improved. It also encompassed equipment for ODS storage as well as training on natural refrigeration and HFO for technicians, to improve their technical knowledge in servicing equipment containing natural refrigerants, flammable refrigerants and HFOs, the re-use scheme – to increase simple analyzing capability and regular monitoring and technical assistance. Awareness raising activities among stakeholders and the public to support the changes required in the servicing sector were also conducted.

In light of above, UNIDO will undertake a comprehensive survey for the servicing refrigeration sector to collect updated HCFC consumption data, details on where the refrigerants is used as well as the type of equipment, as well as ownership information. In this context, there is a need to hold several stakeholder consultation meetings, including the Government to design a proper plan to be incorporated into the overall strategy for the servicing sector.

Stage II of HPMP will be based on data collected during Stage I implementation, however, deeper assessment is required for such data in servicing sector and for ensuring relevant contribution from stakeholders.

The following activities shall be undertaken for the preparation of stage-II HPMP to be prepared from the proposed funding:

- Data Collection and Surveys
  - Collection, verification and validation of HCFC consumption in both sectors (Refrigeration) through survey of Government departments, traders, distributors, importers, manufacturers to assess the distribution of HCFC consumption (update previous data collection)
- Develop a plan for implementation of the servicing related activities to be integrated in the overall strategy
- Evaluate the climate co-benefits
- Prepare a project document

In accordance with the Guideline 71/55, the preparatory funds are requested for UNIDO, as follows:

Activities	Total
Preparation of Refrigeration Servicing strategy post 2020	
Survey to update consumption by sub-sectors all over the country	10,000
National Stakeholders consultation meetings (public institutions)	3,000
Private sector consultations meetings	7,000
Consultancy (national and international consultant) and	10,000
Preparation of project document	
<b>TOTAL PRP II</b>	<b>30,000</b>

The requested funding level of USD 30,000 is fully in compliance with ExCom Decision 71/42.

## Project Concept

**Country:** Niger

**Title:** Preparation of HCFC Phase-out Management Plan Stage II (refrigeration servicing sector)

**Project Duration:** 12 months

**Project Budget:** US\$ 40,000 (excl. 7% Agency Support Costs)

**Implementing Agency:** UNIDO

**Cooperating Agency:** UNEP

**Coordinating Agency:** Ministry of Environment, Urban Sanitation and Sustainable Development / BNO (NOU)

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## Project Summary

HCFCs Phase-out Management Plan for the Republic of Niger was approved at the 66<sup>th</sup> Meeting of the Executive Committee held in Montreal, Canada from 16 to 20 April 2012. The Government of Niger committed to reduce the consumption of HCFCs by 35% from the calculated baseline by the year 2020.

The first stage of the HCFC Management Plan covers the freeze of HCFC-s consumption in 2013 (baseline level is average annual consumption in 2009 – 2010), 10% reduction of HCFC-s consumption by 2015 and subsequent reduction steps until 2020. The first tranche of the Stage I of the HPMP for Niger was approved in the amount of US\$ 175,000 to be implemented by UNIDO and US\$ 100,000 to be implemented by UNEP (amounts not including the IAs support costs).

Republic of Niger is an LVC country with significant consumption of HCFC-22 in refrigeration service.

The Government of Niger is seeking assistance to initiate the preparation of the HCFCs phase-out plan post 2020 under the Stage II of HPMP, to design the required intervention for the further compliance with the Montreal Protocol HCFCs phase-out targets.

The Government of Niger request meets the levels of funding for PRP for stage II of HPMPs set by Decision 71/42(d), for remaining eligible of consumption of 10.40 ODP HCFC-22 and the request is in line with the Guidelines for submitting a preparatory funding request for the Stage II, less than 2 years before completion of the HPMP Stage I, and as per the approved Business Plan.

The Stage II of the HPMP preparation have to be achieved, as per the country needs, before

completion of the Stage I implementation, to support and draw the scenario to address exclusively and in a sustained manner the servicing-sector phase-out planning post 2020, respectively a reduction of 67.5% reduction by 2025.

The remaining eligible consumption for HCFC-22 amounts 10.40 ODP tonnes in servicing sector.

The progress achieved with the HPMP Stage I implementation is demonstrated by the HCFCs consumption level of 2015 (13.02 ODP), 2016 (12.13 ODP) and 2017 (11.85) and its reducing trend against the country consumption baseline set to 15.98 ODP.

One of the main achievements of the HPMP Stage I in Niger was the review of the whole legislative system for certification scheme, introducing the mandatory certification for the use of HCFCs side and improving the certification scheme by up-grading the secondary legislation for training and certification for service technicians.

Niger has an appropriate licensing system for HCFCs and an annual national quota system in place. Draft regulation (Ministerial Decision) is under approval process for introducing individual quotas for each importer.

Customs training component of the HPMP tranche I was implemented with United Nations Environment Programme (UNEP). The training programme provided the customs and enforcement officers of Niger with the necessary practical skills and knowledge to identify HCFCs and HCFCs containing equipment.

During preparation of the HPMP Stage II, UNIDO will to undertake a comprehensive survey for the servicing refrigeration sector to collect updated HCFC consumption data, ownership information, details on where the refrigerants is used as well as the type of equipment. There is a need to hold several stakeholder consultation meetings including the Government to design a proper plan to be incorporated into the overall strategy for the servicing sector.

Stage II of HPMP will be based on data collected over implementation of Stage I, however, deeper assessment is required for such data in servicing sector and for ensuring relevant contribution from stakeholders.

The following activities shall be undertaken for the preparation of stage-II HPMP to be prepared from the proposed funding:

- Data Collection and Surveys
  - Collection, verification and validation of HCFC consumption in both sectors (Refrigeration) through survey of Government departments, traders, distributors, importers and manufacturers to assess the distribution of HCFC consumption (update previous data collection)
- Develop a plan for implementation of the servicing related activities to be integrated in

the overall strategy

- Evaluate the climate co-benefits
- Prepare a project document

In accordance with the guideline 71/55 the preparatory funds are requested for UNIDO, as follows:

Activities	Total	UNIDO	UNEP
Preparation of HPMP Stage II			
Survey to update consumption by sub-sectors all over the country (subcontract or international/national consultants)	10,000	10,000	
Consultation meetings on commercial refrigeration	20,000	10,000	10,000
Consultation meetings on air-conditioning	15,000	10,000	5,000
National consultants (monitoring and coordination)	15,000	10,000	5,000
<b>TOTAL PRP II</b>	<b>60,000</b>	<b>40,000</b>	<b>20,000</b>

The requested funding level of USD 60,000 (cumulative amount for UNIDO as Lead IA and UNEP as Co-IA) is fully in compliance with ExCom Decision 71/42.

## Project Concept

<b>Country:</b>	Republic of Serbia
<b>Title:</b>	Preparation of HCFC Phase-out Management Plan Stage II (servicing sector)
<b>Project Duration:</b>	12 months
<b>Project Budget:</b>	US\$ 30,000 (excl. 7% Agency Support Costs)
<b>Implementing Agency:</b>	UNIDO
<b>Coordinating Agency:</b>	Ministry of Environmental Protection Department for Air and Ozone Layer Protection Group for Ozone Layer Protection

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## Project Summary

HCFCs Phase-out Management Plan for the Republic of Serbia was approved at the 62th Meeting of the Executive Committee held in Montreal, Canada from 29 November to 3 December 2010. The Government of Serbia committed to reduce the consumption of HCFCs by 35% from the calculated baseline by the year 2020.

The Government of Serbia had agreed at the 62nd meeting to establish as its starting point for sustained aggregate reduction in HCFC consumption the estimated baseline of 9.64 ODP tonnes, calculated using actual consumption reported in 2009 and estimated consumption for 2010. The baseline has since been finalised using the actual consumption in 2010. The final baseline is 8.4 ODP.

The First stage of the HCFC Management Plan covers the freeze of HCFC-s consumption in 2013 (baseline level is average annual consumption in 2009 – 2010), 10% reduction of HCFC-s consumption by 2015 and 35% reduction by 2020.

Serbia, as an A5 party to the Montreal Protocol on substances that deplete the ozone layer (MP), is fully in compliance with the HCFCs phase-out schedule and with the Agreement set in the framework of the HPMP.

Import quota for HCFCs for the year 2014 was 8.37 ODP tones and imported quantity of HCFC in that year was 141.77 metric tonnes which corresponds to 8,03 ODP tones (mostly R-22, then R-406a and small quantity of R-141b). Import quota for the year 2015 was 7.53 ODP tones and it has been allocated to 9 registered importers, based on their contribution to the total imports in the years 2009-2012. The imported quantity of HCFCs in that year was 6.921 ODP tones (125.84 metric tonnes) and with that the Republic of Serbia conducted the second control measure

(reduction HCFC consumption by 10% of baseline level). Import quota for the year 2016 was 7.15 ODP tones and it has been allocated to 9 registered importers. Imported quantity of HCFCs in 2016 was 6.397 ODP tones. Import quota for 2017 was 6,72 ODP tones and imported quantities was 6,65 ODP tones.

The activities of the Serbia HPMP include the refrigeration manufacturing and servicing sectors (under UNIDO lead), as well as public awareness and initiation of the customs related components (under UNEP coordination), with a view to meet the 2013 freeze and 2015 reduction steps.

The first tranche of the Stage I of the HPMP for Serbia was approved in the amount of US\$ 360,130 to be implemented by UNIDO and US\$ 26,000 to be implemented by UNEP, excluding support costs.

The second tranche was approved at 71st ExCom in Montreal from 2 to 6 December 2013 in amount of US\$ 444,130 to be implemented by UNIDO and US\$ 27,500 to be implemented by UNEP, excluding support costs.

Third tranche of the HPMP Stage I was approved by the 79 ExCom Meeting and it is under implementation.

One of the main achievement regarding legislation is adoption of The Regulation on certification of personnel performing certain activities related to controlled substances and certain fluorinated greenhouse gases (Official Gazette of RS No. 24/16) was adopted in March 2016. It is partially aligned with provisions of the Regulation 303/2008/EC (minimum requirements for the certification in relation to stationary refrigeration, air conditioning and heat pump equipment containing certain fluorinated greenhouse gases) and with the Regulation 307/2008/EC (minimum requirements for training program of personnel recovering certain fluorinated greenhouse gases from air-conditioning systems in motor vehicles). This Regulation prescribes 4 categories of personnel certificates for operating with stationary equipment in RAC sector and certificates for personnel operating in the MAC sector and it covers ODSs and F-gases.

Also, amendments on Regulation on ozone depleting substances management, as well as on conditions for license issuance to import and export of such substances was adopted in March 2018 and It prescribes the ban on import for products and/or equipment containing or relying on HCFCs from 15 April 2018.

Within RAC Investment component phase-out of HCFC-22 in the manufacture and installation of RAC equipment at Alfa Klima (Knjazevac), Eko Elektro Frigo (Belgrade), SENA, (Kragujevac), and SOKO Inzinjering (Belgrade) have been realized. The RAC component of Serbia HPMP had limited IOC budget, thus, by using flexibility principle of the HPMP, most of the IOC funding has been used to compensate the budgetary constraints for the equipment purchase.

Training of the customs officers and environmental inspectors is focusing on updates in the legislation but also on practical inspection exercises (simulated inspections) of



industrial/commercial installations containing different refrigerants.

The Government of Serbia request meets the levels of funding for PRP for stage II of HPMPs set by Decision 71/42(d), for remaining eligible of consumption of 2.1 ODP HCFC-22 and the request is in line with the Guidelines for submitting a preparatory funding request for the Stage II, less than 2 years before completion of the HPMP Stage I, and as per the approved Business Plan.

The Stage II of the HPMP preparation have to be achieved, as per the country needs, before completion of the Stage I implementation, to support and draw the scenario to address exclusively and in a sustained manner the servicing-sector phase-out planning post 2020, respectively a reduction of 75% by 2025.

The remaining eligible consumption for HCFC-22 amounts 2.1 ODP tonnes in servicing sector.

UNIDO will to undertake a comprehensive survey for the servicing refrigeration sector to collect updated HCFC consumption data, ownership information, details on where the refrigerants is used as well as the type of equipment. There is a need to hold several stakeholder consultation meetings including the Government to design a proper plan to be incorporated into the overall strategy for the servicing sector.

Stage II of HPMP will be based on data collected over implementation of Stage I, however, deeper assessment is required for such data in servicing sector and for ensuring relevant contribution from stakeholders.

The following activities shall be undertaken for the preparation of stage-II HPMP to be prepared from the proposed funding:

- Data Collection and Surveys
  - Collection, verification and validation of HCFC consumption in both sectors (Refrigeration) through survey of Government departments, traders, distributors, importers and manufacturers to assess the distribution of HCFC consumption (update previous data collection)
- Develop a plan for implementation of the servicing related activities to be integrated in the overall strategy
- Evaluate the climate co-benefits
- Prepare a project document

In accordance with the guideline 71/55 the preparatory funds are requested for UNIDO, as follows:

Activities	Total
Preparation of Refrigeration Servicing strategy post 2020	

Survey to update consumption by sub-sectors all over the country for the preparation the plan for accelerating the reduction of consumption HCFC	10,000
National Stakeholders consultation meetings (public institutions)	3,000
Private sector consultations meetings	7,000
Consultancy (national and international consultant)	6,000
Preparing document	4,000
<b>TOTAL PRP II</b>	<b>30,000</b>

The requested funding level of USD 30,000 is fully in compliance with ExCom Decision 71/42.

## Project Concept

<b>Country:</b>	South Africa
<b>Title:</b>	Preparation of HCFC Phase-out Management Plan Stage II (refrigeration servicing sector)
<b>Project Duration:</b>	12 months
<b>Project Budget:</b>	US\$ 90,000 (excl. 7% Agency Support Costs)
<b>Implementing Agency:</b>	UNIDO
<b>Coordinating Agency:</b>	National Ozone Unit, Department of Environmental Affairs

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## Project Summary

The HCFC Phase-out Management Plan (HPMP) for South Africa was approved in Bangkok, at the 67nd Meeting of the Executive Committee held in July 2012. The project was approved in accordance with the agreement between the Government and the Executive Committee for the period 2012 to 2020 to meet the 35 per cent reduction in HCFC consumption. The total funding of a total cost of US \$6,533,556, plus agency support costs of US \$457,349 was provided to address HCFC consumption in the refrigeration servicing sector.

The first stage of the HPMP includes the freeze of HCFC-s consumption in 2013, 10% reduction of HCFC-s consumption by 2015 and subsequent 5% reduction each year till 2020. The starting point for sustained aggregate reductions in HCFC consumption selected by the Government of South Africa was calculated using the estimated baseline 2009 – 2010.

The first tranche of Stage I of the HPMP for South Africa, and the corresponding implementation plan, was approved at the amount of US\$ 1,960,229 plus agency support cost of US \$137,216 for UNIDO.

The second tranche of the HPMP was approved by the Executive Committee at its 71th meeting at the amount of US \$2,592,620, plus agency support costs of US \$181,483 for UNIDO. The third tranche of the HPMP Stage I was approved at the 76th meeting at the amount of US\$ 1,302,335, plus agency support costs of US \$91,164 for UNIDO.

Furthermore, the Government of South Africa is seeking assistance to initiate the preparation of the ODS phase-out plan post 2020 under the Stage II of HPMP, that required intervention for the further compliance with the Montreal Protocol HCFCs phase-out target obligations. It is in line to meet the levels of funding for PRP for Stage II of HPMPs set by Decision 71/42(d), for the remaining eligible of consumption of 240.31 ODP HCFC-22. This is in consistency with the

Guidelines for submitting a preparatory funding request for the Stage II, less than 2 years before completion of the Stage I of HPMP, and as per the approved Business Plan.

There is a need for the preparation of the HPMP Stage II to clarify the national phase-out strategy post 2020, addressing the future HCFCs phase-out to be in line with MP consumption reduction targets. This will enable the country to maintain the momentum achieved as well as the same level of commitment from the counterparts and key stakeholders.

The preparation for Stage II of the HPMP has to be achieved, as per the country needs, before completion of the Stage I implementation, to provide support and draw the scenario to address in a sustained manner the servicing-sector phase-out planning post 2020, respectively a reduction of 67.5% reduction by 2025 in line with Montreal Protocol. The remaining eligible consumption for HCFC-22 amounts is 240.31 ODP tonnes in the manufacturing servicing sector. The last tranche is included in UNIDO's Business Plan for 2019 and is planned to be submitted at the 83rd meeting, after receiving an official endorsement from the country.

The relevant progress achieved with the HPMP Stage I implementation is demonstrated by the HCFCs consumption level of 2015 (208,28 ODP) , level of 2016 (144,15 ODP) and level of 2017 (122,16 ODP) respectively, that are much below the consumption target.

Progress in implementation of the overall Stage I HPMP in South Africa included the following: a) strengthening legislation on HCFCs control and proper enforcement of regulation on ODSs import licensing and quota system; b) key regulatory measures included in the updated ODS regulation; c) investment projects in the foam sector and technical assistance activities in the refrigeration servicing sector; d) training of customs officers and other enforcement agents to enhance their capacity to monitor, control and identify HCFCs and HCFC-containing equipment; e) dissemination and awareness activities addressed to the foam and the refrigeration servicing sectors; f) regular monitoring and g) coordination with stakeholders.

In light of above, UNIDO will undertake a comprehensive survey for the servicing refrigeration sector to collect updated HCFC consumption data, details on where the refrigerants is used as well as the type of equipment and ownership information. In this context, there is a need to hold several stakeholder consultation meetings, including the Government to design a proper plan to be incorporated into the overall strategy for the servicing sector.

Stage II of HPMP will be based on data collected during Stage I implementation, however, deeper assessment is required for such data in servicing sector and for ensuring relevant contribution from stakeholders.

The following activities shall be undertaken for the preparation of Stage II HPMP for South Africa to be prepared from the proposed funding:

- Data Collection and Surveys

- Collection, verification and validation of HCFC consumption in both sectors (Refrigeration) through survey of Government departments, traders, distributors, importers, manufacturers to assess the distribution of HCFC consumption (update previous data collection)
- Develop a plan for implementation of the servicing related activities to be integrated in the overall strategy
- Evaluate the climate co-benefits
- Prepare a project document

In accordance with the Guideline 71/55, the preparatory funds are requested for UNIDO, as follows:

Activities	Total
Preparation of Refrigeration Servicing strategy post 2020	
Survey to update consumption by sub-sectors all over the country	30,000
National Stakeholders consultation meetings (public institutions)	9,000
Private sector consultations meetings	21,000
Consultancy (national and international consultant) and	30,000
Preparation of project document	
<b>TOTAL PRP II</b>	<b>90,000</b>

The requested funding level of USD 90,000 is fully in compliance with ExCom Decision 71/42.

## **Project Concept**

**Country:** the former Yugoslav Republic of Macedonia

**Title:** Preparation of HCFC Phase-out Management Plan Stage II (refrigeration servicing sector)

**Project Duration:** 12 months

**Project Budget:** US\$ 30,000 (excl. 7% Agency Support Costs)

**Implementing Agency:** UNIDO

**Coordinating Agency:** Ministry of Environment and Physical Planning

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## **Project Summary**

### **Background**

The Executive Committee of the Multilateral Fund for the Implementation of the Montreal Protocol, at its 60th Meeting held in Montreal in April 2010, approved stage I of the HCFC phase-out management plan (HPMP) for the Republic of Macedonia for the period 2010 to 2020. The first stage covers the freeze of HCFCs consumption in 2013 (base level - annual consumption in 2009-2010), 15% reduction of HCFCs consumption in 2016 and a subsequent 5% reduction each year till 2020. The first tranche was approved at the same Meeting at the amount of US \$15,000 for UNIDO.

Advance funding for the purpose of Institutional Strengthening was approved on 63rd Meeting of the Executive Committee of the Multilateral Fund for the Implementation of the Montreal Protocol held in Montreal, Canada from 4 to 8 April 2011 at the amount of \$26,000 to be deducted from the funding for the second tranche.

The Executive Committee approved the second tranche at the amount of \$81,000 of Stage I of the HPMP and the corresponding 2011 Implementation Plan on the 64th Meeting held in Montreal, Canada from 25 to 29 July 2011.

The Executive Committee approved the third tranche of Stage I of the HPMP and the corresponding 2012 Implementation Plan on the 67th Meeting held in Bangkok, Thailand in July 2012 at the amount of \$294,955 which includes the phase-out of HCFC-141b in pre-blended polyols at the amount of US \$136,955.

The fourth tranche of stage I of the HPMP at the amount of US \$148,000 and the corresponding 2013 Implementation Plan was approved on the 70th meeting of the Executive Committee held in Bangkok from 1-5 July 2013.

The fifth tranche of stage I of the HPMP at the amount of US \$82,000 and the corresponding 2014 tranche Implementation Plan were approved on the 72nd meeting of the Executive Committee held in Montreal, Canada from 12 to 16 May 2014.

The sixth tranche of stage I of the HPMP at the amount of US \$82,000 and the corresponding 2014 tranche Implementation Plan were approved on the 75th meeting of the Executive Committee held in Montreal, Canada from 16 to 20 November 2015.

The seventh tranche of stage I of the HPMP at the amount of US \$82,000 and the corresponding 2014 tranche Implementation plan were approved on the Seventy-ninth Meeting of the Executive Committee held in Bangkok, 3-7 July 2017.

The eighth tranche of Stage has been submitted for consideration at the 82nd Meeting of the Executive Committee.

The preparation of Stage II of the HPMP will lead to the development of a phase-out plan in the service sector post 2020.

### **Progress in the implementation of the Stage-I**

One of the initial steps for the implementation of the Plan was upgrading of the national legislation for ODSs management during which time several ordinances were adopted. The legislation is fully harmonized with the Montreal Protocol and EU regulation. The Ministry of Environment and Physical Planning adopted a range of legal acts regulating the refrigerants management. The legislation from 2010 bans the import of products containing ODSs, limits the import of HCFCs with gradual reduction (5% each year in the period 2013 – 2020) from the baseline. Import and export of ODSs is possible only by a prior issued permit. Equipment that contains fluid charge more than 3 kg is subject for identification (log-books and labels) and proper leakage checks. Recently the special part of the Law on Environment was dedicated to the licensing system. Starting from 2010 an online electronic system for issuing permits for all goods that are under the permitting regime in the country was established. The Ministry of Environment and Physical Planning in the EXIM system is covering several permits among which is the permit for ODSs (HCFCs) and HFCs and equipment containing non-ODS refrigerants.

Starting from 2011 series of training courses and workshops were conducted in the frameworks of HPMP implementation. Training courses were conducted by the NOU in cooperation with national experts and teaching staff from the secondary vocational schools. About 20 training sessions were conducted and 379 service technicians were trained and certified.

The recovery and recycling scheme already established in the frameworks of the Refrigeration Management Plan and Terminal Phase-out Management Plan has been improved and strengthened. A total of New 55 sets of recovery and recycling equipment were granted to the service shops. The

recovery and recycling scheme is functioning well, HCFC-22 being the most recovered substance. Due to the fact that service shops are obliged to report the recovered and recycled quantities, growing prices of HCFCs on the market and environmental taxes (62 MKD per kg HCFCs) are the main reason for increasing quantities of HCFCs recycled. In addition, the adopted limitations and quotas of HCFCs import could be taken as important factors for increasing HCFCs recycling trends. It should also be noted that the granted recovery and recycling equipment has contributed for increased recycled quantities.

The conversion of three manufacturing companies (Koper, Zlatna Raka and Frigoteknika) in the foam sector has been completed.

### **Activities proposed for Stage II Preparation**

The following activities shall be undertaken for the preparation of stage-II HPMP to be prepared from the proposed funding:

- Data Collection and Surveys
  - Collection, verification and validation of HCFC consumption in both sectors (Refrigeration) through survey of Government departments, traders, distributors, importers and manufacturers to assess the distribution of HCFC consumption (update previous data collection)
- Review of policies and related mechanisms and needs assessment for enforcement and training
- Develop a plan for implementation of the servicing related activities to be integrated in the overall strategy
- Evaluate the climate co-benefits
- Review coordination and management activities
- Write-up of stage II HPMP Document

The reduction target for Macedonia's HPMP Stage II is 1.2 ODP tonnes.

### **Budget for developing the activities for Stage II**

Activities	Cost (US\$)
Survey to update consumption by sub-sectors all over the country	10,000
National Stakeholders consultation meetings (public institutions)	3,000
Private sector consultations meetings	7,000



Consultancy (national and international consultants)	6,000
Preparing document	4,000
TOTAL PRP II	30,000

## Project Concept

**Country:** Turkmenistan

**Title:** Preparation of HCFC Phase-out Management Plan Stage II (refrigeration servicing sector)

**Project Duration:** 12 months

**Project Budget:** US\$ 30,000 (excl. 7% Agency Support Costs)

**Implementing Agency:** UNIDO

**Coordinating Agency:** National Ozone Unit

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## Project Summary

The HCFC Phase-out Management Plan (HPMP) for Turkmenistan was approved in December 2010 at the 62<sup>nd</sup> meeting of the Executive Committee held in Montreal, Canada. The project was approved in accordance with the agreement between the Government and the Executive Committee for the period 2010 to 2020 to meet the 35 per cent reduction in HCFC consumption. The total funding of US\$ 652,050 was provided to address HCFC consumption in the refrigeration servicing sector.

The first stage of the HPMP includes the freeze of HCFC-s consumption in 2013, 10% reduction of HCFC-s consumption by 2015 and subsequent 5% reduction each year till 2020. The starting point for sustained aggregate reductions in HCFC consumption selected by the Government of Turkmenistan was calculated using the estimated baseline, which was an average of its 2009 actual consumption and estimated 2010 consumption.

The first tranche of Stage I of the HPMP for Turkmenistan, and the corresponding implementation plan, was approved at the amount of US\$ 309,050 plus agency support cost of US\$ 23,179 for UNIDO.

Second tranche of Stage I of the HPMP was approved at the 71<sup>st</sup> meeting at the amount of US\$ 94,500 plus agency support costs of US\$ 7,087 for UNIDO.

Third tranche of Stage I of the HPMP was approved at the 76<sup>th</sup> meeting at the amount of US\$ 215,250 plus agency support costs of US\$ 16,144 for UNIDO and is currently under implementation.

Furthermore, the Government of Turkmenistan is seeking assistance to initiate the preparation of the ODS phase-out plan post 2020 under the Stage II of HPMP, that required intervention for the

further compliance with the Montreal Protocol HCFCs phase-out target obligations. It is in line to meet the levels of funding for PRP for stage II of HPMPs set by Decision 71/42(d), for the remaining eligible of consumption of 4,42 ODP HCFC-22. This is in consistency with the Guidelines for submitting a preparatory funding request for the Stage II, less than 2 years before completion of the Stage I of HPMP, and as per the approved Business Plan.

There is a need for the preparation of the HPMP Stage II to clarify the national phase-out strategy post 2020, addressing the future HCFCs phase-out to be in line with MP consumption reduction targets. This will enable the country to maintain the momentum achieved as well as the same level of commitment from the counterparts and key stakeholders.

The preparation for Stage II of the HPMP has to be achieved, as per the country needs, before completion of the Stage I implementation, to provide support and draw the scenario to address in a sustained manner the servicing-sector phase-out planning post 2020, respectively a reduction of 67.5% reduction by 2025. The remaining eligible consumption for HCFC-22 amounts is 4,42 ODP tonnes in the manufacturing servicing sector.

The relevant progress achieved with the HPMP Stage I implementation is demonstrated by the HCFCs consumption level of 2015 (4,23 ODP) and level of 2016 (5,13 ODP) respectively, that are below the consumption target.

Progress in implementation of the overall Stage I HPMP in Turkmenistan included the following:

- a) strengthening legislation on HCFCs control and import/export and proper enforcement of regulation on ODSs import/export licensing and quota system;
- b) ban on imports or placing on the market of products and equipment containing/relying on HCFCs;
- c) ban on new HCFC installations;
- d) holding of training seminars on issues of replacement during laboratory researches;
- e) training of refrigeration technicians on HCFCs;
- f) training of the State Customs Service personnel on the issues of control and prevention of illegal import/export of ODS and ODS-containing goods;
- g) coordination with stakeholders.

In light of above, UNIDO will undertake a comprehensive survey for the servicing refrigeration sector to collect updated HCFC consumption data, details on where the refrigerants is used as well as the type of equipment and ownership information. In this context, there is a need to hold several stakeholder consultation meetings, including the Government to design a proper plan to be incorporated into the overall strategy for the servicing sector.

Stage II of HPMP will be based on data collected during Stage I implementation, however, deeper assessment is required for such data in servicing sector and for ensuring relevant contribution from stakeholders.

The following activities shall be undertaken for the preparation of Stage II HPMP for Turkmenistan to be prepared from the proposed funding:

- Data Collection and Surveys
  - Collection, verification and validation of HCFC consumption in both sectors (Refrigeration) through survey of Government departments, traders, distributors, importers, manufacturers to assess the distribution of HCFC consumption (update previous data collection)
- Develop a plan for implementation of the servicing related activities to be integrated in the overall strategy
- Evaluate the climate co-benefits
- Prepare a project document

In accordance with the Guideline 71/55, the preparatory funds are requested for UNIDO, as follows:

Activities	Total
Preparation of Refrigeration Servicing strategy post 2020	
Survey to update consumption by sub-sectors all over the country	10,000
National Stakeholders consultation meetings (public institutions)	3,000
Private sector consultations meetings	7,000
Consultancy (national and international consultant) and preparation of project document	10,000
<b>TOTAL PRP II</b>	<b>30,000</b>

The requested funding level of USD 30,000 is fully in compliance with ExCom Decision 71/42.

Furthermore, the expecting progress in implementation of HPMP Stage II is as below:

- Coordinating, promoting and monitoring in-country activities for phasing-out of HCFCs and other ODSs;
- Collecting, analyzing and disseminating information on technology innovations in the RAC sector;
- To work out national customs codes for all substances serving as refrigerants;
- To raise the level of public awareness as concerns issues of the ozone layer protection by involvement of mass media, improvement of educational programs, co-operation with non-governmental organizations, etc.;
- Facilitating exchange of information with other Parties and bodies established by the Protocol;
- Collection, processing and reporting of information on annual ODSs consumption;
- To introduce a system of incentive measures in combination with the public policy actions

directed at the encouragement of utilization of HCFC substitutes and HCFC recycling;

- To ensure the proper control over the composition of substances applied for import, export(laboratory control);
- To fit out a laboratory performing control over the imported refrigerants;
- To conduct further Customs officers training / Technical staff training / Laboratory assistance training;
- R&R equipment, Identifiers etc.

## Project Concept

<b>Country:</b>	Armenia
<b>Title:</b>	Extension of Institutional Strengthening for the implementation of Montreal Protocol in Armenia – Phase VI
<b>Project Duration:</b>	24 months (April 2019 – March 2021)
<b>Project Budget:</b>	153,600 (excl. 7% Agency Support Costs)
<b>Implementing Agency:</b>	UNIDO
<b>Coordinating Agency:</b>	Armenian Ministry of Nature Protection/National Ozone Unit

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## Project Summary

The project is addressing further institutional strengthening and capacity building for the Ministry of Nature Protection/ National Ozone Unit and will ensure that the Government will meet its obligations under the Montreal Protocol on the substances that deplete the Ozone Layer.

In this context, the role and functions of the National Ozone Unit (NOU) established within the Ministry of Nature Protection (MNP) of Armenia in 2005 remained unchanged. The National Ozone Unit within the Ministry of Nature Protection of Armenia (MNP) is responsible for overall coordination, implementation and monitoring the project activities in Armenia and will be assisted in monitoring and identification of Ozone-depleting substances consumption by sub-sectors, updating the needed national policies and regulations, with focus on HCFCs consumption targets compliance as well as for ensuring coordination with the enabling activities for the Kigali Amendment to Montreal Protocol. It has a major role in the process of monitoring of MP projects activities.

The NOU actively cooperate with ministries and inter-ministerial bodies as well as with advisory groups such as customs authorities, refrigeration sector representatives, NGOs and others.

Substantive progress was achieved during IS Phase V in reviewing the specific national regulations aiming at controlling the imports, transits and any ODSs movement in the country, respectively Armenia improved the HCFCs control taking into account the regional approach, adopting the integrated regional concept and being an active member of the region.

The IS Phase VI extension request aims to address sustainability of the NOU by ensuring continuity of the staff. The IS Phase VI will assist the Government meet its obligations on the HCFCs phase out process and will prepare the country for HFCs restrictions, in an integrated manner and having regarded the enabling activities separately approved funding.

The National Ozone Unit within the Ministry of Nature Protection of Armenia (MNP) will be responsible for and oversees the implementation of the project in accordance with the objectives and activities. 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.

## Project Concept

<b>Country:</b>	Mexico
<b>Title:</b>	Extension of Institutional Strengthening for the implementation of Montreal Protocol in Mexico – Phase XIV
<b>Project Duration:</b>	24 months (1 July 2019 – 30 June 2021)
<b>Project Budget:</b>	USD 316,160 (excluding USD 22,131 representing 7.0% Agency Support Costs)
<b>Implementing Agency:</b>	UNIDO
<b>Coordinating Agency:</b>	National Ozone Unit, Environmental and Natural Resources Secretariat (SEMARNAT)

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## 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.

## Project Concept

<b>Country:</b>	Sultanate of Oman
<b>Title:</b>	Extension of Institutional Strengthening for the implementation of Montreal Protocol in Oman – Phase VII
<b>Project Duration:</b>	24 months (December 2018 – November 2020)
<b>Project Budget:</b>	US\$ 87,638 (excl. 7% Agency Support Costs)
<b>Implementing Agency:</b>	UNIDO
<b>Coordinating Agency:</b>	Ministry of Environment and Climate Affairs / Ozone Layer Protection Section (NOU)

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### **Project Summary**

Six phases of institutional strengthening support have been approved for Oman. The National Ozone Unit has been supervising and coordinating the conversion and phase-out programme in all sectors covered by the Montreal Protocol. NOU has direct access to the decision makers in order to facilitate the projects implementation and the enforcement of ODS legislations.

NOU activities in Oman were continued and sustained during the implementation of the IS Phase VI, with a specific focus on HCFCs compliance targets. The IS Phase VII 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. Steering Committees that are already set up in the country (National Ozone Committee and the technical taskforces) will be supported and involved in the awareness activities dedicated to the HFCs related future control in the country.

The NOU will monitor all the project activities as per the Country Programme and their on-going HCFCs phase-out activities.



## Project Concept

<b>Country:</b>	Albania
<b>Title:</b>	Verification report of compliance with HPMP agreement
<b>Project Duration:</b>	24 months
<b>Project Budget:</b>	US\$ 30,000 (excl. 9% Agency Support Costs)
<b>Implementing Agency:</b>	UNIDO
<b>Coordinating Agency:</b>	Ministry of Tourism and Environment/ National Ozone Unit

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## Project Summary

### 1. Background

Funding requirement for the preparation of verification report of compliance with HPMP agreement is being requested in accordance with UNEP/OzL.Pro/ExCom/81/58.

The HCFC Phase-out Management Plan for the Republic of Albania was approved in July 2011 at the 64th Meeting of the Executive Committee held in Montreal, Canada. The project was approved in accordance with the agreement between the Government and the Executive Committee for the period 2011 to 2020 to meet the 35 per cent reduction in HCFC consumption, and on the understanding that the total funding of US\$ 283,500 (US\$ 31,500 is still to be requested in the remaining years of Stage I) has been provided to address HCFC consumption in the refrigeration servicing sector.

### 2. Decision 81/33: Verification reports of low-volume consuming (LVC) countries' compliance with their HPMP agreement.

The Executive Committee decided to request relevant bilateral and implementing agencies to include in their amendments to their respective work programmes, due for submission to the 82nd meeting, funding, in the amount of US \$30,000, plus agency support costs, for verification reports for stage I of the HPMPs for the following 16 Article 5 countries: Albania, the Bahamas, Cuba, Fiji, the Gambia, the Lao People's Democratic Republic, Madagascar, Malawi, Mongolia, the Niger, Saint Lucia, Sao Tome and Principe, Serbia, Sri Lanka, Turkmenistan and Uganda.

## Project Concept

<b>Country:</b>	Niger
<b>Title:</b>	Verification report of compliance with HPMP agreement
<b>Project Duration:</b>	24 months
<b>Project Budget:</b>	US\$ 30,000 (excl. 9% Agency Support Costs)
<b>Implementing Agency:</b>	UNIDO
<b>Coordinating Agency:</b>	Ministry of Environment, Urban Sanitation and Sustainable Development / BNO (NOU)

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## Project Summary

### 1. Background

Funding requirement for the preparation of verification report of compliance with HPMP agreement is being requested in accordance with UNEP/OzL.Pro/ExCom/81/58.

The HCFC Phase-out Management Plan for Niger was approved in April 2012 at the 66th Meeting of the Executive Committee held in Montreal, Canada. The project was approved in accordance with the agreement between the Government and the Executive Committee for the period 2012 to 2020 to meet the 35 per cent reduction in HCFC consumption, and on the understanding that the total funding of US\$ 560,000 (second and third tranche are still to be requested) has been provided to address HCFC consumption in the refrigeration servicing sector.

### 2. Decision 81/33: Verification reports of low-volume consuming (LVC) countries' compliance with their HPMP agreement.

The Executive Committee decided to request relevant bilateral and implementing agencies to include in their amendments to their respective work programmes, due for submission to the 82nd meeting, funding, in the amount of US \$30,000, plus agency support costs, for verification reports for stage I of the HPMPs for the following 16 Article 5 countries: Albania, the Bahamas, Cuba, Fiji, the Gambia, the Lao People's Democratic Republic, Madagascar, Malawi, Mongolia, the Niger, Saint Lucia, Sao Tome and Principe, Serbia, Sri Lanka, Turkmenistan and Uganda.

## Project Concept

<b>Country:</b>	Serbia
<b>Title:</b>	Verification report of compliance with HPMP agreement
<b>Project Duration:</b>	24 months
<b>Project Budget:</b>	US\$ 30,000 (excl. 9% Agency Support Costs)
<b>Implementing Agency:</b>	UNIDO
<b>Coordinating Agency:</b>	Ministry of Environmental Protection Department for Air and Ozone Layer Protection Group for Ozone Layer Protection

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## Project Summary

### 1. Background

Funding requirement for the preparation of verification report of compliance with HPMP agreement is being requested in accordance with UNEP/OzL.Pro/ExCom/81/58.

The HCFC Phase-out Management Plan for Serbia was approved in December 2010 at the 62nd Meeting of the Executive Committee held in Montreal, Canada and updated in December 2013 at the 71<sup>st</sup> meeting held in Montreal, Canada. The project was approved in accordance with the agreement between the Government and the Executive Committee for the period 2010 to 2020 to meet the 35 per cent reduction in HCFC consumption, and on the understanding that the total funding of US\$ 973,260, as per the updated Agreement, (fourth tranche is still to be requested) has been provided to address HCFC consumption in the refrigeration servicing sector.

### 2. Decision 81/33: Verification reports of low-volume consuming (LVC) countries' compliance with their HPMP agreement.

The Executive Committee decided to request relevant bilateral and implementing agencies to include in their amendments to their respective work programmes, due for submission to the 82nd meeting, funding, in the amount of US \$30,000, plus agency support costs, for verification reports for stage I of the HPMPs for the following 16 Article 5 countries: Albania, the Bahamas, Cuba, Fiji, the Gambia, the Lao People's Democratic Republic, Madagascar, Malawi, Mongolia, the Niger, Saint Lucia, Sao Tome and Principe, Serbia, Sri Lanka, Turkmenistan and Uganda.

## Project Concept

<b>Country:</b>	Turkmenistan
<b>Title:</b>	Verification report of compliance with HPMP agreement
<b>Project Duration:</b>	24 months
<b>Project Budget:</b>	US\$ 30,000 (excl. 9% Agency Support Costs)
<b>Implementing Agency:</b>	UNIDO
<b>Coordinating Agency:</b>	National Ozone Unit

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## Project Summary

### 1. Background

Funding requirement for the preparation of verification report of compliance with HPMP agreement is being requested in accordance with UNEP/OzL.Pro/ExCom/81/58.

The HCFC Phase-out Management Plan for Turkmenistan was approved in December 2010 at the 62nd Meeting of the Executive Committee held in Montreal, Canada. The project was approved in accordance with the agreement between the Government and the Executive Committee for the period 2010 to 2020 to meet the 35 per cent reduction in HCFC consumption, and on the understanding that the total funding of US\$ 652,050 was provided to address HCFC consumption in the refrigeration servicing sector.

### 2. Decision 81/33: Verification reports of low-volume consuming (LVC) countries' compliance with their HPMP agreement.

The Executive Committee decided to request relevant bilateral and implementing agencies to include in their amendments to their respective work programmes, due for submission to the 82nd meeting, funding, in the amount of US \$30,000, plus agency support costs, for verification reports for stage I of the HPMPs for the following 16 Article 5 countries: Albania, the Bahamas, Cuba, Fiji, the Gambia, the Lao People's Democratic Republic, Madagascar, Malawi, Mongolia, the Niger, Saint Lucia, Sao Tome and Principe, Serbia, Sri Lanka, Turkmenistan and Uganda.

The project is addressing further HCFC phase-out management plan (stage II), including the Institutional Strengthening project (Phase V) for the State Committee on Environment Protection and Land Resources of Turkmenistan/ National Ozone Unit and will ensure that the Government will meet its obligations under the Montreal Protocol on the substances that deplete the Ozone Layer.

In this context, the National Ozone Office will be assisted in monitoring and identification of Ozone depleting substances consumption by sub-sectors and updating the needed national policies and regulations, with a focus on HCFCs.

The National Ozone Unit (NOU) within the administrative structure of the State Committee on Environment Protection and Land Resources of Turkmenistan is the unit responsible in the country to carry out the activities related to the Montreal Protocol. Its activities are supervised by the Chairman of the State Committee on Environment Protection and Land resources of Turkmenistan and the representative of the National Ozone Unit.

The National Ozone Unit within the State Committee on Environment Protection and Land Resources of Turkmenistan is responsible for and oversees the implementation of the HPMP project and ensure the further phase out of the annual HCFCs consumption, beyond the 10% reduction target achieved in 2015 and will result in a phase out of 35% by 2020 and Stage II from 2020 till 2040 in a complete phase out of 100%. It has a major role in the process of monitoring of the project activities.

The NOU actively cooperate with ministries and inter-ministerial bodies as well as with advisory groups such as customs authorities, refrigeration sector representatives and others.

The NOU will envisage proper awareness among HPMP stakeholders, as well as monitoring of the HCFCs consumption by sub-sectors with a view to the reporting obligations. The NOU will coordinate all the on-going HCFCs phase-out activities with a focus on available alternatives on the internal market.

## Project Concept

<b>Country:</b>	Jordan
<b>Title:</b>	Enabling activities for HFC phase-down
<b>Project Duration:</b>	18 months
<b>Project Budget:</b>	US\$ 150,000 (excl. 7% Agency Support Costs)
<b>Implementing Agency:</b>	UNIDO
<b>Coordinating Agency:</b>	National Ozone Unit

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## Project Summary

### General Statements

*The Government of Jordan as well as UNIDO, as the implementing agency, confirm that implementation of the enabling activities would not delay implementation of HCFC phase-out projects.*

*The Government of Jordan confirms its intention to make best efforts to ratify the Kigali Amendment as early as possible.*

*The Government of Jordan confirms that the budget for activities under Enabling Activities will follow the UNIDO rules and regulations. Execution modalities will follow the principle of best value for money.*

### 1. Background

Jordan has conducted a national inventory of HFCs and a survey on alternatives to ODS financed by CCAC and the MLF. This survey indicates the current supply and consumption of HFC and ODS alternatives and provides future projections of growth patterns by substances and sector in line with the multilateral fund secretariat decision 75/77.

The consumption of ODS alternatives in Jordan has been observed in the refrigeration and air-conditioning (RAC) sector including their servicing, MAC, firefighting, aerosol and foam application. Under the RAC sector, it is used in unitary air-conditioning, water chillers, domestic refrigeration (refrigerators and plug-in-freezers), commercial refrigeration (stand-alone system, centralized system), industrial refrigeration (small, medium and large sized cold rooms), mobile air-conditioning, and transport refrigeration (road vehicles such as vans, trucks and trailers).

Jordan neither produces nor exports ODS or ODS alternatives and entirely relies on imports for its own consumption. Growing population, increase in income levels, increase in number of construction activities in the residential sector, expansion in the commercial and institutional (education institute, office space) sector and expansion in transportation, hospitality and tourism industry are the prime factors that drive the growth in consumption of ODS and ODS alternatives in Jordan.

The survey reveals that R-134a, R-404A, R-407C, R-410A, R-600a and R-717 are the main refrigerants used in the RAC sector. The R-134a is the main ODS alternative employed and counts for 70% of the total alternatives used during the period 2012-2015 with an annual growth rate of up to 10%, followed by R-404A (18%) and R-407C (10%) with an annual growth rate of 5% for each. The rest of the alternatives (R-410A, R-600a and R-717) are introduced recently and count for only 2% of the total alternatives. For insulation, the C-Pentane is found to be the main alternative for the HFC-141b used in this sector as a blowing agent.

The consumption of HFCs and other alternatives of the main refrigerants (R-134a, R-404A, R-407C, R-410A, R-600a and R-717) in Jordan has increased from about 1307 MT in 2012 to 1532 MT in 2015, representing a compound annual growth of about 17% over the said period. Based on projected annual growth rates in demand forecasted for ODS alternatives until 2030, it is estimated that the consumption of these substances is likely to reach about 7638 MT in 2030. This demand of ODS alternatives will be dominated by the RAC and MAC sector.

While the survey indicated a wide range of HFC uses in the RAC and MAC, there were limited applications of HFCs in firefighting systems, aerosol and foam applications. Moreover, the survey didn't result in any HFC applications in the solvent.

Among various alternatives used in the country, consumption of HFC and its blends are likely to increase tremendously by 2030, potentially leading to notable environmental impacts on global warming. The total potential direct emission of HFC in all sector applications is estimated to reach 2650.171 Thousand tCO<sub>2</sub>eq. in the year 2015 and this is expected to increase to 15753.28 Thousand tCO<sub>2</sub>eq. in the year 2030.

However, this can be avoided through the introduction of low-GWP based alternatives to replace HCFCs and HFCs.

## **2. Objectives**

The main objective of these enabling activities is to prepare Jordan for the ratification and early implementation of the Kigali Amendment to the Montreal Protocol, considering the situation above stated with regard to the current HFCs' consumption and through the following lines of action:

- Support for the early ratification of the Kigali Amendment,

- Support to the institutional arrangements,
- Review of the licensing systems,
- Review of the data reporting systems and
- Demonstration of non-investment activities.

The survey states that Jordan is concerned about its technology choices and technology future in the context of MP implementation. It would like to better understand the current and future role of HFCs as well as other HCFC alternatives in its economy, particularly given HCFC phase out requirements in foam and servicing to meet its Stage II compliance targets (2017-2022) and the HFC amendment.

These enabling activities are furthermore taking in consideration the recommendations as a result of the survey, stating that a strategic roadmap along with an action plan to ensure reduced consumption of HFCs could be formulated. The most significant challenges and constraints for such action include cost-effective availability of mature and proven technologies that suits the Jordan climatic conditions including forward looking regulatory measures.



### 3. Proposed approach and activities

#### a. Activities to facilitate and support the early ratification of the Kigali Amendment

National Ozone Officers should facilitate the ratification process by providing the required data, information and background documents to the ratification institutions.

These activities are aiming to inform and prepare all involved stakeholders specifically for the ratification of the Kigali amendment.

Activities	Responsible entity	Target group	Start date	Completion date	Budget (US \$)	Milestones	Expected outputs
<p>Coordination with Government representatives and other national stakeholders</p> <p>--- Raising awareness amongst the public and other stakeholders.</p>	<p>NOU with support of UNIDO</p>	<p>Related ministries, legislators, the refrigeration association, and other stakeholders.</p> <p>--- The public and relevant stakeholders, including but not limited to the economic sector, the civil society and NGOs.</p>	<p>Jan 2019</p>	<p>April 2019</p>	<p>10,000</p>	<p>One or two national workshop(s) delivered.</p> <p>--- Workshop report(s) published.</p>	<p>Steering committee, task forces and/or working groups set up as appropriate.</p> <p>--- Roles and tasks for the ratification of the amendment distributed among relevant bodies.</p> <p>--- Awareness on the ratification raised among relevant stakeholders including the public.</p>
<p>Supporting national ratification instruments</p>		<p>Legislators</p>				<p>5,000</p>	<p>Supporting documents distributed among ministries and legislators</p>

b. Initial activities identified in paragraph 20 of decision XXVIII/2, excluding institutional strengthening, as addressed in decision 78/4(b)

*b.1 Country-specific activities aimed at initiating supporting institutional arrangements*

Institutional arrangement is what integrates analysis and decision-making tools, and it is the precondition of a successful ratification.

Activities	Responsible entity	Target group	Start date	Completion date	Budget (US \$)	Milestones	Expected outputs
Review of codes and standards, permits, inspections, operating standards for HFC and flammable/toxic low- and zero-GWP alternatives (use, maintenance, end-user), prohibitions, testing, labelling (customs, wholesalers or distributors), taking into account regional and international practices.	NOU with the support of UNIDO.	Related ministries, departments, legislators, servicing sector, suppliers, standards bodies.	April 2019	Sept 2019	20,000	Meetings conducted if needed. --- A desktop study delivered. --- A report published.	A proposal for updating codes and standards prepared and presented.

*b.2 Review of licensing systems*

Properly established and functioning licensing systems play a key role in sustaining the impressive results achieved so far under the Montreal Protocol and also in facilitating the realization of new, ambitious strategies.

<b>Activities</b>	<b>Responsible entity</b>	<b>Target group</b>	<b>Start date</b>	<b>Completion date</b>	<b>Budget (US \$)</b>	<b>Milestones</b>	<b>Expected outputs</b>
Enhancement of the import and export license system to include HFCs and other alternatives.	NOU with the support of UNIDO.	Customs division, Trade Department, relevant ministries.	Jun 2019	Feb 2020	35,000	A workshop with relevant stakeholders delivered --- A report published on this topic	Identification of necessary regulatory and administrative measures for the control of HFCs' imports and exports.
Preparing harmonized tariff codes according to HFCs commitments, with special attention to HFC blends.						A workshop with relevant stakeholders delivered --- A report published on this topic	Proposal on local harmonized tariff codes for HFCs.

*b.3 Data reporting on HFC consumption*

National data reporting is the backbone of the strategic planning, monitoring and evaluation of the institutions of the Montreal Protocol.

These activities are investigating the need for updates in Jordan's in the existing reporting system to prepare and improve for future reporting needs under the Kigali Amendment.

Activities	Responsible entity	Target group	Start date	Completion date	Budget (US \$)	Milestones	Expected outputs
Review of the national mechanisms used for ODS reporting to include HFCs consumption, especially considering the servicing sector (the informal sector in particular)	NOU with the support of UNEP	Relevant ministries and Customs	Jun 2019	Mar 2020	16,000	A workshop with relevant stakeholders delivered --- A report published on this topic	National mechanism updated

c. Demonstration of non-investment activities

Demonstration projects assist the country to gain a more precise and targeted overview on ODS alternatives and have a better understanding on their characteristics and potential applications.

These activities are particularly addressing Jordan's concern about its technology choices and technology future in the context of MP and Kigali implementation. This will help to better understand the current and future role of HFCs as well as other HCFC alternatives in its economy.

Activities	Responsible entity	Target group	Start date	Completion date	Budget (US \$)	Milestones	Expected outputs
Assessment of national barriers and opportunities for the use and further uptake of low- and zero-GWP ODS alternative, with a special focus on the availability and accessibility and their related equipment.	NOU with the support of UNIDO.	Importers, technicians, technology suppliers, end users and other relevant stakeholders .	Jul 2019	Jan 2020	30,000	Working group meetings conducted.  Technical feasibility study on alternatives prepared.  A report published.	An assessment of national barriers and opportunities prepared.  --- First proposals on possible financial instruments, policies and technical assistance to address national barriers to the introduction of alternatives prepared.

d. d. Awareness, Communication and Dissemination

d.1 Awareness activities on key information and results from the activities A to C

These activities are planned to ensure that all involved stakeholders are informed about the activities conducted relevant to their areas.

Activities	Responsible entity	Target group	Start date	Completion date	Budget (US \$)	Milestones	Expected outputs
<p>Awareness raising of stakeholders (public and private sectors) on HFC phase-down and energy efficiency improvement options</p> <p>Dissemination of documents and materials obtained during the enabling activities project implementation and preparation of additional information material</p>	NOU with the support of UNIDO.	Sectors involved in HFC phase-down (manufacturing and servicing sector); Public	Jun 2019	Jun 2020	34,000	<p>National Workshop with main stakeholders developed.</p> <p>Leaflets, informative material elaborated and disseminated.</p> <p>Documents or materials are edited, printed and distributed.</p>	<p>Public and private stakeholders are informed and aware of KA commitments, current situation on HFC and actions as well as national challenges and technical alternatives</p> <p>---</p> <p>Communication and dissemination of national key information on HFC phase-down (e.g. roadmap, studies)</p>

**4. Implementation budget and plan**

Enabling Activity		Budget per cost item (USD)	Budget Requested (USD)
a. Activities to support the early ratification of the Kigali Amendment	<ul style="list-style-type: none"> <li>- Workshops</li> <li>- National consultants</li> <li>- Travel</li> </ul>	6,000 7,000 2,000	15,000
b.1. Institutional arrangements	<ul style="list-style-type: none"> <li>- Coordination meetings</li> <li>- National consultants</li> <li>- International consultant</li> <li>- Travel</li> <li>- Misc. (printing, document preparation, communication etc.)</li> </ul>	2,000 6,000 5,000 5,000 2,000	20,000
b.2. Licensing systems	<ul style="list-style-type: none"> <li>- Workshop and coordination meetings</li> <li>- National consultants</li> <li>- Travel</li> <li>- Other contractual services (internat. consulting company)</li> </ul>	6,000 8,000 6,000 15,000	35,000
b.3. Data reporting on HFC consumption	<ul style="list-style-type: none"> <li>- Meeting</li> <li>- National consultants</li> <li>- Travel</li> <li>- Misc. (printing, document preparation, communication etc.)</li> </ul>	3,000 10,000 2,000 1,000	16,000
c. Demonstration of non-investment activities	<ul style="list-style-type: none"> <li>- Meetings</li> <li>- National consultant</li> <li>- Travel</li> <li>- Other contractual service (internat. consulting company)</li> </ul>	3,000 6,000 5,000 16,000	30,000
d. Awareness, Communication and Dissemination	<ul style="list-style-type: none"> <li>- Workshop and meetings</li> <li>- National consultant</li> <li>- International consultant</li> <li>- Travel</li> <li>- Other contractual service (internat. consulting company)</li> <li>- Misc. (printing, document preparation, communication, advertisements etc.)</li> </ul>	6,000 4,000 4,000 8,000 5,000 7,000	34,000
		<b>TOTAL</b>	<b>150,000</b>



## **5. Institutional arrangements**

The National Ozone Unit (NOU) and the United Nations Industrial Development Organization (UNIDO) will be jointly responsible for the correct implementation of the above mentioned activities.

The role of UNIDO will be focused on the general implementation and execution of the enabling activities and the appropriate expenditure of the funds allocated for each of them. Besides, UNIDO will provide technical assistance based on the support of international experts on the different areas of work.

On its turn, the NOU will collaborate in the implementation of the different activities, including the identification of local experts on the different areas of work, when necessary. Besides, the NOU will provide general guidance on the implementation of the enabling activities based on the national priorities.

## **6. Institutional arrangements**

The National Ozone Unit (NOU) and the United Nations Industrial Development Organization (UNIDO) will be jointly responsible for the correct implementation of the above mentioned activities.

The role of UNIDO will be focused on the general implementation and execution of the enabling activities and the appropriate expenditure of the funds allocated for each of them. Besides, UNIDO will provide technical assistance based on the support of international experts on the different areas of work.

On its turn, the NOU will collaborate in the implementation of the different activities, including the identification of local experts on the different areas of work, when necessary. Besides, the NOU will provide general guidance on the implementation of the enabling activities based on the national priorities.



## Project Concept

<b>Country:</b>	Qatar
<b>Title:</b>	Enabling activities for HFC phase-down
<b>Project Duration:</b>	18 months
<b>Project Budget:</b>	US\$ 100,000 (excl. 7% Agency Support Costs)
<b>Implementing Agency:</b>	UNIDO
<b>Cooperating Agency:</b>	UNEP
<b>Coordinating Agency:</b>	National Ozone Unit

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## Project Summary

### General statements

*The Government of Qatar as well as UNIDO and UNEP, as the implementing agencies, confirm that implementation of the enabling activities would not delay implementation of HCFC phase-out projects.*

*The Government of Qatar confirms its intention to make best efforts to ratify the Kigali Amendment as early as possible.*

*The Government of Qatar confirms that all activities under Enabling Activities will be implemented following model that UNIDO and UNEP will administer the funds and execute the project.*

### 1. Background

At the Sixty-fifth meeting in Bali, Indonesia, from 13 to 17 November 2011, the Executive Committee approved the HPMP for the Government of Qatar by its decision 65/45. Qatar has chosen the 2009 consumption, 86 ODP tonnes, as a base to operate and reductions pursuant to Decision 53/37. However, the reduction steps are built in order to achieve the Montreal Protocol targets compared to the baseline i.e. 59.7 ODP tonnes (average of 2009 and 2010 consumption)

The ODS system of import licenses, in effect since 2007, is applied to imports of HCFC-141b, HCFC-142b and HCFC-22, the sole HCFCs consumed in the country.

Since the ODS alternatives survey was not carried out using the funding window offered by MLF

prior to Kigali Amendment, the government has decided to submit the present proposal of activities to facilitate the ratification of the Kigali amendment and the adaptation of its licensing system, as well as capacity building activities for adopting alternatives to HFCs. Based on the decision of the Executive Committee 79/46, the eligible funding for enabling activities for Qatar is US\$ 150,000.00.

Relevant alternatives to substitute the use of HCFCs in the refrigeration and A/C servicing sector and the XPS foam manufacturing sector in Qatar have been considered. In Qatar, alternatives to ODS, consisting mainly of HFCs, are in chillers. Between 2005 and 2012, HFC-134a was one of the ODS consumed in Qatar. Notably, the most common HFC for all sectors is HFC-134a with an ODP of zero a GWP of 1,300<sup>3</sup>.

## 2. Objectives

The main objective of these enabling activities is to prepare the Government of Qatar for the ratification and early implementation of the Kigali Amendment to the Montreal Protocol, with regard to HFC consumption and through the following lines of action:

- Support for the early ratification of the Kigali Amendment,
- Survey on the use and trends of HFCs with analysis on market directions and projection of growth,
- Support to the institutional arrangements,
- Review of the licensing systems, and
- Review of the data reporting systems.

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[https://www.mdps.gov.qa/en/knowledge/Publications/Environment/Env\\_Environmental\\_Statistic\\_Report\\_En\\_2013.pdf](https://www.mdps.gov.qa/en/knowledge/Publications/Environment/Env_Environmental_Statistic_Report_En_2013.pdf)

### 3. Proposed approach and activities

a. Activities to facilitate and support the early ratification of the Kigali Amendment

National Ozone Officers should facilitate the ratification process by providing the required data, information and background documents to the ratification institutions.

Activities	Responsible entity	Target group	Start date	Completion date	Budget (US \$)	Milestones	Expected outputs
Coordination with Government representatives	NOU with the support of UNIDO	Related ministries and legislators	Jan. 2019	Jun. 2019	10,000	One meeting with ministries' representatives and legislators conducted	Roles and tasks for the ratification of the amendment distributed among relevant stakeholders
Supporting national ratification instruments		Legislators				Supporting documents distributed among ministries and legislators	Legislators have all necessary documents and knowledge for the vote on the amendment's ratification

b. HFC Survey and analysis

Activities	Responsible entity	Target group	Start date	Completion date	Budget (US \$)	Milestones	Expected outputs
Conduct a detailed survey of HFC consumption, distribution and uses. Analyze historical and predicted consumption trends in the various relevant sectors	NOU with the support of UNIDO	Relevant governmental and private stakeholders consuming HFCs and/or involved in the implementation of MP commitments	Mar. 2019	Nov. 2019	50,000	A survey report	Complete view of the HFC consumption and trend

c. Initial activities identified in paragraph 20 of decision XXVIII/2, excluding institutional strengthening, as addressed in decision 78/4(b)

*b.1 Country-specific activities aimed at initiating supporting institutional arrangements*

The strengthening of the capacity of existing institutional arrangements and policy framework will facilitate the implementation of the Kigali Amendment.

Activities	Responsible entity	Target group	Start date	Completion date	Budget (US \$)	Milestones	Expected outputs
Review of operating codes, standards, permits, and inspections for HFC and flammable/toxic low- and zero-GWP alternatives (use, maintenance, end-user), prohibitions, testing, labelling (customs, wholesalers or distributors), taking into account regional and international practices.	NOU with the support of UNEP.	Related ministries, departments, legislators, servicing sector, suppliers, standards bodies.	Mar. 2019	Sep. 2019	25,000	Meetings conducted if needed. --- A desktop study delivered. --- A report published.	A proposal for updating codes and standards prepared and presented.

*b.2 Review of licensing systems*

Properly established and functioning licensing systems play a key role in sustaining the impressive results achieved so far under the Montreal Protocol and also in facilitating the realization of new, ambitious strategies.

<b>Activities</b>	<b>Responsible entity</b>	<b>Target group</b>	<b>Start date</b>	<b>Completion date</b>	<b>Budget (US \$)</b>	<b>Milestones</b>	<b>Expected outputs</b>
Enhancement of the import and export license system to include HFCs and other alternatives.	NOU with the support of UNIDO.	Customs division, Trade Department, relevant ministries.	Mar. 2019	Jun. 2020	40,000	A workshop with relevant stakeholders delivered --- A report published on this topic	Identification of necessary regulatory and administrative measures for the control of HFCs' imports and exports.
Preparing harmonized tariff codes according to HFCs commitments, with special attention to HFC blends.							A workshop with relevant stakeholders delivered --- A report published on this topic

*b.3 Data reporting on HFC consumption*

National data reporting is the backbone of the strategic planning, monitoring and evaluation of the institutions of the Montreal Protocol.

<b>Activities</b>	<b>Responsible entity</b>	<b>Target group</b>	<b>Start date</b>	<b>Completion date</b>	<b>Budget (US \$)</b>	<b>Milestones</b>	<b>Expected outputs</b>
Review of the national mechanisms used for ODS reporting to include HFCs consumption, especially considering the servicing sector (the informal sector in particular)	NOU with the support of UNEP	Relevant ministries and Customs	May. 2019	Jun. 2020	25,000	A workshop with relevant stakeholders delivered --- A report published on this topic	National mechanism updated

#### 4. Implementation budget and plan

Enabling Activity		Budget Requested (USD)
a. Activities to support the early ratification of the Kigali Amendment	a.1. Coordination with Government representatives Consultation meeting (USD 5000)	5,000
	a.2. Supporting national ratification instruments Translation of supporting documents	5,000
b. HFC Survey and analysis	b. Detailed survey of HFC consumption, distribution and uses. Contracting local to conduct the survey (USD 50,000)	50,000
c.1. Institutional arrangements	c.1. Reviewing operating codes and standards for the efficient use of HFCs and ODS alternatives in the RAC servicing and XPS foam manufacturing sectors Workshop (USD 5,000) National consultant (USD 2,000 x 6 months) International consultant (USD 8,000)	25,000
c.2. Licensing system	c.2.1. Enhancement of the import and export license system to include HFCs and other alternatives Workshop (USD 5,000) Local team (USD 1,500 x 10 months)	20,000
	c.2.2. Preparing harmonized tariff codes according to HFCs commitments, with special attention to HFC blends Workshop (USD 5,000) Local team (USD 1,500 x 10 months)	20,000
c.3. Data reporting on HFC consumption	c.3 Review of the national mechanisms used for ODS reporting to include HFCs consumption Workshop (USD 5,000) National consultant (USD 2,000 x 10 months)	25,000
<b>Total</b>		<b>150,000</b>

Enabling Activity	Months																	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
a. Activities to support the early ratification of the Kigali Amendment	■	■	■	■	■	■												
b. HFC Survey and analysis			■	■	■	■	■	■	■	■	■	■						
c.1. Institutional arrangements			■	■	■	■	■	■	■									
c.2. Licensing systems			■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
c.3. Data reporting on HFC consumption					■	■	■	■	■	■	■	■	■	■	■	■	■	■

## **5. Institutional arrangements**

The National Ozone Unit (NOU) belonging to the Ministry of Municipalities and Environment, United Nations Industrial Development Organization (UNIDO), and the United Nations Environment (UNEP) will be jointly responsible for the correct implementation of the above mentioned activities.

The role of UNIDO will be focused on the general implementation and execution of the enabling activities and the appropriate expenditure of the funds allocated for each of them. Besides, UNIDO will provide technical assistance based on the support of international experts on the different areas of work.

UNEP is the co-operating implementing agency and its roles and responsibilities will include providing assistance with the design and implementation of the needed policy and regulatory instruments.

On its turn, the NOU will collaborate in the implementation of the different activities, including the identification of local experts on the different areas of work, when necessary. Besides, the NOU will provide general guidance on the implementation of the enabling activities based on the national priorities.



## Project Concept

<b>Country:</b>	South Africa
<b>Title:</b>	Enabling activities for HFC phase-down
<b>Project Duration:</b>	18 months
<b>Project Budget:</b>	US\$ 240,000 (excl. 7% Agency Support Costs)
<b>Implementing Agency:</b>	UNIDO
<b>Coordinating Agency:</b>	National Ozone Unit

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## Project Summary

### General Statements

*The Government of South Africa as well as UNIDO, as the implementing agency, confirm that implementation of the enabling activities would not delay implementation of HCFC phase-out projects.*

*The Government of South Africa confirms its intention to make best efforts to ratify the Kigali Amendment as early as possible.*

*The Government of South Africa confirms that the budget for activities under Enabling Activities will follow the UNIDO rules and regulations. Execution modalities will follow the principle of best value for money.*

### 1. Background

South Africa has conducted a national inventory of HFCs and a survey on alternatives to ODS, that indicates the current supply and consumption of HFC and ODS alternatives and provides future projections of growth patterns by substances and sector in line with the multilateral fund secretariat decision 75/77.

Since the phase out of HCFC-141b on 1 January 2016, the consumption of ODS alternatives in South Africa has been observed mostly in the refrigeration servicing sector (RAC), over 95% of the consumption of ODS-alternatives, including Residential and Light Commercial Air-Conditioning Large Air-Conditioning Installations, Commercial Refrigeration, Industrial Refrigeration, Mobile and Automotive Air-Conditioning, Transport Refrigeration, mine cooling

and Marine Refrigeration.

However, all other applications represent only 3-4% of consumption (aerosols, HFC use as foam blowing agent and fire protection sector, contributes very little to the estimated national HFC consumption), so the priority for consideration is the RAC sector.

South Africa does not produce any ODS or ODS-alternatives, and relies solely on imports for domestic needs. There is an overall downward trend, but at a relatively slow rate of decline of the HCFC-22 consumption, however based on the estimates of 2017 consumption based on projections, it is expected decline somewhat more rapidly in the coming years.

The R-134a is the main ODS alternatives employed and count for 40% of the total alternatives been used during the period 2013-2016 with annual growth rate of more than 10%, followed by R-404A (19,5%) and R-507A (17%), R-410A (13,5%) and R-407 C (3%). The rest of the alternatives (HFC-227ea/HFC-365mfc, HFO-1234yf, HFC-152a and HFC-32) are representing small percentage of the total alternatives.

The consumption of HFCs and other alternatives of the main refrigerants (HFC-134a, R-404A, R-410A, and R-507A) in South Africa have increased with annual growth rate of average of around 10%, during the period 2013-2016. Furthermore, at the time of the HCFC survey, HFC penetration in the refrigeration sector was approximately 10-15%. Since then the consumption of HFCs in particular has grown rapidly, in 2016 HFCs and HFC-blends represented approximately 58% of the total consumption of refrigerants. Whilst there has been a general acceptance of hydrocarbons in domestic refrigeration there and some moves towards CO<sub>2</sub> in supermarket refrigeration, the rate of adoption of low-GWP ODS-alternatives remains relatively low.

It is very difficult to make accurate predictions of future, however, among various alternatives used in the country, consumption of HFC are likely to decrease by 2030 and the introduction of low-GWP based alternatives to replace HCFCs and HFCs is of utmost importance in this regard.

## **2. Objectives**

The main objective of these enabling activities is to prepare South Africa for the ratification and early implementation of the Kigali Amendment to the Montreal Protocol, considering the situation above stated with regard to the current HFCs' consumption and through the following lines of action:

- Support for the early ratification of the Kigali Amendment,
- Support to the institutional arrangements,
- Review of the licensing systems,
- Review of the data reporting systems and
- Demonstration of non-investment activities.

The technology choices and technology future in the context of MP implementation should be addressed so that South Africa would receive the better understanding on the current and future role of HFCs as well as other HCFC alternatives in its economy, particularly given HCFC phase out requirements in the foam and servicing sectors to meet its Stage II compliance targets (2017-2022) and the HFC amendment.

These enabling activities are taking in consideration the recommendations from the conducted survey, stating that a strategic roadmap along with an action plan to ensure reduced consumption of HFCs could be formulated. The most significant challenges and constraints for such action include cost-effective availability of mature and proven technologies that suits the South Africa's climatic conditions including forward looking regulatory measures.

### 3. Proposed approach and activities

e. Activities to facilitate and support the early ratification of the Kigali Amendment

National Ozone Unit at the Department of Environmental Affairs should facilitate the ratification process by providing the required data, information and background documents to the ratification institutions.

These activities are aiming to inform and prepare all involved stakeholders specifically for the ratification of the Kigali amendment.

Activities	Responsible entity	Target group	Start date	Completion date	Budget (US \$)	Milestones	Expected outputs
<p>Coordination with Government representatives and other national stakeholders</p> <p>--- Raising awareness amongst the public and other stakeholders.</p>	NOU with support of UNIDO	<p>Related ministries, legislators, the refrigeration association, and other stakeholders.</p> <p>--- The public and relevant stakeholders, including but not limited to the economic sector, the civil society and NGOs.</p>	Jan 2019	April 2019	30,000	<p>Two national workshop(s) delivered.</p> <p>--- Workshop report(s) published.</p>	<p>Steering committee, task forces and/or working groups set up as appropriate.</p> <p>--- Roles and tasks for the ratification of the amendment distributed among relevant bodies.</p> <p>--- Awareness on the ratification raised among relevant stakeholders including the public.</p>
Supporting national ratification instruments		Legislators				10,000	<p>Supporting documents distributed among ministries and legislators</p>

f. Initial activities identified in paragraph 20 of decision XXVIII/2, excluding institutional strengthening, as addressed in decision 78/4(b)

*b.4 Country-specific activities aimed at initiating supporting institutional arrangements*

Institutional arrangement is what integrates analysis and decision-making tools, and it is the precondition of a successful ratification.

Activities	Responsible entity	Target group	Start date	Completion date	Budget (US \$)	Milestones	Expected outputs
Review of codes and standards, permits, inspections, operating standards for HFC and flammable/toxic low- and zero-GWP alternatives (use, maintenance, end-user), prohibitions, testing, labelling (customs, wholesalers or distributors), taking into account regional and international practices.	NOU with the support of UNIDO.	Related ministries, departments, legislators, servicing sector, suppliers, standards bodies.	April 2019	Sept 2019	40,000	Meetings conducted if needed. --- A desktop study delivered. --- A report published.	A proposal for updating codes and standards prepared and presented.

*b.5 Review of licensing systems*

Properly established and functioning licensing systems play a key role in sustaining the impressive results achieved so far under the Montreal Protocol and also in facilitating the realization of new, ambitious strategies.

Activities	Responsible entity	Target group	Start date	Completion date	Budget (US \$)	Milestones	Expected outputs
Enhancement of the import and export license system to include HFCs and other alternatives.	NOU with the support of UNIDO.	Customs division, Trade Department, relevant ministries.	Jun 2019	Feb 2020	45,000	A workshop with relevant stakeholders delivered --- A report published on this topic	Identification of necessary regulatory and administrative measures for the control of HFCs' imports and exports.
Preparing harmonized tariff codes according to HFCs commitments, with special attention to HFC blends.						A workshop with relevant stakeholders delivered --- A report published on this topic	

*b.6 Data reporting on HFC consumption*

National data reporting is the backbone of the strategic planning, monitoring and evaluation of the institutions of the Montreal Protocol.

These activities are investigating the need for updates in South Africa's in the existing reporting system to prepare and improve for future reporting needs under the Kigali Amendment.

Activities	Responsible entity	Target group	Start date	Completion date	Budget (US \$)	Milestones	Expected outputs
Review of the national mechanisms used for ODS reporting to include HFCs consumption, especially considering the servicing sector (the informal sector in particular)	NOU with the support of UNEP	Relevant ministries and Customs	Jun 2019	Mar 2020	35,000	A workshop with relevant stakeholders delivered --- A report published on this topic	National mechanism updated

*g. Demonstration of non-investment activities*

Demonstration projects assist the country to gain a more precise and targeted overview on ODS alternatives and have a better understanding on their characteristics and potential applications.

These activities are particularly addressing South Africa's concern about its technology choices and technology future in the context of MP and Kigali implementation. This will help to better understand the current and future role of HFCs as well as other HCFC alternatives in its economy.

Activities	Responsible entity	Target group	Start date	Completion date	Budget (US \$)	Milestones	Expected outputs
Assessment of national barriers and opportunities for the use and further uptake of low- and zero-GWP ODS alternative, with a special focus on the availability and accessibility and their related equipment.	NOU with the support of UNIDO.	Importers, technicians, technology suppliers, end users and other relevant stakeholders	Jul 2019	Jan 2020	40,000	Working group meetings conducted.  Technical feasibility study on alternatives prepared.  A report published.	An assessment of national barriers and opportunities prepared. --- First proposals on possible financial instruments, policies and technical assistance to address national barriers to the introduction of alternatives prepared.

h. d. Awareness, Communication and Dissemination

d.1 Awareness activities on key information and results from the activities A to C

These activities are planned to ensure that all involved stakeholders are informed about the activities conducted relevant to their areas.

Activities	Responsible entity	Target group	Start date	Completion date	Budget (US \$)	Milestones	Expected outputs
<p>Awareness raising of stakeholders (public and private sectors) on HFC phase-down and energy efficiency improvement options</p> <p>Dissemination of documents and materials obtained during the enabling activities project implementation and preparation of additional information material</p>	NOU with the support of UNIDO.	Sectors involved in HFC phase-down (manufacturing and servicing sector); Public	Jun 2019	Jun 2020	40,000	<p>National Workshop with main stakeholders developed.</p> <p>Leaflets, informative material elaborated and disseminated.</p> <p>Documents or materials are edited, printed and distributed.</p>	<p>Public and private stakeholders are informed and aware of KA commitments, current situation on HFC and actions as well as national challenges and technical alternatives</p> <p>---</p> <p>Communication and dissemination of national key information on HFC phase-down (e.g. roadmap, studies)</p>

#### 4. Implementation budget and plan



Enabling Activity		Budget per cost item (USD)	Budget Requested (USD)
a. Activities to support the early ratification of the Kigali Amendment	<ul style="list-style-type: none"> <li>- Workshops</li> <li>- National consultants</li> <li>- Travel</li> <li>- Misc. (printing, document preparation, communication etc.)</li> </ul>	21,000 9,000 7,000 3,000	40,000
b.1. Institutional arrangements	<ul style="list-style-type: none"> <li>- Coordination meetings</li> <li>- National consultants</li> <li>- International consultant</li> <li>- Travel</li> <li>- Misc. (printing, document preparation, communication etc.)</li> </ul>	4,000 10,000 15,000 8,000 3,000	40,000
b.2. Licensing systems	<ul style="list-style-type: none"> <li>- Workshop and coordination meetings</li> <li>- National consultants</li> <li>- Travel</li> <li>- Other contractual services (internat. consulting company)</li> </ul>	15,000 8,000 7,000 15,000	45,000
b.3. Data reporting on HFC consumption	<ul style="list-style-type: none"> <li>- Meeting</li> <li>- National consultants</li> <li>- Travel</li> <li>- Misc. (printing, document preparation, communication etc.)</li> </ul>	9,000 16,000 7,000 3,000	35,000
c. Demonstration of non-investment activities	<ul style="list-style-type: none"> <li>- Meetings</li> <li>- National consultant</li> <li>- Travel</li> <li>- Other contractual service (international consulting company)</li> </ul>	7,000 8,000 5,000 20,000	40,000
d. Awareness, Communication and Dissemination	<ul style="list-style-type: none"> <li>- Workshop and meetings</li> <li>- National consultant</li> <li>- International consultant</li> <li>- Travel</li> <li>- Other contractual service (internat. consulting company)</li> <li>- Misc. (printing, document preparation, communication, advertisements etc.)</li> </ul>	10,000 5,000 5,000 8,000 5,000 7,000	40,000
		<b>TOTAL</b>	<b>240,000</b>



## **5. Institutional arrangements**

National Ozone Unit at the Department of Environmental Affairs and the United Nations Industrial Development Organization (UNIDO) will be jointly responsible for the correct implementation of the above mentioned activities.

The role of UNIDO will be focused on the general implementation and execution of the enabling activities and the appropriate expenditure of the funds allocated for each of them. Besides, UNIDO will provide technical assistance based on the support of international experts on the different areas of work.

On its turn, the NOU will collaborate in the implementation of the different activities, including the identification of local experts on the different areas of work, when necessary. Besides, the NOU will provide general guidance on the implementation of the enabling activities based on the national priorities.