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EXECUTIVE COMMITTEE OF  
THE MULTILATERAL FUND FOR THE  
IMPLEMENTATION OF THE MONTREAL PROTOCOL  
Eighty-first Meeting  
Montreal, 18-22 June 2018

**UNIDO WORK PROGRAMME FOR 2018**

\* Re-issued for technical reasons on 24 May 2018

Pre-session documents of the Executive Committee of the Multilateral Fund for the Implementation of the Montreal Protocol are without prejudice to any decision that the Executive Committee might take following issuance of the document.

## COMMENTS AND RECOMMENDATION OF THE FUND SECRETARIAT

1. UNIDO is requesting approval from the Executive Committee of US \$1,837,417 plus agency support costs of US \$128,619 for its 2018 work programme listed in Table 1. The submission is attached to the present document.

**Table 1: UNIDO's work programme 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>			
Egypt	Renewal of institutional strengthening project (phase XII)	292,253	292,253
Libya	Renewal of institutional strengthening project (phase V)	174,164	174,164
Subtotal for A1		466,417	466,417
Agency support costs (7 per cent for institutional strengthening)		32,649	32,649
Total for A1		499,066	499,066
<b>A2: Project preparation</b>			
Albania	Preparation of an HCFC phase-out management plan (stage II)	30,000	30,000
Congo (the)*	Preparation of an HCFC phase-out management plan (stage II)	15,000	15,000
Ethiopia*	Preparation of an HCFC phase-out management plan (stage II)	8,000	8,000
Guinea-Bissau*	Preparation of an HCFC phase-out management plan (stage II)	10,000	10,000
Malawi*	Preparation of an HCFC phase-out management plan (stage II)	15,000	15,000
Rwanda*	Preparation of an HCFC phase-out management plan (stage II)	8,000	8,000
Subtotal for A2		86,000	86,000
Agency support costs (7 per cent for project preparation)		6,020	6,020
Total for A2		92,020	92,020
<b>A3: Technical assistance for enabling activities (decision 79/46)</b>			
Argentina	Enabling activities for HFC phase-down	250,000	250,000
Egypt*	Enabling activities for HFC phase-down	105,000	105,000
Grenada	Enabling activities for HFC phase-down	50,000	50,000
Libya	Enabling activities for HFC phase-down	150,000	150,000
Morocco	Enabling activities for HFC phase-down	150,000	150,000
Nicaragua	Enabling activities for HFC phase-down	150,000	150,000
Niger	Enabling activities for HFC phase-down	150,000	150,000
Venezuela (Bolivarian Republic of)	Enabling activities for HFC phase-down	250,000	250,000
Subtotal for A3		1,255,000	1,255,000
Agency support costs (7 per cent for enabling activities)		87,850	87,850
Total for A3		1,342,850	1,342,850
<b>SECTION B: ACTIVITIES RECOMMENDED FOR INDIVIDUAL CONSIDERATION</b>			
<b>B1: Project preparation for HFC-related projects (decision 78/3(g))</b>			
China	Project preparation for the conversion from HFC-134a to HFOs and CO <sub>2</sub> with gluing technology in an extruded polystyrene (XPS) foam manufacturer in China	30,000	**
Subtotal for B1		30,000	**
Agency support costs (7 per cent for project preparation)		2,100	**
Total for B1		32,100	**
Grand total (A1, A2, A3, B1)		1,966,036	1,933,936

\*UNEP as lead implementing agency

\*\*For individual consideration

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

### **A1: Institutional strengthening**

#### **Project description**

2. UNIDO submitted the requests for the renewal of the institutional strengthening (IS) projects for the countries listed in section A1 of Table 1. The descriptions for these projects are presented in Annex I to the present document.

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

3. The Secretariat reviewed the requests for the renewal of two IS projects submitted by UNIDO on behalf of the Governments concerned against the guidelines and relevant decisions regarding eligibility and funding levels. The requests were cross-checked against the original IS work plan 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 Egypt was in compliance with its ODS phase-out targets under the Montreal Protocol and that Libya's Article 7 consumption of 117.68 ODP tonnes in 2017 was less than the target of 118.4 ODP tonnes set under its plan of action to return to compliance,<sup>1</sup> and that the annual HCFC consumption of both countries 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 Egypt and Libya 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: Project preparation for HCFC phase-out management plans (HPMPs) (stage II)**

#### **Project description**

5. UNIDO submitted the requests for six countries for the preparation of stage II of the HPMPs as the cooperating implementing agency with UNEP as the lead agency, except for Albania as the designated implementing agency, as shown in section A2 of Table 1.

6. UNIDO provided descriptions of the activities to support the request for project preparation for Albania, and UNEP, for the other countries.<sup>2</sup> 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 five countries, has requested US \$114,000, plus agency support costs, in its work programme for 2018.

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

7. In reviewing the six 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

<sup>1</sup> Decision XXVII/11: Non-compliance with the Montreal Protocol by Libya.

<sup>2</sup> UNEP/OzL.Pro/ExCom/81/17.

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 Albania, Congo (the), Ethiopia, Guinea-Bissau, Malawi and Rwanda would be submitted according to schedule indicated in the respective Agreements with the Executive Committee. 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 A2 of Table 1 are for UNIDO only.

8. UNIDO and UNEP confirmed that stage II of the HPMPs for the six countries will meet the 67.5 per cent reduction in HCFC consumption by 2025.

### **Secretariat's recommendations**

9. The Secretariat recommends blanket approval of UNIDO's requests for project preparation for stage II of the HCFC phase-out management plans for Albania, Congo (the), Ethiopia, Guinea-Bissau, Malawi and Rwanda at the level of funding shown in section A2 of Table 1.

### **A3: Technical assistance for enabling activities (decision 79/46)**

#### Background

10. In line with decision 79/46,<sup>3</sup> UNIDO submitted funding requests for the implementation of enabling activities in the eight Article 5 countries listed in section A3 of Table 1. The detailed proposals are contained in section 2 of UNIDO's submission, except for Egypt which is included in UNEP's work programme for 2018.<sup>4</sup>

11. The enabling activities submitted by the eight countries consist of various combinations of the following elements:

- (a) Support the early ratification of the Kigali Amendment including coordination with Government representatives to provide information on the Kigali Amendment and commitments of HFC phase-down; and assessment of potential impacts of the implementation of the Kigali Amendment;
- (b) Review institutional and national capacities for HFC control and assess linkages with climate change strategies; analyse gap of legal/regulatory instruments on HFCs and alternatives and identify appropriate regulations and measures for their control; evaluate specific standards for flammable/toxic low- and zero-global warming potential (GWP) alternatives and identify parties involved in national standardization process;
- (c) Enhance the import and export licensing systems to include HFCs and other alternatives; update training programme for customs and environment officers in line with harmonized tariff code and updated licensing system;
- (d) Enhance data recording procedures to include consumption/production of HFCs and other alternatives, with special attention to the servicing sector, including improvements on the national database;

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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/81/17.

- (e) Review national policies related to HFCs, identify linkages between HCFC and HFC reduction schedules, and propose possible scenarios for HFC reduction; assess current situation, identify national priorities and appropriate policies to facilitate the phase-down of HFCs, prepare technology roadmap related to low- and zero-GWP (manufacturing sector and replacement equipment) in a cost-efficient way and the introduction of low-GWP alternative technologies –inclusive “not in kind” options– with higher rates of energy efficiency;
- (f) Carry out information, education and communication activities to raise the awareness on the Kigali Amendment, national HFC situation, and the results from the above-mentioned activities/assessments; and
- (g) Assess the production sector and HFC-23 emissions as by product from HCFC-22 production, possible scenarios of HFC-23 emission, control measures and costs-related emission reduction, including design of monitoring, verification methodology and country report of HFC-23 emissions.

### Secretariat’s comment

12. To facilitate the preparation and submission of requests for enabling activities, the Secretariat re-issued 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.

13. The Government of Canada (as bilateral agency), and the four implementing agencies, submitted to the 81<sup>st</sup> meeting on behalf of 60 Article 5 countries requests for funding for enabling activities, in line with decision 79/46. In sub-paragraph (e) of the decision, the Committee decided that requests for enabling activities submitted by the 80<sup>th</sup> meeting would be funded to the extent possible from additional voluntary contributions provided by non-Article 5 Parties. Given the funding modality agreed in decision 79/46(e), the Secretariat has included a list of all the requests for enabling activities submitted to the 81<sup>st</sup> meeting, indicating funding levels and agencies involved, in the document on the Overview of issues identified during project review.<sup>7</sup>

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

- (a) Endorsement letters from the Governments of the eight 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, and for Egypt, by UNEP;
- (b) The eight project proposals included a description of each of the enabling activities, institutional arrangements, cost breakdown and the schedule for implementation;
- (c) The proposals will be implemented in 18 months.

15. The funding requested for each country was consistent with decision 79/46(c), and calculated based on the country’s HCFC baseline.

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<sup>5</sup> MLF/IACM.2018/1/19.

<sup>6</sup> Montreal, 6-8 March 2018.

<sup>7</sup> UNEP/OzL.Pro/ExCom/81/14.

### **Secretariat's recommendation**

16. The Secretariat recommends blanket approval for the requests for enabling activities for HFC phase-down for the eight Article 5 countries at the level of funding indicated in section A3 of Table 1 above, and in the context of its discussion of the funding modality for enabling activities described in the document on Overview of issues identified during project review (UNEP/OzL.Pro/ExCom/81/14).

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

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

#### **Project description**

17. UNIDO submitted a request for project preparation for the conversion of HFC-134a to HFOs and CO<sub>2</sub> as blowing agents with gluing technology in an extruded polystyrene (XPS) foam manufacturer in China, listed in section B1 of Table 1 above. Details of the project preparation request is contained in Section 2 of UNIDO's submission attached to the present document.

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

18. The Secretariat noted that the request for project preparation for the HFC phase-out project fulfilled all the requirements of decisions 78/3 and 79/45, and was consistent with relevant decisions related to project preparation funding.

19. Upon request for clarification, UNIDO confirmed that adequate and sustainable supply of HFO-1234ze will be available for XPS foam applications in China. UNIDO also clarified the application of the gluing technology is expected to optimize the production process reducing the consumption of HFO-1234ze, especially for the production of thick XPS foam panels with satisfactory insulation properties, and reducing the incremental operational costs. UNIDO also confirmed that as there are a number of enterprises using HFC-134a in XPS foam in China, replicability of the project will be high, when successfully implemented.

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

20. The Executive Committee may wish to consider the request for project preparation for conversion from HFC-134a to HFOs and CO<sub>2</sub> with gluing technology in extruded polystyrene (XPS) manufacturing in China, listed in section B1 of Table 1 above, in the context of its discussion of the proposals for HFC-related projects described in the document on Overview of issues identified during project review (UNEP/OzL.Pro/ExCom/81/14).

Annex I

INSTITUTIONAL STRENGTHENING PROJECT PROPOSALS

**Egypt: Renewal of institutional strengthening**

Summary of the project and country profile		
Implementing agency:		UNIDO
Amounts previously approved for institutional strengthening (US \$):		
	Phase I: Jun-93	263,450
	Phase II: Nov-95	175,909
	Phase III: Mar-99	175,000
	Phase IV: Jul-01	175,000
	Phase V: Jul-03	228,323
	Phase VI: Mar-07	228,323
	Phase VII: Nov-08	228,323
	Phase VIII: Jul-10	228,323
	Phase IX: Jul-12	228,323
	Phase X: May-14	228,323
	Phase XI: May-16	292,253
	Total:	2,451,550
Amount requested for renewal (phase XII) (US \$):		292,253
Amount recommended for approval for phase XII (US \$):		292,253
Agency support costs (US \$):		20,458
Total cost of institutional strengthening phase XII to the Multilateral Fund (US \$):		312,711
Date of approval of country programme:		1992
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)		26.0
Annex C, Group I (HCFCs) (average 2009-2010)		386.3
Annex E (methyl bromide) (average 1995-1998)		238.1
Latest reported ODS consumption (2016) (ODP tonnes) as per Article 7:		
Annex B, Group III (methyl chloroform)		0.00
Annex C, Group I (HCFCs)		346.53
Annex E (methyl bromide)		0.00
	Total:	346.53
Year of reported country programme implementation data:		2017
Amount approved for projects (as at November 2017) (US \$):		64,287,417
Amount disbursed (as at December 2016) (US \$):		52,073,675
ODS to be phased out (as at November 2017) (ODP tonnes):		4,561.0
ODS phased out (as at December 2016) (ODP tonnes):		4,453.6

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

Summary of activities	Funds approved (US \$)
(a) Investment projects:	55,997,947
(b) Institutional strengthening:	2,451,550
(c) Project preparation, technical assistance, training and other non-investment projects:	5,837,920
	Total:
	64,287,417
(d) HFC activities funded from additional voluntary contributions	30,000

Progress report

2. The national ozone unit (NOU) carried out the following activities: monitoring, coordination and promoted awareness among stakeholders, as well as monitoring consumption by sub-sectors; continued to operationalize the HCFC licensing and quota system and started operating the electronic system to link the NOU with the Customs Authority database following the signature of a memorandum of understanding between the two entities; introduced amendments to legislation to extend the scope of banned products banning HCFCs in pre-blended polyols effective 1 January 2018 and produced a publication on the matter to raise awareness of the Customs; submitted country progress implementation data and Article 7 data by the respective deadlines; continued to coordinate phase-out activities through meetings with the steering committee and industry associations including completion of stage I of the HPMP and submission of stage II of the HPMP; carried out information dissemination and public awareness; and, attended regional network and Montreal Protocol meetings. Of the 12 performance indicators set by Egypt, targets for 10 were fully achieved, and two were partially achieved as one annual meeting with industry associations did not take place, and because further amendments to legislation to extend the scope of banned products are required.

Plan of action

3. Phase XII of the IS project will continue to assist Egypt to support HPMP implementation, monitoring, coordination and promoting awareness among stakeholders, monitoring consumption by sub-sectors, and ensuring the country is in compliance with its reporting obligations. The NOU will: continue to enforce and operate the electronic database connection between the NOU and the Customs Authority, and will initiate consultations with a view to extending the electronic database to include HFCs; coordinate implementation of the foam sector phase-out plan of stage II of the HPMP in order to achieve the targets for annual reductions in HCFC consumption; manage and monitor the import of HCFCs according to the quota system; promote the ratification of the Kigali Amendment, and review and propose amendments to national regulations; carry out awareness activities about the ban of on HCFCs in pre-blended polyols and celebration of international ozone; and attend regional network and Montreal Protocol meetings.

**Libya: 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	157,000
Phase II:	Nov-09 & Apr-10	136,065
Phase III:	Dec-13	136,065
Phase IV:	May-15 & Dec-16	155,115
	Total:	584,245
Amount requested for renewal (phase V) (US \$):		174,164
Amount recommended for approval for phase V (US \$):		174,164
Agency support costs (US \$):		12,191
Total cost of institutional strengthening phase V to the Multilateral Fund (US \$):		186,355
Date of approval of country programme:		1999
Date of approval of HCFC phase-out management plan:		2015
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)		118.38
Annex E (methyl bromide) (average 1995-1998)		94.1

<b>Summary of the project and country profile</b>	
Latest reported ODS consumption (2017) (ODP tonnes) as per Article 7:	
Annex B, Group III (methyl chloroform) (average 1998-2000)	0.00
Annex C, Group I (HCFCs) (average 2009-2010)	117.68*
Annex E (methyl bromide) (average 1995-1998)	0.00
<b>Total:</b>	<b>117.68</b>
Year of reported country programme implementation data:	2017
Amount approved for projects (as at November 2017) (US \$):	9,063,645
Amount disbursed (as at December 2016) (US \$):	6,462,647
ODS to be phased out (as at November 2017) (ODP tonnes):	1,591.5
ODS phased out (as at December 2016) (ODP tonnes):	866.8

\*The plan of action for Libya approved under decision XXVII/11 allows HCFC consumption in 2017 of no greater than 118.4 ODP-tonnes.

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

<b>Summary of activities</b>	<b>Funds approved (US \$)</b>
(a) Investment projects:	7,500,900
(b) Institutional strengthening:	584,245
(c) Project preparation, technical assistance, training and other non-investment projects:	978,500
<b>Total:</b>	<b>9,063,645</b>
(d) HFC activities funded from additional voluntary contributions	0

Progress report

5. During phase IV (year 2), the NOU was fully staffed and Libya achieved compliance with its commitments under decision XXVII/11 to reduce HCFC consumption to no more than 118.4 ODP tonnes in 2017. Quotas for 2016 and 2017 were established and monitored on regular basis, and meetings with customs authorities were organized in 2016 and 2017 with a view to enhancing cooperation and improving the quality of data on HCFCs and other type of refrigerants. Based on the results of the ODS alternatives survey, an inventory of the quantity and quality of imported refrigerants contained in equipment was prepared to provide an assessment of the refrigerant servicing needs in Libya. The NOU continued to maintain cooperation with other public institutions through regular bilateral meetings, inter-ministerial meetings and steering committees. The Libyan National Committee for Climate Change and Ozone Depletion was maintained and includes members from Ministry of Industry, Ministry of Meteorology, National Oil Company, Environmental General Authority and Ministry of Agriculture. The country programme data report and HCFC consumption under Article 7 for 2017 was submitted. Awareness materials were published for the private sector and activities were organized for international ozone day. Libya participated in Montreal Protocol meetings in 2017. Of the six performance indicators set by Libya, targets for five were fully achieved and one was partially achieved as the Libya was unable to attend all Montreal Protocol meetings.

Plan of action

6. During phase V the NOU will continue to monitor HCFC consumption to maintain compliance with quota system and with licensing system. Quotas will be issued for the years 2018 and 2019 to maintain HCFC consumption in line with the Agreement with the Executive Committee and the country's commitments under decision XXVII/11. Monitoring of HCFC distribution by sub-sectors will be given special attention as it will be critical for the successful implementation of HCFCs phase-out policies. The NOU will: continue to coordinate activities with stakeholders with a focus on future HFC controls under Kigali Amendment; coordinate enabling activities to facilitate ratification of the Kigali Amendment; carry

out information dissemination and awareness; report country programme and Article 7 data in a timely manner; and participate in regional and Montreal Protocol meetings.

## Annex II

### DRAFT VIEWS EXPRESSED BY THE EXECUTIVE COMMITTEE ON RENEWAL OF INSTITUTIONAL STRENGTHENING PROJECTS SUBMITTED TO THE 81<sup>ST</sup> MEETING

#### Egypt

1. The Executive Committee reviewed the report submitted with the request for the renewal of the institutional strengthening (IS) project for Egypt (phase XII) and noted with appreciation that the country reported 2017 country programme implementation data to the Fund Secretariat, and 2016 Article 7 data to the Ozone Secretariat indicating that the country is compliance with the Montreal Protocol. The Executive Committee acknowledged with appreciation the progress achieved by the Government to control HCFCs including the ban on the use of HCFC-141b contained in pre-blended polyols, which came into effect on 1 January 2018, and the commitment to ban the import, use and export of HCFC-141b in bulk and the export of HCFC-141b contained in pre-blended polyols by 1 January 2020, to ban the use of HCFCs and blends of HCFCs in the manufacture of extruded polystyrene foam by 1 January 2023, and to ban the import of HCFC-142b and blends of HCFC-142b by 1 January 2023. The Executive Committee is pleased that the Government of Egypt is committed to ratify Kigali Amendment to the Montreal Protocol. The Executive Committee is hopeful that in the next two years, the country will continue the implementation of its HPMP and IS project to prepare the country to achieve the 35 per cent reduction in HCFC consumption required under the Montreal Protocol by 1 January 2020.

#### Libya

2. The Executive Committee reviewed the report submitted with the request for the renewal of the institutional strengthening (IS) project for Libya (phase V) and noted with appreciation that the country reported 2017 country programme implementation data to the Fund Secretariat, and 2017 Article 7 data to the Ozone Secretariat indicating that the country is compliance with the plan of action to return to compliance set out in decision XXVII/11. The Executive Committee acknowledged with appreciation that the national ozone unit was fully staffed, substantive progress was achieved in legislation enforcement, the licensing and quota system was operating, and the country had advanced HCFC consumption phase-out to comply with the targets agreed in the plan of action to return to compliance. The Executive Committee noted that Libya would continue to closely monitor HCFC distribution by sub-sectors, which will be critical to attain the mandatory HCFC phase-out targets, and in view of preparing the country for future commitments related to the Kigali Amendment. The Executive Committee appreciates the efforts of Libya to reduce HCFC consumption, and is therefore hopeful that, in the next two years, Libya will continue with the implementation of its HPMP and IS project to prepare the country to achieve the reductions in HCFC consumption required under decision XXVII/11 of the Parties to the Montreal Protocol.



**UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION**

81<sup>st</sup> Executive Committee of the  
Multilateral Fund for the Implementation of the Montreal Protocol

**UNIDO Work Programme**

**81<sup>st</sup> Meeting of the Executive Committee**

## Introduction

The UNIDO Work Programme for the consideration of the 81<sup>st</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 81<sup>st</sup> UNIDO WP is addressing preparatory assistance, institutional strengthening and enabling activities requests.

Preparatory assistance is submitted for the 81<sup>st</sup> Executive Committee Meeting consideration for Albania, Congo, Ethiopia, Guinea-Bissau, Malawi and Rwanda to enable the countries to overview and update data necessary for the launch and implementation of HPMP Stage II.

Further preparatory assistance request is submitted for stand-alone investment project in the XPS foam manufacturing sector at Yongqing Beipao Jiacheng New Material Co., Ltd. company in China in line with the Executive Committee Decision 78/3 (g), to facilitate the analysis of ICCs and IOCs associated with the phase-down on HFCs.

Institutional strengthening extension requests are submitted based on the country requests for Egypt and Libya.

Requests for funding of enabling activities are submitted in line with Decision 79/46 in Argentina, Egypt, Grenada, Libya, Morocco, Nicaragua, Niger and Venezuela. UNIDO is the only implementing agency in all the countries, except for Egypt, where in line with the country's request; activities will be shared with other implementing agency as per the table shown in Section 1. Since UNIDO is the lead and only implementing agency of Argentina, Grenada, Libya, Morocco, Nicaragua, Niger and Venezuela, 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 81<sup>st</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 Albania, Congo, Ethiopia, Guinea-

Bissau, Malawi and Rwanda<sup>1</sup> amounting to US\$ 92,020 (including US\$ 6,020 representing 7.0 % A.S.C);

- Preparatory assistance funding for stand-alone investment project amounting to US\$ 32,100 (including US\$ 2,100 representing 7.0 % A.S.C);
- Institutional strengthening projects amounting to US\$ 499,065 (including US\$ 32,649 representing 7.0 % A.S.C);
- Enabling activities funding amounting to US\$ 1,342,850 (including US\$ 87,850 representing 7.0 % A.S.C).

**Total: US\$ 1,966,035 (including US\$ 128,619 agency support cost).**

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<sup>1</sup> The Project Concept for Congo, Ethiopia, Guinea-Bissau, Malawi and Rwanda 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>											
Albania	LVC	PRP	HCFC-22	REF-Servicing	Preparation of Stage II HPMP	30,000	2,100	32,100	7%	12	
Congo	LVC	PRP	HCFC-22	REF-Servicing	Preparation of Stage II HPMP	15,000	1,050	16,050	7%	12	In cooperation with UN Environment. Concept is submitted by UN Environment.
Ethiopia	LVC	PRP	HCFC-22	REF-Servicing	Preparation of Stage II HPMP	8,000	560	8,560	7%	12	In cooperation with UN Environment. Concept is submitted by UN Environment.
Guinea-Bissau	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.
Malawi	LVC	PRP	HCFC-22	REF-Servicing	Preparation of Stage II HPMP	15,000	1,050	16,050	7%	12	In cooperation with UN Environment. Concept is submitted by UN Environment.
Rwanda	LVC	PRP	HCFC-22	REF-Servicing	Preparation of Stage II HPMP	8,000	560	8,560	7%	12	In cooperation with UN Environment. Concept is submitted by UN Environment.
<b>SUBTOTAL</b>						<b>86,000</b>	<b>6,020</b>	<b>92,020</b>			
<b>Preparatory Assistance for Demonstration Projects – Based on Executive Committee Decision 78/3 (g)</b>											

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
China	Non-LVC	PRP	HFC-134a	XPS-Manufacturing	Preparation project for a Stand-alone Investment Project for converting from HFC-134a to HFOs +CO2 with gluing technology in a XPS foam manufacturer in China	30,000	2,100	32,100	7%	12	
<b>SUBTOTAL</b>						<b>30,000</b>	<b>2,100</b>	<b>32,100</b>			
<b>Institutional Strengthening</b>											
Egypt	Non-LVC	INS	All	SEV	Institutional strengthening	292,253	20,458	312,711	7%	24	
Libya	Non-LVC	INS	All	SEV	Institutional strengthening	174,163	12,191	186,354	7%	24	
<b>SUBTOTAL</b>						<b>466,416</b>	<b>32,649</b>	<b>499,065</b>			
<b>Enabling Activities</b>											
Argentina	Non-LVC	TAS	SEV	SEV	Enabling activities	250,000	17,500	267,500	7%	18	
Egypt	Non-LVC	TAS	SEV	SEV	Enabling activities	105,000	7,350	112,350	7%	18	In cooperation with UN Environment. Concept is submitted by UN Environment.
Grenada	LVC	TAS	SEV	SEV	Enabling activities	50,000	3,500	53,500	7%	18	
Libya	Non-LVC	TAS	SEV	SEV	Enabling activities	150,000	10,500	160,500	7%	18	
Morocco	Non-LVC	TAS	SEV	SEV	Enabling activities	150,000	10,500	160,500	7%	18	
Nicaragua	LVC	TAS	SEV	SEV	Enabling activities	150,000	10,500	160,500	7%	18	
Niger	Non-LVC	TAS	SEV	SEV	Enabling activities	150,000	10,500	160,500	7%	18	
Venezuela	Non-LVC	TAS	SEV	SEV	Enabling activities	250,000	17,500	267,500	7%	18	

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>1,255,000</b>	<b>87,850</b>	<b>1,342,850</b>			
<b>GRAND TOTAL</b>						<b>1,837,416</b>	<b>128,619</b>	<b>1,966,035</b>			

## SECTION 2

### PROJECT CONCEPT

<b>Country:</b>	Albania
<b>Title:</b>	Preparation of HPMP 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 Environment/ NOPIU Division for the Protection of the Ozone Layer

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#### Project Summary

HCFCs Phase-out Management Plan for the Republic of Albania was approved at the 64th Meeting of the Executive Committee held in Montreal, Canada from 25 to 29 July 2011. The Government of Albania 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 5% reduction each year till 2020.

The first tranche of the Stage I of the HPMP for Albania was approved in the amount of US\$ 45,000 to be implemented by UNIDO and US\$ 25,000 to be implemented by UNEP including support costs.

The second tranche of the HCFC phase-out management plan (HPMP) was approved by the Executive Committee at its 70th meeting in July 2013, implemented jointly by United Nations Industrial Development Organization (UNIDO) and United Nations Environment Programme (UNEP).

Third tranche of the HPMP Stage I was approved by the 75 ExCom Meeting and it is under implementation.

The Government of Albania 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 Albania 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 3.90 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 Albania 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 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 3.90 ODP tonnes in servicing sector.

The relevant progress achieved with the HPMP Stage I implementation is demonstrated by the HCFCs consumption level of 2015 (2.58 ODP) and 2016 (3.74 ODP) that are below the consumption target.

One of the main achievements of the HPMP Stage I in Albania 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 upgrading the secondary legislation for minimum requirements of training and certification for service technicians on another side.

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

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; and
- 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

<b>Country:</b>	People's Republic of China
<b>Title:</b>	Preparation project for a Stand-alone Investment Project for converting from HFC-134a to HFOs + CO <sub>2</sub> with gluing technology in a XPS foam manufacturer in China
<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>	MEP/FECO OF CHINA

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## Project Summary

### Background

In China, HCFC-22 and HCFC-142b, as the blowing agents, have been adopted by the XPS industry since 1999. Given the implementation of HCFCs phase-out management plans in China, HCFC-22 and HCFC-142b have been gradually phased out in the XPS foam sector in recent years. At present, the proposed alternative route for XPS foam is to use carbon dioxide as the main blowing agent and ethanol as well as other low GWP chemicals, such as HFC-152a, as the co-blowing agents. However, in order to improve the insulation property and to address safety issue, HFC-134a is also being considered as the blowing agent by the sector, particularly by those unfunded companies by HPMP. In recent years, the volume of XPS foam adopting HFC-134a is increased more than 20% annually in China. It is estimated that approximately 1,500 metric tons of HFC-134a was consumed in the XPS foam sector in China in 2017. According to the estimates conducted during the preparation of HPMP (stage II), there are about 300 XPS foam enterprises currently existing in China. The demand of HFC-134a will be increased in the future due to the promotion of the energy efficiency standard for building insulation and stringent safety requirement. From the global perspective, as per 2017 TEAP Progress Report, production of foams used for insulation is expected to grow in line with global construction and continued development of refrigerated food processing, transportation and storage (cold chain). Even though HFC-134a has low solubility in foam systems, it is often used as the main blowing agent in XPS foams to achieve lower thermal conductivity. It is used in blends with other alternatives to better balance XPS foam performance.

However, the Kigali Amendment to the Montreal Protocol agreed to phase down HFCs will pose a substantial challenge to XPS manufacturers due to the increasing demand for HFC-134a and its high GWP value. Therefore, proactive actions are required for this sector, with the purpose to helping the industry figure out more environmentally friendly solutions, as well as both technically feasible and economically affordable to XPS manufacturers.

In spite of both HFC-134a and HFC-152a currently being used in the XPS foam sector, HFC-134a will be the focus of the proposed project due to its high GWP value. The proposed project is designed to encourage the use of HFOs+CO<sub>2</sub> as blowing agents with gluing technology, as a “not-in-kind” technology, to replace HFC-134a in the XPS foam sector. This proposed technology route takes into account the HFC phase-down requirement of Kigali Amendment, the proposed technology options under the current HPMP for XPS foam sector in China, as well as the advantage of the climate benefit of the technology. The application of the gluing technology is expected to streamline the production process and to reduce the consumption amount of HFO-1234ze, especially for the production of thick XPS foam panels with satisfactory insulation properties. This technology will contribute to the reduction of long-term incremental operational costs for XPS foam manufacturers.

HFO-1234ze will be used in this proposed project. As per the information provided by Honeywell, for the time being, its established production capacity of HFO-1234ze has already exceeded the market demand for XPS foam applications, so that it can ensure the adequate and sustainable supply of the chemical to the global XPS market.

Given the afore-mentioned situation of HFC-134a consumption in the sector and its estimated growth, this project will play an exemplary role in phasing down HFC-134a consumption in this sector with considerable potential replicability, and provide references for countries and the industry to explore the efficient management mechanism on phasing down HFCs as blowing agent.

### **Objective of the project**

Given the situation of China’s XPS foam sector and the HFC-134a consumption, the goals of this proposed project are shown as follow:

- ✓ To convert one production line for manufacturing XPS foam from using HFC-134a+CO<sub>2</sub> to HFO-1234ze +CO<sub>2</sub> as blowing agents with gluing technology in a XPS beneficiary company;
- ✓ To phase out around 60 metric tons of HFC-134a under this project, and to achieve the climate benefit of 85,800 tons CO<sub>2</sub>-eq.
- ✓ To collect the information of ICC and IOC data of the conversion and share the experiences with other related industries in China and with the Ex.Com.

### **Brief introduction of the beneficiary company**

In the process of preparing this project concept, UNIDO has consulted with relevant governmental agencies and the industrial institutes in China on the matter of choosing the beneficiary company. Considering the technical capacity on using HFOs+CO<sub>2</sub> as blowing agents and the improvement on production process, it is proposed Yongqing Beipao Jiacheng New Material Co., Ltd. (hereinafter referred to as “Yongqing Beipao Jiacheng”) to undertake this project. Yongqing Beipao Jiacheng, as a XPS foam manufacturer in China, is established in 2016. Its XPS foam annual production capacity is of 200,000 cubic meters. It is not a beneficiary under HPMP for XPS foam sector in China.

One production line will be selected under this project for the conversion to using HFOs as blowing agent with gluing technology, and approximately 60 metric tons of HFC-134a will be phased out by this project. It should be noted that, for the time being, the data is a preliminary estimation, and the exact figure will be collected during the preparation of the full project proposal.

### Project activities

To meet the targets of this proposed project, the following activities are designed:

- ✓ An investment project of conversion of one XPS foam production line from HFC-134a+CO<sub>2</sub> to HFO-1234ze +CO<sub>2</sub> as blowing agents with gluing technology in the selected company;
- ✓ Research on technical formulation of HFOs+CO<sub>2</sub> as blowing agents in the XPS foam sector with cost-effectiveness and tests on its insulation performance;
- ✓ Research on the production process of gluing technology, as a “not-in-kind” technology, for the production of thick XPS foam panels, and test the performance of final products with the adoption of HFOs+CO<sub>2</sub> as blowing agents;
- ✓ Summary of the experiences gained by the conversion project, as well as the management on controlling HFC-134a in the XPS foam sector;
- ✓ Dialog among XPS manufacturers, HFOs suppliers and equipment suppliers to communicate the technical demands;
- ✓ Insight on the preliminary roadmap to phase down HFC-134a in the XPS foam sector in China;
- ✓ One workshop will be organized to share the technology experiences gained by the project.

### Budget for preparing the project document:

USD 30,000 is requested for the preparation of the project document for converting from HFC-134a+CO<sub>2</sub> to HFOs+CO<sub>2</sub> with gluing technology in the XPS foam sector in China.

No.	Budget description	Budget (US \$)
1.	National experts/consultant services	9,000
2.	Information collection, consolidation and analysis	6,500
3.	Travels	2,000
4.	Meeting/workshop	7,000
5.	Documentation and information materials	4,000
6.	Project Management and coordination	1,500
7.	<b>Total</b>	<b>30,000</b>

### Schedule for the project implementation

No.	Activities	2018			2019
		Q2	Q3	Q4	Q1
Project Start-up					
1.	ExCom Project Approval				
2.	Receipt of Funds				
3.	Project/Grant Signature				
Project Implementation					
4.	Information collection and related survey on-site				
5.	Meeting with the beneficiary company and related parties				

No.	Activities	2018			2019
		Q2	Q3	Q4	Q1
6.	Draft the project document				
7.	Review process				
8.	Finalize the document and submission to the ExCom				

## **PROJECT CONCEPT**

<b>Country:</b>	Egypt
<b>Title:</b>	Extension of Institutional Strengthening for the implementation of Montreal Protocol in Egypt – Phase XII
<b>Project Duration:</b>	24 months (January 2018 – December 2019)
<b>Project Budget:</b>	292,253 (excl. 7% Agency Support Costs)
<b>Implementing Agency:</b>	UNIDO
<b>Coordinating Agency:</b>	Egyptian Environmental Affairs Agency / National Ozone Unit

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### **Project Summary**

The project aims at institutional strengthening and capacity building of the Egyptian Environmental Affairs Agency / National Ozone Unit and will further assistance to the Government to meet its obligations under the Montreal Protocol on the substances that deplete the Ozone Layer, with a specific focus on the HCFCs phase-out commitments.

IS Phase XII will continue to assist the Government to maintain the continuity of the NOU staff and the on-going daily activities of the NOU. The Phase XII IS extension will support the HPMP implementation and monitoring to advance the HCFCs phase-out beyond the HCFCs consumption reduction targets.

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.

Special attention will be given to the enforcement Kigali enabling activities, and the NOU will coordinate the IS work with the preparatory activities for future compliance with the HFCs freezing target.

## PROJECT CONCEPT

<b>Country:</b>	Libya
<b>Title:</b>	Extension of Institutional Strengthening for the implementation of Montreal Protocol in Libya – Phase V
<b>Project Duration:</b>	24 months (July 2018 – June 2020)
<b>Project Budget:</b>	US\$ 174,163 (excl. 7% Agency Support Costs)
<b>Implementing Agency:</b>	UNIDO
<b>Coordinating Agency:</b>	National Ozone Unit / Environmental General Authority

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### Project Summary

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

During phase V (year 2) the NOU will continue to monitor HCFCs consumption to maintain compliance with quota system and with licensing system. Quotas will be issued for the years 2018 and 2019 to maintain HCFC consumption in line with the Agreement between the Executive Committee and the Executive Committee and with its commitments in decision XXVII/11. Monitoring of HCFC distribution monitoring by sub-sectors will be given special attention as it will be critical for the successful implementation of the HCFCs phase-out policies.

Libya has passed through challenges due to administrative restructuring and delays in adoption HCFCs specific regulatory measures to ensure full control of the country consumption. Being in non-compliance, the country was relying on the institutional strengthening funding in the year 2015, and the financial support approved for one year duration by the 74<sup>th</sup> ExCom enabled the country to complete its HPMP and the expedite the national legislation in the approval process.

Second year of funding of the IS Phase IV is committed and activities are executed without delay. The HPMP Stage I is under implementation.

NOU was maintained active, staff continuity was ensured during the IS Phase IV. This underlines the country commitment to comply with the Montreal Protocol obligations.

The National Ozone Unit is responsible for and oversees the implementation of the HPMP project and ensures the further phase-out of the annual HCFCs consumption. 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, NGOs and others

## Project Concept

### Submission of funding request for enabling activities

**Country:** Argentina

**Title:** Enabling activities for HFC phase-down in Republic of Argentina

**Project Duration:** 18 months

**Project Budget:** US\$250,000 (excl. 7% Agency Support Costs)

**Implementing Agency:** UNIDO

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#### General Statements

*The Government of Argentina as well as UNIDO, as the implementing agency, confirm that implementation of the enabling activities would not delay implementation of HCFC phase-out projects. (See attached statement).*

*The Government of Argentina confirms its intention to make best efforts to ratify the Kigali Amendment as early as possible. (See letter from Government)*

*The Government of Argentina confirms that all activities under the Enabling Activities will be implemented following model that UNIDO will administer the funds (UNIDO's execution) instead of national execution to avoid domestically slow and complicated procedure for internal approval.*

#### 1. Background

The Montreal Protocol activities are implemented very successfully in Argentina due to the well-organized organizational structure, effective laws, regulations, licensing and quota system in place as well as the rich wealth of experience accumulated over the years. The technical and financial assistance provided by the MLF has been crucial.

In Argentina, OPROZ – Oficina Programa Ozono - is responsible for the implementation of the Montreal Protocol in the country. It is an integral part of the Argentinean Public Administration.

OPROZ is integrated by representatives of three Ministries: Ministry of Foreign Affairs and Worship, Ministry of Environment and Sustainable Development, and the Secretariat of Industry and Services. OPROZ is an integral part of the Argentinean Public Administration. Recently, due to a Government change, OPROZ was allocated under the jurisdiction of the Secretariat of Climate Change and Sustainable Development of the new Ministry of Environment and Sustainable Development.

Environment protection is relevant in Argentinian legislation. From 1994 onwards, a specific article of the National Constitution is devoted to the protection of environment (Art. No 41 also called “The Environmental Clause”). This includes the concept of sustainable development

establishing certain political parameters that governs the content of any future legislation on this matter.

Furthermore, paragraph 22 of Article 7 stipulates that, international treaties have higher hierarchy than national laws and other lower level regulations. However, in order to enforce international treaties a law must be passed by the National Congress.

Regarding Ozone Layer protection, Argentina enacted a comprehensive legal and institutional framework for the implementation of the Montreal Protocol. The status of ratification of Montreal Protocol and its amendments is as follows:

<b>Treaty/Amendment</b>	<b>Ratification Date</b>	<b>Law Number</b>
Vienna Convention	18 January 1990	23.724
Montreal Protocol	18 September 1990	23.778
London Amendment	04 December 1992	24.167
Copenhagen Amendment	20 April 1995	24.418
Montreal Amendment	15 February 2001	25.389
Beijing Amendment	28 August 2006	26.106

Main regulatory framework to control ODS includes the National Chemical Compounds Law No 24,040 being enforced since 26th December 1991 that regulates the application of restrictions to the consumption of ODS contained in Annex A of the MP. This Law banned the use of CFCs (particularly CFC-11 and CFC-12) in aerosols except for respiratory medicine and electronics applications, until appropriate substitute propellants were found. Thus, with the previously stated exceptions, aerosols in Argentina have been using low GWP alternatives (hydrocarbons) as propellant, with some products using HCFCs because of non-flammability requirements.

Through Resolution SAyDS No. 296/03 on chemical compounds, an additional list of controlled substances was included in Law 24,040 (Annexes B, C and D).

Resolution SAyDS N° 1640/2012 was enacted because of the conversion project for the phase out of R-22 in the manufacturing of domestic air-conditioning equipment. It bans the use of this refrigerant in the said subsector, and also, bans the import of domestic air-conditioning equipment that requires R-22 as refrigerant.

Argentina has a wide set of normative that can be applied to the environmental, health and safety aspects of ODSs and its alternatives, which is not specifically focused in these substances but rather on chemicals in general.

There are several pieces of legislation that deal with the management and safe road transport of chemical substances in general and flammable ones in particular, covering both environmental and health and safety issues at the workplace.

Argentina has a compulsory licensing system for import and export of ODS. The Customs Service has the duty to enforce the obligatory licensing system for import and export of ODS in Argentina established by Decree N° 1609 and Resolution N° 953. Licenses are issued by OPROZ and are enforced by Customs. Both institutions keep a real time online communication for control and enforcement. Data and information provided by the Customs Service is vital for OPROZ in fulfilling its duties related to ODS data collection and reporting.

Since January 2005, 167 companies have already been registered.

The system was updated in 2012 to include the register and license module for the import of R-22 free domestic air-conditioning equipment

For its A7 and CP reporting, OPROZ consults customs data as well as information from importers; thus, the database provides valuable insight on the distribution and supply chain. According to Article 27 of Resolution 953/2005, importing and exporting firms of ozone depleting substances or blends containing them must report every year to OPROZ information on the actual imports and exports performed, available stocks, quantities sold to each customer and their forecasted use; including recovered, reclaimed and recycled ODS.

HFCs are not yet included in the Licensing System, so, after the ratification of the Kigali Amendment to the Montreal Protocol foreseen by 2019, new legislation will have to be enacted to classify HFCs as controlled substances.

In April 2012, the HCFC Phase-out Management Plan Stage I for Argentina was approved by the 66th Meeting of the Executive Committee. The Executive Committee agreed in principle to provide US\$ 10,775,154 as the total funding for Argentina for 17.5% reduction of Annex C ODSs consumption by 1 January 2018.

Argentina is a major consumer of HCFC-22 and HCFC-141b, and a producer of HCFC-22. The next two tables provide information on the annual level of HCFC consumption by the various industrial sectors of Argentina – in metric tonnes and ODP tonnes.

**National HCFC Consumption 2009-2016, [MT]**

Substance	2009	2010	Baseline	2011	2012	2013	2014	2015	2016
HCFC-22	3,853.88	5,864.80	4,859.34	6,582.31	6,528.45	2,574.44	2,904.33	3,043.23	2,325.05
HCFC-141b	904.89	1,157.25	1,031.07	1,202.65	1,693.23	827.05	951.69	978.73	828.81
HCFC-142b	189.49	346.80	268.15	208.10	306.22	169.56	145.82	266.28	111.21
HCFC-123	71.31	78.17	74.74	106.51	190.57	71.55	77.95	111.38	109.58

HCFC-124	41.09	54.84	47.97	73.87	103.10	51.24	28.56	38.66	21.05
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### Actual HCFC Consumption 2009-2016, [ODP T]

Substance	2009	2010	Base-line	2011	2012	2013	2014	2015	2016
HCFC-22	211.96	322.56	267.26	362.03	359.06	141.59	159.74	167.38	127.85
HCFC-141b	99.54	127.30	113.42	132.29	186.26	90.98	104.69	107.66	91.17
HCFC-142b	12.32	22.54	17.43	13.53	19.90	11.02	9.48	17.31	7.23
HCFC-123	1.43	1.56	1.49	2.13	3.81	1.43	1.56	2.23	2.19
HCFC-124	0.90	1.21	1.06	1.63	2.27	1.13	0.63	0.85	0.46
Total HCFC consumption	326.15	475.17	400.66	511.60	571.30	246.15	276.09	295.42	228.9

Argentina meets its HCFC demand through internal production and imports. Argentina's HCFC production is limited to HCFC-22 only.

### HCFC Production in Argentina [MT]

Substance	2009	2010	Baseline	2011	2012	2013	2014	2015	2016
HCFC-22	3,914.0	4,251.0	4,082.50	4,018.15	4,190.00	1,950.69	2,285.96	2,445.97	1,742.09

The reduction of the national HCFC consumption shows that the priorities and the related activities were properly selected and they have been effective.

The consumption of HCFC-22 decreased in part due to the timely conversion of the room air-conditioning (RAC) manufacturing sector in 2013. The project was completed and the phase-out target was achieved on time. Since July 2013 no HCFC-22 is used in the sector. The import and sale of room air-conditioners charged with HCFC-22 was banned which contributed to the sustainability of the phase-out.

This is well demonstrated by the data shown in the above tables. The priority assigned by the

Government and the Lead Implementing Agency to this umbrella project proved to be correct. That sector took a giant share in the reduction of the national HCFC consumption and thus it is playing the timely achievement of the phase-out target in 2013 and 2015

In April 2015, the Project for Conversion from HCFC-141b in the manufacture of polyurethane rigid insulation foam for domestic refrigerators at Mabe Argentina was operationally completed and the phase out target of 14.43 ODP tonnes was achieved.

In the reduction of HCFC-22 consumption, the continuous support to the service sector was also very helpful to underpin the efforts of RAC manufacturing enterprises, to maintain the momentum of the earlier phase out programmes and achieve further reductions. Until the end of 2016, 850 technicians of the official service shops of room a/c manufacturers participated in training courses specifically designed for their needs to apply best practices in the room a/c installation and maintenance. The trainees that successfully completed their course were provided with service kits. 694 kits were distributed.

In addition, several other training courses were conducted attracting 838 participants on various topics related to phase-out of ODS substances and on their alternatives. To enhance the knowledge and awareness of professionals eleven brochures were prepared printed and distributed.

The Government/NOU efforts in the field of legislation, monitoring, supporting and awareness raising fostered the effect of the above programmes. The reduction of the national HCFC consumption shows that the priorities and the related activities were properly selected and they have been effective.

Ongoing activities of Stage I include:

- Continue the training and technical assistance to reduce the use of HCFC-141b in flushing during servicing;
- Training courses on Good Practices in the Management of natural and low GWP refrigerants; and
- Continue the introduction of CO2 and HC refrigerants as alternatives to HCFCs, which are not based on HFC to complement the demo project being currently implemented at a supermarket.

Stage II of the HCFC phase-out management plan (HPMP) for Argentina for the period 2017 to 2022 to reduce HCFC consumption by 50 % of the baseline, was approved in the amount of US \$10,652,125 at the Seventy-ninth Meeting of the ExCom.

HPMP Stage II comprises actions throughout a 5-year mid-term plan during which a new interim target is proposed as shown in the next table:

Year	Consumption [ODP T]	Consumption allowed, [ODP T]
Base line	400.66	N/A
2013 (freeze)	246.2	400.7
2014	276.1	400.7
2015 10% reduction	295.4	360.6
2018	17.5% reduction	330.5
2020	35.0% reduction	260.4
2022	48.0% reduction	208.3
2025	67.5% reduction	130.2
2030	97.5% reduction	10.0
2040	100.0% reduction	0.0

In Stage II the following activities will be implemented:

- Phase-out of HCFC-141b through an umbrella foam sector project. The HCFC-141b in other sectors will be phased out by policy measures;
- Training of service technicians and equipping them for servicing of refrigeration equipment, HCFC refrigerant management;
- Certification programme of refrigeration service technicians for HC refrigerants;
- Leak minimization in supermarkets;
- Public awareness; and
- Monitoring of and reporting on HCFC production.

Through these measures, Argentina will achieve the 35% reduction target in 2022 and make a considerable advance in HCFC consumption reduction by 2022 to comply with an interim consumption reduction target of 48% in 2022.

A national survey was conducted in the country to determine consumption, distribution and uses of various alternatives to ODSs in line with Decision XXVI/9 of the 26<sup>th</sup> Meeting of the Parties.

From the annual 2011-2015 import data it is very difficult to conclude any specific trends in HFC consumption except in few cases.

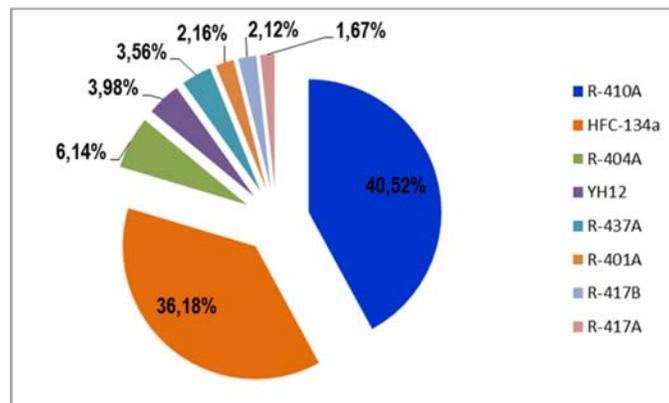
Substance	2011	2012	2013	2014	2015
Subtotal HFC and its blends	2,647	2,657	4,095	6,529	4,917
Subtotal Other Alternatives	236	1,355	1,403	1,567	1,689
<b>Grand Total</b>	<b>2,883</b>	<b>4,012</b>	<b>5,498</b>	<b>8,096</b>	<b>6,606</b>

Variations are large and are related *inter alia* not only to the substantial fluctuations of the national economy in the past years but too, to some identified reasons.

Obviously the most outstanding difference was registered with HFC-410A consumption from 2013 onwards as a consequence of the phase out of HCFC-22 in the production of domestic air conditioning equipment from 2013. Additionally, at the end of 2014 DuPont spun off the gas business and the company Chemours was created. DuPont imported a greater amount of products to supply customers, while the new business transitions were made. A part of that import volume covered the consumption of 2015.

In the following graph the main HFCs and blends comprising more than 96% of the consumption are presented. Out of the 25 substances identified, import of eight of them represents this percentage. HFC-410A is over 40% of the total consumption, with HFC-134a around 36%. Third place is for R-404A with 6% of the total.

Figure 1. Import of HFCs and their blends



As can be seen in the following table, several uses of these substances were identified by sectors:

Refrigerant/blowing agent	Consumption sector
<b>HFC-125</b>	Fire extinguishers
<b>HFC-134a</b>	Domestic Refrigeration Water coolers & dispensers Commercial Refrigeration Car Air Conditioning Refrigerated Transport MDI& various Aerosols Service Sector
<b>HFC-152a</b>	Glass Industry
<b>HFC-227ea</b>	Aerosols Fire extinguishers
<b>HFC-236fa</b>	Fire extinguishers
<b>HFC-245fa</b>	Foams
<b>HFC-365mfc</b>	Electronics cleaning, precision, fire fighting
<b>HFC-365mfc &amp; HFC-227ea mixtures</b>	Foams
<b>R-404A</b>	Commercial Refrigeration and Service Sector
<b>R-410A</b>	Room Air-Conditioner Manufacturing and Service Sector
<b>Various HFCs and mixtures</b>	Service Sector

The number of manufacturing enterprises identified per sector are shown in the following table:

Subsector	Number of manufacturing enterprises
Domestic refrigerators	12
Water coolers and dispensers	12

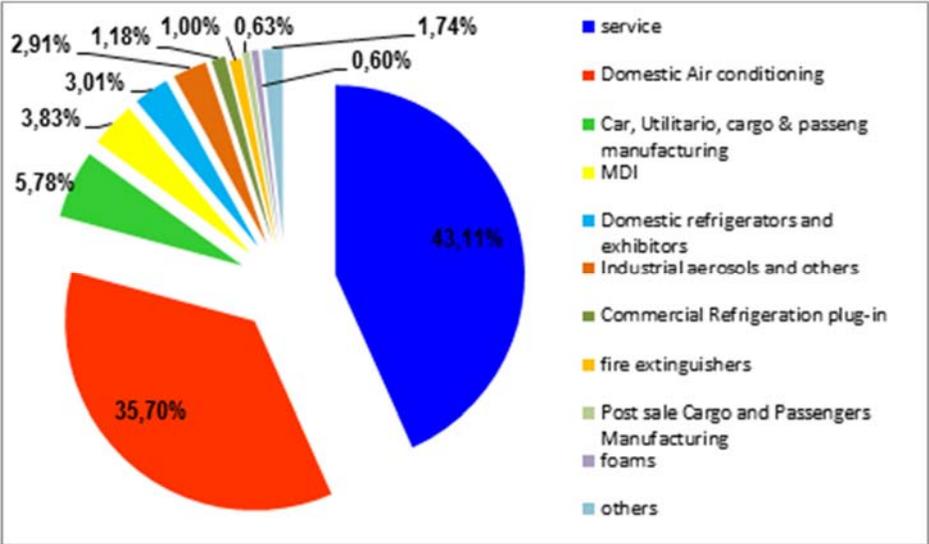
Condensers, Evaporators, Compressors*	7
Commercial/Industrial Refrigeration**	36
Domestic Air Conditioning	13
Other MAC –Post sale and agricultural machinery	24
MAC Components	4
Refrigerated transport	10
Foam***	161
Metered dose inhalers	7
Industrial Aerosols & others	13
Fire Extinguishers	5
<b>Total</b>	<b>304</b>

\*plus several very small size manufacturers

\*\*30 additional HCFC consuming enterprises are expected to be converted as part of the HPMP

\*\*\*number of enterprises surveyed, plus there are around 200 very small ones

The percentage of consumption by sector is depicted in the following figure.



The two main sectors consuming ODS and ODS alternatives are the refrigeration and air-conditioning manufacturing and service sector and the foam sector.

Argentina imported small amounts of HFC-152a and used in the Glass industry as a process agent to apply a coating to glass containers manufacturing to prevent them from reacting with the moisture in the air while being stored and turning milky.

The amounts of HFC-152a used for glass manufacturing vary throughout the years due to fluctuating demand for specific glass products, but the consumption tends to decrease. The consumption reported for the glass industry accounted for 0.02 % of total use of ODS alternatives in 2015. This sector will be reviewed during the enabling activities implementation.

The survey demonstrated that there are plenty of opportunities to phase out consumption of ODS and high GWP substances in the above sectors, provided the existing legal, technical, financial and market barriers are eliminated with the assistance of the MLF.

Supporting Montreal Protocol's new measures, that is to say Kigali Amendment, Argentina Government has taken the political decision of ratifying it.

Nowadays, the three national organisms who are part of OPROZ (Ministry of Environment and Sustainable Development, Ministry of Production and Ministry of Foreign Affairs and Worship), are undertaking the activities towards the gathering of information in order to start the technical documents and internal procedures that will lead to the national law which will incorporate the text of the amendment to the national legislation.

Pursuant to that, our licensing system will be upgraded to include HFCs as controlled substances, legislation will be enacted in order to collect information for data reporting, and awareness campaigns will be implemented to include all stakeholders.

Health and safety related to low GWP alternatives are very important issues to be considered; a training program, as part of the HPMP, is underway throughout the country since 2017 in order to raise awareness in the refrigeration manufacturing and service sectors on these matters. Eleven workshops have been delivered so far with 344 technicians trained; 10 more are expected to be delivered this year.

A national certification program for the safe handling of flammable refrigerants is also being considered within the HPMP framework.

## 2. Objectives

The main objective of these enabling activities is to prepare the country 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:

- a. Activities to facilitate and support the early ratification of the Kigali Amendment,*
- b. Support to the institutional arrangements,*

- c. Review of the licensing systems,*
- d. Review of the data reporting systems,*
- e. Demonstration of non-investment activities*
- f. Preparatory actions for reviewing the existing national policies on HFC*

### **3. Proposed approach and activities**

The enabling activities identified by the Republic of Argentina are targeted to facilitate the Kigali ratification process and promote the main actions to be undertaken for the HFC phase-down obligations in next years.

Actions will address to enforce the role of the National Ozone Unit (OPROZ) and how institutional arrangements for HCFCs are being used or need to be enhanced to HFC commitments, including actions on the energy efficiency as a relevant issue of the Kigali implementation. Description of each one of the enabling activities proposed by Argentina is presented below, including responsible and target group, the milestones and expected outputs. Additionally, cost breakdown and the schedule for implementation are presented in this document.

#### **A. Support the early ratification of the Kigali Amendment**

The ratification of the Kigali Amendment is a top priority in Argentina and the NOU should facilitate the process by providing the required data, information and background documents to the national institutions involved in the ratification process. In this context project will cover the following activities:

##### *A.1.1 Coordination of Government representatives on Kigali amendment ratification and implementation (national Workshop and meetings)*

Awareness activities/meetings will be conducted to promote inter-institutional discussion and coordination between Governments representatives (setting up steering committees / tasks forces / working groups) for supporting national ratification of Kigali amendment.

##### *A.1.2 Assessment on national impact of Kigali Amendment implementation (regulatory, economics impacts)*

Preparation of the regulatory impact assessment for HFC phase-down control and to identify key priorities, sectors and actions for the KA implementation linked with HCFC phase-out.

## A.1 Support the early ratification of the Kigali Amendment

Activities		Responsible entity	Target group	Start date	Completion date	Budget (US \$)	Milestones	Expected outputs
A.1.1	Coordination of Government representatives on Kigali amendment ratification and implementation	OPROZ with the support of UNIDO	Ministries and governmental bodies involved in the KA ratification & implement.	October 2018	November 2018	2,500	National Workshop prepared and meeting(s) consultation developed	Governmental bodies informed and awareness on Kigali amendment and commitments of HFC phase-down
A.1.2	Assessment on national impact of Kigali Amendment implementation (regulatory, economics impacts)	OPROZ, local consultant	Ministries and main sectors involved in future implementation of KA	September 2018	November 2018	2,500	Document prepared and distributed among ministries and in meetings.	Assessment report on the national impact of the KA implementation
<b>Total cost USD</b>						<b>5,000</b>		

## **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:

Argentina became party to the United Nations Framework Convention on Climate Change (UNFCCC) in 1994. Adherence is enforced through Law 24.295 and by Decree N° 2213/2002. In December 2015, during the negotiations of the Paris Agreement, ratified by Argentina in September 2016, the Government stated its commitment for enhancing the Nationally Determined Contribution for a much more ambitious one that helps reach the goal to stay under the 2 degrees Celsius.

In July 2016, through Decree 891/2016, the National Cabinet for Climate Change (NCCC) was created. 17 National Ministers actively participate in the NCCC, which also has a National Focal Point on each of this ministries and sectoral and cross-cutting table.

Provinces of Argentina are also involved in the NCCC through the Federal Council of Environment and are contributing with mitigation and adaptation measures in the subnational and local level.

Energy efficiency is a cross-cutting issue that is considered in several mitigation initiatives, one of them is the implementation of minimum standards of energy efficiency in home appliances.

For a successful implementation of the KA, the country requires enhance institutional and regulatory capacities to integrate analysis and decision-making tools and better conditions to promote changes and mitigation actions on HFC phase-down and in synergy with climate change. At this stage, the following activities will be support in Institutional and regulatory capacities for the successful implementation of KA:

#### *B.1.1 Preparing an assessment of institutional and national capacities on HFC control and linkages with climate change strategies*

Reviewing institutional arrangements on HFC control and assessing its relation with the national strategy and mitigation actions of climate change.

#### *B.1.2 Mapping of legal/regulatory instruments on HFC control and alternatives to identify needs and gaps*

Reviewing operating codes and standards for the correct and efficient use of HFCs and ODS alternatives in the entire value chain. It includes permits, inspections, operating standards for HFC and ODS alternatives (use, maintenance, end-user), prohibitions, testing, labelling (production, manufacturing, wholesalers or distributors) and others.

The actions will include carrying out gap analysis and identifying appropriate regulations and control measures required for HFCs and ODS alternatives control.

#### *B.1.3 Mapping of national standards or specific regulations on flammable/toxic low- and zero-GWP alternatives and identify parties involved in national standardization process*

Evaluating specific standards for flammable/toxic low- and zero-GWP alternatives in line with international standards and related with energy efficiency improvements in sector involved. The analysis will identify main parties involved in national standardization process and regulations.

### B.1. Country-specific activities aimed at initiating supporting institutional arrangements

Activities		Responsible entity	Target group	Start date	Completion date	Budget (US \$)	Milestones	Expected outputs
B.1.1	Preparing an assessment of institutional and national capacities on HFC control and linkages with climate change strategies	OPROZ, local consultant with the support of UNIDO.	Ministries & authorities involved in HFC control; National Climate Change office	November 2018	January 2019	4,000	One report prepared and presented to stakeholders  Workshop/meeting	Assessment on national existing capacities on HFC control and linkages identified with climate change programmes. Roles and tasks for both matters identified.
B.1.2	Mapping of legal/regulatory instruments on HFC control (and alternatives) to identify needs and gaps	OPROZ, local consultant with the support of UNIDO.	Ministries & authorities involved in HFC control	November 2018	February 2019	5,000	Map and recommendation report prepared and distributed among ministries	National legal and regulatory framework and map of main instruments related to HFC
B.1.3	Mapping of national standards or specific regulations on flammable/toxic low- and zero-GWP alternatives and identify parties involved in national standardization process	OPROZ, local consultant with the support of UNIDO.	national certification & accreditation bodies; authorities involved in HFC control	November 2018	April 2019	10,000	List of existing codes and standards related with HFC control and proposal for updating prepared	Current map of national legal and regulatory instruments on HFC control prepared, presented and discussed to national stakeholders
<b>Total cost USD</b>						<b>19,000</b>		

## B.2. Review of licensing systems

### ***Harmonized tariff code and Licensing System including HFCs***

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.

Argentina enacted a comprehensive legal and institutional framework for the implementation of the Montreal Protocol. However during the preparation of the ODS alternative survey it was not possible to obtain detailed HFC import/export data from the National Custom Service system, therefore the results are not fully accurate and the annual 2011-2015 import data it is very difficult to conclude any specific trends except in few cases.

Data obtained from AFIP online and from the licensing system show the total for each H.S.Code. Most of these codes include several HFCs or mixtures which cannot be identified and therefore separated. There is an obligatory licensing system for import and export of ODS in Argentina, licenses are issued by OPROZ and are enforced by Customs. The system was updated in 2012 to include the register and license module for the import of R-22 free domestic air-conditioning equipment; however HFCs are not currently included in the Licensing System, so, new legislation will be enacted in order to add them as controlled substances. In attention to this key gap, the activities proposed cover:

*B.2.1 Reviewing and preparing local proposal of tariff codes according to HFCs commitments, with special attention to HFC blends*

*B.2.2 Enhancing the import and export license system to include HFCs (Article 4B) and considering other alternatives.*

*B.2.3 Training programme for customs and environment officers updated in line with harmonized tariff code and license system to include HFC*

## B.2. Review of licensing systems:

Activities		Responsible entity	Target group	Start date	Completion date	Budget (US \$)	Milestones	Expected outputs
B.2.1	Reviewing and preparing local proposal of tariff codes according to HFCs commitments, with special attention to HFC blends	OPROZ with the support of UNIDO.	Customs and authorities involved in HFC control	January 2019	June 2019	12,000	A proposal prepared and presented to custom authorities Event/meeting for consultation conducted	Review and proposal on local tariff codes for HFCs (pure and blends) and discussed with ministries involved in HFC control.
B.2.2	Enhancing the import and export license system to include HFCs (Article 4B) and considering other alternatives	OPROZ with the support of UNIDO.	Ministries & authorities involved in HFC control	February 2019	August 2019	10,000	Proposal on License system including HFC prepared and tested	License system updated with HFC and communicated to authorities/stakeholders
B.2.3	Training programme for customs and environment officers updated in line with harmonized tariff code and license system to include HFC	OPROZ, local consultant with the support of UNIDO.	Customs and authorities involved in HFC control	May 2019	August 2019	8,000	Consultations meetings Training programme prepared and developed	Training program updated; customs and environmental authorities informed and trained
<b>Total cost USD</b>						<b>30,000</b>		

### B.3. Data reporting on HFC consumption and production

#### ***HFC data management – Consumption of HFC***

National data reporting is the backbone of the strategic planning, monitoring and evaluation of the institutions of the Montreal Protocol. The importance of trustworthy data will be vital in the coming years, hence the identification of developing needs and the enhancement of national capacities will be required:

##### ***B.3.1 Updating the ODS alternative survey on HFC consumption***

The ODS alternative survey was a well-founded base to understand the main use of HFC in the country; however some gaps and missing information were reported. These will be attended to improve the quality of data and to identify tools required for a comprehensive management of HFC information in all sectors involved.

Review gaps and lacks on the ODS alternatives survey and to enhance the collection and analysis of HFC consumption to promote control measures or improvements in the national mechanism of HFC data management and reporting.

##### ***B.3.2 Reviewing national mechanisms existing for ODS reporting to include HFCs production/consumption***

##### ***B.3.3 Upgrade and propose records and control tools for HFC and other alternatives***

Enhancing the records and control tools existing on ODS to include HFCs and other alternative substances in cooperation with customs, authorities and stakeholders. Improving a national database based on the above.

#### ***Production Sector and HFC-23 emissions***

Preliminary data about Production Sector and HFC-23 emissions in Argentina have been submitted at the last ExCom. FIASA, the only HCFC producer in Argentina, is 100 per cent locally owned, and produces HCFC 22 solely for domestic ODS use. The enterprise, established in 1986, has an HCFC-22 production capacity of 7,792 mt, and had a maximum production of HCFC-22 of 4,251.46 mt in 2010. Since then, production has fallen to 1,742.09 mt in 2016.

The production process for HCFC-22 generates approximately three per cent of HFC-23 by-product.

#### **HCFC-22 production at FIASA**

<b>HCFC-22</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>Capacity</b>	<b>Maximum production</b>	<b>Baseline*</b>
Metric tonnes	2,285.95	2,445.98	1,742.09	7,792	4,251.46	4,082.73
ODP tonnes	125.7	134.5	95.8	428.6	233.8	224.6

### **HFC-23 production at FIASA**

<b>HFC-23</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>Capacity</b>	<b>Maximum production</b>
Metric tonnes	68.58	73.38	52.26	233.76	127.54

Argentina has an information management system to monitor production, domestic sales, and monitor movement of stockpiles of HCFC-22 at FIASA. Twice a year, consultants visit the facilities to make an accurate report about compliance with the reduction schedule.

In accordance with the Decision 79/46, enabling activities include actions for HFC-23 and in at early-stage of the KA ratification and implementation, the following actions will be carried out:

*B.3.4 Preparing an initial assessment of production sector and HFC-23 emissions as by-product from HCFC-22 production*

*B.3.5 Design of monitoring and verification methodology and country report of HFC-23 emissions*

*B.3.6 Estimating possible scenarios of HFC-23 emission, control measures and costs related emission reduction*

This study will include control measures proposal and cost of reducing emissions rate in the process, destroying it from the off-gas, or by collecting and converting it to other environmentally safe chemicals.

### B.3. Data reporting on HFC consumption

Activities		Responsible entity	Target group	Start date	Completion date	Budget (US \$)	Milestones	Expected outputs
B.3.1	Updating the ODS alternative survey on HFC consumption	OPROZ, local consultant with the support of UNIDO.	Customs; private and public sectors involved	September 2018	March 2019	30,000	Report on ODS alternative updated with HFC consumption for all substances and sectors	HFC consumption updated (2018-2019) and projections for estimating starting point on HFC aggregated consumption
B.3.2	Reviewing national mechanisms existing for ODS reporting to include HFCs production/consumption	OPROZ, local consultant with the support of UNIDO.	Customs; private and public sectors involved	January 2019	February 2019	3,000	Report with gap analysis: review the current methodologies and tools for data management of ODS to include HFC (data collection, record and reporting)	Report and proposals to enhance the national mechanism to include HFC production and consumption
B.3.3	Upgrade and propose records and control tools for HFC	OPROZ, local consultant with the support of UNIDO.	Customs; private and public sectors involved in HFC phase-down control	January 2019	May 2019	6,000	Consultations meetings Proposal prepared, tested and presented to stakeholders	Database or national tools upgraded and updated with HFC and other alternatives
<b>Total cost USD</b>						<b>39,000</b>		

### B.3. Data reporting on HFC production

Activities		Responsible entity	Target group	Start date	Completion date	Budget (US \$)	Milestones	Expected outputs
B.3.4	Preparing an initial assessment of production sector and HFC-23 emissions as by-product from HCFC-22 production	OPROZ with the support of UNIDO.	production plants of HCFC-22	February 2019	April 2019	22,500	Site visits, meetings and consultations conducted Report - Study prepared	Study on production sector and HFC-23 emissions as by-product from HCFC-22 production
B.3.5	Design of monitoring and verification methodology and country report of HFC-23 emissions	OPROZ, with the support of UNIDO.	production plants of HCFC-22	March 2019	June 2019	15,000	Proposal prepared, tested and presented to stakeholders	Model of verification methodology and reporting proposed and discussed with local stakeholders (authorities and production sector)
B.3.6	Estimating possible scenarios of HFC-23 emission, control measures and costs related emission	OPROZ with the support of UNIDO.	production plants; ministries and authorities	March 2019	June 2019	12,500	Consultation meetings Report of the proposal prepared	Assessment on forecasting of HCF-23 emissions and mitigation scenarios
<b>Total cost USD</b>						<b>50,000</b>		

#### B.4. Demonstration of non-investment activities

In this case, demonstration projects can assist countries to gain a more precise and targeted overview on alternatives and have a better understanding on their characteristics and potentials. The barriers analysis and technology roadmap related to low- and zero-GWP alternatives is a relevant action to develop during the enabling activities period.

*B.4.1 Assessing national barriers and opportunities for the use and further uptake of low- and zero-GWP alternatives*

*B.4.2 Preparing assessment on current situation and technology roadmap related to low- and zero-GWP (manufacturing sector and replacement equipment) in a cost-efficient way*

A study to review HFC alternative options and assessing their cost-efficiency considering current situation in the country and technology options for future conversion of HFC in manufacturing sector.

#### **C. Preparatory actions for reviewing the existing national policies related on HFC**

Preparatory actions for reviewing of the existing national policies and also to identify the needs of economic instruments include the following:

*C.1.1 Identify linkages between HCFC and HFC reduction schedules, with special attention to certain sectors and to propose possible scenarios*

*C.1.2 Identify national priorities and appropriate policies to facilitate the phase-down of HFCs and the introduction of low-GWP alternative technologies – inclusive “not-in-kind” options – with higher rates of energy efficiency*

#### B.4. Demonstration of non-investment activities

Activities		Responsible entity	Target group	Start date	Completion date	Budget (US \$)	Milestones	Expected outputs
B.4.1	Assessing national barriers and opportunities for the use and further uptake of low- and zero-GWP alternatives	OPROZ, local consultant with the support of UNIDO.	sectors involved in HFC phase-down including relevant stakeholders-market	June 2019	August 2019	6,000	Meetings and consultations Assessment report	Assessment on local barriers and opportunities of low- and zero-GWP alternatives identified
B.4.2	Preparing assessment on current situation and technology roadmap related to low- and zero-GWP (manufacturing sector and replacement equipment) in a cost-efficiency way	OPROZ with the support of UNIDO.	(manufacturing sector and replacement technologies/equipment)	May 2019	September 2019	16,000	Roadmap and analysis report prepared	Understanding on existing technology and roadmap proposed for future KA implementation
<b>Total cost USD</b>						<b>22,000</b>		

### C.1. Preparatory actions for reviewing the existing national policies related on HFC

Activities		Responsible entity	Target group	Start date	Completion date	Budget (US \$)	Milestones	Expected outputs
C.1.1	Identify linkages between HCFC and HFC reduction schedules, with special attention to certain sectors and to propose possible scenarios	OPROZ, local consultant with the support of UNIDO.	Ministries and main institutions involved in HFC phase-down	August 2018	September 2018	9,000	Meetings and consultations Assessment report prepared	Linkages between HCFC and HFC reduction schedules and scenarios identified and presented to main sectors involved
C.1.2	Identify national priorities and appropriate policies to facilitate the phase-down of HFCs and the introduction of low-GWP alternative technologies –inclusive “not-in-kind” options– with higher rates of EE	OPROZ, with the support of UNIDO.	Main authorities and sectors/ institutions involved	September 2018	November 2018	3,000	Executive report prepared and presented to authorities	NOU and authorities recognize the existing strategies on HCFC phase-out and identify priorities and policies required to facilitate HFC phase-down
<b>Total cost USD</b>						<b>12,000</b>		

## **D. Awareness, Communication and Dissemination**

### D.1 Awareness activities on key information and results from the activities A to C above

*D.1.1 Developing a National Workshop on KA, national HFC situation and results obtained of the study/assessments*

*D.1.2 Design and printing materials on KA and HFC phase-down by each sector and for public awareness*

*D.1.3 Awareness raising of stakeholders (public and private sectors) on HFC phase-down and energy efficiency improvement options (3 workshops)*

*D.1.4 Dissemination of documents and materials obtained during the enabling activities project implementation (roadmap, studies)*

### D.1. Awareness activities on key information and results from activities A and B above

Activities		Responsible entity	Target group	Start date	Completion date	Budget (US \$)	Milestones	Expected outputs
D.1.1	Developing a National Workshop on KA, national HFC situation and results obtained of the study/assessments	OPROZ with the support of UNIDO.	Ministries and main institutions involved in HFC phase-down	May 2019	August 2019	15,000	National Workshop with main stakeholders developed	Ministries stakeholders are informed and awareness of KA commitments, current situation on HFC and actions
D.1.2	Design and printing materials on KA and HFC phase-down by each sector and for public awareness	OPROZ, with the support of UNIDO.	Sectors involved in HFC phase-down (manufacturing and servicing sector); Public	November 2018	January 2020	8,000	Leaflets, informative material elaborated and disseminated	Sectors and public are awareness of KA commitments and national challenges
D.1.3	Awareness raising of stakeholders (public and private sectors) on HFC phase-down and energy efficiency improvement options	OPROZ with the support of UNIDO.		October 2019	November 2019	30,000	3-5 Workshops developed (specific sectors)	Sectors and public are awareness of KA commitments and national challenges
D.1.4	Dissemination of documents and materials obtained during the enabling activities project implementation	OPROZ with the support of UNIDO.		December 2018	January 2020	20,000	At least 3 documents or materials are edited, printed and distributed	Communication and dissemination of national key information on HFC phase-down (e.g. roadmap, studies)
<b>Total cost USD</b>						<b>73,000</b>		

#### 4. Implementation budget and plan

##### 4.1 Total Budget Requested

Enabling Activities		Budget Requested (USD)
A.1 Support the early ratification of the Kigali Amendment	A.1.1 Coordination of Government representatives on Kigali amendment ratification and implementation (national Workshop and meetings)	5,000
	A.1.2 Assessment on national impact of Kigali Amendment implementation (regulatory, economics impacts)	
B.1. Country-specific activities aimed at initiating supporting institutional arrangements	B.1.1 Preparing an assessment of institutional and national capacities on HFC control and linkages with climate change strategies	19,000
	B.1.2 Mapping of legal/regulatory instruments on HFC control (and alternatives) to identify needs and gaps	
	B.1.3 Mapping of national standards or specific regulations on flammable/toxic low- and zero-GWP alternatives and identify parties involved in national standardization process	
B.2. Review of licensing systems	B.2.1 Reviewing and preparing local proposal of tariff codes according to HFCs commitments, with special attention to HFC blends	30,000
	B.2.2 Enhancing the import and export license system to include HFCs (Article 4B) and considering other alternatives	
	B.2.3 Training programme for customs and environment officers updated in line with harmonized tariff code and license system to include HFC	
B.3. Data reporting on HFC consumption and production	B.3.1 Updating the ODS alternative survey on HFC consumption	39,000
	B.3.2 Reviewing national mechanisms existing for ODS reporting to include HFCs production/consumption	
	B.3.3 Upgrade and propose records and control tools for HFC	
	B.3.4 Preparing an initial assessment of production sector and HFC-23 emissions as by-product from HCFC-22 production	50,000

	B.3.5 Design of monitoring and verification methodology and country report of HFC-23 emissions	
	B.3.6 Estimating possible scenarios of HFC-23 emission, control measures and costs related emission reduction	
B.4. Demonstration of non-investment activities	B.4.1 Assessing national barriers and opportunities for the use and further uptake of low- and zero-GWP alternatives	22,000
	B.4.2 Preparing assessment on current situation and technology roadmap related to low- and zero-GWP (manufacturing sector and replacement equipment) in a cost-efficiency way	
C.1 Preparatory actions for reviewing the existing national policies related on HFC	C.1.1 Identify linkages between HCFC and HFC reduction schedules, with special attention to certain sectors and to propose possible scenarios	12,000
	C.1.2 Identify national priorities and appropriate policies to facilitate the phase-down of HFCs and the introduction of low-GWP alternative technologies – inclusive “not-in-kind” options– with higher rates of EE	
D.1 Awareness activities on key information and results from activities A and B above	D.1.1 Developing a National Workshop on KA, national HFC situation and results obtained of the study/assessments	15,000
	D.1.2 Design and printing materials on KA and HFC phase-down by each sector and for public awareness	8,000
	D.1.3 Awareness raising of stakeholders (public and private sectors) on HFC phase-down and energy efficiency improvement options	30,000
	D.1.4 Dissemination of documents and materials obtained during the enabling activities project implementation	20,000
<b>TOTAL</b>		<b>250,000</b>

## 4.2 Timeline of the activities

The total duration of the project implementation will be 18 months. The proposed activities will take place during the lifetime of the project in accordance with the following table:

Enabling Activity		Months																	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
A.1 Support the early ratification of the KA	A.1.1																		
	A.1.2																		
B.1. Country-specific activities - initiating supporting institutional arrangements	B.1.1																		
	B.1.2																		
	B.1.3																		
B.2. Review of licensing systems	B.2.1																		
	B.2.2																		
	B.2.3																		
B.3. Data reporting on HFC consumption and production	B.3.1																		
	B.3.2																		
	B.3.3																		
	B.3.4																		
	B.3.5																		
	B.3.6																		
B.4. Demonstration non-investment activities	B.4.1																		
	B.4.2																		
C.1 Preparatory actions for reviewing existing national policies on HFC	C.1.1																		
	C.1.2																		
D.1 Awareness activities on key information and results from activities A to C above	D.1.1																		
	D.1.2																		
	D.1.3																		
	D.1.4																		

## 5. Institutional arrangements

In Argentina, OPROZ is responsible for the implementation of the Montreal Protocol in the country and integrates the one representative from each of the Ministry of Foreign Affairs and Worship, Ministry of Environment and Sustainable Development, and the Ministry of Production. OPROZ 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**

### **Submission of funding request for enabling activities**

**Country:** Grenada  
**Title:** Enabling activities for HFC phase-down in Grenada  
**Project Duration:** 18 months  
**Project Budget:** US\$50,000 (excl. 7% Agency Support Costs)  
**Implementing Agency:** UNIDO

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### **General statements**

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

The Government of Grenada confirms that all activities under the enabling activities project will be implemented following the model where UNIDO will administer the funds and execute the project.

### **1. Background**

The HCFC baseline amounts to 0.83 ODP tonnes.

In Grenada, alternatives to ODS, consisting mainly of HFCs, are:

- In domestic refrigeration: HFC-134a, R-717 (ammonia) and HC-600a;
- In commercial refrigeration: HFC-134a, R-717 (ammonia) and HFC-404a;
- In chillers: HFC-134a and HFC-407c;
- In air-conditioning: HFC-407c and HFC-410a;
- In mobile air-conditioning: HFC-134a.

### Estimated amount of refrigerants used in metric tonnes<sup>2</sup>

Refrigerant	2012	2013	2014	2015
HFC-134a	1.578	1.63	2.023	2.793
HFC-410a	0.3	0.4883	0.5085	0.5301
R-717	0	0	0.01168	0.4203
HFC-404a	0.084	0.1487	0.1565	0.1772
HFC-407c	0.054	0.0542	0.0542	0.0542
HC-600a	0.002	0.00186	0.00186	0.00382

## 2. Objectives

The main objective of these enabling activities is to prepare Grenada for the ratification and early implementation of the Kigali Amendment to the Montreal Protocol, considering the prevailing situation stated above with regard to the current HFCs' consumption. The project will be implemented 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, and
- Demonstration of non-investment activities.

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<sup>2</sup> ODS alternatives survey for Grenada, 2017

### 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
<p>Coordination with Government representatives and other national stakeholders.</p> <p>---</p> <p>Raising awareness amongst the public and other stakeholders.</p>	<p>NOU with the support of UNIDO.</p>	<p>Related ministries, legislators, the refrigeration association, and other stakeholders.</p> <p>---</p> <p>The public and relevant stakeholders, including but not limited to the economic sector, the civil society and NGOs.</p>	<p>August 2018</p>	<p>August 2018</p>	<p>10,000</p>	<p>One or two national workshop(s) delivered.</p> <p>---</p> <p>Workshop report(s) published.</p>	<p>Steering committee, task forces and/or working groups set up as appropriate.</p> <p>---</p> <p>Roles and tasks for the ratification of the amendment distributed among relevant bodies.</p> <p>---</p> <p>Awareness raised among relevant stakeholders including the public.</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*

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

<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 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.	August 2018	November 2018	15,000	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 the 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>
Review of the licensing and quota system in consultation with national and regional bodies, to facilitate the preparation and implementation of harmonized tariff codes for HFCs and HFC blends and support to expand the electronic licensing system.	NOU with the support of UNIDO.	Customs division, Trade Department, relevant ministries.	September 2018	April 2019	10,000	A national consultation conducted. --- A report published.	Electronic licensing system expanded to include pre-approval certificates. --- A proposal prepared and presented to the Trade Department for consultation with CARICOM on development of new tariff codes.

*b.3 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.

<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>
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 of HFC-32, HFO-1234yf and HC-290 refrigerants, and their related equipment.	NOU with the support of UNIDO.	Importers, technicians, end users and other relevant stakeholders.	October 2018	January 2020	15,000	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.

#### 4. Implementation budget and plan

Enabling Activity	Budget per cost item (USD)	Total Budget Requested (USD)
a. Support for the early ratification of the Kigali Amendment: <ul style="list-style-type: none"> <li>- Workshop</li> <li>- National consultant</li> <li>- International consultant</li> <li>- Travel</li> </ul>	4,000 1,500 2,000 2,500	10,000
b.1. Support to institutional arrangements: <ul style="list-style-type: none"> <li>- Meeting</li> <li>- National consultant</li> <li>- International consultant</li> <li>- Travel</li> <li>- Other contractual service</li> </ul>	3,000 1,000 7,000 2,500 1,500	15,000
b.2. Review of the licensing systems: <ul style="list-style-type: none"> <li>- Meeting</li> <li>- National consultant</li> <li>- International consultant</li> <li>- Travel</li> <li>- Other contractual service</li> </ul>	2,000 3,500 2,000 1,500 1,000	10,000
b.3. Demonstration of non-investment activities: <ul style="list-style-type: none"> <li>- Meeting</li> <li>- National consultant</li> <li>- International consultant</li> <li>- Travel</li> <li>- Other contractual service</li> </ul>	3,000 1,000 7,000 2,500 1,500	15,000
<b>Total</b>	<b>50,000</b>	<b>50,000</b>



## **5. Institutional arrangements**

The National Ozone Unit (NOU) of the Ministry of Infrastructural Development, Public Utilities, Energy, Transport and Implementation and the United Nations Industrial Development Organization (UNIDO), will be jointly responsible for the implementation of the above mentioned activities.

The role of UNIDO will be focused on providing support for the general implementation and execution of the enabling activities and the appropriate expenditure of the funds allocated for each of them in consultation with the country. UNIDO will also provide technical assistance, when needed, utilizing the support of international experts that is required for the different areas of work.

The NOU will collaborate in the implementation of the different activities, including the identification of local experts that may be required for the different areas of work. In addition, the NOU will provide general guidance on the implementation of the enabling activities based on the national priorities.

## **Project Concept**

### **Submission of funding request for enabling activities**

**Country:** Libya

**Title:** Enabling activities for HFC phase-down in Libya

**Project Duration:** 18 months

**Project Budget:** US\$150,000 (excl. 7% Agency Support Costs)

**Implementing Agency:** UNIDO

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#### **1. Background**

The ODS alternatives survey recently completed in Libya shows that in the period 2012-2015 an average amount of almost 468 metric tonnes of HFCs have been consumed every year. This amount is equivalent to more than 678 kilo-tonnes CO<sub>2</sub>, which represents more than 37 % of the total global warming potential (GWP) of all ODS alternatives consumed in the country (1,817,794 CO<sub>2</sub>-eq tons; average of 2012 - 2015).

According to 2015 consumption figures, the most common HFCs for all sectors are HFC-134a (more than 25%) followed by HFC 407C and HFC-410A (more than 16%), HFC-404A (more than 13%) and relatively high rate of ammonia is already used (around 1.6%). In terms of GWP, these substances, but ammonia, have the biggest share on above mentioned total.

The largest consumption of HFCs in Libya in metric tonnes was found in the refrigeration manufacturing and servicing sectors and also in air conditioning servicing sector, which represents total consumption, of ODS alternatives.

#### **2. Objectives**

The main objective of these enabling activities is to prepare Libya 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
- Definition of the national strategies.

### 3. Proposed approach and activities

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

The National Ozone Office to function as technical and administrative guarantor of the ratification process by providing the required data, information and background documents to the ratification institutions. Proper technical, administrative and financial support to the NOU to be provided by Implementing Agency/ UNIDO.

<b>Activities</b>	<b>Target group</b>	<b>Milestones</b>	<b>Expected outputs</b>
Coordination with Government representatives	Related ministries and legislators	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 support documents for the vote on the amendment' s ratification

d. 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. Necessary technical, administrative and financial support to be provided by Implementing Agency/ UNIDO.

<b>Activities</b>	<b>Target group</b>	<b>Milestones</b>	<b>Expected outputs</b>
Assessment of linkages between the Kigali amendment (HFC control measures and energy efficiency objectives) and the national strategy on environment and on climate change	Relevant ministries	At least one workshop to be organized for relevant ministries --- Papers to be prepared	Links identified
Reviewing operating codes and standards for the efficient use of HFCs and ODS alternatives in the entire value chain	Relevant ministries --- Manufacturing and servicing sectors	A workshop delivered with relevant ministries --- Relevant papers prepared	A proposal prepared for updating codes and standards

#### *b.5 Review of licensing systems*

Properly established and functioning licensing systems play a key role in sustaining the phasing out achievements under the Montreal Protocol. Licensing and quota system should continue to support future phase out strategies. Technical, administrative and financial support, to be provided by Implementing Agency/ UNIDO.

<b>Activities</b>	<b>Target group</b>	<b>Milestones</b>	<b>Expected outputs</b>
Enhancement of the import and export license system to include HFCs and other alternatives	Customs --- Relevant ministries	At least one workshop to be organized for relevant stakeholders --- A report drafted	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	Customs --- Relevant ministries	At least one workshop to be organized for relevant stakeholders --- A report drafted	Tariff codes defined and officially introduced

#### *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.

Proper technical, administrative and financial support to the NOU and to cooperating organizations, e.g. custom authorities; to be provided by Implementing Agency/ UNIDO.

<b>Activities</b>	<b>Target group</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. Special attention to be paid to informal sector.	Relevant ministries --- Customs	At least one workshop to be organized for relevant stakeholders --- A report drafted	National mechanism updated

e. National strategies that contained the activities in sub-paragraphs a. and b. above;

	<b>Target group</b>	<b>Milestones</b>	<b>Expected outputs</b>
Well-defined national strategies and priorities can facilitate the ratification process and subsequently the whole HFC phase-down. <b>Activities</b>			
Assessment report on the impact of the Phase out of HCFC in the potential consumption of HFCs and other ODS alternatives in refrigeration manufacturing and servicing sectors in Libya	Relevant ministries and other stakeholders.	Workshop delivered --- A report drafted	Projection on ODS alternatives consumption estimated
Inventory of the refrigeration and air-conditioning units currently used in the country and projections for next years (including a chapter on energy efficiency options for these devices)	Relevant ministries and other stakeholders.	Workshop delivered --- A report drafted	Knowledge on the national market of RAC devices among decision makers increased
Assessment of the refrigeration and air-conditioning servicing sector (formal and informal sector)	Relevant ministries and other stakeholders like professional associations and service shops associations.	A report drafted	Understanding of the composition of the servicing sector reached
Identification of policies and regulations to facilitate the phase-down of HFCs and the introduction of low-GWP alternative technologies with higher rates of energy efficiency	Relevant ministries --- Customs --- Private sector (RAC manufacturing, servicing sector, aerosols)	Workshop delivered --- A report drafted	National strategy defined
Consumers awareness raising on energy efficiency improvement options for RAC devices	Civil society, schools and training centers.	A brochure prepared and distributed in relevant events	Civil society and targeted professionals informed on this topic

#### 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	2,000
	a.2. Supporting national ratification instruments	2,000
b.1. Institutional arrangements	b.1.1. Assessment of linkages between the Kigali amendment and the national strategy on environment	15,000
	b.1.2. Reviewing operating codes and standards for the efficient use of HFCs and ODS alternatives in the entire value chain	10,000
b.2. Licensing systems	b.2.1. Enhancement of the import and export license system to include HFCs and other alternatives	15,000
	b.2.2. Preparing harmonized tariff codes according to HFCs commitments, with special attention to HFC blends	10,000
b.3. Data reporting on HFC consumption	b.3.1. Review of the national mechanisms used for ODS reporting to include HFCs consumption	11,000
c. National strategies	c.1. Assessment report on the impact of the Phase out of HCFC in the potential consumption of HFC in Libya	15,000
	c.2. Inventory of the refrigeration and air-conditioning units .	20,000
	c.3. Assessment of the refrigeration and air-conditioning servicing sector	15,000
	c.4. Identification of policies and regulations to facilitate the phase-down of HFCs and the introduction of low-GWP alternative technologies	15,000
	c.5. Consumers awareness raising on energy efficiency improvement options for RAC devices	20,000
<b>Total</b>		<b>150,000</b>



### Detailed implementation plan with timelines, and detailed budgets

	Activities	Target Group	Detailed Timelines	Detailed budget [USD]	Organizational notes and implementation modality
<b>A</b>	<b>Institutional and public support for an early ratification of the Kigali Amendment</b>				
	High Level National Inception Workshop to introduce the Plan and its Objectives and to promote Government awareness and legislative support for early ratification of the Kigali Amendment.	Ministry of Environment. Ministry of Finance. Ministry of Industry. Ministry of Economy.	23 - 25 July 2018	5,000	High level international expert in the field of refrigeration and environment protection to deliver key notes, technical paper and advisory notes to respective decision makers of the concerned institutions.
	Technical and methodical Workshop to support national ratification instruments	General National Congress Committee for Environment and Protection of Natural Resources. Ministry of Justice. Other central and provincial Legislators	17 - 19 August 2018	5,000	High level expert in the field of legislation from University of Tripoli in collaboration with international expert in the field of refrigeration and environment protection, to conduct the workshop and deliver key notes and guidance on legislative methodology and strategy towards early ratification of the Kigali Amendment.
<b>B</b>	<b>Country-specific activities aimed at initiating and supporting institutional arrangements</b>				
	Creation of a National Team of Experts and Steering Committee and a Task Force to identify relevant points of interventions at different ministries and legislative committees of the General National Congress.	Selection of experts from academic field and professional associations (legislative sectors of commercial and environmental law, RAC, Energy sector, transport and automotive associations, agriculture and food conservation)	20 August - 11 October 2018	500	Coordination of competitive selection of national experts to be ensured by NOU and UNIDO. UNIDO international expert to be member of selection panel.
	Contracts for members of the National Team of experts to be finalized.		11 - 25 October 2018	45,000	The JDs will be prepared in collaboration with NOU and international expert.
	Work plans and operational guidelines of the National team, Steering Committee and Task Force to be finalized.			Included above	
	Assessment of linkages between the Kigali amendment (HFC control measures and energy efficiency objectives) and the national strategy on environment and on climate change			Included above	
	Reviewing operating codes and standards for the efficient use of HFCs and ODS alternatives in the entire value chain			Included above	

	Enhancement of the import and export license system to include HFCs and other alternatives			Included above	
	Preparing harmonized tariff codes according to HFCs commitments, with special attention to HFC blends			Included above	
	Review of the national mechanisms used for ODS reporting to include HFCs consumption, especially considering the servicing sector. Special attention to be paid to informal sector.			Included above	
	Preparation of relevant papers and workshop documents, including technical and legislative papers and presentations.		25 October 2018 - 14 June 2019	3,500	
	Workshop for relevant stakeholders, including Ministries.		12 - 14 June 2019	15,000	Information to be disseminated through different media. The workshop to be organized latest by mid-June 2019. NOU and the team of national consultants will be responsible for technical content and logistics of the workshop.
<b>C</b>	<b>National strategies</b>				
	Assessment report on the impact of the Phase out of HCFC in the potential consumption of HFC in Libya	Ministry of Environment. Ministry of Finance. Ministry of Industry. Ministry of Economy.		15,000	Workshop to be prepared and report to be disseminated latest by end September 2019
	Inventory of the refrigeration and air-conditioning units.	Ministry of Finance and relevant associations in the sector of the commercial refrigeration manufacturing, servicing sector, Energy Sector, transport and automotive associations, agriculture and food conservation and aerosols)	26 - 30 September 2019	19,000	Workshop to be prepared and report to be disseminated latest by end September 2019.
	Assessment of the refrigeration and air-conditioning servicing sector	Relevant ministries and other stakeholders like professional associations and service shops associations.	14 June - 30 August 2019	15,000	Report to be prepared and disseminated to relevant ministries and other stakeholders latest by end August 2019

	Identification of policies and regulations to facilitate the phase-down of HFCs and the introduction of low-GWP alternative technologies	Relevant ministries, Custom authorities, Private sector (RAC manufacturing, servicing sector, Energy sector, transport and automotive associations, agriculture and food conservation aerosols)	26 - 30 September 2019	15,000	Workshop to be prepared and report to be disseminated latest by end September 2019. UNIDO international consultant in collaboration with technical education sector (University of Tripoli, relevant secondary technical schools and apprenticeship schools and other technical associations will be technical guarantors.) Legal and financial experts from relevant ministries in collaboration with UNIDO international consultant will be guarantors for drafting of policies to be submitted for the consideration of the institution to ratify Kigali Amendment on behalf of State Libya.
	Consumers awareness raising on energy efficiency improvement options for RAC devices	Civil society, schools and training centers.	2 January - 30 December 2019	12,000	Information materials, brochures prepared and distributed in relevant events and through different media in 2019
<b>D</b>	<b>Ratification of Kigali amendment</b>		30-Dec-19		Deposit of relevant ratification instrument with the office of UN Secretary General, latest in December 2019

## **5. Institutional arrangements**

Environment General Authority (EGA) under the Ministry of Environment and 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.

The NOU will function as national focal point to implement different activities, including identification of local experts on different expertise and 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. Final statement**

The Government of Libya 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 Libya confirms its intention to make best efforts to ratify the Kigali Amendment as early as possible. (See letter from Government)

The Government of Libya confirms that all Enabling Activities will be implemented following UNIDO financial rules; procurement manual and human resource management including recruitment rules and regulations (UNIDO's execution).

## Project Concept

### Submission of funding request for enabling activities

**Country:** Morocco

**Title:** Enabling activities for HFC phase-down in Morocco

**Project Duration:** 18 months

**Project Budget:** US\$150,000 (excl. 7% Agency Support Costs)

**Implementing Agency:** UNIDO

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### General Statements

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

*The Government of Morocco confirms that all activities under Enabling Activities will be implemented following model that UNIDO will administer the funds (UNIDO's execution) instead of national execution.*

### 1. Background

The Kingdom of Morocco signed the Vienna Convention on 7 February 1986, the Montreal Protocol on 7 January 1988 and London and Copenhagen Amendments on 28 December 1995.

At the Sixty-fifth meeting in Bali, Indonesia, from 13 to 17 November 2011, the Executive Committee approved the HPMP for Morocco by its decision 65/42

Morocco has chosen the 2009 consumption, 68 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 2006, is applied to imports of HCFC-141b 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 Morocco is US\$ 150,000.00.

## 2. Objectives

The main objective of these enabling activities is to prepare Morocco for the ratification and early implementation of the Kigali Amendment to the Montreal Protocol, 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,
- Review of the data reporting systems

## 3. Proposed approach and activities

### f. 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.

<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>
Coordination with Government representatives	NOU with the support of UNIDO	Related ministries and legislators	Aug. 2018	Jan. 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

g. HFC Survey and analysis

<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>
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	Oct. 2018	July. 2019	50,000	A survey report	Complete view of the HFC consumption and trend

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

*b.7 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.

<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>
Reviewing operating codes and standards (for flammability, toxicity) for the correct and efficient use of HFCs and ODS alternatives in the entire value chain	NOU with the support of UNIDO	Relevant ministries --- Manufacturing and servicing sectors	Oct. 2018	Apr. 2019	25,000	A workshop delivered with relevant ministries --- A report published on this topic	A proposal for updating codes and standards prepared and presented

*b.8 Review of licensing system*

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 and Relevant ministries	Oct. 2018	Jan. 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	Proposal on local harmonized tariff codes for HFCs

*b.9 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.

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 UNIDO	Relevant ministries and Customs	Dec. 2018	Jan. 2020	25,000	A workshop with relevant stakeholders delivered --- A report published on this topic	National mechanism updated



## **5. Institutional arrangements**

The National Ozone Unit (NOU) of the Ministry of Industry, Investment, Commerce and digital Economy, 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

### Submission of funding request for enabling activities

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

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#### General Statements

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

*The Government of Nicaragua confirms that all activities under Enabling Activities will be implemented following model that UNIDO will administer the funds (UNIDO's execution) instead of national execution.*

#### 1. Background

The HCFC baseline in Nicaragua amounts to 6.8 ODP tonnes.

Nicaragua does not have factories of refrigeration nor air conditioning equipment, nor does it re-export to other countries in the region. Under this scenario, consumption by substance equals imports.

Main refrigerants include HFC-134a used in domestic refrigeration and mobile air conditioning servicing, HFC-404A is used in commercial refrigeration and mobile air conditioning and HFC-410A is mainly used in air conditioning and chillers servicing.

During 2015, Nicaragua consumed about 174 metric tons of ODS alternatives, of which 58.7% corresponds to the consumption of HFCs and 41% of HFC blends, followed by the consumption of other alternatives (0.3%). The annual consumption from 2012-2015 for each substance is presented in the figure 1 and table 1.

Figure 1. Estimated distribution for ODS alternatives consumption in Nicaragua during 2015.

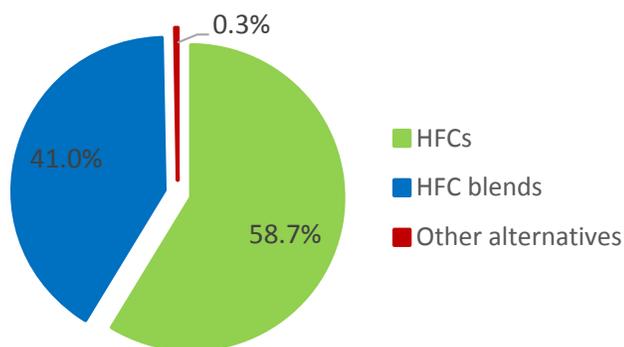


Table 1. Estimated consumption by ODS alternative in Nicaragua.

Alternative	Estimated use (mt)			
	2012	2013	2014	2015
HFC-134a	72.28	86.27	67.78	97.89
HFC-32			0.17	3.97
R-404A	16.71	24.21	14.17	43.64
R-407C				
R-410A	22.24	20.39	8.56	25.30
R-507A	0.23	2.53	1.74	1.65
R-422D	0.54		0.34	
R-438A			0.71	0.21
R-437A			0.46	0.34
HFO-1234yf		0.014		
R-717	0.38	0.42	67.75	0.51

SOURCE: OWN ELABORATION BASED ON COLLECTED DATA

Domestic refrigeration, commercial refrigeration and mobile air conditioning represent approximately 83% of the consumption of ODS alternatives in year 2015. Data presented in the ODS alternatives survey shows that the main substances, HFC-134a, R-404A and R-410A (all of them with high GWP) represent the major consumption.

Based on these results, it is necessary to focus efforts to reduce the consumption of HFCs in the three major sectors, as well as the air conditioning sector, which is increasing its consumption every year; for this last sector it will be important to explore inverter and VRF technologies that save energy and could also reduce the refrigerant charges in AC equipment.

## 2. Objectives

The main objective of these enabling activities is to prepare Nicaragua 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
- Preparatory actions for reviewing national priorities and strategies.

### **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.

*A.1. Activities to facilitate and support the early ratification of the Kigali Amendment (KA)*

Activities		Responsible entity	Target group	Start date	Completion date	Budget (US \$)	Milestones	Expected outputs
A.1.1	Coordination with Government representatives	NOU with the support of UNIDO.	Related ministries and legislators	October 2018	November 2018	5,000	One meeting with ministries' representatives and legislators conducted	Roles and tasks for the ratification of the amendment distributed among relevant stakeholders
A.1.2	Supporting national ratification instruments	NOU with the support of UNIDO	Legislators Ministries involved in KA implementation	October 2018	November 2018	5,000	Supporting documents prepared and distributed among ministries and legislators	Legislators have all necessary documents and knowledge for the vote on the amendment's ratification
A.1.3	Awareness raising of stakeholder on HFC phase-down and energy efficiency improvement options	NOU, local consultant with the support of UNIDO.	Ministries and public and private sectors involved Stakeholders	November 2018	December 2018	10,000	National Workshop	Stakeholders informed and awareness on KA and documents distributed
Total cost USD						20,000		

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.

During the ODS alternative survey were identified some issues and need on design strategy and awareness program for key sector. For example in domestic and commercial sector, the main challenge will be represented for the communication strategy of the benefits of using R-600a and R-290 since both of them are flammable hydrocarbons.

In the mobile sector, the challenge will be the new training in the use and management of HFO refrigerants for national technicians.

More relevant actions are required in servicing sectors, particularly technicians of different service workshops in the country need to continue with their training in order to provide equipment servicing with adequate procedures of recovery and recycling and including good practices and application of safety codes for flammable refrigerants.

Train importers of domestic equipment it is also necessary them on the environmental problems caused by actual refrigerants contained in the equipment they import.

In this component is expected to carrying out gap analysis and identifying appropriate institutional arrangements, regulations and control measures for HFCs and ODS alternatives (flammable refrigerants), training programme improvements and linkage to national strategies on HCFC phase-out and mitigation actions of climate change.

*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.

National Commission for Registration and Control of Toxic Substances (CNRCST), keeps records of the amounts of ozone depleting substances (ODS) and alternative substances that are introduced to the country by customs and reports the grant of licenses and permits to Ministry of Environment (MARENA). Licenses and permits are also granted to HFC importers, among other alternatives to ODS, however improvements to include HFC and quota is required.

This component is addressed to review and prepare a local tariff codes according to HFCs commitments and license system.

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

Activities		Responsible entity	Target group	Start date	Completion date	Budget (US \$)	Milestones	Expected outputs
B.1.1	Reviewing institutional arrangements in HFCs control measures and linkage to national strategies on environment and on the mitigation of climate change	NOU with the support of UNIDO	Relevant ministries	September 2018	November 2019	8,000	Proposal prepared and A workshop delivered with relevant ministries	A proposal to review the linkage national strategies prepared and presented to main ministries involved in the HFC control
B.1.2	Reviewing operating codes and standards for the correct and efficient use of HFCs and ODS alternatives in the entire value chain	NOU with the support of UNIDO	Relevant ministries Importers, Servicing sector	September 2018	November 2019	12,000	A workshop delivered and report published on this topic	A proposal for updating codes and standards prepared and presented
B.1.3	Enhancing vocational training centers and certification programmes with regard to the handling of flammable refrigerants	NOU, local consultant with the support of UNIDO.	RAC sector associations Technicians	November 2019	January 2020	10,000	Programme developed and delivered with training centers	A proposal for updating vocational training centers and certification process identified on handling flammable refrigerants.
B.1.4	Training on energy efficiency improvement options related to low- and zero- GWP replacement technologies and equipment, e.g. energy audit training	NOU, local consultant with the support of UNIDO.	Relevant sectors and ministries	November 2018	January 2019	12,000	A workshop delivered with relevant stakeholders	Energy efficient concept applied
B.1.5	Consumers awareness raising on energy efficiency improvement options related to low- and zero-GWP replacement technologies and equipment	NOU with the support of UNIDO	Relevant ministries Relevant end-users and Servicing sector	October 2019	December 2019	8,000	A workshop delivered --- A report published on this topic	A proposal for updating codes and standards prepared and presented
Total cost USD						50,000		

*B.2. Review of licensing systems*

Activities		Responsible entity	Target group	Start date	Completion date	Budget (US \$)	Milestones	Expected outputs
B.2.1	Enhancing the import and export license system to include HFCs (Article 4B) and other alternatives	NOU, local authorities with the support of UNIDO	Relevant ministries --- Customs	November 2018	January 2019	8,000	Proposal report prepared A workshop delivered with relevant stakeholders	A proposal for enhancing the licensing system including HFC
B.2.2	Training of customs officers on HFCs control/ Training of environmental inspectors on HFCs control and alternatives	NOU with the support of UNIDO	Customs --- Relevant ministries	August 2019	September 2019	12,000	A workshop with relevant stakeholders delivered	Training provided
B.2.3	Reviewing and preparing local tariff codes according to HFCs commitments, with special attention to HFC blends	NOU, local consultant with the support of UNIDO	Relevant ministries --- Customs	January 2019	September 2019	10,000	A workshop with relevant stakeholders delivered --- A report published on this topic	A proposal for enhancing the tariff code and licensing system
Total cost USD						30,000		

### *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. ODS alternative survey was crucial to evaluate the consumption of HFC and sectorial distribution; however additional information is required in some sectors.

Some relevant actions will include:

- Developing a register of the companies and workshops that provide maintenance and servicing, including the technicians who carry out the work to train them in the diagnostic procedures and preventive and corrective maintenance of these equipment, as well as the recovery, recycling and destruction practices for refrigerants used in the commercial sector.
- Purchasing refrigerants for servicing and maintenance of commercial equipment must carry consumption statistics of refrigerants to serve as data for future strategies and decision making.

The proposal considers a review and updates the national mechanisms used for ODS reporting to include HFCs consumption. Table with the work plan is presented next page.

### C. Preparatory actions for reviewing national priorities and strategies contained in the activities in sub-paragraphs a and b above

Well-defined national strategies and priorities can facilitate the ratification process and subsequently the whole HFC phase-down.

This component will explore possible controls required by the national regulations in terms of safety and strategies to promote imports of appliances based on low GWP refrigerants and the potential economic advantages on energy consumption that these equipment could represent in the short term.

### B.3. Data reporting on HFC consumption

Activities		Responsible entity	Target group	Start date	Completion date	Budget (US \$)	Milestones	Expected outputs
B.3.1	Review of the national mechanisms used for ODS reporting to include HFCs consumption, especially considering the servicing sector (the informal sector in particular)	NOU, local authorities with the support of UNIDO	Relevant ministries --- Customs	November 2018	March 2019	5,000	A workshop with relevant stakeholders delivered --- A report published on this topic	National mechanism updated Enhancing the records and control
B.3.2	Improving a national database on the ODS reporting	NOU with the support of UNIDO	Relevant ministries	November 2018	September 2019	15,000	Report delivered and presented to ministries involved	Database updated
B.3.3	Enhancing the records and control tools on HFC and alternative substances in cooperation with customs, authorities and stakeholders	NOU, local consultant with the support of UNIDO.	Relevant ministries --- Customs	January 2019	September 2019	10,000	A workshop with relevant stakeholders delivered --- A report published on this topic	Records and control mechanism updated
Total cost USD						30,000		

*C.1. Preparatory actions for reviewing national priorities and policies contained in the activities in sub-paragraphs a and b above*

Activities		Responsible entity	Target group	Start date	Completion date	Budget (US \$)	Milestones	Expected outputs
C.1.1	Identification of appropriate policies and regulations, including HCFC phase-out strategies, to facilitate the phase-down of HFCs and the introduction of low-GWP alternative technologies – inclusive “not-in-kind” options – with higher rates of energy efficiency	NOU, local consultant with the support of UNIDO	Relevant ministries --- Customs --- Private sector RAC servicing sector	August 2018	January 2019	20,000	Workshop delivered --- A report prepared and distributed to stakeholders	Feasible policies and regulations identified

## 4. Implementation budget and plan

### 4.1 Total Budget Requested

Enabling Activities		Budget Requested (USD)
A.1 Support the early ratification of the Kigali Amendment	A.1.1 Coordination with Government representatives	20,000
	A.1.2 Supporting national ratification instruments	
	A.1.3 Awareness raising of stakeholder on HFC phase-down	
B.1. Country-specific activities aimed at initiating supporting institutional arrangements	B.1.1 Reviewing institutional arrangements in HFCs control measures and linkage to national strategies on environment and on the mitigation of climate change	50,000
	B.1.2 Reviewing operating codes and standards for the correct and efficient use of HFCs and ODS alternatives in the entire value chain	
	B.1.3 Enhancing vocational training centers and certification programmes with regard to the handling of flammable refrigerants	
	B.1.4 Training on energy efficiency improvement options related to low- and zero- GWP replacement technologies and equipment, e.g. energy audit training	
	B.1.5 Consumers awareness raising on energy efficiency improvement options related to low- and zero-GWP replacement technologies and equipment	
B.2. Review of licensing systems	B.2.1 Enhancing the import and export license system to include HFCs (Article 4B) and other alternatives	30,000
	B.2.2 Training of customs officers on HFCs control/ Training of environmental inspectors on HFCs control and alternatives	
	B.2.3 Reviewing and preparing local tariff codes according to HFCs commitments, with special attention to HFC blends	
B.3. Data reporting on HFC consumption	B.3.1 Review of the national mechanisms used for ODS reporting to include HFCs consumption, especially considering the servicing sector (the informal sector in particular)	30,000
	B.3.2 Improving a national database on the ODS reporting	
	B.3.3 Enhancing the records and control tools on HFC and alternative substances in cooperation with customs, authorities and stakeholders	
C.1 Preparatory actions for reviewing national priorities and strategies that contained the activities in sub-paragraphs a and b above	C.1.1 Identification of appropriate policies and regulations, including HCFC phase-out strategies, to facilitate the phase-down of HFCs and the introduction of low-GWP alternative technologies – inclusive “not-in-kind” options – with higher rates of energy efficiency	20,000
<b>TOTAL</b>		<b>150,000</b>

#### 4.2 Timeline of the activities

The total duration of the project implementation will be 18 months. The proposed activities will take place during the lifetime of the project in accordance with the following table:

Enabling Activity		Months																	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
A.1 Support the early ratification of the KA	A.1.1			■	■														
	A.1.2			■	■														
	A.1.3				■	■													
B.1. Country-specific activities - initiating supporting institutional arrangements	B.1.1		■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
	B.1.2		■	■	■	■	■	■	■	■	■	■	■	■	■	■	■		
	B.1.3																■	■	■
	B.1.4				■	■	■												
	B.1.5															■	■	■	
B.2. Review of licensing systems	B.2.1				■	■	■												
	B.2.2												■	■					
	B.2.3							■	■	■	■	■	■	■					
B.3. Data reporting on HFC consumption and production	B.3.1				■	■	■	■	■										
	B.3.2				■	■	■	■	■	■	■	■	■	■					
	B.3.3						■	■	■	■	■	■	■	■					
C.1 Preparatory actions for reviewing existing national policies on HFC	C.1.1	■	■	■	■	■													

### 5. Institutional arrangements

The National Ozone Unit (CGO) belonging to the Ministry of Environment, 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 CGO 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 CGO will provide general guidance on the implementation of the enabling activities based on the national priorities.

## Project Concept

### Submission of funding request for enabling activities

**Country:** Niger

**Title:** Enabling activities for HFC phase-down in Niger

**Project Duration:** 18 months

**Project Budget:** US\$150,000 (excl. 7% Agency Support Costs)

**Implementing Agency:** UNIDO

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### General Statements

*The Government of Niger requested UNIDO, as the implementing agency, to request funding for supporting enabling activities in view of Kigali Amendment ratification and early implementation*

*The Government of Niger confirms that implementation of the enabling activities would not delay implementation of HCFC phase-out projects.*

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

*The Government of Niger confirms that all activities under Enabling Activities will be implemented following model that UNIDO will administer the funds (UNIDO's execution) instead of national execution.*

### 1. Background

The HCFC baseline of Niger amounts to 15.98 ODP tonnes.

The major ODS alternatives in use in the country are R-134a, R-404A, R-407C, R-410A, and R-600a. These are used in sectors and subsectors mainly in the Refrigeration and Air conditioning servicing and installation.

Consumption of ODS alternatives are generally on the increase from 2012 to 2015 while consumption of HCFC-22 is on the decline in compliance with the accelerated HCFC phase out provisions. Though the use of ODS Alternatives are increasing in most sectors, HCFC-22 is still the predominant refrigerant in the refrigeration and air conditioning sector.

The table below summarizes the current consumption of ODS alternatives in the country

**Table 1. Use of ODS alternatives 2012 – 2015**

Refrigerant	Amount of refrigerant used (in metric tons)			
	2012	2013	2014	2015
HFC-134a	86.56	131.285	150.105	157.71
HC-600a	1.635	2.24	13.195	23.03
HFC-404A	58.42	62.73	68.08	117.61
HFC-410A	32.64	28.96	34.94	42.775
HFC-407C	7.8	11.9	15.09	19.755
R717	0	0	5.75	5.015

*Source: General Directorate of Customs, 2017 and BNO-National Survey, August 2017*

HFC 134a remains the most consumed alternative. This consumption covers the maintenance of refrigerators and refrigerated cabinets as well as the maintenance of automotive air conditioning.

## 2. Objectives

The main objective of these enabling activities is to prepare Tunisia 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,
- Initial activities identified in paragraph 20 of decision XXVIII/2, excluding institutional strengthening, as addressed in decision 78/4(b)
  - b.1. Support to the institutional arrangements,
  - b.2. Review of the licensing systems,
  - b.3. Review of the data reporting systems and
- Preparation for national strategies as an outcome of activities above, respectively identifying priority area of intervention for ensuring future compliance with the Kigali amendment

## 3. Proposed approach and activities

### i. 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.

<b>Activities</b>	<b>Target group</b>	<b>Milestones</b>	<b>Expected outputs</b>	<b>Timeline</b>	<b>Budget (USD)</b>
Coordination with Government representatives	Related ministries and legislators	One meeting with ministries' representatives and legislators conducted	Roles and tasks for the ratification of the amendment distributed among relevant stakeholders	September – November 2018	2,500
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	August – September 2018	2,500

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

*b.10 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.

<b>Activities</b>	<b>Target group</b>	<b>Milestones</b>	<b>Expected outputs</b>	<b>Timeline</b>	<b>Budget (USD)</b>
Reviewing operating codes and standards for the correct and efficient use of HFCs and ODS alternatives in the entire value chain	Relevant ministries --- Manufacturing and servicing sectors	A report elaboration through involvement of national consultancy services published on this topic --- A workshop delivered with relevant ministries	A proposal for updating codes and standards prepared and presented	September 2018 – March 2019	20,000
Training of technicians on reducing refrigerant emissions as well as on the use of flammable and toxic low-GWP alternatives	Vocational schools, training centers, Refrigeration association (main RAC stakeholders)	Workshop conducted on emissions reduction training needs	Training requirements at national level identified	March – August 2019	10,000

### *b.11 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. Reliable data on HFCs imports in the country, on annual basis, will facilitate assessment of the required work and resources in the NOU to enforce and extend the licensing system to cover the new controlled HFCs. Data cross check with customs authorities statistics needs to be improved through introduction of national extensions to the actual HS code.

<b>Activities</b>	<b>Target group</b>	<b>Milestones</b>	<b>Expected outputs</b>	<b>Timeline</b>	<b>Budget (USD)</b>
Preparing harmonized tariff codes according to HFCs commitments, with special attention to HFC blends	Customs --- Relevant ministries	A workshop with relevant stakeholders delivered --- A report published on this topic	New tariff codes defined	January 2019 – September 2019	20,000

*b.12 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>Target group</b>	<b>Milestones</b>	<b>Expected outputs</b>	<b>Timeline</b>	<b>Budget (USD)</b>
Review of the national mechanisms used for ODS reporting to include HFCs consumption, especially considering the servicing sector (the informal sector in particular)	Relevant ministries --- Customs	A workshop with relevant stakeholders delivered --- A report published on this topic	National mechanism updated	June – December 2019	25,000

k. National strategies that contained the activities in sub-paragraphs a and b above;

Well-defined national strategies and priorities can facilitate the ratification process and subsequently the whole HFC phase-down. Here, activities are proposed for preparing the basis of the national strategy.

The activities envisaged are directly related to identification of the legislative gaps for ensuring future compliance with HFCs phase-down requirements and priority sub-sectors for intervention

<b>Activities</b>	<b>Target group</b>	<b>Milestones</b>	<b>Expected outputs</b>	<b>Timeline</b>	<b>Budget (USD)</b>
Assessment of the refrigeration and air-conditioning servicing sector	Relevant ministries --- Customs				20,000
Survey to cover the sectors that have not been analyzed in the ODS alternatives survey.	--- Private sector (refrigeration and air-conditioning manufacturing, servicing sector, aerosols)	Workshop delivered --- A report published on this topic	Feasible policies (medium term action plan) and regulatory gaps identified	August 2019 – January 2020	25,000
Identification of policies and regulations to facilitate the phase-down of HFCs and the introduction of low-GWP alternative technologies					25,000

#### 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	2,500
	a.2. Supporting national ratification instruments	2,500
b.1. Institutional arrangements	b.1.1. Reviewing operating codes and standards for the efficient use of HFCs and ODS alternatives in the entire value chain	20,000
	b.1.2. Training of technicians on reducing refrigerant emissions as well as on the use of flammable and toxic low-GWP alternatives	10,000
b.2. Licensing systems	b.2. Preparing harmonized tariff codes according to HFCs commitments, with special attention to HFC blends	20,000
b.3. Data reporting on HFC consumption	b.3 Review of the national mechanisms used for ODS reporting to include HFCs consumption	25,000
c. Preparation for national strategies	c.1. Assessment of the refrigeration and air-conditioning servicing sector	20,000
	c.2. Survey to cover the sectors that have not been analyzed in the ODS alternatives survey.	25,000
	c.3. Identification of policies and regulations to facilitate the phase-down of HFCs and the introduction of low-GWP alternative technologies	25,000
<b>Total</b>		<b>150,000</b>

## **5. Institutional arrangements**

Niger has ratified the Vienna Convention for the Protection of the Ozone Layer and the Montreal Protocol on Substances that Deplete the Ozone Layer, as well as all amendments to the Montreal Protocol, except the Kigali Amendment for which the ratification is pending. It has also ratified the climate change agreements.

Niger is one of the countries in Article 5 (Annexes A and C). It is neither a producer nor an exporter of ODS, but imports them mainly for the maintenance and servicing of refrigeration and air conditioning equipment.

The National Ozone Office (NOO) is responsible for coordinating the implementation of the Montreal Protocol in Niger and related projects and programs.

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 NOO 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 NOO will provide general guidance on the implementation of the enabling activities based on the national priorities.

## Project Concept

### Submission of funding request for enabling activities

<b>Country:</b>	Venezuela
<b>Title:</b>	Enabling activities for HFC phase-down in Venezuela
<b>Project Duration:</b>	18 months
<b>Project Budget:</b>	US\$250,000 (excl. 7% Agency Support Costs)
<b>Implementing Agency:</b>	UNIDO

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### General Statements

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

*The Government of Venezuela confirms that all activities under Enabling Activities will be implemented following model that UNIDO will administer the funds (UNIDO's execution) instead of national execution.*

### 1. Background

The HCFC baseline in Venezuela amounts to 207 ODP tonnes.

Fluorocarbon Imports are dominated by HFCs, of which 70% comprised HFC-134a, R-404A and R-410A, and a further 22% R-422D and R-437A drop-in retrofit blends that mimic the performance of HCFC-22 and CFC-12. These fluids were mostly used for refrigeration and air conditioning systems.

Year	2012	2013	2014	2015
HFC-total	3,929	3,609	2,766	1,202
HCFC total	4,015	2,450	1,813	812
<b>Total</b>	<b>7,944</b>	<b>6,059</b>	<b>4,579</b>	<b>2,014</b>

Source HPMP and SENIAT

Currently a wide range of HFCs are imported. The highest volume is HFC-134a which accounts for just over half of total HFC-imports followed by R-410A. They fall into two different categories, namely HFC-refrigerants intended for use in equipment designed for its use (HFC-134a, R-410A and R-404A), and HFC-blends such as R-422D and R-437A, that can be retrofitted into equipment designed to use CFCs and HCFCs such as CFC-12 and HCFC-22.

Progress in reducing HCFC consumption is reflected in the increase in import figures for alternatives, most of which are represented by HFCs. The survey carried out on alternatives to ODS in the period 2012-2015 resulted in an average import of 2,876 tonnes HFCs and a consumption of 3033.7 tonnes HC produced locally.

Venezuela achieved the ODS phase-out commitment of 42% below the 2010 threshold by 2020 in 2014. Ironically this was due to the parlous economic state of the country which prevented the local HCFC producer Produven from acquiring the raw materials to manufacture HCFC-22, a refrigerant widely used in refrigeration and air conditioning. The shortage of this fluid on the Venezuelan market lead to the entry of the retrofit blends mentioned above, in addition to imported HCFC-22.

## **2. Objectives**

The main objective of these enabling activities is to prepare Venezuela 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
- Demonstration on non-investment activities
- Preparatory actions for reviewing national priorities and requirements on the existing national policies on HFC

## **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 involved in the ratification of the Kigali Amendment. In this regards, the following actions will carry out in the country:

- A.1.1 Coordination with Government representatives
- A.1.2 Supporting national ratification instruments
- A.1.3 Awareness raising of stakeholder on HFC phase-down

**A. Activities to facilitate and support the early ratification of the Kigali Amendment (KA)**

Activities		Responsible entity	Target group	Start date	Completion date	Budget (US \$)	Milestones	Expected outputs
A.1.1	Coordination with Government representatives	FONDOIN with the support of UNIDO.	Related ministries and legislators	October 2018	November 2018	5,000	One meeting with ministries' representatives and legislators conducted	Roles and tasks for the ratification of the amendment distributed among relevant stakeholders
A.1.2	Supporting national ratification instruments	FONDOIN with the support of UNIDO	Legislators Ministries involved in KA implementation	October 2018	November 2018	10,000	Supporting documents prepared and distributed among ministries and legislators	Legislators have all necessary documents and knowledge for the vote on the amendment's ratification
A.1.3	Awareness raising of stakeholder on HFC phase-down	FONDOIN, local consultant with the support of UNIDO.	Ministries and public and private sectors involved Stakeholders	November 2018	December 2018	25,000	National Workshop	Stakeholders informed and awareness on KA and documents distributed
Total cost USD						40,000		

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

*b.13 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.

In this component is expected to carrying out gap analysis and identifying appropriate institutional arrangements, regulations and control measures for HFCs and ODS alternatives and linkage to national strategies on HCFC phase-out and mitigation actions of climate change.

*b.14 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. This component is addressed to review and prepare a local harmonized tariff codes according to HFCs commitments and license system

*b.15 Data reporting on HFC consumption and production*

National data reporting is the backbone of the strategic planning, monitoring and evaluation of the institutions of the Montreal Protocol. ODS alternative survey was crucial to evaluate the consumption of HFC and sectorial distribution; however additional information is required in some sectors. The proposal considers a review and updates the national mechanisms used for ODS reporting to include HFCs consumption and production.

*b.4 Demonstration on non-investment activities*

Demonstration to assist the country gain more precise and targeted overview on ODS alternatives and identify market barriers to intrude natural refrigerants or solutions in the country. Main activity request is:

B.4.1. Assessing national barriers and opportunities for the use and further uptake of low-and zero-GWP ODS alternatives

In accordance with the Decision 79/46, enabling activities include actions for HFC-23 and in at early-stage of the KA ratification and implementation, the following actions will be carried out:

B.4.2. Preparing an assessment of current and possible scenarios of the production sector and HFC-23 emission as a by-product from the local producer of HCFC-22.

This study could include control measures proposal and cost of reducing emissions rate in the process, destroying it from the off-gas, or by collecting and converting it to other environmentally safe chemicals. Tables with activities and implementation work plan for each component are presented below.

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

Activities		Responsible entity	Target group	Start date	Completion date	Budget (US \$)	Milestones	Expected outputs
B.1.1	Reviewing institutional arrangements in HFCs control measures and linkage to national strategies on environment and on the mitigation of climate change	FONDOIN with the support of UNIDO	Relevant ministries	September 2018	November 2019	8,000	Proposal prepared --- A workshop delivered with relevant ministries	A proposal to review the linkage national strategies prepared and presented to main ministries involved in the HFC control
B.1.2	Reviewing operating codes and standards for the correct and efficient use of HFCs and ODS alternatives in the entire value chain	FONDOIN with the support of UNIDO	Relevant ministries --- Manufacturing and servicing sectors	September 2018	November 2019	10,000	A workshop delivered with relevant ministries --- A report published on this topic	A proposal for updating codes and standards prepared and presented
B.1.3	Preparing and reviewing standards for flammable/toxic low- and zero-GWP alternatives in line with international standards	FONDOIN, local consultant with the support of UNIDO.	Relevant ministries RAC sector associations	November 2018	January 2019	12,000	A report prepared and discussed with the stakeholders	Standards reviewed and discussed with main stakeholder in control and national implementation
B.1.4	Training on energy efficiency improvement options related to low- and zero- GWP replacement technologies and equipment, e.g. energy audit training	FONDOIN, local consultant with the support of UNIDO.	Relevant sectors and ministries	November 2018	January 2019	20,000	A workshop delivered with relevant stakeholders	Energy efficient concept applied
Total cost USD						50,000		

## B.2. Review of licensing systems

Activities		Responsible entity	Target group	Start date	Completion date	Budget (US \$)	Milestones	Expected outputs
B.2.1	Enhancing the import and export license system to include HFCs (Article 4B) and other alternatives	FONDOIN, local authorities with the support of UNIDO	Relevant ministries --- Customs	November 2018	January 2019	10,000	Proposal report prepared A workshop delivered with relevant ministries	A proposal for enhancing the licensing system including HFC
B.2.2	Training of customs officers on HFCs control/ Training of environmental inspectors on HFCs control and alternatives	FONDOIN with the support of UNIDO	Customs --- Relevant ministries	August 2019	September 2019	20,000	A workshop with relevant stakeholders delivered	Training provided
B.2.3	Update the license system to include HFCs (Article 4B) and other alternatives	FONDOIN, local consultant with the support of UNIDO	Relevant ministries --- Customs	January 2019	September 2019	15,000	Workshop with Ministry of Commerce	A proposal for enhancing the licensing system
Total cost USD						45,000		

### B.3. Data reporting on HFC consumption

Activities		Responsible entity	Target group	Start date	Completion date	Budget (US \$)	Milestones	Expected outputs
B.3.1	Review and updating of the national mechanisms used for ODS reporting to include HFCs consumption, especially considering the servicing sector (the informal sector in particular)	FONDOIN, local authorities with the support of UNIDO	Relevant ministries --- Customs	November 2018	March 2019	15,000	A workshop with relevant stakeholders delivered --- A report published on this topic	National mechanism updated Enhancing the records and control
B.3.2	Improving a national database on the ODS reporting	FONDOIN with the support of UNIDO	Relevant ministries	November 2018	September 2019	20,000	A workshop with relevant stakeholders delivered	Database updated
B.3.3	Enhancing the records and control tools on HFC and alternative substances in cooperation with customs, authorities and stakeholders	FONDOIN, local consultant with the support of UNIDO.	Relevant ministries --- Customs	January 2019	September 2019	25,000	A workshop with relevant stakeholders delivered --- A report published on this topic	Records and control mechanism updated
Total cost USD						60,000		

*B.4. Demonstration on non-investment activities*

Activities		Responsible entity	Target group	Start date	Completion date	Budget (US \$)	Milestones	Expected outputs
B.4.1	Assessing national barriers and opportunities for the use and further uptake of low-and zero-GWP ODS alternatives	FONDOIN with the support of UNIDO	Relevant ministries	June 2019	August 2019	10,000	A workshop with relevant stakeholders delivered --- A report published on this topic	A proposal to eliminated the barriers prepared and presented
B.4.2	Preparing an assessment of current and possible scenarios of the production sector and HFC-23 emission as a by-product from the local producer of HCFC-22	FONDOIN, local/international consultant with the support of UNIDO	Production sector; Ministries involved in emission control and stakeholders	October 2019	December 2019	25,000	Report of the assessment prepared and distributed to stakeholders	Study of the current situation and possible scenarios of the HCFC production and HFC-23 emission control prepared and analyzed with the stakeholders
Total cost USD						35,000		

C. Preparatory actions for reviewing national priorities and policies contained in the activities in sub-paragraphs a and b above

Well-defined national strategies and priorities can facilitate the ratification process and subsequently the whole HFC phase-down. Here, activities are proposed for preparing the basis of the national strategy through a preparatory phase for reviewing the existing national policies related on HFC and alternatives.

Activities	Responsible entity	Target group	Start date	Completion date	Budget (US \$)	Milestones	Expected outputs
C.1.1 Identification of appropriate policies and regulations, including HCFC phase-out strategies, to facilitate the phase-down of HFCs and the introduction of low-GWP alternative technologies – inclusive “not-in-kind” options – with higher rates of energy efficiency	FONDOIN, local consultant with the support of UNIDO.	Relevant ministries --- Private sector (RAC manufacturing, servicing sector, aerosols)	August 2018	January 2019	20,000	Workshop delivered --- A report prepared and distributed to stakeholders	Feasible policies and regulations identified
<b>Total cost USD</b>					<b>20,000</b>		

## 4. Implementation budget and plan

### 4.1. Total Budget Requested

Enabling Activities		Budget Requested (USD)
A.1 Support the early ratification of the Kigali Amendment	A.1.1 Coordination with Government representatives	40,000
	A.1.2 Supporting national ratification instruments	
	A.1.3 Awareness raising of stakeholder on HFC phase-down	
B.1. Country-specific activities aimed at initiating supporting institutional arrangements	B.1.1 Reviewing institutional arrangements in HFCs control measures and linkage to national strategies on environment and on the mitigation of climate change	50,000
	B.1.2 Reviewing operating codes and standards for the correct and efficient use of HFCs and ODS alternatives in the entire value chain	
	B.1.3 Preparing and reviewing standards for flammable/toxic low- and zero-GWP alternatives in line with international standards	
	B.1.4 Training on energy efficiency improvement options related to low- and zero- GWP replacement technologies and equipment, e.g. energy audit training	
B.2. Review of licensing systems	B.2.1 Enhancing the import and export license system to include HFCs (Article 4B) and other alternatives	45,000
	B.2.2 Training of customs officers on HFCs control/ Training of environmental inspectors on HFCs control and alternatives	
	B.2.3 Update the license system to include HFCs (Article 4B) and other alternatives	
B.3. Data reporting on HFC consumption and production	B.3.1 Review and updating of the national mechanisms used for ODS reporting to include HFCs consumption, especially considering the servicing sector (the informal sector in particular)	60,000
	B.3.2 Improving a national database on the ODS reporting	
	B.3.3 Enhancing the records and control tools on HFC and alternative substances in cooperation with customs, authorities and stakeholders	
B.4. Demonstration of non-investment activities	B.4.1 Assessing national barriers and opportunities for the use and further uptake of low-and zero-GWP ODS alternatives	35,000
	B.4.2 Preparing an assessment of current and possible scenarios of the production sector and HFC-23 emission as a by-product from the local producer of HCFC-22	
C.1 Preparatory actions for reviewing national priorities and strategies that contained the activities in sub-paragraphs a and b above	C.1.1 Identification of appropriate policies and regulations, including HCFC phase-out strategies, to facilitate the phase-down of HFCs and the introduction of low-GWP alternative technologies – inclusive “not-in-kind” options – with higher rates of energy efficiency	20,000
<b>TOTAL</b>		<b>250,000</b>



## **5. Institutional arrangements**

The National Ozone Unit (FONDOIN) belonging to the Ministry of Environment 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, FONDOIN will collaborate in the implementation of the different activities, including the identification of local experts on the different areas of work, when necessary. In addition, FONDOIN will provide general guidance on the implementation of the enabling activities based on the national priorities.