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EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL

Eighty-sixth Meeting

Montreal, 2-6 November 2020

Postponed to 8-12 March 2021¹

UNDP's WORK PROGRAMME AMENDMENTS FOR 2020

¹ Due to coronavirus disease (COVID-19)

COMMENTS AND RECOMMENDATION OF THE FUND SECRETARIAT

1. UNDP is requesting approval from the Executive Committee of US \$2,664,329, plus agency support costs of US \$187,103, for its 2020 work programme amendments listed in Table 1.² The submission is attached to the present document.

Table 1: UNDP's work programme amendments for 2020

Country	Activity/Project	Amount Requested (US \$)	Amount Recommended (US \$)
SECTION A: ACTIVITIES RECOMMENDED FOR BLANKET APPROVAL			
A1: Renewal of institutional strengthening projects			
Brazil	Renewal of institutional strengthening project (phase IX)	449,280	449,280
Ghana	Renewal of institutional strengthening project (phase XIV)	178,048	178,048
Iran (Islamic Republic of)	Renewal of institutional strengthening project (phase XIII)	222,094	222,094
Lebanon	Renewal of institutional strengthening project (phase XII)	198,515	198,515
Nigeria	Renewal of institutional strengthening project (phase XI)	332,800	332,800
Sri Lanka	Renewal of institutional strengthening project (phase XIII)	171,592	171,592
Subtotal for A1		1,552,329	1,552,329
Agency support costs		108,663	108,663
Total for A1		1,660,992	1,660,992
A2: Technical assistance to prepare a verification report on HCFC consumption			
Republic of Moldova	Verification report for stage II of the HCFC phase-out management plan (HPMP)	30,000	30,000
Subtotal for A2		30,000	30,000
Agency support costs		2,700	2,700
Total for A2		32,700	32,700
SECTION B: ACTIVITIES RECOMMENDED FOR INDIVIDUAL CONSIDERATION			
B1: Project preparation for HFC phase-down management plans			
Bhutan**	Preparation of an HFC phase-down management plan	10,000	***
Costa Rica§	Preparation of an HFC phase-down management plan	150,000	***
Cuba§	Preparation of an HFC phase-down management plan	150,000	***
Ghana*	Preparation of an HFC phase-down management plan	105,000	***
Kyrgyzstan*	Preparation of an HFC phase-down management plan	60,000	***
Lao People's Democratic Republic**	Preparation of an HFC phase-down management plan	10,000	***
Lebanon	Preparation of an HFC phase-down management plan	150,000	***
Maldives**	Preparation of an HFC phase-down management plan	10,000	***
Nigeria*	Preparation of an HFC phase-down management plan	137,000	***
Peru	Preparation of an HFC phase-down management plan	150,000	***
Uruguay§	Preparation of an HFC phase-down management plan	150,000	***
Subtotal for B1		1,082,000	***
Agency support costs		75,740	***
Total for B1		1,157,740	***
Grand total (A1, A2, B1)		2,851,432	1,693,692

* UNEP as cooperating implementing agency

** UNEP as lead implementing agency

*** For individual consideration

§ Submitted to the 85th meeting

² Including new requests to the 86th meeting attached to the present document and requests forwarded from the 85th meeting presented in document UNEP/OzL.Pro/ExCom/85/15.

SECTION A: ACTIVITIES RECOMMENDED FOR BLANKET APPROVAL

A1: Renewal of institutional strengthening projects

Project description

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

Secretariat's comments

3. The Secretariat reviewed the requests for the renewal of six IS projects 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 plans for the previous phase, country programme and Article 7 data, the latest report on implementation of their HCFC phase-out management plans (HPMPs), the agency's progress report, and any relevant decisions of the Meeting of the Parties. It was noted that these countries have submitted their 2019 country programme data and are in compliance with the control targets under the Montreal Protocol, and their annual HCFC consumption does not exceed the annual maximum allowable consumption indicated in their HPMP Agreements with the Executive Committee. Furthermore, the 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 recommendation

4. The Secretariat recommends blanket approval of the institutional strengthening renewal requests for Brazil, Ghana, the Islamic Republic of Iran, Lebanon, Nigeria and Sri Lanka at the level of funding indicated in section A1 of Table 1 of the present document. The Executive Committee may wish to express to the aforementioned Governments the comments presented in Annex II to the present document.

A2: Technical assistance to prepare a verification report on HCFC consumption

Project description

5. The Executive Committee requested relevant bilateral and implementing agencies to include in their respective work programme amendments for submission to the 86th meeting, funding for the preparation of a verification report for stage II of the HPMP for the Republic of Moldova³ where UNDP is the lead implementing agency.

Secretariat's comments

6. The Secretariat noted that the funding requested was consistent with the funds approved for similar verifications in previous meetings. It further noted that the verification report has to be submitted at least 10 weeks prior to the applicable Executive Committee meeting where the next funding tranche for the HPMP is being sought.

Secretariat's recommendation

7. The Secretariat recommends blanket approval for the preparation for the verification report for stage II of the HCFC phase-out management plan (HPMP) for the Republic of Moldova at the level of funding shown in section A2 of Table 1, on the understanding that the verification report should be

³ Paragraph 63 of document UNEP/OzL.Pro/ExCom/85/IAP/3, Projects approved intersessionally.

submitted at least 10 weeks prior to the applicable Executive Committee meeting where the next funding tranche for the HPMP is being sought.

SECTION B: ACTIVITIES RECOMMENDED FOR INDIVIDUAL CONSIDERATION

B1: Project preparation for HFC phase-down management plans

8. At the 85th meeting, UNDP included in its work programme⁴ requests for funding for the preparation of HFC phase-down management plans for Costa Rica, Cuba and Uruguay as designated implementing agency, listed in section B1 of Table 1.

9. These funding requests submitted for individual consideration of the Executive Committee were not considered at the intersessional approval process (IAP) established for the 85th meeting and deferred to the 86th meeting as agreed by the Executive Committee. Accordingly, the proposals submitted to the 85th meeting have been included in the present document.

Project description

10. UNDP submitted requests for the preparation of HFC phase-down management plans for five Article 5 countries as designated implementing agency, for three countries as lead implementing agency, and for three countries as cooperating implementing agency as shown in section B1 of Table 1. UNEP as lead implementing agency for Bhutan, Lao's People Democratic Republic, and Maldives, and as cooperating implementing agency for Ghana, Kyrgyzstan, and Nigeria requested US \$353,000, plus agency support costs of US \$45,890 in its work programme amendment for 2020.⁵

Secretariat's comments

11. UNDP as lead implementing agency, provided a description of the activities required for the preparation of overarching strategies for HFC phase-down for Costa Rica, Cuba, Ghana, Kyrgyzstan, Lebanon, Nigeria, Peru, and Uruguay, including the corresponding costs of each activity using the format for requests for project preparation for stages of HPMPs. The submissions included information about the estimated imports of HFCs and HFC blends for 2012-2015 for Ghana, Kyrgyzstan, Lebanon, and Nigeria; and from 2016-2019 for Costa Rica, Cuba, Peru, and Uruguay; list of activities for the project preparation including countries assessment of training and certification needs; HFC phase-down strategy development; and development of communication and outreach plans. Six of the countries included activities related to data collection and analysis of sectoral distribution and consumption of HFCs and stakeholder consultations.

12. The amount requested for the preparation of the project proposals at the 85th meeting was based on the funding for enabling activities (contained in decision 79/46(c)); however, the funding requested at the 86th meeting was based on the funding for project preparation for stage I of HPMPs (contained in decision 56/16(c)), as this funding was used by bilateral and implementing agencies in preparing their 2021-2023 business plans that were submitted to the 86th meeting. The Secretariat notes that the funding amounts of project preparation requests submitted to the 85th and 86th meetings are indicative, as the actual amounts will be decided when the Executive Committee considers document UNEP/OzL.Pro/ExCom/86/88, Draft guidelines for the preparation of HFC phase-down plans for Article 5 countries (decision 84/54(a)).

13. While the actual funding level for preparation of HFC phase-down management plans has to be decided, the Secretariat reviewed the submissions based on the experience of reviewing requests for

⁴ UNEP/OzL.Pro/ExCom/85/15

⁵ UNEP/OzL.Pro/ExCom/86/34

preparation of HPMPs, and taking into account guidance provided and decisions adopted by the Executive Committee for such projects. Following this review, the Secretariat noted the following:

- (a) All eight countries that UNDP requested for preparation of an HFC phase-down management plan as designated or lead implementing agency have ratified the Kigali Amendment;⁶ each would be eligible for project preparation funding in line with decision 79/46(b)(iii);⁷ the countries have also provided endorsement letters indicating their intention to take early action on HFC phase-down; and
- (b) The activities included in the project preparation are similar to those required to prepare HPMPs. Some activities resembled those included under the enabling activities for HFC phase-down for which funding had already been provided to each country, and which have been completed.

14. UNDP clarified that the project preparation for the overarching strategies for HFC phase-down for these countries would draw on the activities implemented under the enabling activities, as these were the first actions associated with the phase-down of HFCs and had contributed to the ratification of the Kigali Amendment. Approval of funding for these requests at the 86th meeting will allow implementation of HFC phase-down to begin by 2022, and achieve compliance with the Kigali Amendment.

15. The Secretariat informed UNDP that it will be unable to make a recommendation on these requests as guidelines on funding these requests will be discussed at the 86th meeting.

Secretariat's recommendation

16. The Executive Committee may wish to consider, in line with discussions under agenda item 9(a), Overview of issues identified during project review, and agenda item 13(c), Draft guidelines for the preparation of HFC phase-down plans for Article 5 countries (decision 84/54(a)), the requests for project preparation for HFC phase-down management plans for the countries listed in section B1 of Table 1.

⁶ Date of ratification (or acceptance) of the Kigali Amendment: Costa Rica, 23 May 2018; Cuba, 20 June 2019; Ghana, 2 August 2019; Kyrgyzstan, 8 September 2020; Lebanon, 5 February 2020; Nigeria, 20 December 2018; Peru, 7 August 2019; and Uruguay, 12 September 2018.

⁷ Funding for the preparation of national implementation plans to meet initial reduction obligations for the phase-down of HFCs could be provided, at the earliest, five years prior to those obligations, after a country had ratified the Kigali Amendment and on the basis of guidelines to be approved in the future.

INSTITUTIONAL STRENGTHENING PROJECT PROPOSALS⁸

Brazil: Renewal of institutional strengthening

Summary of the project and country profile		
Implementing agency:		UNDP
Amounts previously approved for institutional strengthening (US \$):		
	Phase I: Jun-93	403,100
	Phase II: Mar-98	270,000
	Phase III: Dec-00	270,000
	Phase IV: Jul-04	351,000
	Phase V: Jul-07	351,000
	Phase VI: Apr-10	307,125
	Phase VII: Apr-12	351,000
	Phase VIII: Nov-15	449,280
	Total:	2,752,505
Amount requested for renewal (phase IX) (US \$):		449,280
Amount recommended for approval for phase IX (US \$):		449,280
Agency support costs (US \$):		31,450
Total cost of institutional strengthening phase IX to the Multilateral Fund (US \$):		480,730
Date of approval of country programme:		1994
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)		32.4
Annex C, Group I (HCFCs) (average 2009-2010)		1,327.3
Annex E (methyl bromide) (average 1995-1998)		711.6
Latest reported ODS consumption (2019) (ODP tonnes) as per Article 7:		
Annex B, Group III (methyl chloroform)		0.00
Annex C, Group I (HCFCs)		838.85
Annex E (methyl bromide)		0.00
	Total:	838.85
Year of reported country programme implementation data:		2019
Amount approved for projects (as at June 2020) (US \$):		139,573,718
Amount disbursed (as at December 2019) (US \$):		115,905,216
ODS to be phased out (as at June 2020) (ODP tonnes):		13,951.5
ODS phased out (as at December 2019) (ODP tonnes):		13,728.8

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

Summary of activities	Funds approved (US \$)
(a) Investment projects:	118,875,828
(b) Institutional strengthening:	2,752,505
(c) Project preparation, technical assistance, training and other non-investment projects:	17,945,385
	Total:
	139,573,718
(d) HFC activities funded from additional voluntary contributions	0

Progress report

1. During phase VIII, the Ministry of the Environment coordinated activities to fulfill the commitments made under the Montreal Protocol and carried out information dissemination activities,

⁸ Data as at December 2019 are based on document UNEP/OzL.Pro/ExCom/86/17.

missions for the implementation of projects, as well as drafting, discussion and implementation of legislation for ODS monitoring and control. The institutional strengthening project has enabled the participation of the Government in the coordination and implementation of activities under stages I and II of the HPMP. In addition, the Government participated in the Executive Committee and Montreal Protocol meetings.

Plan of action

2. During phase IX, the Ministry of the Environment will continue to coordinate and monitor the implementation of projects under stage II of the HPMP, which include consultation with the private sector and institutional partners, as well as the update of legislation and standards to ensure control, monitoring, oversight and adequate use of ODSs and alternative substances. Brazil will also implement the pilot demonstration project on ODS waste management and disposal, will continue disseminating information on the country actions to protect the ozone layer, and will participate in meetings on the Montreal Protocol. The resources approved under the next phase will enable the hiring of consultants to strengthen the technical team of the Ozone Unit for the development of activities and studies, including consultants for data collection on HCFC alternatives in the country, communication of project activities to the public, and drafting of technical standards.

Ghana: Renewal of institutional strengthening

Summary of the project and country profile		
Implementing agency:		UNDP
Amounts previously approved for institutional strengthening (US \$):		
Phase I:	Oct-92	183,200
Phase II:	Oct-96	107,000
Phase III:	Nov-98	107,000
Phase IV:	Dec-00	107,000
Phase V:	Nov-02	139,100
Phase VI:	Jul-04	139,100
Phase VII:	Nov-06	139,100
Phase VIII:	Nov-08	139,100
Phase IX:	Dec-10	139,100
Phase X:	Jul-12	139,100
Phase XI:	May-14	139,100
Phase XII:	May-16	178,048
Phase XIII:	Dec-18	178,048
	Total:	1,833,996
Amount requested for renewal (phase XIV) (US \$):		178,048
Amount recommended for approval for phase XIV (US \$):		178,048
Agency support costs (US \$):		12,463
Total cost of institutional strengthening phase XIV to the Multilateral Fund (US \$):		190,511
Date of approval of country programme:		1992
Date of approval of HCFC phase-out management plan:		2010
Baseline consumption of controlled substances (ODP tonnes):		
Annex B, Group III (methyl chloroform) (average 1998-2000)		0.0
Annex C, Group I (HCFCs) (average 2009-2010)		57.3
Annex E (methyl bromide) (average 1995-1998)		0.0
Latest reported ODS consumption (2019) (ODP tonnes) as per Article 7:		
Annex B, Group III (methyl chloroform)		0.0
Annex C, Group I (HCFCs)		17.14
Annex E (methyl bromide)		0.0
Total:		17.14
Year of reported country programme implementation data:		2019

Summary of the project and country profile	
Amount approved for projects (as at June 2020) (US \$):	5,749,970
Amount disbursed (as at December 2019) (US \$):	5,127,391
ODS to be phased out (as at June 2020) (ODP tonnes):	446.60
ODS phased out (as at December 2019) (ODP tonnes):	419.80

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

Summary of activities	Funds approved (US \$)
(a) Investment projects:	1,916,205
(b) Institutional strengthening:	1,833,996
(c) Project preparation, technical assistance, training and other non-investment projects:	1,999,769
Total:	5,749,970
(d) HFC activities funded from additional voluntary contributions	150,000

Progress report

4. During phase XIII, the NOU submitted CP and Article 7 data reports to the Fund and Ozone Secretariat, respectively; ensured the operation of the licensing and quota system, import controls and customs officers' sensitisation and training; consulted with key stakeholders, through steering committee meetings and through the industry associations on HCFC phase-out and HFC phase-down; implemented HPMP activities, particularly those in the servicing sector; and raised public awareness on the Montreal Protocol through seminars and celebration of International Ozone Day. Ghana ratified the Kigali Amendment on 2 August 2019, and is preparing for activities for the early period of the HFC phase-down. Of the 26 performance indicators, all were fully achieved.

Plan of action

5. During phase XIV, the NOU will continue activities and initiatives to ensure the phase-out of HCFCs and phase-down of HFCs, including: strengthening the regulatory framework for the management of HCFCs and their alternatives, and the safe use of hydrocarbon refrigerants; implementing ODS import controls and the licensing system, monitoring of imports by importers/dealers, and control of refrigerant brands to ensure availability of genuine refrigerants; cooperation with neighbouring countries to combat illegal trade; networking and stakeholder engagement in implementation of Montreal Protocol activities; monitoring and reporting of ongoing projects and ensure sustainability of completed ones; awareness raising on ozone layer protection; and promoting energy efficiency.

Iran (Islamic Republic of): Renewal of institutional strengthening

Summary of the project and country profile		
Implementing agency:		UNDP
Amounts previously approved for institutional strengthening (US \$):		
Phase I:	Oct-92	200,200
Phase II:	Nov-97	133,470
Phase III:	Dec-00	133,470
Phase IV:	Nov-02	173,511
Phase V:	Dec-04 & Nov-05	173,511
Phase VI:	Nov-06 & Nov-07	173,511
Phase VII:	Nov-08	173,511
Phase VIII:	Jul-10	173,511
Phase IX:	Jul-12	173,511
Phase X:	May-14	173,511
Phase XI:	Dec-16	222,094

Summary of the project and country profile			
	Phase XII:	Dec-18	222,094
		Total:	2,125,905
Amount requested for renewal (phase XIII) (US \$):			222,094
Amount recommended for approval for phase XIII (US \$):			222,094
Agency support costs (US \$):			15,547
Total cost of institutional strengthening phase XIII to the Multilateral Fund (US \$):			237,641
Date of approval of country programme:			1993
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)			8.7
Annex C, Group I (HCFCs) (average 2009-2010)			380.5
Annex E (methyl bromide) (average 1995-1998)			26.7
Latest reported ODS consumption (2019) (ODP tonnes) as per Article 7:			
Annex B, Group III (methyl chloroform)			0.00
Annex C, Group I (HCFCs)			63.79
Annex E (methyl bromide)			0.00
			Total:
			63.79
Year of reported country programme implementation data:			2019
Amount approved for projects (as at June 2020) (US \$):			80,826,918
Amount disbursed (as at December 2019) (US \$):			72,597,432
ODS to be phased out (as at June 2020) (ODP tonnes):			7,396.40
ODS phased out (as at December 2019) (ODP tonnes):			7,046.00

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

Summary of activities	Funds approved (US \$)
(a) Investment projects:	73,348,576
(b) Institutional strengthening:	2,125,905
(c) Project preparation, technical assistance, training and other non-investment projects:	5,352,437
	Total:
	80,826,918
(d) HFC activities funded from additional voluntary contributions	0

Progress report

7. Under phase XII, the Islamic Republic of Iran has sustained the ODS phase-out through enforcement of regulation, monitoring and collaboration with the key stakeholders, including information exchange under the informal Prior Informed Consent (iPIC) mechanism. The NOU coordinated the completion of stage I of the HPMP and started implementation of stage II with activities in the polyurethane foam, commercial refrigeration and refrigeration servicing sectors. The NOU also submitted the CP data and Article 7 data for 2018 and 2019; implemented awareness activities including the celebration of the International Ozone Day; participated in meetings on the Montreal Protocol; and initiated activities for preparing an HFC phase-down roadmap. The Islamic Republic of Iran has fully achieved all of its 13 performance indicators.

Plan of action

8. During phase XIII, the Islamic Republic of Iran will continue its efforts to phase out ODS consumption to fulfil its obligations under the Montreal Protocol. The country will continue enforcing ODS related policies, providing technical assistance to refrigeration technicians, implementing stage II of the HPMP and undertaking monitoring activities with stakeholders to achieve and sustain the compliance with the provisions of the Montreal Protocol. The Government will continue its efforts to formulate a strategy

to facilitate the ratification process of the Kigali Amendment. Through the IS project, the NOU will continue building the capacity of the established Ozone Cells in provinces to implement ODS related policies and control measures, and to carry out awareness-raising and training activities.

Lebanon: Renewal of institutional strengthening

Summary of the project and country profile		
Implementing agency:		UNDP
Amounts previously approved for institutional strengthening (US \$):		
	Phase I: May-96	179,000
	Phase II: Jul-00	119,300
	Phase III: Jul-02	155,090
	Phase IV: Dec-04	155,090
	Phase V: Nov-06	155,090
	Phase VI: Nov-08	155,090
	Phase VII: Dec-10	155,090
	Phase VIII: Dec-12	155,090
	Phase IX: Nov-14	155,090
	Phase X: Dec-16	198,515
	Phase XI: Dec-18	198,515
	Total:	1,780,960
Amount requested for renewal (phase XII) (US \$):		198,515
Amount recommended for approval for phase XII (US \$):		198,515
Agency support costs (US \$):		13,896
Total cost of institutional strengthening phase XII to the Multilateral Fund (US \$):		212,411
Date of approval of country programme:		1996
Date of approval of HCFC phase-out management plan:		2011
Baseline consumption of controlled substances (ODP tonnes):		
Annex B, Group III (methyl chloroform) (average 1998-2000)		0.0
Annex C, Group I (HCFCs) (average 2009-2010)		73.5
Annex E (methyl bromide) (average 1995-1998)		236.4
Latest reported ODS consumption (2019) (ODP tonnes) as per Article 7:		
Annex B, Group III (methyl chloroform)		0.00
Annex C, Group I (HCFCs)		43.82
Annex E (methyl bromide)		0.00
Total:		43.82
Year of reported country programme implementation data:		2019
Amount approved for projects (as at June 2020) (US \$):		21,859,569
Amount disbursed (as at December 2019) (US \$):		20,406,849
ODS to be phased out (as at June 2020) (ODP tonnes):		1,849.6
ODS phased out (as at December 2019) (ODP tonnes):		1677.9

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

Summary of activities	Funds approved (US \$)
(a) Investment projects:	17,120,464
(b) Institutional strengthening:	1,780,960
(c) Project preparation, technical assistance, training and other non-investment projects:	2,958,145
Total:	21,859,569
(d) HFC activities funded from additional voluntary contributions	1,233,858

Progress report

10. During phase XI, the NOU continued to assist in implementing activities under the HPMP particularly those in the refrigeration servicing sector, and monitoring the phase-out in the foam and air-conditioning manufacturing sectors, in conjunction with Customs and related Government agencies. The NOU also submitted CP and Article 7 data reports to the Fund and Ozone Secretariats, respectively; consulted stakeholders, particularly through steering committee meetings and industry associations, on the implementation of HCFC phase-out and HFC phase-down; and raised public awareness on the Montreal Protocol through seminars and celebration of the International Ozone Day. Lebanon ratified the Kigali Amendment on 5 February 2020.

Plan of action

11. During phase XII, the NOU will continue to ensure the phase-out of HCFCs and phase-down of HFCs through: implementation of activities under stage II of the HPMP and reporting of progress;; raising awareness through outreach activities with a focus on the refrigeration servicing sector; enforcement of ODS import controls including implementing the licensing and quota system and monitoring of imports; evaluation of the licensing system in preparation for the future HFC phase down; networking and stakeholder engagement in implementation of Montreal Protocol activities, including meeting participation.

Nigeria: Renewal of institutional strengthening

Summary of the project and country profile		
Implementing agency:		UNDP
Amounts previously approved for institutional strengthening (US \$):		
	Phase I: Mar-93	300,000
	Phase II: Jul-01	200,000
	Phase III: Jul-03	260,000
	Phase IV: Apr-06	260,000
	Phase V: Apr-08	260,000
	Phase VI: Dec-10	260,000
	Phase VII: Dec-12	260,000
	Phase VIII: Nov-14	260,000
	Phase IX: May-16	332,800
	Phase X: Dec-18	332,800
	Total:	2,725,600
Amount requested for renewal (phase XI) (US \$):		332,800
Amount recommended for approval for phase XI (US \$):		332,800
Agency support costs (US \$):		23,296
Total cost of institutional strengthening phase XI to the Multilateral Fund (US \$):		356,096
Date of approval of country programme:		1997
Date of approval of HCFC phase-out management plan:		2010
Baseline consumption of controlled substances (ODP tonnes):		
Annex B, Group III (methyl chloroform) (average 1998-2000)		32.9
Annex C, Group I (HCFCs) (average 2009-2010)		344.9
Annex E (methyl bromide) (average 1995-1998)		2.9
Latest reported ODS consumption (2019) (ODP tonnes) as per Article 7:		
Annex B, Group III (methyl chloroform)		0.0
Annex C, Group I (HCFCs)		239.14
Annex E (methyl bromide)		0.0
	Total:	239.14
Year of reported country programme implementation data:		2019

Summary of the project and country profile	
Amount approved for projects (as at June 2020) (US \$):	44,031,006
Amount disbursed (as at December 2019) (US \$):	38,763,072
ODS to be phased out (as at June 2020) (ODP tonnes):	6218.06
ODS phased out (as at December 2019) (ODP tonnes):	6158.80

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

Summary of activities	Funds approved (US \$)
(a) Investment projects:	35,054,451
(b) Institutional strengthening:	2,725,600
(c) Project preparation, technical assistance, training and other non-investment projects:	6,250,955
Total:	44,031,006
(d) HFC activities funded from additional voluntary contributions	250,000

Progress report

13. During phase X, the NOU continued to assist in implementing activities under the HPMP including completion of stage I; submitted CP and Article 7 data reports to the Fund and Ozone Secretariats, respectively; ensured the operation of the quota system in collaboration with relevant authorities; consulted stakeholders including through virtual meetings, on HCFC phase-out and HFC phase-down; and raised public awareness on the Montreal Protocol through seminars and celebration of the International Ozone Day. Nigeria ratified the Kigali Amendment on 20 December 2018, and is focusing on activities for the early period of the HFC phase-down. Of the 24 performance indicators, all were achieved.

Plan of action

14. During phase XI, the NOU will continue activities and initiatives to ensure the phase-out of HCFCs and phase-down of HFCs, including: supporting the preparation of stage III of the HPMP and initiating implementation of the Kigali Amendment; strengthening collaboration with chemical regulatory agencies, especially relating to data reporting; and capacity building and awareness raising to keep ozone layer protection high on the public agenda.

Sri Lanka: Renewal of institutional strengthening

Summary of the project and country profile		
Implementing agency:		UNDP
Amounts previously approved for institutional strengthening (US \$):		
Phase I:	Mar-94	154,680
Phase II:	Nov-97	103,120
Phase III:	Nov-99	103,120
Phase IV:	Jul-02	134,056
Phase V:	Jul-04	134,056
Phase VI:	Nov-06	134,056
Phase VII:	Jul-08	134,056
Phase VIII:	Jul-10	134,056
Phase IX:	Jul-12	134,056
Phase X:	May-14	134,056
Phase XI:	May-16	171,592
Phase XII:	Dec-18	171,592
	Total:	1,642,496
Amount requested for renewal (phase XIII) (US \$):		171,592

Summary of the project and country profile	
Amount recommended for approval for phase XIII (US \$):	171,592
Agency support costs (US \$):	12,011
Total cost of institutional strengthening phase XIII to the Multilateral Fund (US \$):	183,603
Date of approval of country programme:	1994
Date of approval of HCFC phase-out management plan:	2010
Baseline consumption of controlled substances (ODP tonnes):	
Annex B, Group III (methyl chloroform) (average 1998-2000)	3.0
Annex C, Group I (HCFCs) (average 2009-2010)	13.9
Annex E (methyl bromide) (average 1995-1998)	4.1
Latest reported ODS consumption (2019) (ODP tonnes) as per Article 7:	
Annex B, Group III (methyl chloroform)	0.0
Annex C, Group I (HCFCs)	9.91
Annex E (methyl bromide)	0.0
Total:	9.91
Year of reported country programme implementation data:	2019
Amount approved for projects (as at June 2020) (US \$):	6,259,609
Amount disbursed (as at December 2019) (US \$):	5,507,517
ODS to be phased out (as at June 2020) (ODP tonnes):	106.1
ODS phased out (as at December 2019) (ODP tonnes):	93.9

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

Summary of activities	Funds approved (US \$)
(a) Investment projects:	1,211,772
(b) Institutional strengthening:	1,642,496
(c) Project preparation, technical assistance, training and other non-investment projects:	3,405,341
Total:	6,259,609
(d) HFC activities funded from additional voluntary contributions	150,000

Progress report

16. Under phase XII, Sri Lanka continued enforcing the HCFC licensing and quota system and has strengthened the enforcement of ODS trade control in 2019. Sri Lanka submitted country programme (CP) and Article 7 data reports following close cooperation between the NOU and the Customs. Sri Lanka ratified the Kigali Amendment on 28 September 2018. The NOU also coordinated the implementation of stage I of the HCFC phase-out management plan (HPMP) and the enabling activities for the phase-down of HFCs, as well as the preparation of stage II of the HPMP; organized several public awareness-raising activities; and participated in meetings on the Montreal Protocol. All performance indicators (11) set by Sri Lanka were fully achieved.

Plan of action

17. During phase XIII, the NOU will continue the enforcement of the HCFC licensing and quota system, advocate for a licensing system amendment to include HFCs, work with relevant stakeholders to enact the ban on import of HCFC-based equipment and the certification system for servicing technicians. The NOU will coordinate HPMP activities and prepare for HFC phase-down. In addition, the NOU will work with the Customs and Excise Department to reconcile import statistics to ensure timely and accurate submission of CP and Article 7 data, and strengthen measures to prevent the illegal trade of ODS.

Annex II

DRAFT VIEWS EXPRESSED BY THE EXECUTIVE COMMITTEE ON RENEWAL OF INSTITUTIONAL STRENGTHENING PROJECTS SUBMITTED TO THE 86th MEETING

Brazil

1. The Executive Committee reviewed the report presented with the request for renewal of the institutional strengthening (IS) project for Brazil (phase IX) and noted with appreciation that the country reported country programme implementation data to the Fund Secretariat and Article 7 data to the Ozone Secretariat, indicating that the country is in compliance with the Montreal Protocol. The Committee further noted that the Government of Brazil has taken steps to phase out ODS consumption, in particular the implementation of a ban on the use of HCFC-141b in the foam sector that entered into effect 1 January 2020, and the continued implementation of activities under its HCFC phase-out management plan (HPMP) in both the manufacturing and servicing sectors. The Executive Committee is, therefore, confident that the Government of Brazil will continue implementation of stage II of the HPMP and IS project activities with success in order to achieve the reduction targets set in its HPMP Agreement with the Executive Committee.

Ghana

2. The Executive Committee reviewed the request for the renewal of the institutional strengthening project for Ghana (phase XIV) and noted with appreciation that Ghana has reported country programme data to the Fund Secretariat and data under Article 7 of the Montreal Protocol to the Ozone Secretariat, indicating that the country is in compliance with the Montreal Protocol. The Committee acknowledged that Ghana continued to implement its HCFC licensing and quota system and ensure compliance with regulations through inspection; and to implement efficiently and timely its HCFC phase-out management plan including capacity building for customs officers and refrigeration technicians, and awareness and outreach activities. The Executive Committee is, therefore, confident that the Government of Ghana will continue implementing activities to enable the country to comply with the Montreal Protocol targets. The Committee also noted with appreciation the ratification of the Kigali Amendment by Ghana on 2 August 2019 and the steps undertaken to meet the initial obligations under the Amendment including the review of laws to include the control of HFC and HFC blends.

Iran (Islamic Republic of)

3. The Executive Committee reviewed the report presented with the request for the renewal of the institutional strengthening (IS) project for the Islamic Republic of Iran (phase XIII) and noted with appreciation that the country has reported 2018 and 2019 CP data to the Fund Secretariat and data under Article 7 of the Montreal Protocol to the Ozone Secretariat, indicating its compliance with the Montreal Protocol. The Committee also noted that the Government continued to work with relevant stakeholders to manage and monitor the consumption of ODS, has taken actions to sustain the zero consumption of ODS already phased out, and has established an HCFC licensing and quota systems that allows compliance with the HCFC phase-out schedule. The Committee acknowledged the efforts of the Government and is, therefore, confident that the Government of the Islamic Republic of Iran will continue implementing its HCFC phase-out management plan and IS project in a timely and effective manner to enable the country to meet the 75 per cent reduction by 1 January 2023, in accordance with its Agreement with the Committee for stage II of the HPMP.

Lebanon

4. The Executive Committee reviewed the report presented with the request for the renewal of the institutional strengthening project for Lebanon (phase XII) and noted with appreciation that Lebanon has

reported country programme data to the Fund Secretariat and data under Article 7 of the Montreal Protocol to the Ozone Secretariat, indicating that the country is in compliance with Montreal Protocol. The Committee acknowledged that Lebanon continued to implement its HCFC licensing and quota system and ensure compliance with regulations through inspection; and to implement efficiently and timely its HCFC phase-out management plan including capacity building for customs officers and refrigeration technicians, and awareness and outreach activities. The Executive Committee is, therefore, confident that the Government of Lebanon will continue implementing activities to enable the country to comply with the Montreal Protocol targets. The Committee also noted with appreciation the ratification of the Kigali Amendment by Lebanon on 5 February 2020 and the steps undertaken to meet the initial obligations under the Amendment including the review of the laws to include the control of HFC and HFC blends.

Nigeria

5. The Executive Committee reviewed the report presented with the request for the renewal of the institutional strengthening project for Nigeria (phase XI) and noted with appreciation that Nigeria has reported country programme data to the Fund Secretariat and data under Article 7 of the Montreal Protocol to the Ozone Secretariat, indicating that the country is in compliance with Montreal Protocol. The Committee acknowledged that Nigeria continued to implement its HCFC licensing and quota system and ensure compliance with regulations; to implement efficiently and timely its HCFC phase-out management plan; and to organize awareness and outreach activities. The Executive Committee is, therefore, confident that the Government of Nigeria will continue implementing activities to enable the country to comply with the Montreal Protocol targets. The Committee also noted with appreciation the ratification of the Kigali Amendment by Nigeria on 20 December 2018 and the steps undertaken to meet the initial obligations under the Amendment including the review of the laws to include the control of HFC and HFC blends.

Sri Lanka

6. The Executive Committee reviewed the report presented with the request for renewal of institutional strengthening (IS) project for Sri Lanka (phase XIII) and noted with appreciation that the country reported 2018 and 2019 country programme implementation data and Article 7 data to the Fund and Ozone Secretariats, respectively, indicating that the country is in compliance with the Montreal Protocol. The Committee also noted that the country strengthened the enforcement of ODS trade control including its licensing and quota system, and implemented activities of the HCFC phase-out management plan (HPMP) in a coordinated manner. The Committee acknowledged with appreciation that Sri Lanka ratified the Kigali Amendment in 2018 and that it will be formulating a strategy for its implementation. The Executive Committee is, therefore, confident that the Government of Sri Lanka will continue implementing HPMP activities including completion of the verification process, enabling activities for the HFC phase-down and IS project in a timely and effective manner to enable the country to achieve and sustain its compliance with the Montreal Protocol targets.



**86th Meeting of the Executive Committee of the Multilateral Fund
for the Implementation of the Montreal Protocol**

(2 – 6 November 2020)

**UNDP
2020 WORK PROGRAMME AMENDMENT**

2020 WORK PROGRAMME AMENDMENT

I. EXECUTIVE SUMMARY

The present document constitutes UNDP's 2020 Work Programme Amendment and is being submitted for consideration of the Executive Committee (ExCom) at its 86th Meeting. The list of submissions for all funding requests (including investment projects) that will be submitted by UNDP to the 86th ExCom meeting in Annex 1 to this document is provided for information. Project documentation such as multi-year agreements (MYA) tranche requests, investment and demonstration project proposals and other individual/investment proposals are not included in this document and are submitted separately as per normal practice. Only the following (non-investment) submissions are part of this document.

II. FUNDING REQUESTS PART OF THE WORK PROGRAMME

Institutional Strengthening Extensions

UNDP is submitting the requests for funding the extension of institutional strengthening projects to the 86th ExCom Meeting as tabulated below. Relevant terminal reports and requests for extension of funding are being submitted separately.

Country	Type	Title	Duration (months)	Amount	Agency Fee	Total
Brazil	INS	Institutional Strengthening Renewal (Phase IX)	24	449,280	31,450	480,730
Ghana	INS	Institutional Strengthening Renewal (Phase XIV)	24	178,048	12,463	190,511
Iran	INS	Institutional Strengthening Renewal (Phase XIII)	24	222,094	15,547	237,641
Lebanon	INS	Institutional Strengthening Renewal (Phase XII)	24	198,515	13,896	212,411
Nigeria	INS	Institutional Strengthening Renewal (Phase XI)	24	332,800	23,296	356,096
Sri Lanka	INS	Institutional Strengthening Renewal (Phase XIII)	24	171,592	12,011	183,603
Total (6 requests)				1,552,329	108,663	1,660,992

Requests for funding for the preparation of HFC phase down plans

UNDP is submitting the requests for the preparation of HFC phase down plans as per the table below. The requests can be found in the Annex 2; the requests for Bhutan, Grenada, Lao, and Maldives will be submitted by UNEP as a Lead Agency.

Country	Type	Title	Duration (months)	Amount	Agency Fee	Total
Bhutan	PRP	PRP for HFC phase-down plan	24	10,000	700	10,700
Ghana	PRP	PRP for HFC phase-down plan	18	105,000	7,350	112,350
Kyrgyzstan	PRP	PRP for HFC phase-down plan	24	60,000	4,200	64,200
Lao, PDR	PRP	PRP for HFC phase-down plan	24	10,000	700	10,700
Lebanon	PRP	PRP for HFC phase-down plan	18	150,000	10,500	160,500
Maldives	PRP	PRP for HFC phase-down plan	24	10,000	700	10,700
Nigeria	PRP	PRP for HFC phase-down plan	24	137,000	9,590	146,590
Peru	PRP	PRP for HFC phase-down plan	18	150,000	10,500	160,500
Total (8 requests)				632,000	44,240	676,240

Other requests for non-investment projects

Pursuant to the ExCom decision taken during the intersessional approval process for the 85th meeting, as part of the Work Programme Amendment, UNDP is requesting the ExCom to approve the funding for the following countries for verification reports for the HPMPs at the 86th ExCom meeting.

Country	Type	Title	Duration (months)	Amount	Agency Fee	Total
Moldova	TAS	Verification report for stage II of HPMP	15	30,000	2,700	32,700
Total (1 request)				30,000	2,700	32,700

III. SUMMARY OF FUNDING REQUESTS (WORK PROGRAMME)

The table below summarizes the funding requests for non-investment activities and proposals being submitted to the 86th ExCom Meeting as part of UNDP's Work Programme Amendment for 2020:

Country	Type	Title	Duration (months)	Amount	Agency Fee	Total
Bhutan	PRP	PRP for HFC phase-down plan	24	10,000	700	10,700
Brazil	INS	Institutional Strengthening Renewal (Phase IX)	24	449,280	31,450	480,730
Ghana	INS	Institutional Strengthening Renewal (Phase XIV)	24	178,048	12,463	190,511
Ghana	PRP	PRP for HFC phase-down plan	18	105,000	7,350	112,350
Iran	INS	Institutional Strengthening Renewal (Phase XIII)	24	222,094	15,547	237,641
Kyrgyzstan	PRP	PRP for HFC phase-down plan	24	60,000	4,200	64,200
Lao, PDR	PRP	PRP for HFC phase-down plan	24	10,000	700	10,700
Lebanon	INS	Institutional Strengthening Renewal (Phase XII)	24	198,515	13,896	212,411
Lebanon	PRP	PRP for HFC phase-down plan	18	150,000	10,500	160,500
Maldives	PRP	PRP for HFC phase-down plan	24	10,000	700	10,700
Moldova	TAS	Verification report for stage II of HPMP	15	30,000	2,700	32,700
Nigeria	INS	Institutional Strengthening Renewal (Phase XI)	24	332,800	23,296	356,096
Nigeria	PRP	PRP for HFC phase-down plan	18	137,000	9,590	146,590
Peru	PRP	PRP for HFC phase-down plan	18	150,000	10,500	160,500
Sri Lanka	INS	Institutional Strengthening Renewal (Phase XIII)	24	171,592	12,011	183,603
Total (15 requests)				2,214,329	155,603	2,369,932

ANNEX 1

List of all UNDP submissions for funding to the 86th ExCom Meeting

No	Country	Type	Description	Funding Request to the 86th ExCom (US\$)		
				Amount	Agency Fee	Total
1	Armenia	INV	Stage II HPMP - 3rd tranche	21,600	1,944	23,544
2	Bhutan	PRP	PRP for HFC phase-down plan	10,000	700	10,700
3	Brazil	INV	Stage II HPMP - 4th tranche	3,895,000	272,650	4,167,650
4	Brazil	INS	Institutional Strengthening Renewal (Phase IX)	449,280	31,450	480,730
5	Brunei Darussalam	INV	Stage II HPMP - 1st tranche	11,000	990	11,990
6	Cuba	INV	Stage II HPMP - 1st tranche	312,000	21,840	333,840
7	Dominican Republic	INV	Stage III HPMP - 1st tranche	723,606	50,652	774,258
8	Dominican Republic	INV	Stage II HPMP - 3rd tranche	146,558	10,259	156,817
9	El Salvador	INV	Stage I HPMP - 4th tranche	16,000	1,200	17,200
10	Eswatini	INV	Stage II HPMP - 1st tranche	90,000	8,100	98,100
11	Fiji	INV	Stage I HPMP - 4th tranche	19,950	1,795	21,745
12	Ghana	INS	Institutional Strengthening Renewal (Phase XIV)	178,048	12,463	190,511
13	Ghana	PRP	PRP for HFC phase-down plan	105,000	7,350	112,350
14	India	INV	Stage II HPMP - 3rd tranche	12,045,500	843,185	12,888,685
15	Iran	INV	Stage II HPMP - 3rd tranche	1,307,980	91,559	1,399,539
16	Iran	INS	Institutional Strengthening Renewal (Phase XIII)	222,094	15,547	237,641
17	Jamaica	INV	Stage II HPMP - 1st tranche	156,000	10,920	166,920
18	Kyrgyzstan	PRP	PRP for HFC phase-down plan	60,000	4,200	64,200
19	Lao, PDR	INV	Stage II HPMP - 1st tranche	107,000	9,630	116,630
20	Lao, PDR	PRP	PRP for HFC phase-down plan	10,000	700	10,700
21	Lebanon	INV	Stage II HPMP - 3rd tranche	420,462	29,432	449,894
22	Lebanon	INS	Institutional Strengthening Renewal (Phase XII)	198,515	13,896	212,411
23	Lebanon	PRP	PRP for HFC phase-down plan	150,000	10,500	160,500
24	Maldives	PRP	PRP for HFC phase-down plan	10,000	700	10,700
25	Moldova	INV	Stage II HPMP - 3rd tranche	17,450	1,570	19,020
26	Moldova	TAS	Verification report for stage II of HPMP	30,000	2,700	32,700
27	Nepal	INV	Stage II HPMP - 1st tranche	90,000	8,100	98,100
28	Nepal	INV	Stage I HPMP - 3rd tranche	8,400	756	9,156
29	Nigeria	INS	Institutional Strengthening Renewal (Phase XI)	332,800	23,296	356,096
30	Nigeria	PRP	PRP for HFC phase-down plan	137,000	9,590	146,590
31	Panama	INV	Stage III HPMP - 1st tranche	387,750	27,143	414,893
32	Peru	PRP	PRP for HFC phase-down plan	150,000	10,500	160,500
33	Sri Lanka	INV	Stage II HPMP - 1st tranche	216,200	15,134	231,334
34	Sri Lanka	INS	Institutional Strengthening Renewal (Phase XIII)	171,592	12,011	183,603
35	Trinidad and Tobago	INV	Stage II HPMP - 1st tranche	674,458	47,212	721,670
36	Trinidad and Tobago	INV	Stage I HPMP - 5th tranche	88,000	6,600	94,600
37	Uruguay	INV	Stage III HPMP - 1st tranche	345,800	24,206	370,006
38	Zimbabwe	INV	Stage II HPMP - 1st tranche	160,000	11,200	171,200
Total (38 requests)				23,475,043	1,651,680	25,126,723

Notes:

- a. All amounts in are in US dollars.
- b. Special reports due (delays, balances, status reports, etc.) as well as other projects not part of the WPA will be submitted separately.

ANNEX 2

Preparation funding requests for HFC phase-down in:

1. Ghana
2. Kyrgyzstan
3. Lebanon
4. Nigeria
5. Peru

PROJECT CONCEPT – GHANA

**MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
HFC PROJECT PREPARATION REQUEST FORM
HFC Phase-down Management plan (OVERARCHING)**

Part I: Project Information

<u>Project title:</u>	<u>HFC Phase-Down Management Plan Preparation</u>	
<u>Country:</u>	<u>GHANA</u>	
<u>Lead Implementing agency:</u>	<u>UNDP</u>	
<u>Cooperating Agency</u>	<u>UNEP</u>	
<u>Implementation period:</u>	<u>January 2021 – June 2022</u>	
<u>Funding requested:</u>	<u>US\$ 150,000</u>	
<u>Agency</u>	<u>Sector</u>	<u>Funding requested (US \$)*</u>
<u>UNDP</u>	<u>Overarching</u>	<u>105,000</u>
<u>UNEP</u>	<u>Overarching</u>	<u>45,000</u>

*Details should be consistent with information provided in the relevant sections below.

Part II: Prerequisites for submission

Item	Yes	No
1. Official endorsement letter from Government for choice of agency	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Ghana ratified the KA	<input checked="" type="checkbox"/>	<input type="checkbox"/>

A. Information required to support PRP funding (Overarching strategy)

<p>1. Brief background on previous activities related to the Kigali amendment and the HFC phase-down</p> <p>Ghana completed an HFC survey with the financial support of the Climate and Clean Air Coalition and in cooperation with UNDP (final report in 2016); this was complemented by and ODS Alternatives Survey with MLF funding and UNEP as Implementing Agency.</p> <p>Furthermore, in response to Decision 79/46 of the Executive Committee on guidelines for Enabling Activities for HFC Phase down, the Government of Ghana in collaboration with the UN Environment prepared and submitted a proposal to the 80th Executive Committee meeting of the Multilateral Fund for the Implementation of the Montreal Protocol. The Executive Committee approved the project for Ghana’s Enabling Activities for HFC Phase Down which sought to facilitate early ratification of the Kigali Amendment and undertake activities to meet initial obligations of the Amendment. The Government of Ghana has completed all the activities under the Enabling Activity Project for HFC phase-down. The instrument of ratification was deposited on the 2nd August 2019, and Ghana became the 79th Party to ratify the Kigali Amendment. Bearing in mind that the Kigali Amendment to the Montreal Protocol came into force on the 1st of January 2019, and that Ghana has updated its reporting mechanism to include HFC imports under EPA Act 490 (1994) and is yet to undergo parliamentary procedures for the LI1812 (Management of ozone-depleting substances and products regulation). With these two legal instruments the country will be able to follow up on the standard reporting obligation under the Kigali Amendment and has already created an enabling environment for the phasedown of HFCs.</p>
<p>2. Current progress in implementation of Enabling Activities for HFC phase-down Budget: 150,000 USD</p> <p>Ghana is in the process of rolling out the recommendations of the HFC Enabling activities in the country. The country has ratified the Kigali Amendment and HFCs and HFC-based equipment would be controlled under the revised ODS regulation.</p> <p>Further, there has been a strong public awareness campaign around the Kigali Amendment and several activities for awareness-raising among different governmental and non-governmental stakeholders have been carried out in the country.</p>

The training needs assessment report has been produced and disseminated, focusing on the customs division of Ghana Revenue Authority (GRA), the NOU and the technicians working on new technologies being introduced to the market.

Capacity building and training for adoption of HFC alternatives has been conducted through needs assessment on the safe use of HFC alternatives and disseminated to technicians during training and sensitization programmes organised for technicians.

Further, Ghana has developed an electronic registry and data reporting tools. The data reporting tools are aligned to the Ozone Secretariat and the multilateral data reporting formats as well as our National HS codes for HFCs.

3. Overview of estimated use of ODS alternatives 2012 – 2015:

The source of ODS in the country is mainly through imports from China, United Kingdom, UAE, and USA. All ODSs and their alternatives are sold by the importers to manufacturers or users directly or indirectly through secondary distributors or retailers. They are also supplied to service establishments and contractors. Moreover, few large manufacturers and mining companies also import directly.

Assuming a BAU scenario, the demand for ODS alternatives will continue to grow as a result of the expanding economy. The historical data of this demand in 2012 – 2015 is erratic due to the economic challenges the nation encountered by way of the ban on used fridges, load shedding lasting over three years and depreciating local currency against the major currencies. Now that these economic storms have stabilized, a true demand trend of ODS alternatives is expected to rise in the years ahead.

Ghana has put in place adequate legislative instruments and administrative mechanisms for controlling and managing ODS imports and by that promoting use of ODS alternatives. The successful phase-out of CFCs use in 2010 as well as successfully attaining the second milestone of 10% reduction in HCFC consumption on January 1, 2015 attest to the seriousness the nation attaches to the global campaign to save the environment from harmful chemicals.

It was noted in the course of the data collection exercise on ODS alternatives that HCFC-22 continues to have a stronghold on the RAC industry due to the lower price of the equipment and the refrigerant. Whereas some major AC importers have completely ceased importing HCFC-22 based units, there are still many other major AC companies that continue to bring in these units as they are comparatively cheaper. The NOU has heightened the public awareness campaign to emphasize the risk to end-users who opt to buy relatively cheaper HCFC equipment since the refrigerant is on the phase-out agenda.

Since it is now an established fact that HFCs are scheduled to be reduced / banned because of their high global warming potential, the EPA/NOU has intensified efforts to ensure the shift from HFC to HCs and other natural refrigerants.

A summary of sectoral uses of these chemicals is given in the table below:

Subsector	Fluorinated gases and their blends							Natural		
	HCFC 22	R-406A	HFC-134a	R-404A	R-407C	R-410A	R-507A	HC-600a	HC-290	R-717
	ODS		ODS Alternatives							
Domestic Ref.		*	*					*		
Commercial Ref.	*		*	*			*			*
Transport Ref.	*		*	*						
Industrial Ref.	*		*	*	*		*			*
Stationary AC	*		*		*	*			*	
Mobile AC	*		*							
GWP 100 Year	1780	1800	1360	4200	1700	2100	4300	4	5	0
ODP	0.034	0.04	0	0	0	0	0	0	0	0

4. Based on the consumption data given above, please provide a description of the sector/sub-sector that use HFCs in the country, including a short analysis and explanation of the consumption trends (i.e., increasing or decreasing)

Ghana's HFC consumption was analyzed when the ODS alternative survey was carried out. Additional work will be done during the preparation stage of the HFC phase-down project. The overall consumption and sectoral distribution are as shown below.

SUMMARY OF USE IN ALL SECTORS BETWEEN 2012 TO 2015 (MT)

Table 1: Summary of use in all sectors for 2012

ODS Alternative		Estimated Use, MT						
		RAC	PU Foam	XPS foam	Aerosol	Firefighting	Solvent	Others
HFC	HFC-134a	109.9						
	HFC-227ea					0.7		
HFC Blends	R-404A	43.2						
	R-407C	14.5						
	R-410A	11.6						
	R-507A	5.6						
Others	HC-600a	36.8						
	HC-290	0.2						
	R-717	61.2						

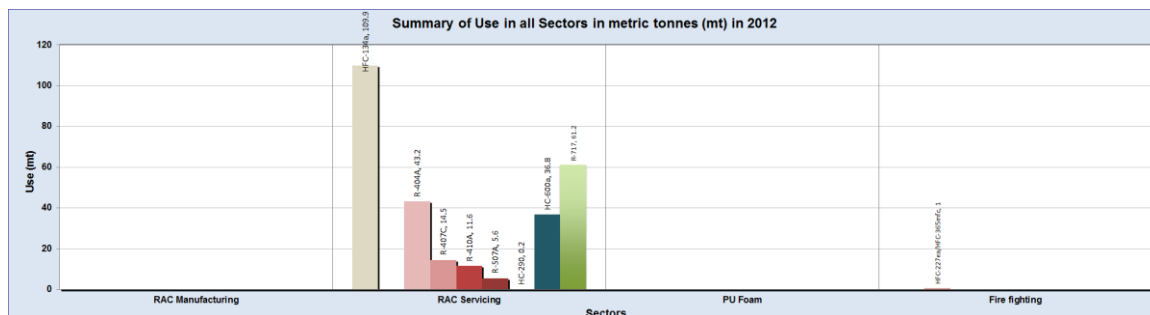


Table 2: Summary of use in all sectors for 2013

ODS Alternative		Estimated Use, MT						
		RAC	PU Foam	XPS foam	Aerosol	Firefighting	Solvent	Others
HFC	HFC-134a	120.0						
	HFC-227ea					1.0		
HFC Blends	R-404A	25.8						
	R-407C	14.6						
	R-410A	18.5						
	R-507A	4.5						
Others	HC-600a	11.6						

	HC-290	0					
	R-717	98.9					

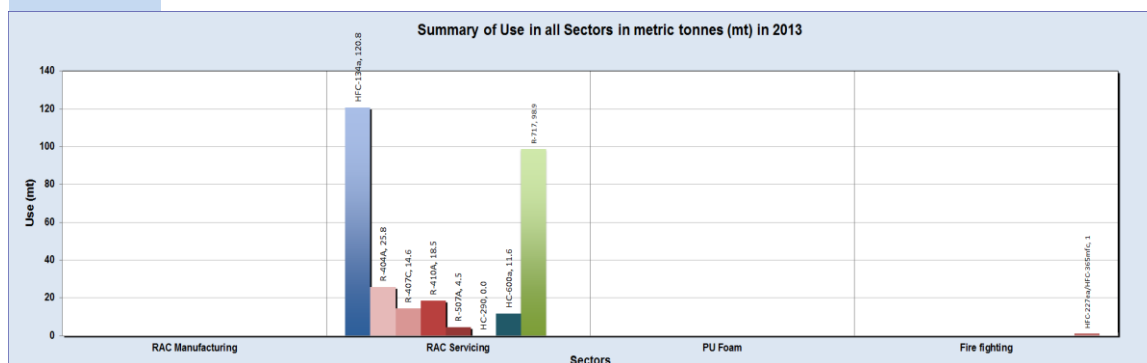


Table 3: Summary of use in all sectors for 2014

ODS Alternative		Estimated Use, MT						
		RAC	PU Foam	XPS foam	Aerosol	Firefighting	Solvent	Others
HFC	HFC-134a	60.9						
	HFC-227ea					1.1		
HFC Blends	R-404A	15.1						
	R-407C	4.4						
	R-410A	20.7						
	R-507A	0.1						
Others	HC-600a	20.0						
	HC-290	1.5						
	R-717	82.7						

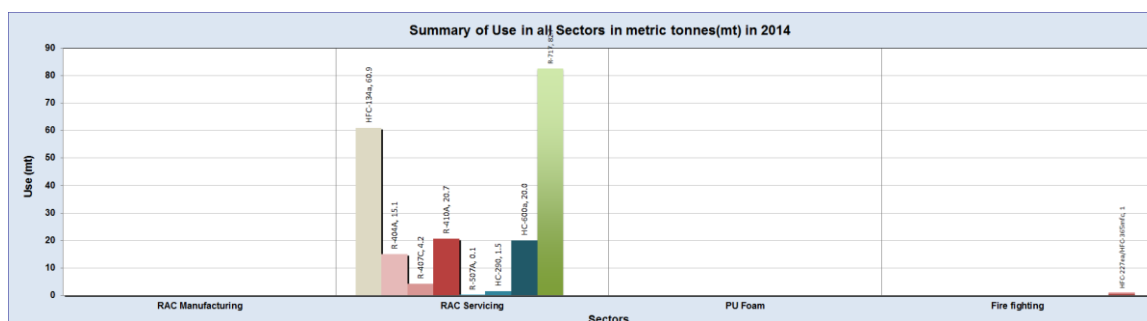
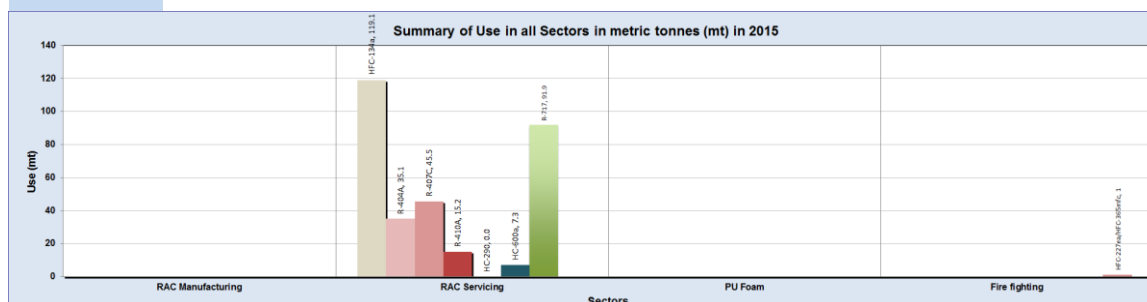


Table 4: Summary of use in all sectors for 2015

ODS Alternative		Estimated Use, MT						
		RAC	PU Foam	XPS foam	Aerosol	Firefighting	Solvent	Others
HFC	HFC-134a	119.1						
	HFC-227ea					1.3		
HFC Blends	R-404A	35.1						
	R-407C	45.5						
	R-410A	15.2						
	R-507A	4.3						
Others	HC-600a	7.3						

	HC-290	0					
	R-717	91.9					



5. Activities to be undertaken for project preparation and funding
UNDP: US \$ 105,000 ; UNEP: US \$ 45,000

Activity	Indicative funding (US \$)	Lead Agency
Stakeholder consultation: Consultant to prepare and conduct questionnaires and interviews with relevant stakeholders to update available data on ODS alternatives; Conducting interviews, organizing workshops and stakeholders' consultations for the integration of national regulations and procedures for KA implementation and consolidation of technical capacities in the institutions involved in HFC control	25,000	UNDP
HFC phase-down strategy development: Technical and legal experts to prepare all legal and technical documents (including in relation to LI updates), consult all key stakeholders and develop detailed strategy, including assessment of needs to develop/update trainings and certification scheme in use of flammable refrigerants, developing training plan and organizing workshops with main stakeholders and training institutions, including assessments of the needs for enhancing training programs on recovery, recycling and destruction	25,000	UNDP
	20,000	UNEP
Data collection by sector/sub-sector/HFC substance	40,000	UNDP
Communication and outreach plan: Preparation of a comprehensive communication and outreach plan in consultation with key stakeholders including hotel managers, investors, building planners, end-users, consumer associations, RAC associations, private sector, supermarkets, cold chain, media experts etc. The plan will focus on technology and policy awareness raising to influence the investment and user behavior.	10,000	UNEP
Capacity building activities related to RAC sector activities and enforcement: Review and assessment of innovative tools and approaches to build the capacity of relevant actors including OzonAction's tools related to HFC phase-down, review of training curricula of vocational schools, university and customs, online training and certification tools, participation of key stakeholders in international conferences, review of energy-efficiency and performance standards, case studies, public procurement policies, potential impact of incentives and taxes, gender considerations, HFC-free labeling, equipment inventories / logbooks, potential of not-in-kind alternatives etc.	15,000	UNEP
Inception and Validation	15,000	UNDP
TOTAL	150,000	

6. How will activities related to the stage II of the HPMP implementation be considered during project preparation for the HFC phase-down management plan?

It is expected that there will be synergies among the HPMP and the HFC phase-down, particularly in regard to capacity building for technicians, which can be to a certain extent integrated for alternatives to HCFCs and HFCs. However, it is important to note that HFC phase-down cannot be achieved only by applying currently available interventions. This needs to include not only the training of technicians, but an associated update / introduction of standards, safety guidelines, regulation, etc. for the safe handling of hydrocarbon refrigerants and the introduction of technician certification programme. Thus, the HFC phase-down is a much more

complex task than HCFC phase-out, as it requires inevitably the full-scale introduction of flammable and/or toxic refrigerants in Ghana. Please note that coordination with the KCEP project which is aimed at almost the same stakeholder group while focusing on energy efficiency gains, will be ensured. The NOU sees the main synergy is being achieved by coordinating all the activities by the same governmental entity – EPA/NOU in this case – for both the HPMP, KCEP and the HFC phase down.

The funding request has been based on existing HCFC PRP funding guidelines. It is believed that additional resources would be needed to fully conduct the preparation work that is needed for all the tasks listed in this document.

7. How will the Multilateral Fund gender policy be considered during project preparation?

The Government of Ghana is aware of the Multilateral Fund gender policy contained in ExCom document 84/73, and the related Executive Committee decision 84/92. During project preparation, relevant stakeholders will be sensitized on the gender policy. Efforts will be made to encourage women experts to attend training and awareness activities. The HFC phase-down plan and related activities shall be gender-sensitive. To the extent possible, gender-disaggregated data will be collected.

**MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL**

Kyrgyzstan HFC phase-down plan preparation

Part I: Project Information

Project title:	<u>HFC phase-down plan preparation</u>	
Country:	<u>Kyrgyzstan</u>	
Implementing Agencies:	<u>UNDP as lead agency and UNEP as cooperating agency</u>	
Implementation period:	<u>January 2021 - December 2022</u>	
Funding requested:		
Agency	Sector	Funding requested (US\$) not including PSC*
<u>UNDP</u>	<u>Overarching</u>	<u>60,000</u>
<u>UNEP</u>	<u>Overarching</u>	<u>25,000</u>

*Given the absence of the approved cost guidelines for HFC phase-down, and in particular a cost structure for project preparation requests, the agreed funding levels for HPMP stage I project preparation are applied (Decision 55/27).

Part II: Prerequisites for submission

Item	Yes	No
8. Official endorsement letter from Government for choice of agency	<input checked="" type="checkbox"/>	<input type="checkbox"/>
9. KA ratification approved by Government of Kyrgyzstan and instrument of ratification submitted in August 2020	<input checked="" type="checkbox"/>	<input type="checkbox"/>

B. Information required to support PRP funding (Overarching strategy)

1. Montreal Protocol HFC phase-down target to be met in stage I of the HFC phase-down plan			
Commitment	Freeze 10% reduction	Year	2024 2029
<input checked="" type="checkbox"/> Servicing only	<input type="checkbox"/> Manufacturing only	<input type="checkbox"/> Servicing and manufacturing	
2. Brief background on previous activities related to the Kigali amendment and the HFC phase-down <i>Please provide a brief background on the Enabling Activities project, when it was approved, a brief description of the progress in implementation and expected end date.</i>			
The 74 th Meeting of the Executive Committee approved Kyrgyzstan's ODS alternatives survey at a reduced funding level of USD 20,000, as Kyrgyzstan also received USD 30,000 for the HFC inventory funded by CCAC in 2015.			
The 80 th Meeting of the Executive Committee approved Kyrgyzstan's enabling activities project of USD 95,000. Kyrgyzstan completed the project in December 2019 and the final report was submitted in March 2020. The Government of Kyrgyzstan has approved the ratification of the Kigali Amendment and submitted the instrument of ratification to the UN depositary in New York in August 2020.			
3. Current progress in implementation of Enabling Activities for HFC phase-down Budget: 95,000 USD			
Activity	Description		Implementing agency
Facilitation of the ratification of the Kigali Amendment	The Parliament considered three major laws related to the Paris Agreement on climate change, related to customs codes for HFCs / natural refrigerants, and related to the Kigali Amendment		UNEP

	<p>ratification. Government resolution № 660 on the Kigali Amendment ratification was approved and submitted to the Parliament for adoption in December 2019. The Kigali Amendment was ratified by the Parliament of the Kyrgyz Republic on June 4, 2020. Several amendments to normative legal acts were completed including the law on ozone layer, the law on environment protection, the law on air protection, the legislation on ODS imports / exports and the criminal code, the code on administrative responsibilities and the state programme for ODS phase-out 2016-2020. In 2019, seven training seminars were held on good servicing practices of RAC equipment, five seminars to introduce alternative / natural technologies in commercial refrigeration, and two workshops on energy-efficient buildings. Kigali Amendment ratification was the main topic of the International Ozone Day celebrations in September 2019 and the Youth climate forum in November 2019. The Kigali amendment was explained at 17 awareness workshops focusing on cooling and climate change issues in different cities. A series of publications was produced, partly translated and disseminated including training materials, posters, factsheets, cold chain briefs, videos, applications, quick guides, e-learning tools. They covered topics related to the Kigali Amendment, ratification of the amendment, alternative technologies and energy-efficiency. Government Resolution № 230 on new customs codes for HFCs and natural refrigerants as part of the legislation on ODS import / export license system was adopted in April 2020.</p>	
<p>Training needs assessment for the servicing sector</p>	<p>Training needs have been identified based on surveys of the market and the servicing sector. A series of workshops, consultations and steering committee meetings were conducted. The State Agency of Standards, Ministry of Energy, vocational training institutes as well as service technicians and end-users have been sensitized and understand the implications of Kigali Amendment implementation, including the need to apply safety standards and to train technicians on the safe use of alternative and in particular flammable refrigerants.</p>	<p>UNEP</p>
<p>Article 4b licensing system and HS codes</p>	<p>The existing HCFC licensing and quota systems were reviewed and are fully operational. A special working group addressed trade issues related to the accession of the Eurasian Economic Union (EEU) since there are no customs borders between the EEU countries. Kyrgyzstan intends to establish a system to track HCFC / HFC movements within the EEU to establish its annual consumption. The establishment of the operational HFC import / export licensing system is scheduled for 1 January 2021. Government Resolution № 230 on new customs codes for HFCs and natural refrigerants</p>	<p>UNEP</p>

	as part of the legislation on ODS import / export license system was adopted in April 2020. It will allow the better monitoring of trade in HCFCs / HFCs.	
4. Description of information that needs to be gathered and updated. Explain why this has not been undertaken during the implementation of enabling activities related to the Kigali Amendment and HFC phase-down.		
Information needed	Description	Agency
Stakeholder information	As described in Section 8 below.	UNEP/UNEP
5. Overview of estimated import of ODS alternatives 2010-2015 in kg		
Extracts from the ODS alternatives survey report (next page).		

Table 1. HFC consumption data from year 2010 to year 2015

	2010	2011	2012	2013	2014	2015
Domestic refrigeration equipment	5716	5793	5909	6028	6151	6281
Commercial refrigeration equipment, with cooling capacity up to 3000 watt	3244	4391	5992	7379	8838	10505
Commercial /Industrial refrigeration equipment, with cooling capacity above 3000 watt	6758	12484	12484	15373	18411	21885
Domestic air conditioners	1859	2246	3163	3812	4567	5242
Commercial conditioners	401	487	616	716	824	946
Industry conditioners	218	274	330	390	443	488
Heat pumps	416	520	696	816	1104	1472
Chillers	300	560	1400	1700	2420	3340
Transport	461	515	612	678	705	760
MAC	10533	15467	17622	20498	23887	23967
Totally in service sector	29906	42736	48825	57389	67351	74884
Assembly of equipment	13357	15109	17375	19113	19343	20680
Foam sector	n/a	n/a	15830	26830	37600	33170
Total service and manufactory	43263	57845	82030	103332	124293	128734

Table 2. Consumption by HFC agent type for various sectors for year 2015**Consumption Breakdown by HFC Type**

		2010	2011	2012	2013	2014	2015
Domestic refrigeration equipment	R134A	5716	5793	5909	6028	6151	6281
Commercial refrigeration equipment, with cooling capacity up to 3000 watt	R134A	2595	3513	4794	5903	7070	8404
	R404A	649	878	1198	1476	1768	2101
Commercial /Industrial refrigeration equipment, with cooling capacity above 3000 watt	R134A	2027	3745	3745	4612	5523	6566
	R404A	4731	8739	8739	10761	12888	15320
Domestic air conditioners	R410A	1673	2021	2847	3430	4110	4716
	R407C	186	224	316	381	457	524
Commercial conditioners	R410A	281	341	432	501	577	662
	R134A	120	146	185	215	247	284
Industry conditioners	R404A	131	164	198	234	267	293
	R134A	87	110	132	156	177	195
Heat pumps	R410A	416	520	696	816	1104	1472
Chillers	R404A	300	560	1400	1700	2420	3340
Transport	R404A	461	515	612	678	705	760
MAC	R134A	10533	15467	17622	20498	23887	23967
Foam sector	HFC-335/227			15830	26830	37600	33170
Assembly of equipment	R404A	3733	4008	5743	6067	6895	7210
	R134A	2663	2784	3616	3630	3204	4200
	R410A	6961	8317	8016	9416	9244	9270
Total:		43263	57845	82030	103332	124293	128734

Table 4: Natural refrigerant servicing requirements during the period 2012-2015

Sector	NRs	2012	2013	2014	2015
Domestic refrigeration equipment, kg	R600A	11490	11720	11961	12213
Commercial refrigeration equipment, with cooling capacity up to 3000 watt, kg	R290	4	12	22	32
Commercial refrigeration equipment, with cooling capacity up to 3000 watt, kg	R744	0	0	5	8
Industrial refrigeration equipment, kg	R717	14400	15000	15000	15000

Kyrgyzstan Article 7 data reporting 2018-2019 in MT

Substance	A7 2018 / MT	A7 2019 / MT
HFC-32	0.04	0.06
HFC-134a	58.6	91.3
HFC-227ea	4.6	
HFC-365mfc	30.4	
R-404A	24.2	26.6
R-407C	3.1	2.7
R-410A	7.8	25.6
R-507A	1.7	2.8
NSM-365mfc227ea		39.9
Total	130.44	188.96

See: <https://ozone.unep.org/countries/profile/kgz>

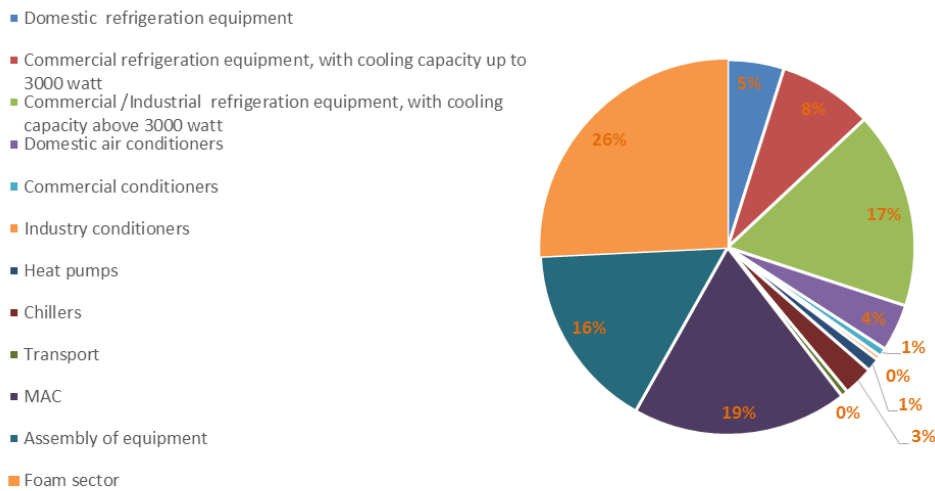
6. Based on the consumption data given above, please provide a description of the sector/sub-sectors that use HFCs in the country, including a short analysis and explanation of the consumption trends (i.e., increasing or decreasing)

The survey on ODS alternatives in Kyrgyzstan was conducted to better understand historical and predicted consumption trends for ODS alternatives, including medium, low and high global warming potential (GWP) alternatives, and their distribution by sector and subsector. HFCs, HCs, ammonia are mostly used in refrigeration, air conditioning and foam sectors in Kyrgyzstan.

The annual demand of HFCs has grown consistently from 43.2 tons per year in 2010 to 95.5 tons per year in 2015. It is also evident that the demand in RAC sector has been steadily increasing from 2010 to 2015.

Figure 1: Total consumption of HFCs by various sectors for the year 2015

Total consumption HFCs by various sectors for the year 2015



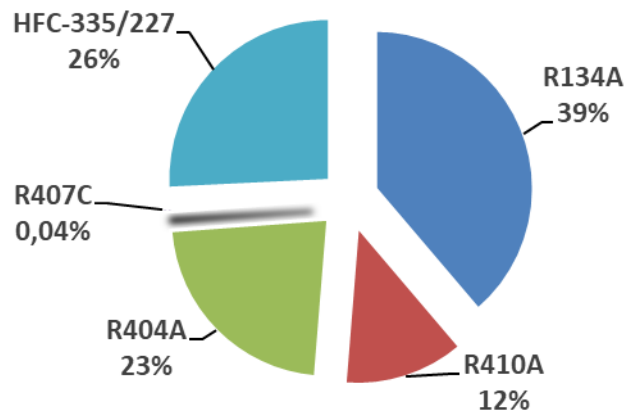
The foam sector accounted for 33,17 MT of HFCs consumption (25.8%) in year 2015. The high demand is observed in the MAC sector, accounting for 19% of the total HFC consumption. The commercial refrigeration sector, industrial refrigeration, and air conditioner sector account respectively 8%, 17% and 5% of total HFC consumption in year 2015. The high demand from stationary AC sector is associated with the consumption of HFC-410A and HFC-407C.

MAC subsector has the largest consumption of HFCs in RAC sector, with HFC-134A being mostly consumed. Commercial refrigeration sector is also a large sector consuming HFCs. This demand of HFCs is associated with the consumption of HFC-134a, HFC-404A, HFC-407C and HFC-507A.

The next largest sectors consuming HFCs are Industrial refrigeration and transport refrigeration. The demand of transport refrigeration sector is solely met by the consumption of HFC-404A whereas the demand of Industrial refrigeration sector is associated with the consumption of HFC-134a, HFC-507 and HFC-404A. Demand from the aerosol sector comprises 0.06 tons of HFCs in 2015 and is solely met by HFC-134a.

Figure 2: Consumption of HFCs by refrigerant for the year 2015

Consumption by HFC agent type for various sectors for year 2015



Consumption of Hydrocarbons, ammonia, and CO₂

The Kyrgyz Republic imports all types of equipment based on natural refrigerants and the country neither manufactures nor exports such equipment. The amount of propane and CO2 consumption is insignificant, whereas the consumptions of isobutane and ammonia are more significant - in 2015 they were estimated at 12.2 and 15.0 tons respectively.

Kyrgyzstan reported HFC consumption data for 2018-2019 on a voluntary basis to the Ozone Secretariat (Article 7). Overall HFC consumption increased from 130.44 MT in 2018 to 188.96 MT in 2019.

7. Activities to be undertaken for project preparation and funding

Activity	Indicative funding (US \$)	Agency
Stakeholder consultation: Consultant to prepare questionnaires and conduct interviews with relevant stakeholders to update available data on ODS alternatives; Organizing workshops and stakeholders' consultations for the integration of national regulations and procedures for KA implementation and consolidation of technical capacities in the institutions involved in HFC control	25,000	UNDP
HFC phase-down strategy development: Technical and legal experts to prepare all legal and technical documents, consult all key stakeholders and develop detailed strategy, including assessment of needs to develop/update trainings and certification scheme in use of flammable refrigerants, developing training plan and organizing workshops with main stakeholders and training institutions, including assessments of the needs for enhancing training programs on recovery, recycling and destruction	30,000	UNDP
	5,000	UNEP
Communication and outreach plan: Preparation of a comprehensive communication and outreach plan in consultation with key stakeholders including hotel managers, investors, building planners, end-users, consumer associations, RAC associations, private sector, supermarkets, cold chain, media experts etc. The plan will focus on technology and policy awareness raising to influence the investment and user behavior. It will also assess the possible implications of being a member of Eurasian Economic Union.	10,000	UNEP
Capacity building activities related to RAC sector activities and enforcement: Review and assessment of innovative tools and approaches to build the capacity of relevant actors including OzonAction's tools related to HFC phase-down, review of training curricula of vocational schools, university and customs, online training and certification tools, participation of key stakeholders in international conferences, review of energy-efficiency and performance standards, case studies, public procurement policies, potential impact of incentives and taxes, gender considerations, HFC-free labeling, equipment inventories / logbooks, potential of not-in-kind alternatives etc.	10,000	UNEP
Validation: Consultations, review and validation of the consolidated overarching strategy	5,000	UNDP
TOTAL	85,000	
8. How will activities related to HPMP implementation be considered during project preparation for the HFC phase-down plan?		

Ongoing HPMP activities will be assessed and coordinated with HFC phase-down related activities and synergies / co-funding approaches explored. Lessons learned from HPMP implementation will be considered. However, it is expected that HPMP activities will be completed at the time of the approval of the HFC phase-down management plan.

9. How will the Multilateral Fund gender policy be considered during project preparation?

The Government of Kyrgyzstan is aware of the Multilateral Fund gender policy contained in ExCom document 84/73, and the related Executive Committee decision 84/92. During project preparation, relevant stakeholders will be sensitized on the gender policy. Efforts will be made to allow women to contribute to the project preparation. Special efforts will be made to encourage women experts to attend training and awareness activities. The HFC phase-down plan and related activities shall be gender sensitive. To the extent possible, gender-disaggregated data will be collected.

PROJECT CONCEPT – LEBANON

**MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
HFC PROJECT PREPARATION REQUEST FORM
HFC Phase-down Management plan (OVERARCHING)**

Part I: Project Information

<u>Project title:</u>	<u>HFC Phase-Down Management Plan Preparation</u>	
<u>Country:</u>	<u>LEBANON</u>	
<u>Lead Implementing agency:</u>	<u>UNDP</u>	
<u>Cooperating Agency</u>	<u>N/A</u>	
<u>Implementation period:</u>	<u>January 2021 – June 2022</u>	
<u>Funding requested:</u>	<u>US\$ 150,000.00</u>	
<u>Agency</u>	<u>Sector</u>	<u>Funding requested (US \$)*</u>
<u>UNDP</u>	<u>Overarching</u>	<u>150,000</u>

*Details should be consistent with information provided in the relevant sections below.

Part II: Prerequisites for submission

Item	Yes	No
10. Official endorsement letter from Government for choice of agency	<input checked="" type="checkbox"/>	<input type="checkbox"/>
11. Lebanon ratified the KA.	<input checked="" type="checkbox"/>	<input type="checkbox"/>

C. Information required to support PRP funding (Overarching strategy)

<p>3. Brief background on previous activities related to the Kigali amendment and the HFC phase-down</p> <p>Following the outcomes of the 80th Meeting of the Executive Committee of the Multilateral Fund for the Implementation of the Montreal Protocol and subsequently Decision 81/32(a), funding was approved for Lebanon for <i>Enabling Activities to prepare for the HFC phase-down</i> and to assure the early ratification of the Kigali Amendment (KA). Taking into consideration that the Kigali Amendment to the Montreal Protocol came into force on the 1st of January 2019, and that Lebanon is in the process for updating its reporting mechanism to include HFCs, the country will be able to follow up on the standard reporting obligation under the Kigali Amendment and has already created an enabling environment for the phasedown of HFCs.</p>
<p>4. Current progress in implementation of Enabling Activities for HFC phase-down Budget: 150,000 USD</p> <p>Lebanon is in the process of completing the implementation of the Enabling activity in the country. The country has ratified the Kigali Amendment and a functioning HFC licensing system is under development and will begin implementation soon. The licensing system was thoroughly evaluated during the implementation of the Enabling activity and it was concluded that it captures well the imports and exports of HFCs in the country.</p> <p>Moreover, Lebanon has made an initial analysis on the use of HFCs in the country, but additional work (thorough survey) will be needed. Finally, there has been a strong public awareness campaign around the Kigali Amendment and several activities for awareness-raising among different governmental and non-governmental stakeholders have been carried out in the country.</p>
<p>12. Overview of estimated use of ODS alternatives 2012 – 2015:</p> <p>The entire domestic demand is met through imports mainly from China, India, Belgium, Netherland, Singapore, United Kingdom, UAE, and USA. All ODSs and their alternatives are sold by the importers to manufacturers or users directly or indirectly through secondary distributors or retailers. They are also supplied to service establishments and contractors. Moreover, few large manufacturers also import directly.</p>

The major component of the ODS alternatives substances used in Lebanon are HFCs which have been introduced into commercial use largely because they have been proven effective substitutes for CFCs and HCFCs in many sectors, namely the RAC sector. HFCs do not deplete the ozone layer but have an impact on climate change due to their high GWP.

The use of HFCs is increasing rapidly as a result of global economic development and population growth. It was observed that, in Lebanon, HFC-134a, R-404A, R-407C, R-410A and the newly introduced refrigerant R-32 (2018 onwards), are widely used in different applications in refrigeration and air-conditioning sectors (both manufacturing and servicing). Besides, there were applications of HFC-227ea in fire protection systems.

A summary of sectoral uses of these chemicals are given in the table below:

Sectors of use	Specific application	Types of ODS Alternatives
Unitary air conditioning equipment	Small self-contained air conditioners	R-407c, R-410A, R-32
Small water chillers of about 100 kW refrigeration capacity	Screw chillers	HFC-134a, R-410A
	Reciprocating chillers	HFC-134a, R-407C
	Centrifugal chillers	HFC-134a
Commercial refrigeration equipment	Cold storage	HFC-134a
	Ice cream freezers	R-404A, HFC-134a
	Ice making machine	HFC-134a
	Bottle coolers	HFC-134a
	Plug-in display cabinets	R-404A
Industrial refrigeration	Industrial heat pumps and heat recovery	HFC-134a, R-404A, R-407C
	Industrial chillers	HFC-134a
Refrigerated transport and mobile air conditioning	Road transport(trailers, diesel trucks, small trucks)	HFC-134a, R-32
	Air conditioning in buses and cars	HFC-134a
Foam	Rigid polyurethane foam	HFC application not found, only hydrocarbon (N-Pentane)
	Polyurethane foam	
Solvent applications	Cleaning	HFC Application not found
Aerosols	Non-medical aerosol products	HFC Application not found
Fire extinguishing	Fire suppression system	HFC-227ea

Sectoral Use of ODS Alternatives

The total quantity imported by individual substance during the period between 2012-2015 is given in the table below. However, under the preparation fund for the HFC phase-down strategy, a comprehensive survey will be conducted over a five-year period (2016-2020):

Substance	2012	2013	2014	2015
HFC-134a	580.00	610.00	628.00	650.00
HFC-410A	28.70	25.20	75.75	95.50
HFC-404A	113.50	130.25	135.80	133.70
HFC-407C	42.20	33.71	31.85	37.35
HFC-227ea	12.20	17.50	21.00	23.70
Total HFCs	776.60	816.66	892.40	940.25

13. Based on the consumption data given above, please provide a description of the sector/sub-sector that use HFCs in the country, including a short analysis and explanation of the consumption trends (i.e., increasing or decreasing)

Lebanon has made an analysis of the HFC consumption when the ODS alternative survey was developed and additional work will be done during the preparation stage of the HFC phase-down project. The overall consumption numbers are known and have been verified. However, the sectoral distribution of the use has not been analyzed to the same degree.

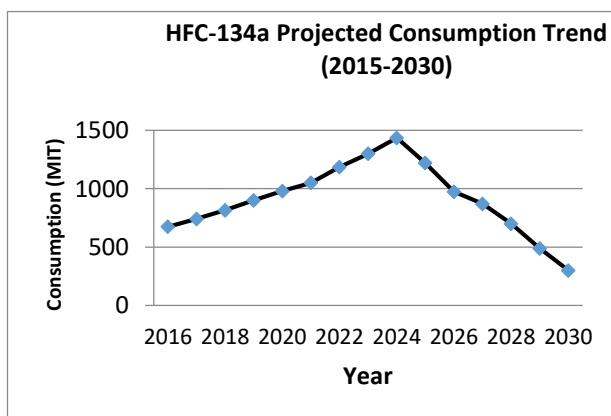
The HFCs (the main ODS alternatives) are basically consumed in the RAC sector and the majority in servicing of RAC equipment (approximately 65% of the total consumption) and the balance of the consumption is consumed in the manufacturing and assembling of RAC systems.

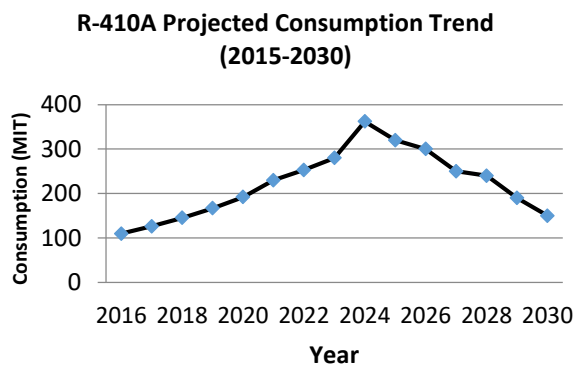
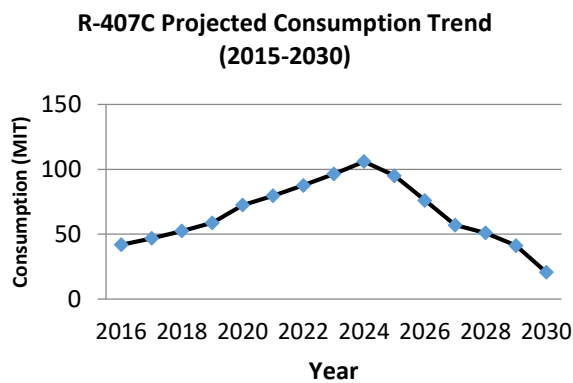
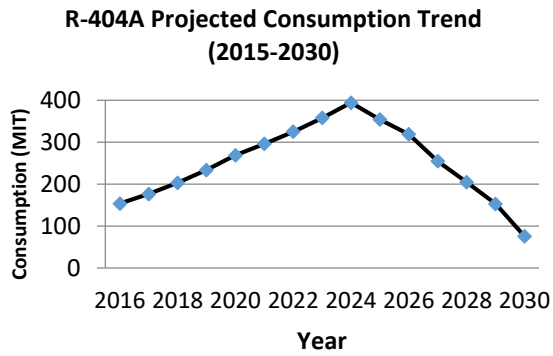
From the data analysis, it is obvious that the major consumption of HFC-134a is in the domestic refrigeration (manufacturing and servicing) and mobile air-conditioning (MAC) sector (servicing). It is definite that the trend would continue to grow despite of the growing market share of R-600a in the domestic refrigeration sector. Repairs and servicing of MAC has an upward trend as well because of the car owners' growing market the country. Further considerable amounts of R-134a chillers are operating in central air conditioning systems. Since R-134a is a proven technology for this sector, the old R-22 chillers are being replaced with either R-134a or R-410A mainly because the new refrigerant-based chillers are commercially available and energy efficient in operation. This means that an increasing trend of getting more HFC-based AC systems for servicing in the future. General perception was that, due to the steady economic growth in the last decade, the buying capacity of RAC equipment by the low- and middle-income group population has substantially increased. Furthermore, real estate is a growing sector (apartments), hospitals, hotels, shopping malls, leisure industries are growing exponentially.

It is necessary to state here that HFCs are not listed as controlled substances and the customs authorities do not have any regulation on imports of such alternatives, and importers are not keeping records properly and are sometimes reluctant to divulge the figures due to various reasons one of which is tax concerns. However, in order to obtain reliable data, it is necessary to bring ODS alternatives, mainly HFCs under licensed/controlled substances in the near future (this is being prepared currently with the support of the Enabling Activity).

Due to the replacement of CFCs with ODS alternatives (mainly HFCs) for most of the RAC applications, there has been a significant increase in HFCs demand due to the growth in emerging market in the country. HFCs' demand and consumption cannot be accurately calculated since they are not controlled substances as CFCs and HCFCs and are imported without import license (though this will change soon as of 2021, following the ratification of the Kigali Amendment). However, HFCs consumption was surveyed and calculated at the level around 940 MT (2015) with an estimated annual growth between 10-15%, till 2019-2020.

The estimated ODS Alternatives (mainly HFCs) consumption for the years 2015-2030 is presented in the graphs below by refrigerant use; it is to be noted that the growth used and the estimates made are based on experts and industry inputs as well as inputs from estimated economic growth in the country. However, with Kigali amendment, the situation will change and the HFCs consumption is expected to decrease after 2024.





It is projected that the future HFCs and HC imports as well as HFOs are likely to increase in the range of 10-15%. This projection has been calculated based on the following:

- The growth domestic product (GDP) in Lebanon significant increase in the years 2007-2008 and 2009, where it reached 9.3%, 9.4% and 10% respectively and an average of 4.455 from 1971 until 2015.
- Lebanon is implementing the HPMP Stage-I and Stage-II. These have already caused impact on the increase of imports of HFCs (R-410A and R-32) in different applications particularly in the RAC sector. On the other hand, the sector including foam, firefighting, air conditioning and refrigeration will experience increased growth and consumption.
- The RAC sector grew in the years 2012-2015 with an average compounded growth of around 13%. The consumption of HFCs in the domestic refrigeration and servicing sector shows a steady growth as well.
- Due to the restrictions on the imports of R-123, growth of HFC-227ea is expected in the firefighting sector.
- The growth of RAC equipment usage in on steady increase, so the repairs and maintenance needs are on the rise as evident in the servicing sector consumption. The consumption trends in the servicing sector are anticipated to maintain a steady growth.

- All these factors will have a cumulative effect on the rise of imports and consumption of HFCs.

It is important to note that the current crisis in Lebanon and the COVID-19 global situation and its economic challenges are very likely to impact the assumptions above, though it is challenging to estimate this at this point.

The replacement of high-GWP HCFCs and HFCs to low-GWP alternatives is a challenge for Lebanon. It has been identified/experienced that local industries as end-users are having the following concerns to be taken into consideration during the conversion process to the alternative technology:

- Flammability issues of low-GWP alternatives
- Price barriers of the alternatives
- Insufficient financial resources to meet the cost for transition to new technologies
- There is no simple solution that can be used in certain sectors
- Alternatives are new in the local market
- Fear to switch to other technology (lack of technical institutions and training)
- Unclear policies/regulations introduced by authorities on refrigerant issues and the industry as a whole

Based on the above, the following actions could be taken for reducing the country's dependence on high GWP ODS alternatives (mainly HFCs) and to facilitate a fast adoption of low GWP ODS alternatives:

- Prepare a national strategy for the phase-down of HFCs that include the actions to undertake, the time span and the associated cost for the complete phase-out
- Create awareness programs on new alternative technologies which are safe and energy efficient
- Provide incentive programs to public sector to replace existing equipment working on high-GWP HFCs since the public sector represents a significant share of the total use of HFCs.
- Provide demonstration projects with alternative technologies
- Provide training programs to the formal and informal sector technicians on safe use of alternatives through practical demonstrations (creation/strengthening of RAC training centers)
- Include educational materials in the curriculum for technical students who are attached to the technical and vocational schools
- Strengthen industrial associations with information through continuous discussions and training programs on environmental issues
- Set the necessary regulations to support the phase-down of HFCs, adopt new local standards and codes to encourage the use of safe and energy efficient alternatives to HFCs (MEPS and standards)
- Set new procurement/import policies to favor substances with low GWP using equipment acquired by the public sector
- Provide import tax concessions on imports of equipment working on safe and energy efficient alternative technology

There are opportunities to support increased energy efficiency as the transition from high-GWP HFC use is implemented, as indicated in the National Cooling Plan of Lebanon which was supported by KCEP.

The most commonly used alternatives to HFCs available in the local market are listed in the table below:

System	HFCs	Alternative option
Domestic refrigeration	R-134a	R-600a
Mobile air conditioning	R-134a, R-404A	HC blend, HFO-1234yf
Residential air conditioning	R-22, R-134a, R-410A	R-32, R-290
Chillers	R-134a, R-410A, R-407C	HFOs, NH3, C-40, HC, CO2
Commercial refrigeration	R-404A, R-410A	HC, CO2
Foam isolation	R-404A, R-410A	HC, HFOs
Aerosol	R-404A, R-410A	HC
Fire fighting	R-227ea	Not identified

Commonly Used Alternatives to HFCs

Today, most of the ODS alternatives are HFCs, and they are used mainly in the different RAC sectors. R-22 is still the most important refrigerant currently used in residential air conditioning systems and R-134a is the most important refrigerant used in domestic refrigeration and MAC sectors. However, HCFCs are gradually being phased-out, and the demand for HFCs is expected to increase in the short and medium terms to satisfy the expected growth in the country due to the work that has been done in the context of the HPMP activities.

Household refrigerators are mostly working with R-134a even though refrigerant R-600a is already introduced in Lebanon, but it will take time for domestic refrigeration market to be changed to R-600a or any other alternative.

The Mobile air conditioning (MAC) sector accounts for major share of the country's use of refrigerant R-134a and alternatives are not well known and are not widely/freely available (except for the case of HFO-1234yf which is still not commercially available), therefore, it is expected to stay with HFCs (R-134a) in this sector for some time to come.

Further, Lebanon is a middle-income country and moving rapidly on the development ladder. This in turn has increased the demand for household refrigerators, residential air conditioning system and with the increase of the automobile fleet the MAC sector demand will grow at a very rapid rate. However, with the increasing impact of climate change in Lebanon and other countries, a proper direction from the government and the authorities will be forthcoming for replacing high GWP-refrigerants. In order to achieve this, decision makers will have to be informed properly on the subject. This will help bring up a policy decision towards low-GWP technologies.

The table above sheds some light towards the main sectors that the phasedown plan should focus on, however, additional updated information towards the alternatives and strategies for the technologies to be introduced should be performed.

14. Activities to be undertaken for project preparation and funding

Activity	Indicative funding (US \$)	Lead Agency
Conducting interviews, organizing workshops and stakeholders' consultations for the integration of national regulations and procedures for KA implementation and consolidation of technical capacities in the institutions involved in HFC control	20,000	UNDP
Assessment of country level needs for trainings and certification in use of flammable refrigerants, developing training plan and organizing workshops with main stakeholders and training institutions; including assessments of the needs for enhancing training programs on recovery, recycling and destruction	25,000	UNDP
Data collection by sector/sub-sector/HFC substance	65,000	UNDP
Analysis of the sectorial distribution and consumption trends of HFCs (pure and blends).	20,000	UNDP
Consultations, review and validation of the consolidated overarching HFC phase down strategy	20,000	UNDP
TOTAL	150,000	

15. How will activities related to the stage II of the HPMP implementation be considered during project preparation for the HFC phase-down management plan?

The Stage II HPMP for Lebanon was approved at the 75th meeting of the ExCom and HCFCs will be phased-out at 75 % by 2025. The activities in the stage II HPMP focus on the sustainable phaseout in the use of HCFCs and, to the extent possible, promote the safe use of low-GWP alternatives. The stage II HPMP for Lebanon is being implemented by the Ministry of Environment (MoE) and supported by UNDP.

It is expected that there will be synergies among the HPMP and the HFC phase-down, particularly in regard to capacity building for technicians, which can be to a certain extent integrated for alternatives to HCFCs and HFCs. However, it is important to note that HCFC phase-down can be achieved by applying currently available non-flammable /non-toxic technologies, mainly the HFCs. The HFC phase-down is a much more complex task as it requires inevitably the full-scale introduction of flammable and/or toxic refrigerants in Lebanon. The safe handling of these substances by ALL technicians in the country is a task of a completely

different magnitude compared to what has been seen before. This includes not only the training of technicians, but an associated update / introduction of standards, safety guidelines, regulation, etc. for the safe handling of refrigerants.

The NOU sees the main synergy is being achieved by coordinating all the activities by the same governmental entity – MoE in this case – for both the HPMPs and the HFC phase down.

The funding request has been based on existing HCFC PRP funding guidelines. The government of Lebanon and UNDP believe that additional resources would be needed to fully conduct the preparation work that is needed for all the tasks listed in this document.

PROJECT CONCEPT – NIGERIA

**MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
HFC PROJECT PREPARATION REQUEST FORM
HFC Phase-down Management plan (OVERARCHING)**

Part I: Project Information

Project title:	HFC Phase-Down Management Plan Preparation	
Country:	NIGERIA	
Lead Implementing agency:	UNDP	
Cooperating Agency	UNEP	
Implementation period:	January 2021 – June 2022	
Funding requested:	US\$ 195,000	
Agency	Sector	Funding requested (US \$)*
UNDP	Overarching	137,000
UNEP	Overarching	58,000

*Details should be consistent with information provided in the relevant sections below.

Part II: Prerequisites for submission

Item	Yes	No
16. Official endorsement letter from Government for choice of agency	<input checked="" type="checkbox"/>	<input type="checkbox"/>
17. Nigeria ratified the KA.	<input checked="" type="checkbox"/>	<input type="checkbox"/>

D. Information required to support PRP funding (Overarching strategy)

<p>5. Brief background on previous activities related to the Kigali amendment and the HFC phase-down</p> <p>In 2016, with MLF funding, Nigeria in collaboration with UNEP, conducted an ODS Alternatives survey in response to decision XXVI/9 of the Meeting of Parties to the Montreal Protocol with funding support from the MLF after approval at the 74th meeting of its ExCom. This complemented the HFC survey conducted by Nigeria and UNDP with CCAC funding (completed in 2015). The ODS alternatives survey enabled Nigeria to better understand her historical consumption and predict future consumption trends of ODS & HFC Alternatives in different sectors and sub-sectors. The survey gave some background on the availability of some HFC alternatives in the country.</p> <p>Following the outcomes of the 80th Meeting of the Executive Committee of the Multilateral Fund for the Implementation of the Montreal Protocol and subsequently Decision 80/50(e), funding was approved for Nigeria to carry out <i>Enabling Activities for HFC phase-down</i> to facilitate the early ratification of the Kigali Amendment (KA). The specific objectives of the Enabling Activities Project were to raise awareness amongst stakeholders on the need to ratify the Kigali Amendment at the earliest possible time, build capacity of HFC stakeholders and policy makers for adoption of HFC refrigerants and to update ODS legislation, incorporate Customs Codes for HFCs and Quota System to facilitate monitoring of HFCs importation and Develop ODS Alternatives Data Hub. Nigeria, in collaboration with UNEP, has completed its activities for the EA project and since ratified the Kigali Amendment in 2018.</p>
<p>6. Current progress in implementation of Enabling Activities for HFC phase-down Budget: 250,000 USD</p> <p>The Enabling Activities project for HFC phasedown for Nigeria commenced in 2018 and ended in 2020. In order to make stakeholders aware of the benefits of the Kigali Amendment and need to ratify it, a number of Stakeholders consultation meetings and awareness programmes were carried out, to facilitate the ratification process at national level. These initiated the process and stakeholders' readiness to cooperate with the government. Consultants were engaged to carry out various needs assessments, and to provide technical assistance to the NOO to carry out the agreed activities. Awareness workshops were conducted for major HFC and HFC alternatives importers, RAC associations, customs and users on the provisions of the Kigali Amendment and the benefits of its ratification. Awareness workshops were also conducted for the various stakeholder agencies of the government on the need to ratify the Kigali amendment. The Department of</p>

Pollution Control and the NOO held several meetings with the Honourable Minister of Environment and made presentations on the Kigali Amendment. There were also collaborations between the legal unit of the Federal Ministry of Environment and the Federal Ministry of Justice regarding drafting of the ratification documents and other necessary documents.

The Minister of Environment presented the council memo to the Federal Executive Council on the importance of the Kigali Amendment and the need for Nigeria to ratify the Amendment. The Federal Executive Council convinced on the need to ratify the Amendment recommended that the president sign the Kigali Amendment. Other judicial processes were followed by the cabinet office in the presidency.

Thereafter, the President on behalf of the Federal Republic of Nigeria ratified the Kigali Amendment to the Montreal Protocol on 26th October 2018 and the instrument of ratification has since been deposited to the UN General Assembly.

18. Overview of estimated use of ODS alternatives:

Based on the ODS Alternatives Survey completed in 2016, the uses can be broken down as follows:

Estimated use by ODS Alternative (Metric Tonnes)

Alternatives	Estimated use (Mt)			
	2012	2013	2014	2015
HFC*				
HFC-134a	789.87	687.20	666.70	638.84
HFC blends				
R-404A	41.00	50.66	64.23	13.50
R-407C	46.21	50.66	54.20	58.96
R-410A	47.35	50.10	54.20	55.10
R-507A				
HFO				
Other alternatives				
HC-290	10.02	41.47	26.42	92.29
HC-600a	772.66	1988.32	2720.85	220.81
R-744	7.06	2.43	549.40	1.64
R-717	1150.80	878.11	2242.85	1942.08

19. Based on the consumption data given above, please provide a description of the sector/sub-sector that use HFCs in the country, including a short analysis and explanation of the consumption trends (i.e., increasing or decreasing)

The commonest HFC on the Nigeria market is R-134a used in refrigeration, mobile air-conditioning, stationary air-conditioning, domestic refrigeration, and transport.

The most common blend in the country is R-410A, which comes in different names as Puron, Suva 410A, Genetron AZ20, Forane 410A, or Klea 66. It is a blend of HFC-32 and HFC-125 in 50/50 percent by weight. R-410A is being used as a replacement for R-22 by some air-conditioning manufacturing outfits.

The sectors that use HFCs are described as follows:

Domestic Refrigeration- In Nigeria, the most widely used refrigerant in the domestic refrigeration sub sector is HFC-134a which is used in servicing of some stand-alone units such as fridges and freezers.

The use of R-600a in domestic refrigeration is slowly increasing in servicing of domestic refrigeration appliances. Some imported domestic fridges are now charged with R-600a. The Government is taking steps to produce HC refrigerants (R-290 and R-600a) in a large scale from the HC plant established in the country with support from the MLF. Once the Plant is commercialized and training and certification of RAC technicians on the safe use of HC refrigerants which is planned for stage 2 of the HPMP to commence in 2020 is achieved, the use of HC refrigerants in the RAC servicing and RAC manufacturing sectors in Nigeria is expected to sharply increase.

Commercial & Industrial Refrigeration- This includes ice-makers, cold room/stores, display cabinets, refrigerated transport (trucks, vans), fishing trawlers, and industrial refrigeration. The use of R-404A is also common in some large applications and for servicing some commercial refrigerators.

Transport Refrigeration- R-134a and R-404A are the main refrigerants used in transport refrigeration in the country with R-404A being used in newer refrigerated trucks. The refrigerants are used in refrigerated trucks and railway wagons.

Refrigeration & Air-conditioning Manufacturing- The Refrigeration & Air-conditioning Manufacturing Sector in Nigeria comprises of manufacturers of ice cube making machines, cold rooms/houses and manufacturers of Air-conditioners. The major HFC used is HFC-134a. Others include R-404a, R-410A, among others. R-410A is being used as a replacement for R-22 by some air-conditioning manufacturing outfits in Nigeria. R-404A is used in the manufacturing and servicing of commercial refrigeration appliances such as cold rooms and freezers.

Currently (2020), use of HFCs is decreasing in several sectors. R-600a is now more used in domestic refrigeration than HFC-134a, thus, the use of HFC-134a and other HFCs is decreasing steadily in this sector. This is due to findings that R600a is cheaper for the RAC practitioners and seen to be more effective in domestic refrigerators, compared to R-134a.

Use of R-410a is increasing in the Air conditioning sector, while R-134a and R-404a use is increasing in the cold storage and chiller applications respectively.

20. Activities to be undertaken for project preparation and funding

UNDP budget: USD 137,000 – UNEP budget: USD 58,000

Activity	Indicative funding (US \$)	Lead Agency
Stakeholder consultation: Consultant to prepare and conduct questionnaires and interviews with relevant stakeholders to update available data on ODS alternatives; Conducting interviews, organizing workshops and stakeholders' consultations for the integration of national regulations and procedures for KA implementation and consolidation of technical capacities in the institutions involved in HFC control	45,000	UNDP
HFC phase-down strategy development: Technical and legal experts to prepare all legal and technical documents, consult all key stakeholders and develop detailed strategy, including assessment of needs to develop/update trainings and certification scheme in use of flammable refrigerants, developing training plan and organizing workshops with main stakeholders and training institutions, including assessments of the needs for enhancing training programs on recovery, recycling and destruction	20,000	UNDP
	20,000	UNEP
Data collection by sector/sub-sector/HFC substance	47,000	UNDP

Communication and outreach plan: Preparation of a comprehensive communication and outreach plan in consultation with key stakeholders including hotel managers, investors, building planners, end-users, consumer associations, RAC associations, private sector, supermarkets, cold chain, media experts etc. The plan will focus on technology and policy awareness raising to influence the investment and user behavior.	18,000	UNEP
Capacity building activities related to RAC sector activities and enforcement: Review and assessment of innovative tools and approaches to build the capacity of relevant actors including OzonAction's tools related to HFC phase-down, review of training curricula of vocational schools, university and customs, online training and certification tools, participation of key stakeholders in international conferences, review of energy-efficiency and performance standards, case studies, public procurement policies, potential impact of incentives and taxes, gender considerations, HFC-free labeling, equipment inventories / logbooks, potential of not-in-kind alternatives etc.	20,000	UNEP
Inception and Validation	25,000	UNDP
TOTAL	195,000	
21. How will activities related to the stage II of the HPMP implementation be considered during project preparation for the HFC phase-down management plan?		
<p>The second stage of the HPMP covers the period up to 2023 and has already been approved (agencies: UNDP as lead; cooperating: UNIDO and Government of Italy); it aims at a phase-out of 51.35% of HCFC consumption by 2023. Stage 3 is in preparation, to reach 67.5% HCFC phase-out by 2025.</p> <p>The Ozone Unit will also oversee the preparation of the overarching strategy for the HFC phase down in Nigeria and subsequent implementation.</p> <p>It is expected that there will be synergies among the HPMP and the HFC phase-down. However, it is important to note that HCFC phase-down can be achieved by applying currently available non-flammable / non-toxic technologies, which are mainly HFCs. The HFC phase-down is a much more complex task as it requires inevitably the full-scale introduction of flammable and/or toxic refrigerants in Nigeria.</p> <p>Additionally, some other technologies are not even available in the country and the technical knowledge needs to be created from the ground.</p> <p>The safe handling of these substances by all technicians, designers and end-users in the country is a task of a completely different magnitude compared to what has been seen before. This includes not only the training of technicians, but an associated update / introduction of standards, safety guidelines, regulation, etc. for the safe handling of refrigerants. Nigeria is dedicated to these changes, but these are demanding tasks.</p> <p>There will be synergy by coordinating all the activities by the same governmental entity – the National Ozone Office in this case – for both the HPMPs and the HFC phase-down.</p> <p>The funding request has been based on existing HCFC PRP funding guidelines. It is believed that additional resources would be needed to fully conduct the preparation work that is needed for all the tasks listed in this document.</p>		
22. How will the Multilateral Fund gender policy be considered during project preparation?		
<p>The Government of Nigeria is aware of the Multilateral Fund gender policy contained in ExCom document 84/73, and the related Executive Committee decision 84/92. During project preparation, relevant stakeholders will be sensitized on the gender policy. Efforts will be made to encourage women experts to attend training and awareness activities. The HFC phase-down plan and related activities shall be gender-sensitive. To the extent possible, gender-disaggregated data will be collected.</p>		

PROJECT CONCEPT – Peru

**MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
HFC PROJECT PREPARATION REQUEST FORM
HFC Phase-down Management plan (OVERARCHING)**

Part I: Project Information

<u>Project title:</u>	<u>HFC Phase-Down Management Plan Preparation</u>	
<u>Country:</u>	<u>Peru</u>	
<u>Lead Implementing agency:</u>	<u>UNDP</u>	
<u>Cooperating Agency</u>		
<u>Implementation period:</u>	<u>January 2021 – June 2022</u>	
<u>Funding requested:</u>		
<u>Agency</u>	<u>Sector</u>	<u>Funding requested (US \$)*</u>
<u>UNDP</u>	<u>Overarching</u>	<u>150,000</u>

*Details should be consistent with information provided in the relevant sections below.

Part II: Prerequisites for submission

Item	Yes	No
23. Official endorsement letter from Government for choice of agency	<input checked="" type="checkbox"/>	<input type="checkbox"/>
24. Letter of intent to ratify the KA – Peru ratified the KA.	<input checked="" type="checkbox"/>	<input type="checkbox"/>

E. Information required to support PRP funding (Overarching strategy)

<p>7. Brief background on previous activities related to the Kigali amendment and the HFC phase-down</p> <p>Following the outcomes of the 80th Meeting of the Executive Committee of the Multilateral Fund for the Implementation of the Montreal Protocol and subsequently Decision 80/50(e), funding was approved for Peru for <i>Enabling Activities to prepare for the HFC phase-down</i> and to assure the early ratification of the Kigali Amendment (KA) which happened on May 23, 2018.</p> <p>Taking into consideration that the Kigali Amendment to the Montreal Protocol came into force on the 1st of January 2019, and that Peru has updated its reporting mechanism to include HFCs, the country will be able to follow up on the standard reporting obligation under the Kigali Amendment. Peru has already created an enabling environment for the phasedown of HFCs.</p> <p>Likewise, under the aforementioned project, it should be noted that information was obtained on the consumption and use of HFCs and their substitutes for the period 2013-2018; as well as an estimate of its imports by 2030. In addition, the economic evaluation of the implications that the implementation of the Kigali amendment would generate in the country was estimated. All this, focused on the consumption of said substances in the refrigeration and air conditioning sector, pending the collection of information in sectors such as the production of foams, solvents, aerosols, fire fighting and others that are identified as consuming HFCs.</p>
<p>8. Current progress in implementation of Enabling Activities for HFC phase-down Budget: 150,000 USD</p> <p>In the Project “Enabling Activities for the Kigali Amendment”, activities were carried out, including the following:</p> <ul style="list-style-type: none"> • Evaluation and analysis to adapt the existing licensing system, which is applicable for HCFCs, in order to implement control for HFCs. • Preparation of the proposal to open tariff codes for HFCs, in order to have specific codes for each type of HFC substance. • Dissemination activities on the commitments made in the framework of the Kigali Amendment and the promotion of environmentally friendly alternatives to HFCs. • Collection of information on HFC consumption in the refrigeration and air conditioning sector.

In this sense, it is necessary to complement the information on the consumption of HFCs, focusing on the uptake of the consumption of these substances in the foam, solvent, aerosol, firefighting and other production sectors; as well as, identify their training and certification needs, which will constitute inputs for the elaboration of the national strategy that will allow the country to comply with the first stage of the HFC gradual reduction calendar.

25. Overview of estimated use of ODS alternatives 2016 – 2018 in Mt

Information on the consumption of HFCs was obtained under the activities of the “Enabling Activities for the Kigali Amendment” project, which is detailed in the following table, which specifies each type of HFC that is used as a refrigerant in the sector refrigeration and air conditioning. In this sense, according to what has been indicated above, is important to obtain information on the consumption of HFCs in other sectors in order to identify them, evaluate their consumption, the available alternatives and thus form part of the national strategy that allows the country compliance with the first control measures for HFCs, related to freezing and a 10% reduction in the consumption of these substances.

Substance	2016 (kg)	2017 (kg)	2018 (kg)
HFC-134a	272,391.48	282,891.86	259,199.03
HFC-404A	98,180.92	42,847.27	76,654.54
HFC-410A	109,906.03	34,537.31	79,571.35
HFC-407C	27,185.89	10,989.77	19,752.31
HFC-507	93,717.87	72,429.23	146,015.13
HFC-422D	32,330.95	454.00	9,299.86
HFC-508	0.00	36.50	0.00
HFC-437A	1,050.12	1,683.75	4,260.63
HFC-438A	0.00	1,454.00	0.00
Total (Kg)	634,763.26	447,323.69	594,752.85

26. Based on the consumption data given above, please provide a description of the sector/sub-sector that use HFCs in the country, including a short analysis and explanation of the consumption trends (i.e., increasing or decreasing)

The following table details the main refrigeration and air conditioning sub-sectors that consume HFCs (data available 2016 and 2017), these being the commercial refrigeration subsector and the commercial air conditioning subsector. However, the main uses of HFCs are distributed as follows:

The HFC consumption in MT has increased by 15 % from 2016 to 2018. Main uses of HFCs are distributed as follows:

Sector	2016	2017
MAC	0.28%	0.12%
Commercial AC	33.42%	26.18%
Residential AC	3.07%	2.35%
Industrial AC	0.01%	0.01%
Commercial Refrigeration	48.83%	56.72%
Domestic Refrigeration	10.24%	8.69%
Industrial Refrigeration	0.20%	1.38%
Transport Refrigeration	3.94%	4.55%

Studies performed during the implementation of the Kigali EA have shown the distribution of HFC consumption among the following sectors:

Sector	2016	2017	Total
MAC	0.31%	0.13%	0.22%
R-134a (HFC-134a)	0.25%	0.13%	0.19%
R-410A (HFC-410A)	0.06%	0.00%	0.03%

Commercial AC	31.47%	26.44%	29.04%
R-134a (HFC-134a)	3.17%	3.67%	3.41%
R-32 (HFC-32)	0.06%	0.03%	0.05%
R-404A (HFC-404A)	0.06%	0.00%	0.03%
R-407A (HFC-407A)	0.03%	0.05%	0.04%
R-407C (HFC-407C)	0.60%	0.24%	0.42%
R-410A (HFC-410A)	27.56%	22.45%	25.09%
Residential AC	2.57%	2.36%	2.46%
R-410A (HFC-410A)	2.57%	2.36%	2.46%
Industrial AC	0.01%	0.02%	0.02%
R-407C (HFC-407C)	0.01%	0.02%	0.02%
Commercial Refrigeration	50.13%	56.49%	53.20%
R-1270 (100% PROPYLENO)	0.00%	0.02%	0.01%
R-134a (HFC-134a)	22.03%	22.19%	22.11%
R-143a (HFC-143a)	0.03%	0.05%	0.04%
R-23 (HFC-23)	0.01%	0.02%	0.02%
R-290 (HC-290)	1.01%	2.48%	1.72%
R-404A (HFC-404A)	18.82%	22.44%	20.57%
R-407A (HFC-407A)	0.03%	0.08%	0.05%
R-407C (HFC-407C)	0.06%	0.11%	0.08%
R-407D (HFC-407D)	0.00%	0.02%	0.01%
R-410A (HFC-410A)	0.23%	1.57%	0.88%
R-417A (HFC-417A)	0.01%	0.05%	0.03%
R-422B (HFC-422B)	0.01%	0.00%	0.01%
R-507A (HFC-507A)	4.06%	3.27%	3.68%
R-508B (HFC-508B)	0.56%	0.44%	0.50%
R-600a (HC-600a)	2.29%	2.29%	2.29%
R-717 (AMONIACO)	0.79%	0.50%	0.65%
R-744 (CO2)	0.18%	0.99%	0.57%
Domestic Refrigeration	11.08%	9.22%	10.18%
R-134a (HFC-134a)	8.16%	6.09%	7.16%
R-600a (HC-600a)	2.92%	3.12%	3.02%
Industrial Refrigeration	0.22%	0.58%	0.39%
R-134a (HFC-134a)	0.06%	0.13%	0.09%
R-23 (HFC-23)	0.00%	0.02%	0.01%
R-404A (HFC-404A)	0.01%	0.17%	0.09%
R-407C (HFC-407C)	0.04%	0.05%	0.05%
R-507A (HFC-507A)	0.09%	0.14%	0.11%
R-717 (AMONIACO)	0.01%	0.05%	0.03%
R-744 (CO2)	0.00%	0.03%	0.02%
Transport Refrigeration	4.21%	4.77%	4.48%
R-134a (HFC-134a)	0.62%	0.38%	0.50%
R-404A (HFC-404A)	3.56%	4.40%	3.96%
R-507A (HFC-507A)	0.03%	0.00%	0.02%
Total	100.00%	100.00%	100.00%

The table above sheds some light towards the main sectors that the phasedown plan should focus on, however, additional information towards the alternatives and strategies for the technologies to be introduced should be performed.

Finally, the MAC sector in Peru played an important role during CFC phase-out but there have been no activities in this sector in the past 10 years as HCFCs are not used in MAC. It will be important to better understand the dynamics of this sector as it is a key sector in the country.

27. Activities to be undertaken for project preparation and funding		
Activity	Indicative funding (US \$)	Lead Agency
Collection of information on consumption of HFCs and its substitutes in sectors pending analysis such as foam production, solvents, aerosols, fire fighting and others that are identified, which is through the execution of interviews and surveys that they make it possible to determine the sectoral distribution and consumption projections of HFCs in their pure state and in mixtures; specifically, the development of an economic evaluation of the replacement of HFCs to environmentally friendly substitutes in the controlled sectors	60,000	UNDP
Assessment of training and certification needs at the country level in the use of flammable refrigerants, development of a training plan and organization of workshops with the main stakeholders and training institutions.	40,000	UNDP
Preparation of the national strategy for the gradual reduction of HFCs, which includes the evaluation and identification of sectors to prioritize, which must include the analysis of emission reductions (CO ₂ -equiv.) according to the potential of global warming (GWP) that each substance has, the uses and the availability of alternatives in each sector.	20,000	UNDP
Dissemination and awareness-raising actions for the actors involved, in order to present the results obtained on the consumption of HFCs and to raise awareness of them in order to reduce them.	30,000	UNDP
TOTAL	150,000	
28. How will activities related to the stage II of the HPMP implementation be considered during project preparation for the HFC phase-down management plan?		
<p>The Stage II HPMP for Peru was approved at the 80th meeting of the ExCom and HCFCs will be phased-out (67.5 %) by 2025. The activities in the stage II HPMP focus on the sustainable phaseout in the use of HCFCs and, to the extent possible; promote the safe use of low GWP alternatives. The stage II HPMP for Peru is being implemented via the National Implementation Modality (NIM) by the Ministry of Production of Peru (PRODUCE).</p> <p>It is expected that there will be synergies among the HPMP and the HFC phase-down. However, it is important to note that HCFC phase-down can be achieved by applying currently available non-flammable /non-toxic technologies mainly the HFCs. The HFC phase down is a much more complex task as it requires inevitably the full scale introduction of flammable and/or toxic refrigerants in Peru. The safe handling of these substances by ALL technicians in the country is a task of a completely different magnitude compared to what has been seen before. This includes not only the training of technicians, but an associated update / introduction of standards, safety guidelines, regulation, etc. for the safe handling of refrigerants.</p> <p>UNDP sees the main synergy are being achieved by coordinating all the activities by the same governmental entity – PRODUCE in this case – for both the HPMPs and the HFC phase down.</p> <p>The funding request has been based on existing HCFC PRP funding guidelines. The government of Peru and UNDP believe that additional resources would be needed to fully conduct the preparation work that is needed for all the tasks listed in this document.</p>		