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执行蒙特利尔议定书
多边基金执行委员会
第八十三次会议
2019 年 5 月 27 日至 31 日，蒙特利尔

开发计划署 2019 年工作方案

基金秘书处的评论和建议

1. 开发计划署请执行委员会为表 1 所列其 2019 年工作方案核准 1,356,256 美元，外加 94,938 美元的机构支助费用。来文随附于本文件之后。

表 1：开发计划署 2019 年工作方案

国　别	活动/项目	申请数额（美元）	建议数额（美元）
A 节: 建议一揽子核准的活动			
A1: 延长体制强化项目			
孟加拉国	延长体制强化项目（第九阶段）	166,400	166,400
智利	延长体制强化项目（第十三阶段）	238,784	238,784
哥伦比亚	延长体制强化项目（第十二阶段）	352,768	352,768
古巴	延长体制强化项目（第十一阶段）	190,804	190,804
特立尼达和多巴哥	延长体制强化项目（第十阶段）	85,000	85,000
	A1 小计	1,033,756	1,033,756
	机构支助费用（占体制强化的 7%）	72,363	72,363
	A1 小共	1,106,119	1,106,119
A2: 氟氯烃淘汰管理计划的项目编制			
多米尼加共和国	氟氯烃淘汰管理计划（第三阶段）的编制工作	60,000	60,000
斯威士兰共和国*	氟氯烃淘汰管理计划（第三阶段）的编制工作	10,000	10,000
尼日利亚**	氟氯烃淘汰管理计划（第三阶段）的编制工作	22,500	22,500
巴拿马	氟氯烃淘汰管理计划（第三阶段）的编制工作	60,000	60,000
乌拉圭	氟氯烃淘汰管理计划（第三阶段）的编制工作	60,000	60,000
赞比亚*	氟氯烃淘汰管理计划（第二阶段）的编制工作	20,000	20,000
	A2 小计	232,500	232,500
	机构支助费用（占项目编制的 7%）	16,275	16,275
	A2 共计	248,775	248,775
B 节：建议单独审议的活动			
B1: 氢氟碳化物相关项目的项目编制（第 78/3 号决定(g)段）			
印度尼西亚	家用制冷剂制造中 HFC-134a 的转换	30,000	***
黎巴嫩	黎巴嫩 Leon Industries S.A.R.L.超市商用制冷机的 R-404A 的转换	30,000	***
巴基斯坦	HFC-134a 转换为 R-600a/R-290，作为巴基斯坦拉合尔 PAK Elektron Limited 有限公司制造冷柜、家用制冷机和饮水机的制冷剂	30,000	***
	B1 小计	90,000	***
	机构支助费用（占扶持活动的 7%）	6,300	***
	B1 共计	96,300	***
	合计（A1、A2、B1）	1,451,194	1,354,894

* 环境规划署为牵头执行机构
** 工发组织为执行机构
*** 供单独审议

A 节：建议一揽子核准的活动

A1：体制强化

项目说明

2. 开发计划署提交了表 1 的 A1 节所列各国体制强化项目延长申请。这些项目的说明载于本文件的附件一。

秘书处的评论

3. 秘书处参照有关供资资格和资金数额的准则和相关决定，审查了开发计划署代表有关国家政府提交的 5 项延长体制强化项目的申请。秘书处对照前一阶段原先的体制强化工作计划、国家方案和第 7 条数据、上一份氟氯烃淘汰管理计划执行情况报告、各机构的进展报告以及缔约方会议的任何相关决定，反复核实了这些申请。秘书处注意到，这些国家提交了它们的 2017/2018 年国家方案数据，并遵守了《蒙特利尔议定书》规定的管制目标，其年度氟氯烃消费量未超过各国与执行委员会分别签订的氟氯烃淘汰管理计划协定中所示年度最高允许消费总量。此外，所有提交的申请都按照第 74/51 号决定(e)段包含了体制强化项目下一阶段计划活动的业绩指标。

秘书处的建议

4. 秘书处建议依照本文件表 1 的 A1 节所示供资数额一揽子核准孟加拉国、智利、哥伦比亚、古巴和特立尼达和多巴哥的体制强化延长申请。执行委员会不妨向上述国家政府转达本文件附件二中的评论。

A2：氟氯烃淘汰管理计划的项目编制

项目说明

5. 作为指定执行机构，并作为尼日利亚的的牵头执行机构（工发组织为合作执行机构），开发计划署代表 3 个国家（多米尼加共和国、巴拿马和乌拉圭）提交了编制氟氯烃淘汰管理计划第三阶段的申请。此外，如表 1 的 A2 节所示，开发计划署还作为合作执行机构（环境规划署为牵头执行机构），代表两个国家（斯威士兰和津巴布韦）提交了编制氟氯烃淘汰管理计划第二阶段的供资申请。

6. 开发计划署提供了活动的说明，用以支持这些国家项目编制工作的申请，开发计划署是这些国家的指定/牵头执行机构。为各国提交的文件包括：申请项目编制资金的理由；关于各国氟氯烃淘汰管理计划执行情况的进展报告；以及可能活动的清单和相应预算。作为斯威士兰和津巴布韦的牵头执行机构，开发计划署在其 2019 年工作方案中申请了 60,000 美元，外加机构支助费用。[1] 作为尼日利亚的合作机构，工发组织在其 2019 年工作

[1] UNEP/OzL.Pro/ExCom/83/18。

方案中申请了 72,500 美元，外加机构支助费用。[2]

秘书处的评论

7. 在审查 6 项申请时，秘书处考虑了：第 71/42 号决定所载第 5 条国家氟氯烃淘汰管理计划第二阶段编制工作的供资准则，已核准的氟氯烃淘汰管理计划第二阶段，编制本文件时各次付款的执行情况以及第 82/45 号决定(c)(i)段。[3] 秘书处注意到，为各国申请的资金符合第 71/42 号决定，开发计划署并确认，这些国家的剩余付款申请将依照《协定》的安排提交。

8. 关于尼日利亚的申请，秘书处注意到，执行委员会在第八十二次会议上同意将氟氯烃淘汰管理计划第三阶段的项目编制纳入为那些氟氯烃淘汰管理计划第二阶段超出 2020 年的国家编制的 2019–2021 年综合业务计划，但有一项谅解，即不得在氟氯烃淘汰管理计划第二阶段结束日期之前的两年以前提交项目编制申请。[4] 尽管尼日利亚的申请是在其氟氯烃淘汰管理计划结束日期之前两年以前提交，[5] 但秘书处注意到，第二阶段核准时有一项谅解，即核准第二阶段并不排除尼日利亚不晚于 2020 年提交氟氯烃淘汰管理计划第三阶段。[6] 因此，秘书处同意可以在本次会议上提交项目编制申请。

9. 开发计划署确认多米尼加共和国、巴拿马、尼日利亚和乌拉圭的氟氯烃淘汰管理计划第三阶段将符合 2025 年 67.5%目标的最低要求。

秘书处的建议

10. 秘书处建议按表 1 的 A2 节所示供资金额，一揽子核准多米尼加共和国、巴拿马、尼日利亚和乌拉圭氟氯烃淘汰管理计划第三阶段的项目编制以及斯威士兰和津巴布韦氟氯烃淘汰管理计划第二阶段的项目编制。

B 节：建议单独审议的活动

B1：氢氟碳合物相关项目的项目编制（第 78/3 号决定(g)段）

项目说明

11. 开发计划署提交了上文表 1 的 B1 节所列 3 项项目编制申请，即：印度尼西亚家用制冷机制造由 HFC-134a 转换为低全球升温潜能值制冷剂；黎巴嫩超市商用制冷制造的 R-404A 转换；巴基斯坦冰柜、家用制冷机和饮水机商用制造的 HFC-134a 转换。项目编制申请的细节载于本报告所附开发计划署的来文。

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[2] UNEP/OzL.Pro/ExCom/83/19。

[3] 2019–2021 年综合业务计划中列入氟氯烃淘汰管理计划第三阶段仅适用于其已核准氟氯烃淘汰管理计划第二阶段实现了 2020 年减少目标的国家。

[4] 第 82/45 号决定(c)(ii)段。

[5] 2024 年 12 月 31 日。

[6] 第 81/40 号决定(c)段。

秘书处的评论

12. 秘书处根据第 78/3 号决定(g)段、第 79/45 号决定(b)段和第 81/53 号决定(b)段审查了项目编制，并注意到：

(a) 所申请资金符合与项目编制供资相关的有关决定；

(b) 为印度尼西亚和黎巴嫩所提申请未列入开发计划署 2018 年至 2020 年业务计划，因此，所提文件没有完全达到第 79/45 号决定(b)段的要求；[7]

(c) 为印度尼西亚和巴基斯坦所提申请，是很多已获核准氢氟碳化物投资项目用途（即在总共 10 个已核准投资项目中，7 个为家用制冷；因此，这些要求不符合第 81/53 号决定(b)段；[8]

(d) 黎巴嫩在第八十一次会议期间已经获得一个氢氟碳化物相关投资项目的资金，但有一项谅解，即：如果纽约联合国总部文档处未收到批准书，将不向黎巴嫩提供与氢氟碳化物相关投资项目的进一步资金；以及

(e) 根据第 81/53 号决定(b)段，应向第八十四次会议提交完整的项目提案。

13. 针对未列入业务计划的项目的问题，开发计划署要求灵活处理，同时指出，核准未列入业务计划的与氢氟碳化物相关的项目是有先例的。关于印度尼西亚和巴基斯坦家用制冷转型的申请，开发计划署解释说，这些项目十分重要，因为这些项目能够让人更好地了解该区域家用制冷转型的动态、供应链和相关费用。

14. 关于黎巴嫩的情况，开发计划署表示该项目十分重要，因为它是侧重于跨临界二氧化碳制冷技术的首个项目。开发计划署提供了议会批准《基加利修正案》批准书的复印件；不过，截至编写本文件时，纽约联合国尚未记录到批准书。

15. 开发计划署还确认，如果这些项目编制申请获得核准，将全力以赴确保根据第 81/53 号决定(b)段向第八十四次会议提交这些项目。

秘书处的建议

16. 根据上文所述秘书处的评论和建议，执行委员会不妨考虑核准以下申请：

(a) 印度尼西亚家用制冷制造的 HFC-134a 转型的项目编制，金额为 30,000 美元，外加 2,100 美元的机构支助费用；

(b) 黎巴嫩 Leon Industries S.A.R.L.超市商用制冷机的 R-404A 转型的项目编制，金额为 30,000 美元，外加 2,100 美元的机构支助费用；以及

(c) 巴基斯坦拉合尔 PAK Elektron Limited 有限公司冰柜、家用制冷机和饮水机制造由 HFC-134a 转换为 R-600a/R-290 制冷剂的项目编制，金额为 30,000 美元，外加 2,100 美元的机构支助费用。

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[7] 第 79/45 号决定(b)段：应把可能举办的项目酌情纳入提交第八十次会议的双边机构和执行机构 2018-2020 年业务计划，或纳入随后的业务计划。

[8] 第 81/53 号决定(b)段：邀请各双边和执行机构编制并提交转换采用氢氟碳化物替代品和推广新技术的项目提案，以便在第八十四次会议之前（包括该次会议）提交，特别是第八十一次会议之前（包括该次会议）已核准项目未能涵盖的行业和区域。

Annex I

INSTITUTIONAL STRENGTHENING PROJECT PROPOSALS

Bangladesh: Renewal of institutional strengthening

Summary of the project and country profile			
Implementing agency:			UNDP
Amounts previously approved for institutional strengthening (US $):			
	Phase I:	Sept-94	150,000
	Phase II:	Nov-99	100,000
	Phase III:	Dec-01	100,000
	Phase IV:	Dec-04	130,000
	Phase V:	Nov-07	130,000
	Phase VI:	Jul-10	130,000
	Phase VII:	Dec-13	130,000
	Phase VIII:	Dec-16	166,400
		Total:	1,036,400
Amount requested for renewal (phase IX) (US $):			166,400
Amount recommended for approval for phase IX (US $):			166,400
Agency support costs (US $):			11,648
Total cost of institutional strengthening phase IX to the Multilateral Fund (US $):			178,048
Date of approval of country programme:			1994
Date of approval of HCFC phase-out management plan (stage I):			2011
Date of approval of HCFC phase-out management plan (stage II):			2018
Baseline consumption of controlled substances (ODP tonnes):			
Annex B, Group III (methyl chloroform) (average 1998-2000)			0.9
Annex C, Group I (HCFCs) (average 2009-2010)			72.6
Annex E, (methyl bromide) (average 1995-1998)			0.0
Latest reported ODS consumption (2017) (ODP tonnes) as per Article 7:			
Annex B, Group III (methyl chloroform)			0.00
Annex C, Group I (HCFCs)			63.33
Annex E, (methyl bromide)			0.00
		Total:	63.33
Year of reported country programme implementation data:			2017
Amount approved for projects (as at December 2018) (US $):			13,858,651
Amount disbursed (as at November 2017) (US $):			7,477,252
ODS to be phased out (as at December 2018) (ODP tonnes):			735.9
ODS phased out (as at November 2017) (ODP tonnes):			493.8

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

Summary of activities	**Funds approved (US $)**
(a) Investment projects:	9,455,248
(b) Institutional strengthening:	1,036,400
(c) Project preparation, technical assistance, training and other non-investment projects:	3,367,003
Total:	13,858,651
(d) HFC activities funded from additional voluntary contributions	3,350,823

Progress report

2. Phase VIII of the IS project for Bangladesh became operational in April 2018. The delay was due to the Government's approval process, which took longer than expected. The project continued to provide

support to strengthen the Ozone Cell; prepare and monitor all ODS and non-ODS related projects; update ODS data annually; issue ODS import permits; organize the International Ozone Day celebration and awareness raising activities; and coordinate all other related activities pertaining to the implementation of the Montreal Protocol, working closely with other national agencies and key stakeholders. The transfer of duties to a new project Director prevented the country from participating in network meetings in 2018. The funding request for the first project under the Kigali Amendment (fast-track funding) was approved for Bangladesh in November 2017 for HFC phase-down. The project is being implemented and will be completed within the stipulated time of 24 months, i.e. November 2019. Targets for all five performance indicators set by the country were fully achieved.

Plan of action

3. During phase IX of the IS project, the Government of Bangladesh will continue sustaining the achieved ODS phase-out and will make use of existing capacities to focus on defining and implementing policies and measures to systematically reduce consumption of HCFCs; control and monitor consumption of all ODS; and monitor activities under stage II HPMP in close coordination with all implementing agencies and relevant stakeholders. The IS project implements ODS policy and control measures and will carry out other awareness-raising and training activities in collaboration with the media and schools. It will also continue to disseminate the importance of ozone layer protection and its linkage to climate change. The Government is working with the refrigeration and air-conditioning (RAC) industry to implement stage II of the HPMP with low-global-warming potential (GWP) climate-friendly alternatives. Through these activities, Bangladesh will sustain the compliance of ODS phase-out and achieve HCFC phase-out control targets in 2019 and 2020.

Chile: Renewal of institutional strengthening

Summary of the project and country profile		
Implementing agency:		UNDP
Amounts previously approved for institutional strengthening (US $):		
Phase I:	Jun-92	213,000
Phase II:	Oct-96	113,500
Phase III:	Jul-98	143,500
Phase IV:	Dec-00	143,500
Phase V:	Nov-02	186,550
Phase VI:	Apr-05 and Nov-05	186,550
Phase VII:	Mar-07	186,550
Phase VIII:	Apr-09	186,550
Phase IX:	Apr-11	186,550
Phase X:	Apr-13	186,550
Phase XI:	May-15	186,550
Phase XII:	Jul-17	238,784
	Total:	2,158,134
Amount requested for renewal (phase XIII) (US $):		238,784
Amount recommended for approval for phase XIII (US $):		238,784
Agency support costs (US $):		16,715
Total cost of institutional strengthening phase XIII to the Multilateral Fund (US $):		255,499
Date of approval of country programme:		1992
Date of approval of HCFC phase-out management plan (stage I):		2011
Date of approval of HCFC phase-out management plan (stage II):		2018
Baseline consumption of controlled substances (ODP tonnes):		
Annex B, Group III (methyl chloroform) (average 1998-2000)		6.4
Annex C, Group I (HCFCs) (average 2009-2010)		87.5
Annex E, (methyl bromide) (average 1995-1998)		212.5

Summary of the project and country profile	
Latest reported ODS consumption (2017) (ODP tonnes) as per Article 7:	
Annex B, Group III (methyl chloroform)	0.00
Annex C, Group I (HCFCs)	66.20
Annex E, (methyl bromide)	0.00
Total:	66.20
Year of reported country programme implementation data:	2017
Amount approved for projects (as at December 2018) (US $):	20,930,306
Amount disbursed (as at November 2017) (US $):	14,136,420
ODS to be phased out (as at December 2018) (ODP tonnes):	1,327.2
ODS phased out (as at November 2017) (ODP tonnes):	1,011.0

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

Summary of activities		**Funds approved (US $)**
(a)	Investment Projects	12,493,680
(b)	Institutional strengthening:	2,158,134
(c)	Project preparation, technical assistance, training and other non-investment projects:	6,278,492
	Total:	20,930,306
(d)	HFC activities funded from additional voluntary contributions	150,000

Progress report

5. Phase XII of the IS project for Chile has been implemented successfully. Ozone matters are relevant within the Ministry of Environment, the National Ozone Unit (NOU) belongs to the Office of Climate Change, and the deputy Minister participates in Ozone activities. Chile, being the first country in Latin America to do so, ratified the Kigali Amendment. The NOU's work and support was key for this achievement. The country continues to implement stage II of the HPMP, working closely with local authorities and stakeholders. Multiple initiatives are underway, including the training of RAC technicians in low-GWP alternatives and good refrigeration practices. Implementation of enabling activities has begun; HCFC import and export controls are fully implemented, including formulated polyols; and the NOU is working in coordination with the National Customs service. The country also actively participated in regional and global meetings relevant to the implementation of the Montreal Protocol. Targets for all 11 performance indicators set by the country were fully achieved.

Plan of action

6. During phase XIII of the IS project, the Government of Chile will maintain the ban on CFC and halons, and the reductions made in HCFC consumption. In 2020, the NOU will initiate the prohibition of HCFC-141b and achieve its reduction targets according to the commitments under the HPMP stage II Agreement. Furthermore, the NOU will work with public and private entities to enforce the control measures on the HCFC consumption. These activities will be accompanied by investment projects, a strong training programme on good refrigeration practices and continuous public awareness activities, while preparing the country for the implementation of the Kigali Amendment. The Government of Chile will continue to actively participate in regional network and global Montreal Protocol meetings, so as to exchange information and experience that will foster the implementation of national policies and strategies for the protection of the ozone layer.

Colombia: 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	317,790
	Phase II:	Mar-98	212,000
	Phase III:	Mar-00	212,000
	Phase IV:	Nov-02	275,600
	Phase V:	Apr-05	275,600
	Phase VI:	Jul-07	275,600
	Phase VII:	Jul-09	160,767
	Phase VIII:	Jul-11	275,600
	Phase IX:	Jul-13	275,600
	Phase X:	May-15	275,600
	Phase XI:	Jul-17	352,768
		Total:	2,908,925
Amount requested for renewal (phase XII) (US $):			352,768
Amount recommended for approval for phase XII (US $):			352,768
Agency support costs (US $):			24,694
Total cost of institutional strengthening phase XII to the Multilateral Fund (US $):			377,462
Date of approval of country programme:			1994
Date of approval of HCFC phase-out management plan (stage I):			2010
Date of approval of HCFC phase-out management plan (stage II):			2015
Baseline consumption of controlled substances (ODP tonnes):			
Annex B, Group III (methyl chloroform) (average 1998-2000)			0.6
Annex C, Group I (HCFCs) (average 2009-2010)			225.6
Annex E, (methyl bromide) (average 1995-1998)			110.1
Latest reported ODS consumption (2017) (ODP tonnes) as per Article 7:			
Annex B, Group III (methyl chloroform)			0.00
Annex C, Group I (HCFCs)			148.52
Annex E, (methyl bromide)			0.00
		Total:	148.52
Year of reported country programme implementation data:			2018
Amount approved for projects (as at December 2018) (US $):			37,486,638
Amount disbursed (as at November 2017) (US $):			30,686,965
ODS to be phased out (as at December 2018) (ODP tonnes):			2053.3
ODS phased out (as at November 2017) (ODP tonnes):			1,899.1

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

Summary of activities	**Funds approved (US $)**
(a) Investment projects:	27,300,686
(b) Institutional strengthening:	2,908,925
(c) Project preparation, technical assistance, training and other non-investment projects:	7,277,027
Total:	37,486,638
(d) HFC activities funded from additional voluntary contributions	300,000

Progress report

8. During phase XI of the IS project for Colombia, the Government continued working to maintain the achievement of compliance with the Montreal Protocol's HCFC phase-out schedules. The country is achieving its HCFC consumption reduction targets through the implementation of stage II of the HPMP while maintaining the total phase-out of CFCs, halon and CTC. The process of ratification of the Kigali

Amendment began with a consultation process with all stakeholders. The Government of Colombia continued to participate actively in regional and global Montreal Protocol meetings. Targets for all 11 performance indicators set by the country were fully achieved.

Plan of action

9. Phase XII the IS project will support Colombia's compliance with its HCFC phase-out commitments, achieving the 60 per cent and 65 per cent reductions in HCFC consumption in 2020 and 2021, respectively. Activities implemented in the last few years will continue, such as: working closely with the Customs authority to achieve and maintain compliance with Montreal Protocol targets through monitoring trade, and coordinating the collection, analysis, verification and submission of progress reports on the implementation of country programmes; and strengthening the legal framework to control and monitor HCFC consumption through import/export licensing and quota systems and new regulations. Enabling activities will prepare the country for compliance with the measures of the Kigali Amendment. Synergies with climate change initiatives will enable the implementation of the Nationally Appropriate Mitigation Action for the domestic refrigeration sector in Colombia. The country contributed to the different discussions taking place at regional and international meetings, Executive Committee meetings and Meeting of the Parties.

Cuba: 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	172,000
	Phase II:	Nov-98	114,666
	Phase III:	Jul-01	114,666
	Phase IV:	Jul-03	149,066
	Phase V:	Nov-05	149,066
	Phase VI:	Nov-07	149,066
	Phase VII:	Nov-09	74,533
	Phase VIII:	Nov-11	149,066
	Phase IX:	Dec-13	149,066
	Phase X:	Nov-15	190,804
		Total:	1,411,999
Amount requested for renewal (phase XI) (US $):			190,804
Amount recommended for approval for phase XI (US $):			190,804
Agency support costs (US $):			13,356
Total cost of institutional strengthening phase XI to the Multilateral Fund (US $):			204,160
Date of approval of country programme:			1993
Date of approval of HCFC phase-out management plan (stage I):			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)			16.9
Annex E, (methyl bromide) (average 1995-1998)			50.5
Latest reported ODS consumption (2017) (ODP tonnes) as per Article 7:			
Annex B, Group III (methyl chloroform)			0.0
Annex C, Group I (HCFCs)			9.56
Annex E, (methyl bromide)			0.0
		Total:	9.56
Year of reported country programme implementation data:			2017
Amount approved for projects (as at December 2018) (US $):			17,026,719
Amount disbursed (as at November 2017) (US $):			15,664,949
ODS to be phased out (as at December 2018) (ODP tonnes):			706.1
ODS phased out (as at November 2017) (ODP tonnes):			694.1

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

Summary of activities	**Funds approved (US $)**
(a) Investment projects:	11,943,567
(b) Institutional strengthening:	1,411,999
(c) Project preparation, technical assistance, training and other non-investment projects:	3,671,153
Total:	17,026,719
(d) HFC activities funded from additional voluntary contributions	0

Progress report

11. During phase X of the IS project, the Government of Cuba made progress in implementing the phase-out of HCFCs and maintained the first reduction goal (10 per cent of the baseline). The country also began the ratification process of the Kigali Amendment, which involves the identification of relevant stakeholders within the society. There was general progress in the work plans for the projects, with important strides in the training of technicians and the provision of technical classrooms for the refrigeration and air-conditioning sector, as well as in the conversion of the production lines of plants in the polyurethane foam manufacturing sector, and in the start-up of the ODS destruction plant. All these activities were accompanied by a public awareness-raising programme on the protection of the ozone layer. Targets for all 11 performance indicators set by the country were fully achieved.

Plan of action

12. In phase XI of the IS project, Cuba will seek to consolidate the reductions achieved in HCFC consumption and continue with the implementation of the HPMP's work plans and other ongoing projects. It will seek to complete the process of ratifying the Kigali Amendment and prepare the country to start the reduction in consumption of HFCs. The Technical Ozone Office will maintain its work of integrating the national authorities involved in the control and consumption of ODS, while supporting outreach activities across the country. The country will also prepare its consumption reports and participate in meetings of the Montreal Protocol, both regionally and globally.

Trinidad and Tobago: Renewal of institutional strengthening

Summary of the project and country profile		
Implementing agency:		UNDP
Amounts previously approved for institutional strengthening (US $):		
Phase I:	Oct-96	66,000
Phase II:	Dec-00	44,000
Phase III:	Nov-02	57,200
Phase IV:	Dec-04	60,000
Phase V	Nov-06	60,000
Phase VI:	Nov-09 and Dec-10	60,000
Phase VII:	Dec-12	60,000
Phase VIII:	Nov-14	60,000
Phase IX:	Jul-17	85,000
Total:		552,200
Amount requested for renewal (phase X) (US $):		85,000
Amount recommended for approval for phase X (US $):		85,000
Agency support costs (US $):		5,950
Total cost of institutional strengthening phase X to the Multilateral Fund (US $):		90,950
Date of approval of country programme:		1996
Date of approval of HCFC phase-out management plan (stage I):		2011

Summary of the project and country profile	
Baseline consumption of controlled substances (ODP tonnes):	
Annex B, Group III (methyl chloroform) (average 1998-2000)	0.7
Annex C, Group I (HCFCs) (average 2009-2010)	46.0
Annex E, (methyl bromide) (average 1995-1998)	1.7
Latest reported ODS consumption (2017) (ODP tonnes) as per Article 7:	
Annex B, Group III (methyl chloroform)	0.00
Annex C, Group I (HCFCs)	12.22
Annex E, (methyl bromide)	0.00
Total:	12.22
Year of reported country programme implementation data:	2018
Amount approved for projects (as at December 2018) (US $):	3,770,697
Amount disbursed (as at November 2017) (US $):	2,692,014
ODS to be phased out (as at December 2018) (ODP tonnes):	141.7
ODS phased out (as at November 2017) (ODP tonnes):	120.2

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

Summary of activities		**Funds approved (US $)**
(a)	Investment projects:	1,756,303
(b)	Institutional strengthening:	522,200
(c)	Project preparation, technical assistance, training and other non-investment projects:	1,492,194
	Total:	3,770,697
(d)	HFC activities funded from additional voluntary contributions	150,000

Progress report

14. Phase IX of Trinidad and Tobago's IS project has been implemented by the NOU at the Ministry of Planning and Development. The country has implemented stage I of its HPMP with strong commitments from the public and private sectors, as well as from academia and civil society organizations. In addition, Trinidad and Tobago has an operational licensing and quota system for HCFC management and has met its reduction targets as per its Agreement with the Executive Committee. The targets for all six performance indicators set by the country were achieved.

Plan of action

15. Phase X of the IS project will provide support for the strengthening of the HCFC and licensing and quota system for the import of ODS substances. In addition, it will allow the country to continue the implementation of training programmes on good refrigeration practices and the expansion of its certification programme for RAC technicians. The country is currently developing stage II of its HPMP and relevant activities and stakeholder consultations will be carried out for the proper development of a strategy that will allow the country to continue its effective path toward ODS management and phase-out. The NOU will continue participating in global and regional network meetings, training sessions and high-level meetings for the promotion of Montreal Protocol activities in the country.

附件二

执行委员会就提交第八十三次会议的体制强化项目延长所表示的意见草案

孟加拉国

1. 执行委员会审查了提交的报告，其中载有孟加拉国体制强化项目（第六阶段）延长的申请，并注意到孟加拉国政府分别向基金和臭氧秘书处报告了 2016 年和 2017 年国家方案数据和第 7 条数据，并指出该国遵守了《蒙特利尔议定书》。执行委员会还注意到，该国政府承诺在核准之日到 2019 年 3 月完成氟氯烃淘汰管理计划第一阶段之间的 24 个月期间内，完成已商定的与氢氟碳化物相关的投资活动。执行委员会注意到，该国完成了与执行委员会的《协定》中确定的氟氯烃淘汰目标，执行委员会因此相信孟加拉国政府经继续执行控制氟氯烃进口的既定管制措施，以确保有效执行氟氯烃淘汰管理计划第二阶段和实现《蒙特利尔议定书》规定的到 2020 年 1 月削减 35%的氟氯烃消费量。

智利

2. 执行委员会审查了提交的报告，其中载有智利体制强化项目（第十三阶段）延长的申请，并注意到智利政府分别向基金和臭氧秘书处报告了 2017 年国家方案数据和第 7 条数据，并指出该国遵守了《蒙特利尔议定书》。执行委员会还注意到，智利政府通过实行许可证和配额制度和开展海关官员和制冷技师培训，继续执行了氟氯烃进口管制。执行委员会还赞赏地注意到《基加利修正案》得到批准以及为促进改修正案的执行而开展的活动。执行委员会还注意到该国参加了区域网络和《蒙特利尔议定书》的会议。执行委员会注意到智利政府的努力，并希望在今后两年内，智利政府将继续执行氟氯烃淘汰管理计划第二阶段和体制强化项目活动，以实现与执行委员会的《协定》中确定的到 2020 年 1 月削减 45%的氟氯烃消费量。

哥伦比亚

3. 执行委员会审查了提交的报告，其中载有哥伦比亚体制强化项目（第十二阶段）延长的申请，并赞赏地注意到哥伦比亚政府分别向基金和臭氧秘书处报告了 2017 年和 2018 年国家方案数据和 2017 年第 7 条数据，并指出该国遵守了《蒙特利尔议定书》。执行委员会还注意到在继续顺利和协调地执行着氟氯烃淘汰管理计划第二阶段和其他现行项目。执行委员会还赞赏地注意到为促进执行《基加利修正案》所开展的筹备活动。执行委员会注意到哥伦比亚政府的努力，并希望在今后两年内，哥伦比亚政府将继续执行氟氯烃淘汰管理计划第二阶段和体制强化项目活动，以实现《蒙特利尔议定书》要求的到 2020 年 1 月削减 35%的氟氯烃消费量。

古巴

4. 执行委员会审查了提交的报告，其中载有古巴体制强化项目（第十一阶段）延长的申请，并注意到古巴政府分别向基金和臭氧秘书处报告了 2015 年、2016 年和 2017 年的国家方案数据和第 7 条数据，并指出该国遵守了《蒙特利尔议定书》。执行委员会赞赏地注

意到执行氟氯烃淘汰管理计划第一阶段取得的进展，包括通过许可证和配额制度实行氟氯烃进口管制、与海关和其他地方当局的合作以及与氢氟碳化物淘汰相关的提高公众认识；为促进执行《基加利修正案》开展的筹备活动；以及该国参加了区域网络和《蒙特利尔议定书》的会议。执行委员会注意到古巴政府的努力，并希望在今后两年内，古巴政府将继续执行氟氯烃淘汰管理计划第一阶段和体制强化项目活动，以实现《蒙特利尔议定书》要求的到 2020 年 1 月削减 35%的氟氯烃消费量。

特立尼达和多巴哥

5. 执行委员会审查了提交的报告，其中载有特立尼达和多巴哥体制强化项目（第十阶段）延长的申请，并赞赏地注意到特立尼达和多巴哥政府分别向基金和臭氧秘书处报告了 2017 年和 2018 年国家方案数据和 2017 年第 7 条数据，并指出该国遵守了《蒙特利尔议定书》。执行委员会赞赏特立尼达和多巴哥政府执行氟氯烃淘汰管理计划第一阶段、该国管制包括混合物在内的消耗臭氧层物质和基于消耗臭氧层物质的设备进口的规章，以及该国规定了制冷剂集装箱的强制性标识标准。执行委员会还注意到，该国提供了制冷良好做法培训，制定了与氢氟碳化物淘汰相关的提高公众认识活动，参加了区域网络和《蒙特利尔议定书》的会议。执行委员会注意到特立尼达和多巴哥政府的努力，并希望特立尼达和多巴哥政府继续执行氟氯烃淘汰管理计划第一阶段和体制强化项目活动，以实现《蒙特利尔议定书》要求的到 2020 年 1 月削减 35%的氟氯烃消费量。

United Nations Development Programme
Montreal Protocol / Chemicals Unit

Empowered lives.
Resilient nations.

83rd Meeting of the Executive Committee of the Multilateral Fund for the Implementation of the Montreal Protocol

(27 – 31 May 2019)

UNDP
2019 WORK PROGRAMME

2019 WORK PROGRAMME

I. EXECUTIVE SUMMARY

The present document constitutes UNDP's 2019 Work Programme and is being submitted for consideration of the Executive Committee (ExCom) at its 83rd Meeting. The list of submissions for all funding requests (including investment projects) that will be submitted by UNDP to the 83rd 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

Requests for funding of extensions of institutional strengthening projects for submission at the 83rd ExCom Meeting are tabulated below. The documents with terminal reports and requests for extension of IS funding are being submitted separately.

Country	Type	Title	Duration (months)	Amount	Agency Fee	Total
Bangladesh	INS	Institutional Strengthening Renewal (Phase IX)	24	166,400	11,648	178,048
Chile	INS	Institutional Strengthening Renewal (Phase XIII)	24	238,784	16,715	255,499
Colombia	INS	Institutional Strengthening Renewal (Phase XII)	24	352,768	24,694	377,462
Cuba	INS	Institutional Strengthening Renewal (Phase XI)	24	190,804	13,356	204,160
Trinidad and Tobago	INS	Institutional Strengthening Renewal (Phase X)	24	85,000	5,950	90,950
Total (5 requests)				**1,033,756**	**72,363**	**1,106,119**

Preparation funding requests for HPMP stages II and III

UNDP is submitting the following funding requests for the preparation of stages II and III of HPMPs to the 83rd ExCom meeting. The Annex 2 contains PRP submissions except for those for Eswatini and Zimbabwe which will be submitted by relevant lead agencies.

Country	Type	Title	Duration (months)	Amount	Agency Fee	Total
Dominican Republic	PRP	Stage III HPMP Preparation	12	60,000	4,200	64,200
Eswatini	PRP	Stage II HPMP Preparation	12	10,000	700	10,700
Nigeria	PRP	Stage III HPMP Preparation	12	22,500	1,575	24,075
Panama	PRP	Stage III HPMP Preparation	12	60,000	4,200	64,200
Uruguay	PRP	Stage III HPMP Preparation	12	60,000	4,200	64,200
Zimbabwe	PRP	Stage II HPMP Preparation	12	20,000	1,400	21,400
Total (6 requests)				**232,500**	**16,275**	**248,775**

Requests for preparation funding for HFC Investment projects

UNDP is submitting requests for the preparation of HFC investment projects as per the table below. The associated requests for preparation funds are included in Annex 3.

Country	Type	Title	Duration (months)	Amount	Agency Fee	Total
Indonesia	PRP	Conversion of HFC-134a in the manufacturing of domestic refrigerators	12	30,000	2,100	32,100
Lebanon	PRP	Conversion of R-404A in the commercial refrigeration units for supermarkets at Leon Industries S.A.R.L., Lebanon	12	30,000	2,100	32,100
Pakistan	PRP	Conversion from HFC-134a to R-600a/R-290 as refrigerant in manufacturing of deep freezers, household refrigerators and water dispenser at PAK Elektron Limited, Lahore, Pakistan	12	30,000	2,100	32,100
Total (3 requests)				**90,000**	**6,300**	**96,300**

Requests for extensions of enabling activities to support the phase-down of HFCs for Article 5 countries

UNDP is submitting the requests for extension of the enabling activities as per the table below.

Country	Type	Title	Extension Duration (months)	Reason for extending the duration
Chile	TAS	Request to extend the Enabling activities for Kigali Amendment	12	The activities require more time as originally planned due to the need to consult extended range of stakeholders and consider linking the Kigali Amendment Enabling Activities broader issues of climate change in the country.
China	TAS	Request to extend the Enabling activities for Kigali Amendment	12	Implementation requires more time due to the complexity of the ratification process and engagement with stakeholders. So far, some activities are underway including assessment of current legal framework to meet initial compliance commitments, establishment of licensing system on HFCs import/export and initial research on national strategy on HFCs phase-down
Colombia	TAS	Request to extend the Enabling activities for Kigali Amendment	12	Implementation require more time due to the complexity of the ratification process, engagement with stakeholders and liason with Parliament over ratification steps that demand extended work. Additionally, assessment of current legal framework to meet initial compliance commitments are underway.
Costa Rica	TAS	Request to extend the Enabling activities for Kigali Amendment	12	Costa Rica has ratified the Kigali Amendment, however, further work is required to assess of current legal framework to meet initial compliance commitments are underway, mainly related to initial control and reporting requirements.
Fiji	TAS	Request to extend the Enabling activities for Kigali Amendment	12	The extension is requested due to complexity of process of ratification that require more time, associated with need to extend the assessment on regulation.
Jamaica	TAS	Request to extend the Enabling activities for Kigali Amendment	12	A strong stakeholder group was established and the Kigali EA is advancing well. However, the fact that the project has struggled with the need to develop national capacities for the implementation of the EA necessitates the extension.
Lebanon	TAS	Request to extend the Enabling activities for Kigali Amendment	12	The activities require more time as originally planned due to the need to consult extended range of stakeholders and consider linking the Kigali Amendment Enabling Activities broader issues of climate change in the country.

Country	Type	Title	Extension Duration (months)	Reason for extending the duration
Peru	TAS	Request to extend the Enabling activities for Kigali Amendment	12	The activities require more time as originally planned due to government changes that have resulted in additional coordination and therefore, making the implementation of the EA more time consuming.
Trinidad and Tobago	TAS	Request to extend the Enabling activities for Kigali Amendment	12	The activities require more time as originally planned due to the need to consult extended range of stakeholders and consider linking the Kigali Amendment Enabling Activities broader issues of climate change in the country. Some activities are: the National Cooling Plan and the GEF project of Energy Efficiency for the RAC sector.
Uruguay	TAS	Request to extend the Enabling activities for Kigali Amendment	12	Uruguay has ratified the Kigali Amendment, however, further work is required to assess of current legal framework to meet initial compliance commitments are underway, mainly related to initial control and reporting requirements.
Total (10 requests)				

III. SUMMARY OF FUNDING REQUESTS (WORK PROGRAMME AMENDMENT)

The table below summarizes the funding requests for non-investment activities and proposals being submitted to the 83rd ExCom Meeting as part of UNDP's Work Programme for 2019:

Country	Type	Title	Duration (months)	Amount	Agency Fee	Total
Bangladesh	INS	Institutional Strengthening Renewal (Phase IX)	24	166,400	11,648	178,048
Chile	INS	Institutional Strengthening Renewal (Phase XIII)	24	238,784	16,715	255,499
Colombia	INS	Institutional Strengthening Renewal (Phase XII)	24	352,768	24,694	377,462
Cuba	INS	Institutional Strengthening Renewal (Phase XI)	24	190,804	13,356	204,160
Dominican Republic	PRP	Stage III HPMP Preparation	12	60,000	4,200	64,200
Eswatini	PRP	Stage II HPMP Preparation	12	10,000	700	10,700
Indonesia	PRP	Conversion of HFC-134a in the manufacturing of domestic refrigerators	12	30,000	2,100	32,100
Lebanon	PRP	Conversion of R-404A in the commercial refrigeration units for supermarkets at Leon Industries S.A.R.L., Lebanon	12	30,000	2,100	32,100
Nigeria	PRP	Stage III HPMP Preparation	12	22,500	1,575	24,075
Pakistan	PRP	Conversion from HFC-134a to R-600a/R-290 as refrigerant in manufacturing of deep freezers, household refrigerators and water dispenser at PAK Elektron Limited, Lahore, Pakistan	12	30,000	2,100	32,100
Panama	PRP	Stage III HPMP Preparation	12	60,000	4,200	64,200
Trinidad and Tobago	INS	Institutional Strengthening Renewal (Phase X)	24	85,000	5,950	90,950
Uruguay	PRP	Stage III HPMP Preparation	12	60,000	4,200	64,200
Zimbabwe	PRP	Stage II HPMP Preparation	12	20,000	1,400	21,400
Total (14 requests)				**1,356,256**	**94,938**	**1,451,194**

ANNEX 1

List of all UNDP submissions for funding to the 83rd ExCom Meeting

No	Country	Type	Description	Funding Request for the 83rd ExCom (US$)		
				Amount	Agency Fee	Total
1	Bangladesh	INS	Institutional Strengthening Renewal (Phase IX)	166,400	11,648	178,048
2	Cambodia	INV	Stage I HPMP - 2019 tranche	150,000	11,250	161,250
3	Chile	INS	Institutional Strengthening Renewal (Phase XIII)	238,784	16,715	255,499
4	China	INV	Stage II HPMP - 3rd tranche (ICR)	12,000,000	840,000	12,840,000
5	China	INV	Stage II HPMP - 3rd tranche (Solvents)	5,549,492	388,464	5,937,956
6	Colombia	INS	Institutional Strengthening Renewal (Phase XII)	352,768	24,694	377,462
7	Costa Rica	INV	Stage I HPMP - 2019 tranche	56,000	4,200	60,200
8	Cuba	INS	Institutional Strengthening Renewal (Phase XI)	190,804	13,356	204,160
9	Dominican Republic	PRP	Stage III HPMP Preparation	60,000	4,200	64,200
10	Eswatini	PRP	Stage II HPMP Preparation	10,000	700	10,700
11	Guyana	INV	Stage II HPMP - 2018 tranche	66,750	4,673	71,423
12	Indonesia	PRP	Conversion of HFC-134a in the manufacturing of domestic refrigerators	30,000	2,100	32,100
13	Iran	INV	Stage II HPMP - 2018 tranche	1,593,980	111,579	1,705,559
14	Lebanon	PRP	Conversion of R-404A in the commercial refrigeration units for supermarkets at Leon Industries S.A.R.L., Lebanon	30,000	2,100	32,100
15	Nigeria	PRP	Stage III HPMP Preparation	22,500	1,575	24,075
16	Pakistan	PRP	Conversion from HFC-134a to R-600a/R-290 as refrigerant in manufacturing of deep freezers, household refrigerators and water dispenser at PAK Elektron Limited, Lahore, Pakistan	30,000	2,100	32,100
17	Panama	PRP	Stage III HPMP Preparation	60,000	4,200	64,200
18	Trinidad and Tobago	INS	Institutional Strengthening Renewal (Phase X)	85,000	5,950	90,950
19	Uruguay	PRP	Stage III HPMP Preparation	60,000	4,200	64,200
20	Zimbabwe	PRP	Stage II HPMP Preparation	20,000	1,400	21,400
Total (20 requests)				**20,772,478**	**1,455,103**	**22,227,581**

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.
c. HPMP Tranches for Armenia and Mali were submitted separately but not reflected in this table since there is no funding for UNDP.

ANNEX 2

Preparation funding requests for HPMP stages in:

1. **Dominican Republic (Stage III HPMP Preparation)**
2. **Nigeria (Stage III HPMP Preparation)**
3. **Panama (Stage III HPMP Preparation)**
4. **Uruguay (Stage III HPMP Preparation)**

MULTILATERAL FUND FOR THE IMPLEMENTATION OF THE MONTREAL PROTOCOL
HPMP PROJECT PREPARATION REQUEST FORM
HCFC PHASE-OUT MANAGEMENT PLAN (OVERARCHING STRATEGY)

Part I: Project Information

16. **Project title:**	17. Request for Project Preparation Proposal for the Third Stage of the HPMP of the Dominican Republic	
18. **Country:**	19. The Dominican Republic	
20. **Lead implementing agency:**	21. UNDP	
22. **Cooperating agency (1):**	23. UNEP	24. Click or tap here to enter text.
25. **Cooperating agency (2):**	26. (select)	27. Click or tap here to enter text.
28. **Cooperating agency (3):**	29. (select)	30. Click or tap here to enter text.
31. **Implementation period:**	32. July 2019 – June 2021	

33. **Funding requested:**

34. **Agency**	35. **Sector**	36. **Funding requested (US $)***
37. UNDP	38. Overarching	39. 60,000
40. (select)	41. (select)	42. Click or tap here to enter text.
43. (select)	44. (select)	45. Click or tap here to enter text.
46. (select)	47. (select)	48. Click or tap here to enter text.

*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 specifying roles of respective agencies (where more than one IA is involved)	☒	☐
2. Written confirmation – balances from previous PRP funding approved for stage I HPMP had been returned / will be returned (**Decision 71/42(i)**)	☒	☐
• Specify meeting at which PRP funding balance had been returned/will be returned	79th meeting	

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

1. Montreal Protocol compliance target to be met in ☐ stage II / ☒ stage III of the HPMP			
Phase-out commitment (%)	**67.5**	**Year of commitment**	**2025**
☒ **Servicing only**		☐ **Manufacturing only**	☐ **Servicing and manufacturing**

2. Brief background on previous stage of the HPMP

- Please provide a brief background on the previous stage of the HPMP, when it was approved, a brief description of the progress in implementation of the previous stage of the HPMP to demonstrate that substantial progress had been made.

The Stage II HPMP for the Dominican Republic was approved at the 77th meeting of the ExCom in November 2016 with a total value of 1,474,558 US$ plus support. 2 out of 3 tranches with a total value of 1,328,000 US$ has been approved as of today (90 % of funding). Of the already approved funds (tranche 1 and 2), about US$ 575,081 has been disbursed and committed as of today which represents more than 39% of the total stage II HPMP funding for Dominican Republic. The second tranche request, with a total value of 674,200 US$, was approved at the 82nd meeting of the Executive Committee.

The Government of Republic of the Dominican Republic is implementing the Stage 2 of its HCFCs Phase-out Management Plan (HPMP) and has achieved results such as:

- New memorandum of agreement signed with INFOTEP for the training of RAC technicians in good refrigeration practices and alternatives to the HCFC.
- 463 new technicians have been certified on the safe use of new alternatives.
- Fourteen (14) technical institutes were provided with one set (educational kits) of RAC equipment to promote technicians' training on good practices.
- Strengthening of the legal framework for banning the importation of HCFC-based equipment and the introduction of additional fees to the importation of HCFC.
- Design and printing of technical information on alternatives of HCFC.
- 8 training workshops on ODSs controls were organized to all staff working in ports administration of Haina and Caucedo. 300 officers trained.
- One (1) international consultant was hired to manage the process of certification on norm of labor competences of Technicians of the Refrigeration and Air Conditioner Sector;
- 4 technical standards approved to define minimum requirements of certified technicians.
- Two (2) international seminars in the use of new alternatives and energy saving.

3. Current progress in implementation of previous stage of the HPMP

Activity	Description	Implementing agency
Legal/regulatory framework	Close work with the customs authorities (DGA) has been done, regular visits to entry points of HCFC have been conducted, 8 training workshops on ODSs controls were organized to all staff working in ports administration of Haina and Caucedo, 300 customs officers trained. Also new regulations to control ODS imports and ODS-containing equipment has been issued.	UNEP
Refrigeration servicing sector	NOU has been working with INFOTEP and ADOMTRA in the promotion of new technologies, training of good refrigeration practices. Also, 14 classrooms of technical schools have been strengthened with equipment and tools to promote the adoption of good refrigeration practices. 2 international workshops on alternatives to the HCFC have been conducted. 463 technicians have been trained.	UNDP
(select)	Click or tap here to enter text.	(select)
(select)	Click or tap here to enter text.	(select)
(select)	Click or tap here to enter text.	(select)
(select)	Click or tap here to enter text.	(select)
(select)	Click or tap here to enter text.	(select)

4. Overview of current HCFC consumption in metric tonnes by substance (last three years)

Substance	Sector	2015	2016	2017
HCFC-22	RAC servicing	720.1	759.72	806.55
HCFC-123	RAC servicing	0.4	15.00	2.61
HCFC-141b	RAC servicing	34.4	1.36	-
HCFC-141b in imported pre-blended polyols	Manufacturing-Foam PU	100.0	40.00	-
(select)	(select)			
(select)	(select)			
(select)	(select)			
(select)	(select)			

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

The consumption of HCFC in the Dominican Republic is focused on the service and maintenance of refrigeration and air conditioning sector. In the last couple of years the consumption of HCFC-22 has increased, they may be related to the increase of inventories by the importers considering the entry into force of initiatives conducted by the NOU to curb the demand of HCFC. One is to charge the imports of HCFC with an additional fee of 9% from January 2019, which will increase by 9% every year after, the second is the banning of the imports of HCFC-based RAC equipment, which is in place since beginning of 2017.

6. Description of information that needs to be gathered and updated. Explain why this has not been undertaken during preparation for the previous stage of the HPMP.

Information needed	Description	Agency
Updated data on HCFC consumption in manufacturing/servicing sector	The Dominican Republic only has HCFC consumption in its servicing sector, and HCFC-22 is the main HCFC consumed. The national survey for Stage 3 will thus focus on further analysing the consumption and trends in the servicing sector and the main actors involved.	UNDP
New information on ODS regulations	It will review the status of ODS regulations and the need to adapt them.	UNDP
Others, specify.	An analysis of the specific phase-out targets by substance and/or subsector will be conducted, in order to meet upcoming obligations.	UNDP
Others, specify.	Assessment of the HPMP strategy and amend it based on the outcome of Stage 2.	UNDP
(select)	Click or tap here to enter text.	(select)

7. Activities to be undertaken for project preparation and funding

Activity	Indicative funding (US $)	Agency
Assessment of current situation and needs of stakeholders (Survey update, Data analysis, Institutional coordination, etc.)	30,000	UNDP
Technical support and updating of overall strategy for Stage 2, as well as specific strategy for the	15,000	UNDP

Servicing sector (International Consultant).		
Stakeholders' meetings (2)	10,000	UNDP
Reporting and monitoring	5,000	UNDP
Click or tap here to enter text.		(select)
TOTAL	**60,000**	

8. How will activities related to implementation of the Kigali Amendment to phase down HFCs be considered during project preparation for stage III of the HPMP?

The surveys will strive to collect the information on HFC when possible. The stage III preparation will also take into account how imports of HFC-based equipment will impact the strategy for the servicing sector for the HPMP, being cognizance of similar activities for the servicing sector whether equipment uses HFC or HCFC

B. Information required for PRP funding request for investment projects as part of the HPMP

1. Agency:	(select)
2. Sector:	(select)
3. HCFC consumption in item #2 reported under Country Programme (CP) data?	☐ **Yes**, please specify reported amount and year: ☐ **No**

4. Information on remaining eligible consumption

Substance	Remaining eligible consumption (ODP tonnes)
(select)	
(select)	
(select)	

5. Information on enterprise(s) for which funding is being sought

Enterprise	Year established	HCFC consumption (ODP tonnes) (last three years)			HCFC phase-out to be achieved
		2016	2017	2018	

6. Activities to be undertaken for preparation of the investment project and funding requestedi

Activity	Indicative funding (US $)
Click or tap here to enter text.	
Click or tap here to enter text.	
Click or tap here to enter text.	
Click or tap here to enter text.	
Click or tap here to enter text.	
Click or tap here to enter text.	
TOTAL	

MULTILATERAL FUND FOR THE IMPLEMENTATION OF THE MONTREAL PROTOCOL
HPMP PROJECT PREPARATION REQUEST FORM
HPMP (OVERARCHING + INV)

Part I: Project Information

49. **Project title:**	50. **PRP for the Third Stage of the HPMP of Nigeria**	
51. **Country:**	52. Nigeria	
53. **Lead implementing agency:**	54. UNDP	
55. **Cooperating agency (1):**	56. UNIDO	57. Click or tap here to enter text.
58. **Cooperating agency (2):**	59. (select)	60. Click or tap here to enter text.
61. **Cooperating agency (3):**	62. (select)	63. Click or tap here to enter text.
64. **Implementation period:**	65. 2019-2020	

66. **Funding requested:**

67. **Agency**	68. **Sector**	69. **Funding requested (US $)***
70. UNDP	71. Overarching	72. 22,500
73. UNIDO	74. Overarching	75. 22,500
76. UNIDO	77. INV - REF	78. 25,000
79. UNIDO	80. INV - AC	81. 25,000

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

Part II: Prerequisites for submission

Item	Yes	No
3. Official endorsement letter from Government specifying roles of respective agencies (where more than one IA is involved)	☒	☐
4. Written confirmation – balances from previous PRP funding approved for stage I HPMP had been returned / will be returned (**Decision 71/42(i)**)	☒	☐
• Specify meeting at which PRP funding balance had been returned/will be returned	*Will be provided shortly.*	

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

9. Montreal Protocol compliance target to be met in ☐ stage II / ☒ stage III of the HPMP			
Phase-out commitment (%)	**67.5**	**Year of commitment**	**2025**
☐ **Servicing only**		☐ **Manufacturing only**	☒ **Servicing and manufacturing**
10. Brief background on previous stage of the HPMP			

- Please provide a brief background on the previous stage of the HPMP, when it was approved, a brief description of the progress in implementation of the previous stage of the HPMP to demonstrate that substantial progress had been made.

11. Phase-out activities in the manufacturing sector

UNDP component:

82. **Foam Sector Programme**

As planned, a mission by the international consultant was conducted in Nigeria the week of 22nd of October 2018 for the completion of the foam UNDP programme, focusing on the operationalisation of the system house. Planning of Stage 2 main activities was initiated and a South-South exchange visit with Egypt is being planned at the moment for the first half of 2019.

83. UNIDO component:

84. **Refrigeration and A/C Manufacturing Sector**

As part of the final activities in Stage 1, an international expert visited beneficiary companies and trained them in November 2018. Personal protective equipment was delivered in November as well, and consultations on planning of Stage 2 were conducted as well.

UNIDO and BASF organized a training in March in Ibadan (19-20 March) and another session is planned in May in Abuja.
The procurement for the Stage II has been closed and the technical evaluation has been completed.

Phase-out activities in the refrigeration servicing sector

85. The Pamaque Hydrocarbon Production Demonstration Project has been completed (Stage 1)

A detailed implementation plan for the refrigeration servicing sector activities is planned for completion by the first half of 2019.

12. Current progress in implementation of previous stage of the HPMP (please see section A.3 above)

Activity	Description	Implementing agency
(select)	Click or tap here to enter text.	(select)
(select)	Click or tap here to enter text.	(select)
(select)	Click or tap here to enter text.	(select)
(select)	Click or tap here to enter text.	(select)
(select)	Click or tap here to enter text.	(select)
(select)	Click or tap here to enter text.	(select)
(select)	Click or tap here to enter text.	(select)

13. Overview of current HCFC consumption in metric tonnes by substance (last three years)

Substance	Sector	2016	2017	2018 (estimates are to be confirmed)
HCFC-22	(select)	3,554	3,262	
HCFC-141b	(select)	311	718	
HCFC-141b in imported pre-blended polyols	(select)	523	230	
HCFC-123	(select)	0	0	
HCFC-124	(select)	201	338	
HCFC-142b	(select)	9	0	

(select)	(select)			
(select)	(select)			
(select)	(select)			

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

Stage II – PRP for Overarching strategy

(1) Brief overview of the current HCFC consumption by substance and distribution by sector/subsector

HCFC consumption - Article 7 data (ODP tonnes)

2011	2012	2013	2014	2015	2016	2017
402.32	453.4	334.46	304.11	247.7	234.74	265.8

The 2018 data report is not confirmed yet, but initial estimates of Article 7 data point towards a reduced level compared to 2017, close to the 2016 data.

As per the conclusion of the review process for Stage 2, the following remaining consumption was noted (after phase-out of HCFC as per Stage 2 would be achieved):

- Consumption of HCFC141b will be completely phased out at the end of Stage 2.
- It is anticipated the following consumption would remain for HCFC22:

  Manufacturing sector:

  Commercial Refrigeration: ODP T11.46
  AC Manufacturing: ODP T 2.87

  It is assumed that the remaining consumption would be in the refrigeration servicing sector, i.e.:
  ODP T 153.48

  The total remaining eligible consumption for HFC-22 is **ODP T 167.81.**

(2) A description of the information that needs to be gathered and updated

The exercise completed in Stage 2 PRP has demonstrated that the collection of data is challenging in Nigeria, due to the size of the country, as well as the need for verifications.

It is expected that the consumption indicated above for the manufacturing sector (commercial refrigeration) are on the lower hand of these estimates, and they will need to be confirmed, taking into account the evolution of the sector.

Additionally, consultations will need to be held with the company in the AC manufacturing sector, as the choice of technology will need to be discussed further with the manufacturer, to take into account the evolution of the market in the country. This was noted during the preparation of Stage 2 as well.

Finally, an effort at overall checking of the data as well as the preparation of the overarching strategy for Stage 3, including the complementarity of the servicing sector activities with those in Stage 2, will need to be conducted.

It is important to note that the surveys of these sectors were completed a first time in view of inclusion in Stage 2, though these components were not all included in the final HPMP stage 2, as per consultations with ExCom members in the 81st Meeting of the Executive Committee. This means that preliminary work has already been completed for the purpose of developing Stage 3, and this was taken into account in the requested funding for Stage 3 below.

(3) An indication of the activities that need to be undertaken for PRP

The following activities will need to be conducted under this PRP:

Activity	Indicative funding (in USD)
Survey work (National consultants) – update and confirmation of data	20,000
Technical support and updating of overall strategy for Stage 3, as well as specific strategy for the Servicing sector (International Consultant).	10,000
Stakeholders' meetings (Final)	10,000
Reporting and monitoring	5,000
Total	USD 45,000

As per Decision 71/42(d), following Stage II guidelines, Nigeria would be eligible to USD 90,000 for PRP of the overall strategy for Stage II, as remaining eligible HCFC consumption is comprised between 100.1 and 1,500 ODP tonnes. However, due to the particular situation discussed in the previous paragraph, a total funding of USD 45,000 is requested.

This amount will be equally allocated to the components implemented by UNDP and UNIDO.

15. Description of information that needs to be gathered and updated. Explain why this has not been undertaken during preparation for the previous stage of the HPMP.

Information needed	Description	Agency
Updated data on HCFC consumption in manufacturing/servicing sector	Click or tap here to enter text.	UNDP
Updated sectoral consumption information	Click or tap here to enter text.	UNIDO
Others, specify.	Stakeholders' meeting, reporting and monitoring	UNIDO
Others, specify.	Stakeholders' meeting, reporting and monitoring	UNDP
(select)	Click or tap here to enter text.	(select)

16. Activities to be undertaken for project preparation and funding

Activity	Indicative funding (US $)	Agency
Survey work, technical support, stakeholders' meeting and reporting	22,500	UNDP
Survey work, technical support, stakeholders' meeting and reporting	22,500	UNIDO
Click or tap here to enter text.		(select)
Click or tap here to enter text.		(select)
Click or tap here to enter text.		(select)

TOTAL	45,000

17. How will activities related to implementation of the Kigali Amendment to phase down HFCs be considered during project preparation for stage II of the HPMP?

It will be central part of the preparatory work. The Kigali Amendment was approved at the end of 2018 in Nigeria.

D. Information required for PRP funding request for investment projects as part of the HPMP

7. Agency:	UNIDO
8. Sector:	Air-conditioning
9. HCFC consumption in item #2 reported under Country Programme (CP) data?	☒ **Yes**, please specify reported amount and year: _52.3 MT in 2015/2016_____ ☐ **No**

10. Information on remaining eligible consumption

Substance	Remaining eligible consumption (ODP tonnes)
HCFC-22	2.9
(select)	
(select)	

11. Information on enterprise(s) for which funding is being sought

Enterprise	Year established	HCFC consumption (ODP tonnes) (last three years)			HCFC phase-out to be achieved
		2016	2017	2018	
HPZ	2001	2.9 (2015-2016)	TBC	TBC	2.9 ODP T

12. Activities to be undertaken for preparation of the investment project and funding requested

Activity	Indicative funding (US $)
Confirmation of data and presentation/analysis of technology options	25,000
Click or tap here to enter text.	
Click or tap here to enter text.	
Click or tap here to enter text.	
Click or tap here to enter text.	
Click or tap here to enter text.	
TOTAL	**25,000**

13. Agency:	UNIDO
14. Sector:	Refrigeration
15. HCFC consumption in item #2 reported under Country Programme (CP) data?	☒ **Yes**, please specify reported amount and year: _Exact consumption to be confirmed with PRP_____ ☐ **No**

16. Information on remaining eligible consumption

Substance	Remaining eligible consumption (ODP tonnes)
HCFC-22	TBC
(select)	
(select)	

17. Information on enterprise(s) for which funding is being sought

Enterprise	Year established	HCFC consumption (ODP tonnes) (last three years)			HCFC phase-out to be achieved
		2016	2017	2018	
Group of entreprises	Specifics will be provided in PRP	TBC	TBC	TBC	11.46 ODP T

18. Activities to be undertaken for preparation of the investment project and funding requested	
Activity	Indicative funding (US $)
Confirmation of data and presentation/analysis of technology options	25,000
Click or tap here to enter text.	
Click or tap here to enter text.	
Click or tap here to enter text.	
Click or tap here to enter text.	
Click or tap here to enter text.	
TOTAL	**25,000**

Annex: Stage III – PRP for the Manufacturing sector

RACM Sector Programme (UNIDO)

As part of that component, UNIDO will address the remaining consumption in the manufacturing sector that could not be covered by Stage 2 of the HPMP.

This includes one Air Conditioning manufacturing company (HPZ Limited) and the sector of commercial refrigeration manufacturing. This is estimated to represent **14.33 ODP tonnes**. The details were included in the initial submission of Stage 2 HPMP for Nigeria.

As per Decision 71/42(d) and taking into account the remaining consumption in the manufacturing sector, the amount that could be requested is USD 100,000. However, due to the specific situation due to the linkage with Stage 2 and its PRP, USD 50,000 are being requested.

Activity	**Indicative funding (in USD)**
Survey work (National consultants) – updating information on ca. 150 companies of the RACM sector, confirmation of the data; and the one company in AC manufacturing, their latest HCFC-22 consumption data and technology choices	15,000
Technical support (International Consultants) for preparation of technology option analysis and development of the HCFC-22 phase-out strategy for the AC and commercial refrigeration manufacturing sub-sectors under Stage 2.	15,000
Stakeholders' meetings (Final)	15,000
Reporting and monitoring	5,000
Total	USD 50,000

MULTILATERAL FUND FOR THE IMPLEMENTATION OF THE MONTREAL PROTOCOL
HPMP PROJECT PREPARATION REQUEST FORM
HCFC PHASE-OUT MANAGEMENT PLAN (OVERARCHING STRATEGY)

Part I: Project Information

86. **Project title:**	87. Request for Project Preparation Proposal for the Third Stage of the HPMP of Panama	
88. **Country:**	89. Panama	
90. **Lead implementing agency:**	91. UNDP	
92. **Implementation period:**	93. July 2019 – June 2021	
94. **Funding requested:**		
95. **Agency**	96. **Sector**	97. **Funding requested (US $)***
98. UNDP	99. Overarching	100. 60,000

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

Part II: Prerequisites for submission

Item	Yes	No
5. Official endorsement letter from Government specifying roles of respective agencies (where more than one IA is involved)	☒	☐
6. Written confirmation – balances from previous PRP funding approved for stage I HPMP had been returned / will be returned (**Decision 71/42(i)**)	☒	☐
• Specify meeting at which PRP funding balance had been returned/will be returned	81st and 83rd meetings.	

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

18. Montreal Protocol compliance target to be met in ☐ stage II / ☒ stage III of the HPMP			
Phase-out commitment (%)	**67.5**	**Year of commitment**	**2025**
☒ **Servicing only**		☐ **Manufacturing only**	☐ **Servicing and manufacturing**

19. Brief background on previous stage of the HPMP

- Please provide a brief background on the previous stage of the HPMP, when it was approved, a brief description of the progress in implementation of the previous stage of the HPMP to demonstrate that substantial progress had been made.

The Stage II HPMP for the Panama was approved at the 76th meeting of the ExCom in May 2016 with a total value of 723,654 US$ plus support. 2 out of 3 tranches with a total value of 650,900 US$ has been approved as of today (90% of funding). Of the already approved funds (tranche 1 and 2), about US$ 154.099 has been disbursed as of today which represents more than 21.3% of the total stage II HPMP funding for Panama. The second tranche request, with a total value of 385,800 US$, was submitted for consideration and approved at the 82nd meeting of the Executive Committee.

The Stage 2 of the HPMP in Panama has achieved results such as:

- Inception workshop to discuss with stakeholders the scope and outcomes of the project. 40 stakeholders from key public and private entities participated in the meeting.

- Update of consumption and status of the beneficiary companies in the polyurethane foam sector. Visits were made by the project team to each company.
- One (1) workshop on alternatives to HCFC in the foam sector conducted by UNDP's international expert.
- Three (3) companies that were selected to participate in the Group Project for the Conversion of Manufacturing Processes of the Foams Sector have signed the contracts for the elimination of HCFC-141b
- Meeting with the Ministry of Education, the National Institution of Human Development (INADEH) and the Technological University of Panama (UTP) to review training and refrigeration classrooms needs.
- One (1) train-the-trainer course on natural refrigerants as alternatives to ODS and international safety standards in the developed RAC sector. Twenty five (25) instructors from INADEH assisted to this course as well as other people from UTP and the Ministry of Education (MEDUCA).
- Three (3) meetings and one (1) workshop were held on alignment and exchange of information as part of the efforts to improve the control of ozone-depleting substances in the Free Trade Zones.
- Draft ToR prepared for a consultancy for review and support the certification programme of refrigeration technicians.
- Eighty-seven (87) refrigeration technicians trained on good refrigeration practices.

20. Current progress in implementation of previous stage of the HPMP

Activity	Description	Implementing agency
Legal/regulatory framework	NOU is preparing a new regulation to ban the use of HCFC-22 as a cleaning agent, the ban of the use of HCFC-22 for the production of extruded polystyrene foam, and the ban on imports of formulated polyols containing HCFC-141b. 4 meetings with ministries and stakeholders have been conducted to present the new regulation.	UNDP
Refrigeration servicing sector	NOU has conducted meetings with the Ministry of Education, the National Institution of Human Development (INADEH) and the Technological University of Panama (UTP) to review training and refrigeration classrooms needs, it has also conducted one (1) train-the-trainer course on natural refrigerants as alternatives to ODS and international safety standards in the developed RAC sector, where twenty five (25) instructors were trained.	UNDP
Manufacturing-Foam PU	One (1) workshop on alternatives to HCFC in the foam sector conducted by UNDP's international expert. Also, three (3) companies that were selected to participate in the Group Project for the Conversion of Manufacturing Processes of the Foams Sector have signed the contracts for the elimination of HCFC-141b.	UNDP

21. Overview of current HCFC consumption in metric tonnes by substance (last three years)

Substance	Sector	2015	2016	2017
HCFC-22	RAC servicing	318.13	332.04	300.27
HCFC-123	RAC servicing	1.46	4.50	0.53
HCFC-124	RAC servicing	0.071	0.00	0.00
HCFC-141b	RAC servicing	0.00	0.00	0.00
HCFC-142b	RAC servicing	0.043	0.00	0.00
HCFC-141b in imported pre-blended polyols	Manufacturing-Foam PU	79.38	41.35	60.62

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

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

23. Description of information that needs to be gathered and updated. Explain why this has not been undertaken during preparation for the previous stage of the HPMP.

Information needed	Description	Agency
Updated data on HCFC consumption in manufacturing/servicing sector	Panama will only have HCFC consumption in its servicing sector after the Stage 2, and HCFC-22 is the main HCFC consumed. The national survey for Stage 3 will thus focus on further analyzing the consumption and trends in the servicing sector and the main actors involved.	UNDP
New information on ODS regulations	It will review the status of ODS regulations and the need to adapt them.	UNDP
Others, specify.	An analysis of the specific phase-out targets by substance and/or subsector will be conducted, in order to meet upcoming obligations.	UNDP
Others, specify.	Assessment of the HPMP strategy and amend it based on the outcome of Stage 2.	UNDP

24. Activities to be undertaken for project preparation and funding

Activity	Indicative funding (US $)	Agency
Assessment of current situation and needs of stakeholders (Survey update, Data analysis, Institutional coordination, etc.)	30,000	UNDP
Technical support and updating of overall strategy for Stage 2, as well as specific strategy for the Servicing sector (International Consultant).	15,000	UNDP
Stakeholders' meetings (2)	10,000	UNDP
Reporting and monitoring	5,000	UNDP
TOTAL	**60,000**	

25. How will activities related to implementation of the Kigali Amendment to phase down HFCs be considered during project preparation for stage III of the HPMP?

The surveys will strive to collect the information on HFC when possible. The stage III preparation will also take into account how imports of HFC-based equipment will impact the strategy for the servicing sector for the HPMP, being cognizance of similar activities for the servicing sector whether equipment uses HFC or HCFC.

F. Information required for PRP funding request for investment projects as part of the HPMP

19. Agency:	(select)
20. Sector:	(select)
21. HCFC consumption in item #2 reported under Country Programme (CP) data?	☐ **Yes**, please specify reported amount and year: _____ ☐ **No**
22. Information on remaining eligible consumption	

Substance	Remaining eligible consumption (ODP tonnes)
(select)	
(select)	
(select)	

23. Information on enterprise(s) for which funding is being sought

Enterprise	Year established	HCFC consumption (ODP tonnes) (last three years)			HCFC phase-out to be achieved
		2016	2017	2018	

24. Activities to be undertaken for preparation of the investment project and funding requestedi

Activity	Indicative funding (US $)
Click or tap here to enter text.	
Click or tap here to enter text.	
Click or tap here to enter text.	
Click or tap here to enter text.	
Click or tap here to enter text.	
Click or tap here to enter text.	
TOTAL	

MULTILATERAL FUND FOR THE IMPLEMENTATION OF THE MONTREAL PROTOCOL
HPMP PROJECT PREPARATION REQUEST FORM
HCFC PHASE-OUT MANAGEMENT PLAN (OVERARCHING STRATEGY)

Part I: Project Information

101. **Project title:**	102. Request for Project Preparation Proposal for the Third Stage of the HPMP of Uruguay	
103. **Country:**	104. Uruguay	
105. **Lead implementing agency:**	106. UNDP	
107. **Cooperating agency (1):**	108. (select)	109. Click or tap here to enter text.
110. **Cooperating agency (2):**	111. (select)	112. Click or tap here to enter text.
113. **Cooperating agency (3):**	114. (select)	115. Click or tap here to enter text.
116. **Implementation period:**	117. July 2019 – June 2021	

118. **Funding requested:**

119. **Agency**	120. **Sector**	121. **Funding requested (US $)***
122. UNDP	123. Overarching	124. 60,000
125. (select)	126. (select)	127. Click or tap here to enter text.
128. (select)	129. (select)	130. Click or tap here to enter text.
131. (select)	132. (select)	133. Click or tap here to enter text.

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

Part II: Prerequisites for submission

Item	Yes	No
7. Official endorsement letter from Government specifying roles of respective agencies (where more than one IA is involved)	☒	☐
8. Written confirmation – balances from previous PRP funding approved for stage I HPMP had been returned / will be returned (**Decision 71/42(i)**)	☒	☐
• Specify meeting at which PRP funding balance had been returned/will be returned	83rd meeting.	

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

26. Montreal Protocol compliance target to be met in ☐ stage II / ☒ stage III of the HPMP			
Phase-out commitment (%)	**67.5**	**Year of commitment**	**2025**
☒ **Servicing only**		☐ **Manufacturing only**	☐ **Servicing and manufacturing**

27. Brief background on previous stage of the HPMP

- Please provide a brief background on the previous stage of the HPMP, when it was approved, a brief description of the progress in implementation of the previous stage of the HPMP to demonstrate that substantial progress had been made.

The Stage II HPMP for the Uruguay was approved at the 77th meeting of the ExCom in November 2016 with a total value of 1,105,157 US$ plus support. 2 out of 3 tranches with a total value of US$ 993,889 has been approved as of today (90% of the total). Of the already approved funds (tranche 1 and 2), about US$ 240,821 has been disbursed as of today which represents more than 21.8% of the total stage II HPMP funding for Uruguay. The second tranche request, with a total value of 679,889 US$, was submitted for consideration at the 82nd meeting of the Executive Committee; The Government of Republic of Uruguay is implementing the Stage 2 of its HCFCs Phase-out Management Plan (HPMP) and has achieved results such as: - One (1) global training workshop, with participations of different customs departments and participants of all the country customs offices was carried out. 18 customs officers participated. - An international expert on refrigeration was hired by UNDP and worked for the NOU Uruguay on technical assistance to the refrigeration and air conditioning servicing sector to phase out the use of HCFC. - Six (6) 2 weeks-long campaigns about GRP, including train-the-trainer modality, not only in Montevideo, but also in other locations of the country, were conducted. 12 trainers and 240 technicians participated- One (1) workshop on the use of CO2 and his energy efficiency benefits in the refrigeration sector was conducted, 32 participants from the private sector and the academy attended.

28. Current progress in implementation of previous stage of the HPMP

Activity	Description	Implementing agency
Legal/regulatory framework	An international consultant was hired to review the HCFC control system and to train the customs officials on import procedures and measures to control illegal trade of ODS. One (1) workshop conducted and 18 officials trained.	UNDP
Refrigeration servicing sector	Several activities have been done on good refrigeration practices and promotion of alternative technologies to the HCFCs such as specialized workshops on CO2, on use of HC-based refrigerants; more than 240 technicians have been trained on good refrigeration practices through six (6) training sessions around the country.	UNDP
(select)	Click or tap here to enter text.	(select)
(select)	Click or tap here to enter text.	(select)
(select)	Click or tap here to enter text.	(select)
(select)	Click or tap here to enter text.	(select)
(select)	Click or tap here to enter text.	(select)

29. Overview of current HCFC consumption in metric tonnes by substance (last three years)

Substance	Sector	2015	2016	2017
HCFC-22	RAC servicing	254.23	295.35	273.04
HCFC-123	RAC servicing	1.60	2.02	1.30
HCFC-124	RAC servicing	3.36	2.42	5.45
HCFC-141b	RAC servicing	14.81	12.07	13.42
HCFC-142b	RAC servicing	0.98	1.35	0.84
(select)	(select)			
(select)	(select)			
(select)	(select)			
(select)	(select)			

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

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

31. Description of information that needs to be gathered and updated. Explain why this has not been undertaken during preparation for the previous stage of the HPMP.

Information needed	Description	Agency
Updated data on HCFC consumption in manufacturing/servicing sector	After the Stage 2, Uruguay will only have HCFC consumption in its servicing sector, and HCFC-22 will be the main HCFC consumed. The national survey for stage 3 will thus focus on further analyzing the consumption and trends in the servicing sector and the main actors involved.	UNDP
New information on ODS regulations	It will review the status of ODS regulations and the need to adapt them.	UNDP
Others, specify.	An analysis of the specific phase-out targets by substance and/or subsector will be conducted, in order to meet upcoming obligations.	UNDP
Others, specify.	Assessment of the HPMP strategy and amend it based on the outcome of Stage 2.	(select)
(select)	Click or tap here to enter text.	(select)

32. Activities to be undertaken for project preparation and funding

Activity	Indicative funding (US $)	Agency
Assessment of current situation and needs of stakeholders (Survey update, Data analysis, Institutional coordination, etc.)	30,000	UNDP
Technical support and updating of overall strategy for Stage 2, as well as specific strategy for the Servicing sector (International Consultant).	15,000	UNDP
Stakeholders' meetings (2)	10,000	UNDP
Reporting and monitoring	5,000	UNDP
Click or tap here to enter text.		(select)
TOTAL	**60,000**	

33. How will activities related to implementation of the Kigali Amendment to phase down HFCs be considered during project preparation for stage III of the HPMP?

The surveys will strive to collect the information on HFC when possible. The stage III preparation will also take into account how imports of HFC-based equipment will impact the strategy for the servicing sector for the HPMP, being cognizance of similar activities for the servicing sector whether equipment uses HFC or HCFC

H. Information required for PRP funding request for investment projects as part of the HPMP

25. Agency:	(select)

26. Sector:	(select)
27. HCFC consumption in item #2 reported under Country Programme (CP) data?	☐ **Yes**, please specify reported amount and year: _____ ☐ **No**

28. Information on remaining eligible consumption	
Substance	**Remaining eligible consumption (ODP tonnes)**
(select)	
(select)	
(select)	

29. Information on enterprise(s) for which funding is being sought

Enterprise	**Year established**	**HCFC consumption (ODP tonnes) (last three years)**			**HCFC phase-out to be achieved**
		2016	**2017**	**2018**	

30. Activities to be undertaken for preparation of the investment project and funding requestedi

Activity	Indicative funding (US $)
Click or tap here to enter text.	
Click or tap here to enter text.	
Click or tap here to enter text.	
Click or tap here to enter text.	
Click or tap here to enter text.	
Click or tap here to enter text.	
TOTAL	

ANNEX 2

Preparation funding requests for HFC Investment projects in:

1. **Indonesia**
2. **Lebanon**
3. **Pakistan**

FUNDING REQUEST FOR THE PREPARATION OF HFC-RELATED STANDALONE INVESTMENTS PROJECTS

COUNTRY: INDONESIA

PROJECT TITLE: Conversion of HFC-134a in the manufacturing of domestic refrigerators
LEAD IMPLEMENTING AGENCY: UNDP
COOPERATING AGENCY: n/a
NATIONAL COORDINATION AGENCY: Ministry of Environment & Forestry (KLHK)
PROJECT INCLUDED IN CURRENT BUSSINESS PLAN: No
ELIGIBLE CONSUMPTION: n/a (HFCs)
AREA: Manufacturing
SECTOR: Refrigeration and Air Conditioning
SUB-SECTOR: Domestic Refrigeration
NUMBER OF ENTERPRISES: one (1)

PROJECT DURATION:	12 months
PROJECT COST:	USD 30,000
SUPPORT COST: (7%)	USD 2,100
TOTAL COST FOR THE MLF:	**USD 32,100**

Project Summary

This document describes the proposed arrangements, preparation strategy and budgets for the preparation of the HFC-related standalone investment projects that will support Indonesia to assess the HFC conversion costs in the DRM sector and facilitate the early implementation of the Kigali Amendment to the Montreal Protocol.

The preparation of the stand-alone investment project will:

a) reflect national context and priorities, national policies and country-drivenness and consequently would need the agreement of Ministry of Environment and the national stakeholders to the investment project proposal;
b) facilitate seamless early implementation of the Kigali Amendment;
c) draw upon the lessons learnt from other projects prepared by UNDP;
d) be dynamic and evolve, and to be open for revisions and adaptation as necessary in response to evolving situations during the preparation process.

INTRODUCTION

1. Indonesia has acceded to the Vienna Convention for the Protection of the Ozone Layer and its Montreal Protocol on Substances that deplete the Ozone Layer, and had ratified all the previous Amendments to the Montreal Protocol. Currently, the country is taking significant steps towards the ratification of the Kigali Amendment. The ratification process has already been initiated by the Ministry of Environment & Forestry (KLKH) going through the deliberation of relevant instances of the Government.

2. Indonesia is compliant to the Montreal Protocol commitments and is in the forefront of implementation of the Montreal Protocol-related activities. Since 2011, the Government of Indonesia has been implementing its HPMP (currently in parallel the completion of its Stage I and the full implementation of its Stage II) including the continuous monitoring and improvement of the licensing system for ODS imports and having a well-established and enforceable Quota and Licensing System to control the consumption of HCFCs, as established in 2012 and further updated in 2015. The country has a full coordination mechanism in place with the national stakeholders such as Customs Officers, concurring governmental and private sector entities impacted by the Montreal Protocol activities.

3. The Government of Indonesia is implementing the Stage II of its HCFCs Phase-out Management Plan (HPMP) and has:

   (a) Complied with the 2013 HCFC freeze requirements;
   (b) Complied with the 2015 10% HCFC reduction in consumption;
   (c) Has timely reported Article 7 data to the Ozone and MLF Secretariats; and
   (d) Has conducted several investment and non-investment activities under the project.

4. As additional efforts to investment and non-investment activities under the HPMP, the Government has prohibited the use of HCFC-22 and HCFC-141b in RAC manufacturing and assembly sectors from 1 January 2015 and has removed HFC-32 from the list of highly flammable substances to support the uptake to lower GWP alternative in the country, followed by the conversion of the local room air conditioning manufacturer, Panasonic, that has phase-out about 240 metric tonnes of HCFC-22 consumption by adopting HFC-32 as alternative refrigerant. Indonesia also is developing standards for A2L refrigerants safe use in RAC equipment.

5. Currently, there is no regulation restricting the import of products/substances with high-GWP refrigerants as no legal basis for such intervention is in place until the Kigali Amendment is ratified/adopted. However, is from the interest of the Government of Indonesia to promote the adoption of low-GWP refrigerants in many activities as possible under the HPMP, and is working in soft interventions in the servicing sector playing an important role to prepare the market in this direction, such as training activities, safety standards etc.

OBJECTIVE OF THIS FUNDING REQUEST

6. The objective of this document is to request funding for the preparation of an Investment Project for the elimination of HFC-134a at the company Panasonic Indonesia. This HFCs-related Stand-alone Investment Project will be prepared and submitted to the ExCom in compliance to the guidelines established under the Decisions 78/3(g) and 79/45.

COMPANY PROFILE

Name of Company:	PT. Panasonic Manufacturing Indonesia
Sector	Domestic Refrigerators Manufacturer
Ownership:	40 % Article 5 (Indonesia)
	60 % non-Article 5 (Japan)
HFC-134a Consumption:	To be confirmed during the project preparation. Preliminary survey indicates: 2016: 44 metric tonnes 2017: 36 metric tonnes 2018: 36 metric tonnes
Description of product manufacturing (quantity produced per year, quantity export to non A-5, type of products)	To be confirmed during the project preparation
Alternative technology proposed	Hydrocarbons HC-600a (isobutane)

POTENTIAL IMPACT OF THE PROJECT

7. In 2014, with support from the Climate and Clean Air Coalition (CCAC), the Government of Indonesia has undertaken an Alternatives Survey to carry out and initial analysis of the HCFCs alternatives scenario and to better understand historical consumption and predict future consumption trends of HFCs alternatives in different sectors and sub-sectors. The survey was conducted with support from UNDP and in accordance with the CCAC guidelines, and was based in 2012 consumption data (baseline).

8. As indicated by the Survey, by 2012 all four (4) local producers of domestic refrigerators used HFC-134a as refrigerant, and importation of HFC-600a based equipment was not identified. Initial consultation with local stakeholders indicated that, by 2018, all local producers still use HFC-134a as refrigerant, being responsible to meet almost 80% of local demand for domestic refrigerators, while 20% of the market demand is met by imported equipment, in which the HC-600a share is low, but growing.

9. Data from National Energy Council of Indonesia (2015) estimated that the penetration of household refrigerators in the country was 60%, and this sub-sector may be expected to grow by 20% in demand in the coming years, meaning that the growth demand will require more efficient equipment delivered with the lowest direct environment impact possible.

10 The use of R-600a in domestic refrigeration is slowly gaining momentum but still very limited to a parcel of imported units, and due to the size of the sub-sector to the Indonesian consumption profile (table 1), added to the fact to the number of companies locally manufacturing units in Indonesia, the implementation of a stand-alone project will support both the Government to identify needs and challenges related to future implementation of the Kigali Amendment by converting one of the leading companies in the sector, but will also provide to the Multilateral Fund (MLF) important data related to the conversion costs of the sector in the sub-region of the South-East Asia.

Table 1 – HFCs Consumption per Sector (2012 metric tonnes)

Sector	Application	Substance	2012	2020 (estimated)
DRM	Manufacturing	HFC-134a	332.53	1,701.46
	Servicing		164.84	408.58
CRM and Industrial Ref.	Manufacturing	HFCs	27.30	921.27
	Servicing	HFCs	22.80	93.66
PU Foam	Manufacturing	HFCs	0.00	863.04
AC	Manufacturing	HFCs	60.83	582.79
	Servicing		164.44	1,772.35
MAC	Manufacturing	HFC-134a	486.63	1,659.72
	Servicing		2,589.93	5,200.04
Solvents	Manufacturing	HFCs	672.54	1,043.34
Aerosols	Manufacturing	HFC-134a	2,743.58	4,635.22

Source: HFCs Alternatives Survey (2014)

PROJECT ACTIVITIES

(a) Obtain technical information (and confirmation) on consumption of HFCs, number of production lines, description of production process, outputs and profile of appliances produced;
(b) evaluate the potential alternative technologies to HFCs, consultation process with Government and Company on reconversion process and technology choice and estimation of the environmental benefits to be achieved by the investment stand-alone project; and
(c) Draft of the full standalone project proposal, peer review and submit the final proposal to the ExCom.

No.	Budget description	Budget (US $)
1.	International Experts	10,000
2.	National Consultant	8,000
3.	Information collection, consolidation and analysis	5,000
4.	Meetings, Missions	5,000
5.	Project Proposal review	2,000
	Total	**30,000**

Implementation Timeframe

Activities		2019										
		1	2	3	4	5	6	7	8	9	10	11
1	ExCom Project Approval											
2	Receipt of Funds											
3	Project Document Signature											
4	Consultants Recruitment											
5	Data Collection											
6	Consultation Meetings											
7	Draft the project document											
8	Peer Review											
	Submission to the ExCom											

FUNDING REQUEST FOR THE PREPARATION OF HFC-RELATED STAND-ALONE INVESTMENT PROJECT

COUNTRY: LEBANON

PROJECT TITLE: Conversion of R-404A in the commercial refrigeration units for supermarkets
LEAD IMPLEMENTING AGENCY: UNDP
COOPERATING AGENCY: N/A
NATIONAL COORDINATION AGENCY: Ministry of Environment
PROJECT INCLUDED IN CURRENT BUSSINESS PLAN: No
ELIGIBLE CONSUMPTION:N/A (HFCs)
AREA: Manufacturing
SECTOR: Refrigeration and Air Conditioning
SUB-SECTOR: Commercial Refrigeration
NUMBER OF ENTERPRISES: One (1)

PROJECT DURATION: 12 months
PROJECT COST: USD 30,000
SUPPORT COST: (7%) USD 2,100
TOTAL COST FOR THE MLF: **USD 32,100**

Project Summary

This document describes the proposed arrangements, preparation strategy and budgets for the preparation of the HFC-related standalone investment project that will support the Government of Lebanon to assess the HFC conversion costs in the domestic refrigeration manufacturing (DRM) sector and facilitate the early implementation of the Kigali Amendment to the Montreal Protocol.

The preparation of the stand-alone investment project will:

a) reflect national context and priorities, national policies and country-drivenness and consequently would need the agreement of Ministry of Environment and the national stakeholders to the investment project proposal;

b) facilitate seamless early implementation of the Kigali Amendment;

c) draw upon the lessons learnt from other projects prepared by UNDP;

d) be dynamic and evolve, and to be open for revisions and adaptation as necessary in response to evolving situations during the preparation process.

INTRODUCTION

1. Lebanon has acceded to the Vienna Convention for the Protection of the Ozone Layer and its Montreal Protocol on Substances that deplete the Ozone Layer and had ratified all the previous Amendments to the Montreal Protocol. The Parliament of Lebanon approved in March 2019 the ratification of the Kigali Amendment.

2. Lebanon is compliant to the Montreal Protocol commitments and is in the forefront of implementation of the Montreal Protocol-related activities. Since approval of the Stage I of HPMP at the 64th Executive Committee meeting held in July 2011, the Government of Lebanon has been implementing its HPMP that includes the continuous monitoring and improvement of the licensing system for ODS imports and having a well-established and enforceable Quota and Licensing System to control the consumption of HCFCs. The country has a full coordination mechanism in place with the national stakeholders such as Customs Officers, concurring governmental and private sector entities impacted by the Montreal Protocol activities.

3. The Government of Lebanon is implementing the Stage II of its HCFCs Phase-out Management Plan (HPMP) approved at the 75th ExCom meeting held in November 2015, and has:

   (e) Complied with the 2013 HCFC freeze requirements;
   (f) Complied with the 2015 10% HCFC reduction in consumption;
   (g) Has timely reported Article 7 data to the Ozone and MLF Secretariats; and
   (h) Has conducted several investment and non-investment activities under the project.

4. In the implementation of the Stage II of HPMP, the Government of Lebanon has undertaken investment and investment activities to address phase out of HCFCs in the foam manufacturing sector, the air-conditioning manufacturing sector and the RAC servicing sector.

5. Currently, there is no regulation restricting the import of products/substances with high-GWP refrigerants. However, Lebanon is implementing the Enabling Activities to allow the initiation of the implementation of the Kigali Amendment, including the establishment of the control and reporting systems required under the Amendment. The Government of Lebanon reinforces its commitment to promote the adoption of low-GWP refrigerants and recalls that, under the HPMP, it is working in soft interventions in the servicing sector such as training activities, safety standards etc., plays an important role to prepare the market in this direction,

6. Although the Government of Lebanon has a well-established legal and institutional framework to implement the Montreal Protocol commitments ratified so far, the new Kigali Amendment will bring additional challenges to determine the national requirements to establish a sound foundation to undertake future work towards its implementation.

7. An Enabling Activities project was approved at the 80th ExCom meeting for Lebanon to undertake activities to facilitate and support the ratification of the Kigali Amendment, develop an overall national policy framework for addressing HFCs phase-down plan, access coordination mechanisms needed to implement the Amendment, provide technical assistance for safe adoption of alternatives, review the licensing and data report systems on HFCs, conduct study to establish a baseline of existing HFCs banks in the RAC sector, and raise awareness on the ratification and implementation processes of the Kigali Amendment.

8. Some of the activities implemented undertaken in this ongoing Enabling Activities project, it has facilitated the Parliament of Lebanon to approve the ratification of the Kigali Amendment in March 2019.

OBJECTIVE OF THIS FUNDING REQUEST

9. The objective of this document is to request funding for the preparation of an Investment Project for the elimination of R-404A at the company Leon Industries. This HFCs-related Stand-alone Project will be prepared and submitted to the ExCom in compliance with the guidelines established under the ExCom decisions 78/3(g) and 79/45.

COMPANY PROFILE

Name of Company:	Leon Industries S.A.R.L
Sector	Refrigeration and Air-conditioning
Ownership:	100% Article 5 (Lebanon)
R-404A Consumption:	To be confirmed during the project preparation. Preliminary survey indicates: 2016: 11.84 metric tonnes 2017: 10.68 metric tonnes 2018: 12.8 metric tonnes
Description of product manufacturing (quantity produced per year, quantity export to non-A-5, type of products)	Detailed manufacturing profile to be confirmed during the project preparation Company manufactures stand-alone and plug in refrigerators, cabinets and condensing units for use in supermarkets and commercial stores.
Alternative technology proposed	Natural Refrigerant CO_2 (R-744) super-critical

POTENTIAL IMPACT OF THE PROJECT

10. In 2016, with support from the MLF, the Government of Lebanon has undertaken an ODS Alternatives Survey to carry out and initial analysis of the HCFCs alternatives scenario and to better understand historical consumption and predict future consumption trends of HFCs alternatives in different sectors and sub-sectors. The survey was conducted with support from UNDP and in accordance with the ExCom guidelines, and was based on the 2012-2015 consumption data (baseline).

11. The survey indicated a wide range of HFC uses in Lebanon mainly under the RAC (Refrigeration and Air Conditioning) sector. Whereas, there were limited applications of HFCs in fire suppression systems. Moreover, the survey did not result in any indication of HFC applications in the foam, solvent and aerosol sectors.

12. However, the survey shows that there was no production or exportation of ODS alternatives in the country. All ODS alternatives including HFCs are imported primarily from USA, UK, Spain, UAE, Japan and China. The estimated total quantity imported/consumed by individual substance during the period 2012-2015 is shown in the table below:

Table 1: Estimated Total Quantity Imported/Consumed by Individual Substance (2012-2015)

Substance	2012 (Tons)	2013 (Tons)	2014 (Tons)	2015 (Tons)
Cyclopentane	144	154	158.2	214.6
Butane/Propane mix	213.5	254.55	224.1	146.2
Methylene Chloride	243	220.4	188.7	185.5

HFC-134a	580	610	628	650
HFC-410A	28.70	25.20	75.75	95.50
HFC-404A	113.5	130.25	135.80	133.70
HFC-407C	42.20	33.71	31.85	37.35
HFC-227ea	12.20	17.50	21	23.70
R-600A	7.15	6.20	5.50	5
R-744	0	0	13.60	14.30
CO2	76	91.80	101	88.75
NOVEL (Fire Fighting)	1.20	1.40	2.20	2.15

13. In conclusion, the survey report clearly shows that most of the ODS alternatives are HFCs, and they are used in 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 (Mobile Air Conditioning) sectors . However, HCFCs are gradually being phased-out, and the demand on HFCs is increasing in the short and medium term to satisfy the expected growth in the country.

14. Household refrigerators mostly operate on R-134a even though R-600a refrigerant is already introduced in Lebanon, but domestic refrigeration market transformation will take time to be changed from R-600a or any other alternative.

15. MAC sector accounts for a major share of the country's use of refrigerant R-134a and alternatives are not well known and are not freely available (except for the case of HFO-1234yf which is still not commercially available), therefore, the sector is expected to keep on using HFCs (R-134a).

16. Furthermore, Lebanon is a middle-income country and its development is rapid. 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 authority will be forth coming for replacing high-GWP refrigerant. In order to achieve this, decision makers will have to be well informed on the subject. This will help bring up a policy decision towards low-GWP technologies.

17. However, considering the above future actions are needed to be taken regarding HFCs in the context of the Kigali Amendment and related discussions during the Executive Committee meetings.

Table 2 – HFCs Consumption per Sector in Lebanon (metric tonnes)

Sector	Application	Substance	2015
Domestic refrigeration	Manufacturing & Servicing	HFC-134a	64
Commercial and Industrial refrigeration	Manufacturing & Servicing	HFC-134a HFC-404A HFC-407C R-744	40.83 97.7 22.5 14.3
Industrial chillers	Manufacturing	HFC-134a HFC-404A	61.5 11.5
Transport refrigeration	Manufacturing & Servicing	HFC-134a HFC-404A	15.2 13.0
Residential air-conditioning	Manufacturing	R-410A	63.7

	& Servicing		
Commercial air-conditioning chiller	Manufacturing	HFC-134a HFC-404A HFC-410A HFC-407C	23.5 11.5 31.8 14.85
Mobile air-conditioning (MAC)	Servicing only	HFC-134a	241

Source: HFCs Alternatives Survey (2015 and 2018)

18. The ODS Alternative Survey estimates that the supermarkets sub-sector will experience a growth of 15-20% in demand in the coming years, meaning that under the business as usual (BAU) scenario, where HFCs-based alternatives are consolidated in the markets and with competitive cost, the growth demand will require greatest efforts from the Government of Lebanon to meet the phase-down commitments under the Kigali Amendment, putting more pressure to the HFCs consumption tail, and in this regard is critical that low-GWP and energy efficient alternatives are available to the market.

19. The use of R-744 in commercial refrigeration is growing in many countries, but still limited to countries with moderate-to-low annual average temperatures; sub-tropical and temperate regions (cooler than 15º C) where, historically, gains of energy efficiency and technology development and penetration were more prone to, such as Europe. However, more evidence and field application experience are needed in countries that have warmer average temperatures, such as in the Middle East and tropical regions, in order to fully assess the technology challenges, efficiency and costs.

20. In this regard, an investment project supported by the Multilateral Fund (MLF) can allow important data to be collected and made publicly available relating to the conversion costs of the sector in the sub-region of the Middle-East and Central Asia.

PROJECT ACTIVITIES

21. The proposed project will carry out the following activities to gain experience in terms of cost and technical elements:

    (a) Obtain technical information (and confirmation) on consumption of HFCs, number of lines, description of production process, outputs and profile of appliances produced;

    (b) evaluate the potential alternative technologies to HFCs, consultation process with Government and Company on reconversion process and technology choice and estimation of the environmental benefits to be achieved by the investment stand-alone project; and

    (c) Draft of the full stand-alone project proposal, peer review and submit the final proposal to the ExCom.

22. A Project Preparation grant in the amount of US$ 30,000, plus 7% agency support costs are requested for the preparation of a stand-alone investment project:

No.	Budget description	Budget (US $)
6.	International Experts	10,000
7.	National Consultant	8,000
8.	Information collection, consolidation and analysis	5,000
9.	Meetings, Missions	5,000
10.	Project Proposal review	2,000
	Total	**30,000**

23. Proposed Implementation Timeframe:

Activities		2019										
		1	2	3	4	5	6	7	8	9	10	11
1	ExCom Project Approval											
2	Receipt of Funds											
3	Project Document Signature											
4	Consultants Recruitment											
5	Data Collection											
6	Consultation Meetings											
7	Draft the project document											
8	Peer Review											
	Submission to the ExCom											

FUNDING REQUEST FOR THE PREPARATION OF HFC-RELATED STANDALONE INVESTMENTS PROJECT

Country: PAKISTAN

PROJECT TITLE:

Conversion from HFC-134a to R-600a/R-290 as refrigerant in manufacturing of deep freezers, household refrigerators and water dispenser at PAK Elektron Limited, Lahore, Pakistan

INTERNATIONAL IMPLEMENTING AGENCY	**:**	UNDP
PROJECT DURATION	**:**	12 months
PROJECT COSTS	**:**	US$ 30,000
IMPLEMENTING AGENCY SUPPORT COST	**:**	US$ 2,100 (7%) – UNDP
TOTAL COST OF PROJECT TO MLF	**:**	**US$ 32,100**
NATIONAL COORDINATING AGENCY	**:**	Ministry of Climate Change, Pakistan

Project Summary:

This document describes the anticipated arrangements, preparation strategy, budget and work plan for the preparation of an HFC-related standalone investment project that will support Pakistan to reduce the HFC-134a consumption and facilitate the early implementation of the Kigali Amendment to the Montreal Protocol.

A. Background

Pakistan ratified the Montreal Protocol, Vienna Convention and the London amendment in 1992. Pakistan also ratified the subsequent amendments including Copenhagen amendment in 1995, Montreal amendment in 2005 and Beijing amendment in 2005.

In 2016, the Parties to the Montreal Protocol adopted the agreement on HFCs at the close of the 28th Meeting of the Parties (MOP 28) in Kigali, Rwanda. Presently, the Kigali Amendment to the Montreal Protocol on Substances that Deplete the Ozone Layer entered into force on 1 January 2019, following ratification by 65 countries. The process of ratification in Pakistan has started and will be ratified in due course.

In Pakistan, HFCs were adopted to replace CFC-12 by the domestic refrigerator industry during the period of 1995 – 2007. Thanks to the CFC Phase-out plans in Pakistan, 100% CFCs have been phased out from all the sectors and sub-sectors.

The Government of Pakistan is implementing Stages II of its HCFCs Phase-out Management Plan (HPMP) and is

1. Meeting the HCFCs compliance targets as per the Montreal Protocol;
2. Maximizing climate benefits while phasing-out HCFCs;

B. PROJECT OBJECTIVE

a) The objective of this document is to request funding for the preparation of an individual investment project for the elimination of HFC-134a in the manufacturing of deep freezers, household refrigerators and water dispenser;

b) To phase out the use of HFC-134a in 2 household refrigerator production lines, 1 deep freezer production line and 1 water dispenser production line at PAK Elektron Limited (PEL), Lahore, Pakistan (the pics of industry lines are as below). This will

result in phasing-out of about 121 MT of HFC-134a per annum which translated to 173,030 Tons CO2 equivalent emission reduction in initial charge in Pakistan.

c) To achieve the phase-down of HFCs in Refrigerator (Manufacturing) Sector in Pakistan

d) To ensure timely, sustainable and cost-effective HFC phase-down in the Refrigeration (Manufacturing) Sector, through development and implementation of a combination of investment, technical support and policy/management support components.

e) To adopt energy efficiency technologies

C. SECTOR/SUB-SECTOR

The project cascades under Refrigeration Sector and sub-sector is Manufacturing. The ODS alternative survey has already been submitted separately to the MLFs in 2017. The following table presents the summary of the ODS alternatives imported from 2012-2015.

Alternatives	**2012**	**2013**	**2014**	**2015**
HFCs and Blends (major share HFC-134a)	1,818.57	1,453.00	1,816.24	2,530.51
HFOs	0.00	0.00	0.00	0.00
Natural Refrigerant (major share Pentane)	344.89	313.07	629.99	938.30
Synthetic Alternatives	2911.82	3364.24	3897.40	3414.20
Total annual import	**5,075.27**	**5,130.31**	**6,343.63**	**6,883.01**

There are ten manufacturers that are manufacturing water dispenser/domestic refrigerator/ deep freezers including PEL, Orient, Cool Industries (Waves), Icage, Singer Pakistan, URIL, Dawlance, Haier, Electrolux and Changhong Ruba. Few of them are manufacturing water dispenser and deep freezers. These industries are in the manufacturing of various capacities and models of all the products. The estimated growth of HFC consumption in the next 11 years is expected to be 100%.

D. TECHNOLOGY

The selection of an alternative sustainable refrigerant technology would be seen to be ruled by the following considerations:

- Cost effective conversion.
- Proven and reasonably mature technology.
- Thermodynamics properties must be obtained in the end-product.
- Higher energy efficiency.

For water dispenser/domestic refrigerator/ deep freezers the reasonable technology is R-600a and/or R-290 depending upon the cooling capacity of each model the selection of refrigerant will be done.

PAK Elektron Limited (PEL) has identified R-600a/R-290 refrigerant as the concluding substitute for the HFC gases employed in its production.

E. COMPANY PROFILE

The company was established in 1956 with AEG Germany under the flag of Saigol Group of Companies, with an area of 96,000 Sq. mtr. And 250 employees with manufacturing of Distribution Transformer, Power Transformer, Energy Meter, Switch Gear and EPC & Grid Station. In 1980s the manufacturing facility split into two areas a) Power division and b) Appliance Division. In 1980 window type room air-conditioners manufacturing facility was set-up under the brand name of PEL. As usual the growth factor was high, and the company introduced refrigerators in 1986, deep freezers in 1987 and water dispenser in 2007.

PEL has two refrigerator lines with a production capacity of 600,000 units/year but manufactured 500,000 units in 2018, running two shifts at factory. PEL has one line of deep freezer with a production capacity of 130,000 units/year but could manufacture 85,000 units. PEL has one production line of Water Dispenser with annual production capacity of 70,000 units whereas the actual production in 2018 was 50,000 units based on the demand.

The PEL brand in 2018 stood at number two in the Pakistan market as per the survey made by local company Surmewala. The product from PEL is treated as affordable yet carries all the great features. PEL is one of the best consumer goods manufacturing brands in Pakistan with millions of buyers across the country.

Presently the company have 2018 employees in the Appliance Division. PEL got the ISO:9001 in 2000 for refrigerators, ISO:9001 in 2011 for deep freezers and split air-conditioners. The gross sales of appliance division in 2018 is US$ 321.9 million.

NAME OF THE ENTERPRISE AND ADDRESS
M/s. PAK ELEKTRON LIMITED,
H.O. 14-Km, Ferozpur Road, LAHORE-54760, Pakistan
Tel: +92 42 35920151-9

F. AMOUNT OF HFC-134a TO BE PHASED OUT (in MT)

The total amount to be phased out of HFC-134a under this project will be 121 MT based on the 2018 consumption. The product wise detail is tabulated below:

Product	2014	2015	2016	2017	2018
Refrigerator	68	70	88	94	**100**
Deep freezers	3.3	6.9	10.2	13.1	**19**
Water dispenser	0.44	0.75	0.85	1.2	**2**

G. TOTAL PROJECT DURATION

The stand-alone investment project will be submitted to 84th ExCom.

H. BUDGET

Budget for preparing the project document: USD 30,000 is requested for the preparation of the project document for conversion from HFC-134a to R-600a/R-290 as refrigerant in manufacturing of deep freezers, household refrigerators and water dispenser at PAK Elektron Limited, Lahore, Pakistan.

No.	Budget description	Budget (US $)
1.	International Experts	7,000
2.	National Consultant	8,000
3.	Travel	5,000
4.	Information collection, consolidation and analysis	4,000
5.	Meetings, Missions	4,000
6.	Documentation and information materials	2,000
	Total	**30,000**

I. SCHEDULE

Activities	2019

		May	Jun	Jul	Aug	Sep	Oct	Nov
Project Start-up								
1	ExCom Project Approval							
2	Receipt of Funds							
3	Project Document Signature							
4	Consultants Recruitment							
Project Implementation								
5	Data Collection							
6	Consultation Meetings							
7	Draft the project document							
8	Peer Review							
9	Submission to the ExCom							