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执行蒙特利尔议定书
多边基金执行委员会
第七十九次会议
2017 年 7 月 3 日至 7 日，曼谷

开发计划署 2017 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为表 1 所列 2017 年工作方案核准 846,552 美元，外加机构支助费 59,859 美元。申请附于本文件后。

表 1: 开发计划署 2017 年工作方案

国家	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: 延长体制建设项目			
智利	延长体制建设项目（第十二阶段）	238,784	238,784
哥伦比亚	延长体制建设项目（第十一阶段）	352,768	352,768
特立尼达和多巴哥	延长体制建设项目（第九阶段）	85,000	85,000
		676,552	676,552
	A1：机构支助费用 (占体制建设的 7%):	47,359	47,359
	A1 共计	723,911	723,911
A2: 项目编制			
刚果民主共和国	编制氟氯烃淘汰管理计划 (总体战略)	20,000	20,000
	A2 小计	20,000	20,000
	机构支助费用 (占项目编制的 7%):	1,400	1,400
	A2 共计	21,400	21,400
A3: 编制核查报告的技术支助			
萨尔瓦多	氟氯烃淘汰管理计划第一阶段核查报告	30,000	30,000
	A3 小计	30,000	30,000
机构支助费用（占技术援助的 9%）		2,700	2,700
	A3 共计	32,700	32,700
B 节: 建议单独审议的活动			
B1: 与氢氟碳化物有关的项目编制 (第 78/3 号决定 (g)段)			
中国	一移动空调制造厂家由 HFC-134a 转用 HFO-1234yf 作为制冷剂的优化空调和生产线项目编制	30,000	*
中国	一冰箱制造厂家由 HFC-245fa 转用 HFO 作为发泡剂的项目编制	30,000	*
中国	一冷冻柜制造厂家由 HFC-134a 转用 HC-290 的项目编制	30,000	*
墨西哥	墨西哥 Mabe 冰箱生产中淘汰 HFC 示范项目的项目编制	30,000	*
	B1 小计	120,000	*
机构支助费用 (占项目编制的 7%):		8,400	*
	B1 共计	128,400	*
	总计 (A1, A2, A3, B1):	906,411	778,011

*供单独审议

A 部分：建议一揽子核准的活动

A1：体制建设

项目说明

2. 开发计划署为表 1 所列国家提交了延长体制建设项目的申请。些项目的说明载于本文件附件一。

秘书处的评论

3. 秘书处根据关于资格标准和供资金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三个延长体制建设项目的申请。将申请同上一阶段国家方案最初的体制建设工作计划和第 7 条数据、氟氯烃淘汰管理计划执行情况最新报告、机构进度报告和缔约方会议任何相关决定进行了交叉核对。注意到，这些国家已经提交了 2016 年的国家方案执行情况报告，遵守了《蒙特利尔议定书》消耗臭氧层物质淘汰目标，而且年氟氯烃消费量不超过各自与执行委员会的氟氯烃淘汰管理计划协定中所列年度最高允许消费量。此外，所有提交的请求都根据第 74/51 号决定（e）段包含了下一阶段体制建设项目计划活动的绩效指标。[1]

秘书处的建议

4. 秘书处建议按本文件表 1 所列金额一揽子核准智利、哥伦比亚和特立尼达和多巴哥的延长体制建设申请。执行委员会不妨向上述各国政府表达本文件附件二所载的评论。

A2: 项目编制

刚果民主共和国：编制氟氯烃淘汰管理计划第二阶段（总体战略）：20,000 美元

项目说明

5. 由于联合国环境规划署（联合国环境署）是牵头执行机构，刚果民主共和国政府提交的编制氟氯烃淘汰管理计划第二阶段总体战略的项目说明载于联合国环境署 2017 年工作方案中。[2]开发计划署作为合作执行机构，为氟氯烃淘汰管理计划第二阶段部分编制工作申请资金，金额如表 1 所示。

6. 申请包括了氟氯烃淘汰管理计划第一阶段的最新执行情况、申请供资的理由、将要执行的活动和相应的预算。

[1] 执行委员会决定继续使用第六十一次会议核准的现有延长体制建设格式（第 61/43 号决定(c)段），其第 10 节有一项修改，即应包含业绩指标，载于 UNEP/OzL.Pro/ExCom/74/56 文件附件十九(第 74/51 号决定(e)段)。

[2] UNEP/OzL.Pro/ExCom/79/22 。

秘书处的评论

7. 关于项目编制申请的评论也载于联合国环境署 2017 年工作方案中。秘书处指出，表 1 中开发计划署的项目编制申请符合第 71/42 号决定。

秘书处的建议

8. 秘书处建议按表 1 所列金额，一揽子核准开发计划署编制刚果民主共和国氟氯烃淘汰管理计划第二阶段项目部分的申请，但有一项谅解，即如果未来的会议修改削减氟氯烃总消费量起点，将据此调整金额，余额在同次会议上退还。

A3: 编制氟氯烃消费核查报告的技术援助

萨尔瓦多：氟氯烃淘汰管理计划第一阶段核查报告的技术援助：30,000 美元

项目说明

9. 执行委员会请相关双边和执行机构在其应提交第七十七次会议的各自工作方案的修订中纳入尤其是萨尔瓦多的氟氯烃淘汰管理计划第一阶段核查报告的供资，因为开发署是牵头执行机构（第 76/17 号决定）。

秘书处的评论

10. 秘书处指出，由于核查报告必须至少在寻求氟氯烃淘汰管理计划的下一次供资付款的相应执行委员会会议之前 60 天提交，为萨尔瓦多的申请只提交给了第七十九次会议。所申请的资金与以前历次会议核准用于类似核查的金额一致。

秘书处的建议

11. 秘书处建议按表 1 所列金额一揽子核准萨尔瓦多编制氟氯烃淘汰管理计划第一阶段核查报告的申请，但有一项谅解，即核查报告应至少在寻求氟氯烃淘汰管理计划下一次供资付款的相应执行委员会会议之前 60 天提交。

B 部分：建议单独审议的活动

B1:与氢氟碳化合物有关项目的项目编制（第 78/3 号决定（g）段）

项目说明

12. 开发计划署为制造业中的四个与氢氟碳化合物有关的项目编制提交了资金申请，包括在移动空调机、冷冻柜和家用制冷行业由 HFC-134a 转用非氢氟碳化合物替代制冷剂，家用冰箱制造的发泡成分由 HFC-245fa 转用四氟丙烯（表 1）。申请符合第 78/3 号决定（g）段。[3]

[3]考虑在不妨碍采用不同种类的技术的情况下，最迟在 2019 年第一次会议上核准仅限于制造业的数目有限的氢氟碳化合物项目， 以便委员会能够获得经验，了解可能与在第 5 条国家逐步减少氢氟碳化合物有关的

13. 每个项目编制申请都包括有关项目概念、项目编制过程中要开展的活动以及活动的相关费用的信息。按照第 78/3 号决定（g）段的要求，提交的所有项目编制申请均有各自政府的核可函。每项申请的详细内容载于本文件所附的来函中。

秘书处的评论

14. 第七十八次会议在讨论与制定氢氟碳化合物逐步淘汰供资标准相关的资料时，有人指出，需要补充资料才能对符合资格的增资成本作出决定。经进一步讨论后，执行委员会同意第 78/3 号决定（g）段。

15. 秘书处指出，虽然提交的项目申请与执行委员会所考虑的项目编制供资成本一致，而且来函内容很详细，可以对这些申请进行审议，可是需要进一步的指导以确定项目的优先次序。需要界定要涵盖的项目的标准、范围和类型，将为这些项目提供的资金总额，项目执行期限以及项目完成后的报告要求，以便秘书处能够审查这些申请并为执行委员会提供建议。

16. 秘书处在关于项目审查期间发现的问题概述文件中审议了这个问题。[4]

秘书处的建议

17. 执行委员会不妨在讨论关于项目审查期间确定的问题概述文件（UNEP/OzL.Pro/ ExCom /79/19）中说明的有关氢氟碳化合物项目提案时，审议本文件表 1 所列为制造业编制有关氢氟碳化合物项目的提案。

增支资本费用和增支经营费用，同时有一项谅解是：任何提交项目的第 5 条国家都应该批准了《基加利 修正案》，或提交了一份正式信函，表示该国政府打算批准《修正案》；在纽约联合国总部的托存图书馆收到批准书之前，将不再提供任何资金；因所涉项 目而减少的任何氢氟碳化合物数量均应从起点数量中扣除

[4] UNEP/OzL.Pro/ExCom/79/19。

Annex I

INSTITUTIONAL STRENGTHENING PROJECT PROPOSALS

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. 1992	213,000
	Phase II:	Oct. 1996	113,500
	Phase III:	Jul. 1998	143,500
	Phase IV:	Dec. 2000	143,500
	Phase V:	Nov. 2002	186,550
	Phase VI:	Apr. 2005 & Nov. 2005	186,550
	Phase VII:	Mar. 2007	186,550
	Phase VIII:	Apr. 2009	186,550
	Phase IX:	Apr. 2011	186,550
	Phase X:	Apr. 2013	186,550
	Phase XI:	May 2015	186,550
		Total:	1,919,350
Amount requested for renewal (phase XII) (US $):			238,784
Amount recommended for approval for phase XII (US $):			238,784
Agency support costs (US $):			16,715
Total cost of institutional strengthening phase XII 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):			2015
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
Latest reported ODS consumption (2016) (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)			-2.4
		Total:	63.33
Year of reported country programme implementation data:			2016
Amount approved for projects (as at December 2016) (US $):			18,390,229
Amount disbursed (as at December 2015) (US $):			12,751,515
ODS to be phased out (as at December 2016) (ODP tonnes):			1,296
ODS phased out (as at December 2015) (ODP tonnes):			1,003

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

Summary of activities	**Funds approved (US $)**
(a) Investment Projects	11,091,769
(b) Institutional strengthening:	1,919,350
(c) Project preparation, technical assistance, training and other non-investment projects:	5,379,110
Total:	18,390,229

Progress report

2. During the eleventh phase of the IS project for Chile ozone matters continued to be addressed by the NOU located in the Office of Climate Change with oversight of the Deputy Minister of Environment. HCFC import and export controls are fully implemented, including those for formulated polyols. The NOU continued to coordinate the implementation of stage I of the HPMP working closely with local authorities and stakeholders including the National Customs Service. Multiple initiatives are underway including training of refrigeration and air-conditioning technicians on low-GWP alternatives and the application of good refrigeration practices. Implementation of stage II of the HPMP, which was approved during phase XI, was initiated. Chile reported the 2015 and 2016 country programme data in advance of the 1 May deadline and actively participated in regional network and international meetings relevant to the implementation of the Montreal Protocol and was successful in its efforts to maintain awareness of the topic of ozone layer protection among policy makers and the general public.

Plan of action

3. During phase XII of the IS project, the Government of Chile will maintain its ban on CFC and halons, and the reduction in HCFC consumption already achieved. The NOU will work with public and private entities to enforce HCFC consumption control measures and coordinate activities including investment projects, training programmes on good refrigeration practices, and public awareness activities. Additionally, the Government of Chile will initiate the internal process for the ratification of the Kigali Amendment, and will continue to participate in regional network and Montreal Protocol meetings in order 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	275,600
	Phase VIII:	Jul-11	275,600
	Phase IX:	Jul-13	275,600
	Phase X:	May-15	275,600
		Total:	2,670,990
Amount requested for renewal (phase XI) (US $):			352,768
Amount recommended for approval for phase XI (US $):			352,768
Agency support costs (US $):			24,694
Total cost of institutional strengthening phase XI 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

Summary of the project and country profile	
Latest reported ODS consumption (2015) (ODP tonnes) as per Article 7:	
Annex B, Group III (methyl chloroform)	0.00
Annex C, Group I (HCFCs)	164.60
Annex E (methyl bromide)	0.00
Total:	164.60
Year of reported country programme implementation data:	2016
Amount approved for projects (as at December 2016) (US $):	35,517,796
Amount disbursed (as at December 2015) (US $):	28,689,141
ODS to be phased out (as at December 2016) (ODP tonnes):	2,005
ODS phased out (as at December 2015) (ODP tonnes):	1,896

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

Summary of activities	**Funds approved (US $)**
(a) Investment projects:	26,163,439
(b) Institutional strengthening:	2,670,990
(c) Project preparation, technical assistance, training and other non-investment projects:	6,683,367
Total:	35,517,796

Progress report

5. During the tenth phase of the IS project for Colombia, the Government of Colombia through its NOU, completed stage I of the HPMP and initiated the strategy for stage II of the HPMP. Activities implemented included: cooperation with the Customs authority to achieve and maintain compliance with Montreal Protocol targets through monitoring trade; coordinating the collection, analysis, verification and submission of country programme data which was submitted in advance of the 1 May deadline; strengthening the legal framework to control and monitor HCFCs consumption through import/export licensing and quota systems and new regulations according to the commitments in stage II of the HPMP; developing synergies with climate change initiatives which resulted in the formulation and submission of the Nationally Appropriate Mitigation Actions (NAMA) for the domestic refrigeration sector in order to reduce emissions of greenhouse gases and contribute to sustainable development. The NOU also coordinated developments of the district cooling project and demonstration projects to promote ODS alternatives in several sectors. In international meetings, the country contributed to the discussions taking place at the regional, Executive Committee and Parties level. International Ozone Day was celebrated in nine cities in 2016 and information/awareness activities targeting technicians and customs officers were carried out.

Plan of action

6. During the eleventh phase of the IS project, Colombia aims to further reduce HCFC consumption through the implementation of stage II of the HPMP while maintaining the total phase out of other ODS. The process for ratification of the Kigali Amendment will be initiated and will require consultation with the Climate Change office and Energy Department as well as other stakeholders in order to coordinate the efforts through the Montreal Protocol and the United Nations Framework Convention on Climate Change. Collection and analysis of data on ODS alternatives will continue to provide further understanding of the country's status. Colombia will continue to participate in regional and Montreal Protocol meetings, to exchange information and experience that will foster the implementation of national policies and strategies for the protection of the ozone layer. The country plans to celebrate International Ozone Day and continue other awareness activities.

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 & Dec-10	60,000
	Phase VII: Dec-12	60,000
	Phase VIII: Nov-14	60,000
	Total:	467,200
Amount requested for renewal (phase IX) (US $):		85,000
Amount recommended for approval for phase IX (US $):		85,000
Agency support costs (US $):		5,950
Total cost of institutional strengthening phase IX to the Multilateral Fund (US $):		90,950
Date of approval of country programme:		1996
Date of approval of HCFC phase-out management plan:		2011
Baseline consumption of controlled substances (ODP tonnes):		
Annex B, Group III (methyl chloroform) (average 1998-2000)		0.7
Annex C, Group I (HCFCs) (average 2009-2010)		46.0
Annex E (methyl bromide) (average 1995-1998)		1.7
Latest reported ODS consumption (2016) (ODP tonnes) as per Article 7:		
Annex B, Group III (methyl chloroform)		0.00
Annex C, Group I (HCFCs)		20.81
Annex E (methyl bromide)		0.00
	Total:	20.81
Year of reported country programme implementation data:		2016
Amount approved for projects (as at December. 2016) (US $):		3,360,697
Amount disbursed (as at December 2015) (US $):		2,147,864
ODS to be phased out (as at December 2016) (ODP tonnes):		130.5
ODS phased out (as at December 2015) (ODP tonnes):		113.5

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

Summary of activities	**Funds approved (US $)**
(a) Investment projects:	1,611,303
(b) Institutional strengthening:	467,200
(c) Project preparation, technical assistance, training and other non-investment projects:	1,282,194
Total:	3,360,697

Progress report

8. Phase VIII of the IS project for Trinidad and Tobago was implemented by the NOU located in the Ministry of Planning and Development and the country has maintained compliance with the Montreal Protocol. The country continued to implement stage I of the HPMP in coordination with the public and private sectors. A licensing and quota system for HCFC imports and exports has allowed the country to reduce HCFC consumption in accordance with the Agreement with the Executive Committee. The NOU continue monitoring activities in the air-conditioning sector, the regulation of imports, consultations with stakeholders, and the reporting of country programme data in advance of the 1 May deadline. The NOU improved the communication system between the Ministry of Trade, Customs and itself with the aim of

deterring illegal trade, and conducted seminars with customs officials on labelling standards. Awareness activities were undertaken to sensitize the private sector about the challenges ahead and to support the national strategy towards an ODS-free and low-carbon plan. Information materials were also provided to the educational Science Bus project.

Plan of action

9. During the ninth phase of the IS project, the Government of Trinidad and Tobago will maintain its import regulations for ODS and ODS-based equipment, and the NOU will continue to coordinate the implementation of stage I of the HPMP, working with public and private entities to enforce HCFC consumption control measure and the ban on the import of pre-blended polyols containing HCFC-141b. Other activities include training programmes on good refrigeration practices, licensing and certification system of refrigeration and air-conditioning technicians; conversion of foam enterprises, seminars with customs officer on labelling and blend identification, and public awareness activities. The NOU will also prepare the submission of the fourth tranche of the HPMP. Trinidad and Tobago will celebrate international ozone day, continue information sharing, and participate in regional network and Montreal Protocol meetings.

附件二

执行委员会对提交第七十九次会议的延长体制强化项目申请表达的意见草案

智利

18. 执行委员会审查了提交智利体制强化项目（第十二阶段）申请的报告，并赞赏地注意到该国正在采取必要步骤，以执行《蒙特利尔议定书》有关氟氯烃的管制措施。执行委员会赞扬智利政府执行了氟氯烃淘汰管理计划第一阶段、其有效的许可证和配额制度以及采用参与性方法执行与《蒙特利尔议定书》相关的所有活动。执行委员会赞赏地注意到智利政府为促进在制冷和空调行业采用低全球升温潜能值替代品所开展的活动、与国家淘汰目标有关的公众意识水平、以及启动批准《基加利修正案》进程的意图，并且该国继续积极参与区域网络和《蒙特利尔议定书》的各种会议。执行委员会期待智利政府在体制强化项目第十二阶段，将继续成功地执行氟氯烃淘汰管理计划第二阶段和体制强化项目，使该国能够在规定的 2020 年 1 月 1 日之前实现将氟氯烃消费量削减 35％。

哥伦比亚

19. 执行委员会审查了提交哥伦比亚体制强化项目（第十一阶段）申请的报告，并赞赏地注意到该国正在采取必要步骤，以执行《蒙特利尔议定书》有关氟氯烃的管制措施。执行委员会赞扬哥伦比亚政府执行了氟氯烃淘汰管理计划第一阶段并编制了第二阶段、其有效的许可证和配额制度以及氟氯烃进口商与海关当局之间的良好沟通。执行委员会赞赏地注意到哥伦比亚政府通过示范项目为使用氟氯烃寻找替代品所做的努力、与淘汰氟氯烃的挑战和国家淘汰目标有关的公众意识水平，以及为批准《基加利修正案》采取的初步步骤。委员会还赞赏该国积极参与区域网络和《蒙特利尔议定书》的各种会议。执行委员会注意到，已核准的氟氯烃淘汰管理计划第二阶段将有助于哥伦比亚在未来几年中努力实现削减氟氯烃的目标，因此期待哥伦比亚政府将继续成功执行淘汰消耗臭氧层物质的活动，以便在规定的 2020 年 1 月 1 日之前实现将氟氯烃消费量削减 35％。

特立尼达和多巴哥

20. 执行委员会审查了提交特立尼达和多巴哥体制强化项目（第九阶段）申请的报告，并赞赏地注意到该国正在采取必要步骤，以实现《蒙特利尔议定书》有关氟氯烃的管制措施。执行委员会赞扬特立尼达和多巴哥政府执行了氟氯烃淘汰管理计划第一阶段、对进口消耗臭氧层物质、消耗臭氧层物质混合物和使用消耗臭氧层物质的设备的有效进出口管制条例、以及制冷剂容器强制性标签标准。执行委员会赞赏地注意到，该国进行了制冷方面良好做法的培训，重点是安全使用碳氢化合物制冷剂，制定了提高与淘汰氟氯烃有关的公众意识活动，并参加了区域网络和《蒙特利尔议定书》的各种会议。 执行委员会期待，在体制强化项目的第九阶段，特立尼达和多巴哥政府将继续成功地执行氟氯烃淘汰管理计划和体制强化项目，以便在规定的 2020 年 1 月 1 日之前实现将氟氯烃消费量削减 35％。

United Nations Development Programme
Montreal Protocol / Chemicals Unit

Empowered lives.
Resilient nations.

79th Meeting of the Executive Committee of the Multilateral Fund for the Implementation of the Montreal Protocol

(3 – 7 July 2017)

UNDP
2017 WORK PROGRAMME

2017 WORK PROGRAMME

I. EXECUTIVE SUMMARY

15 May 2017

The present document constitutes UNDP's 2017 Work Programme and is being submitted for consideration of the Executive Committee (ExCom) at its 79th Meeting. The list of submissions for all funding requests (including investment projects) that will be submitted by UNDP to the 79th ExCom meeting in Annex 1 to this document is provided for information. Project documentation such as multi-year agreements (MYA) tranche requests, HCFC investment and demonstration projects 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 included in this document for submission at the 79th 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
Chile	INS	Institutional Strengthening Renewal (Phase XII)	24	238,784	16,715	255,499
Colombia	INS	Institutional Strengthening Renewal (Phase XI)	24	352,768	24,694	377,462
Trinidad & Tobago	INS	Institutional Strengthening Renewal (Phase IX)	24	85,000	5,950	90,950
Total (3 requests)				**676,552**	**47,359**	**723,911**

Preparation funding requests for stage II HPMP

UNDP is submitting one funding request for the preparation of stage II of HPMPs to 79th ExCom meeting. The Annex 3 contains the PRP submission.

Country	Type	Title	Duration (months)	Amount	Agency Fee	Total
DR of the Congo (cooperating)	PRP	Stage II HPMP Preparation (overarching strategy)	15	20,000	1,400	21,400
Total (1 requests)				**20,000**	**1,400**	**21,400**

Request to change the duration of the HPMP stage I agreement for Brazil

UNDP would like to request a change in the agreement for the HPMP stage I for Brazil and extend it to the end of 2019. There are many synergies and overlaps with the HPMP stage II Foam Sector Plan.

Other requests for non-investment projects

Pursuant to the ExCom decision 76/17, as part of the Work Programme Amendment, UNDP is submitting to 79th ExCom meeting the requests for funding for verification reports for stage I of HPMP for El Salvador.

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

Submissions in response to the ExCom decision 78/3 (g)

UNDP is submitting 2 investment projects and 4 requests for the preparation of investment projects in response to the ExCom decision 78/3 (g). The list of submissions is provided in Annex 2. The associated requests for preparation funds are included in Annex 4 and the investment projects have been submitted separately.

III. SUMMARY OF FUNDING REQUESTS (WORK PROGRAMME)

The table below summarizes the funding requests for non-investment activities and proposals, as part of UNDP's Work Programme for 2017, submitted to the 79th ExCom Meeting:

Country	Type	Title	Duration (months)	Amount	Agency Fee	Total
Chile	INS	Institutional Strengthening Renewal (Phase XII)	24	238,784	16,715	255,499
Colombia	INS	Institutional Strengthening Renewal (Phase XI)	24	352,768	24,694	377,462
DR of the Congo	PRP	Stage II HPMP Preparation (overarching strategy)	15	20,000	1,400	21,400
El Salvador	TAS	Verification report for stage I of HPMP	15	30,000	2,700	32,700
Trinidad & Tobago	INS	Institutional Strengthening Renewal (Phase IX)	24	85,000	5,950	90,950
Total (5 requests)				**726,552**	**51,459**	**778,011**

ANNEX 1

List of all UNDP HCFC related submissions for funding to the 79th ExCom Meeting

No	Country	Type	Description	Funding Request for the 79th ExCom (US$)		
				Amount	Agency Fee	Total
1	Angola	PHA	Stage II HPMP (servicing)	322,190	22,553	344,743
2	Barbados	PHA	Stage I HPMP - second tranche	38,000	3,420	41,420
3	Belize	PHA	Stage I HPMP - second tranche	6,500	585	7,085
4	Chile	INS	Institutional Strengthening Renewal (Phase XII)	238,784	16,715	255,499
5	Colombia	INS	Institutional Strengthening Renewal (Phase XI)	352,768	24,694	377,462
6	DR of the Congo	PHA	Stage I HPMP - third tranche	24,000	2,160	26,160
7	DR of the Congo	PRP	Stage II HPMP Preparation (overarching strategy)	20,000	1,400	21,400
8	Egypt	INV	Stage II HPMP (HC production, XPS and foam)	1,493,700	104,559	1,598,259
9	El Salvador	TAS	Verification report for stage I of HPMP	30,000	2,700	32,700
10	Lebanon	PHA	Stage I HPMP - fourth tranche	124,760	9,357	134,117
11	Mexico	PHA	HCFC phase-out in extruded polystyrene foam plank applications *No new funding is requested for this project. Potential savings from Foam Sector Plan in Mexico will be utilized.*	0	0	0
12	Peru	PHA	Stage I HPMP - third tranche	24,671	2,220	26,891
13	Trinidad & Tobago	INS	Institutional Strengthening Renewal (Phase IX)	85,000	5,950	90,950
Total (13 requests)				**2,760,373**	**196,313**	**2,956,686**

Notes:

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

ANNEX 2

List of project submissions and requests for preparatory funding being submitted in response to the ExCom decision 78/3 (g)

No	Country	Type	Description	Funding Request for the 79th ExCom (US$)		
				Amount	Agency Fee	Total
1	Bangladesh	INV	Conversion from HFC-134a to isobutane in manufacturing household refrigerator at Walton Hi-Tech Industries Limited	4,936,507	345,555	5,282,062
2	China	PRP	Air conditioning and production line optimization from HFC-134a to HFO-1234yf as refrigerant in a mobile air conditioning manufacturer	30,000	2,100	32,100
3	China	PRP	Conversion from HFC-245fa to HFO as a foam agent in a refrigerator manufacturer	30,000	2,100	32,100
4	China	PRP	Conversion from HFC-134a to HC-290 in a freezer manufacturer	30,000	2,100	32,100
5	Colombia	INV	Conversion from HFC-134a to isobutane in the manufacture of domestic refrigerators at Mabe Colombia	3,829,157	268,041	4,097,198
6	Mexico	PRP	HCFC phase-out in the production of refrigerators at MABE Mexico	30,000	2,100	32,100
Total (6 requests)				**8,885,664**	**621,996**	**9,507,660**

ANNEX 3

Funding request for the preparation of stage II of HPMPs for:

Democratic Republic of the Congo

Funding Request for the Preparation of Stage-II HCFC Phase-out Management Plan of The Democratic Republic of Congo (DRC)

By: UNEP & UNDP

Background

The Executive Committee of the Multilateral Fund for the Implementation of the Montreal Protocol, at its 63rd Meeting held in Montreal in April 2011, approved stage I of the HCFC phase-out management plan (HPMP) for DRC for the period 2011 to 2015 to reduce HCFC consumption by 10 per cent of the baseline, at the amount of:
- US $235,000, plus agency support costs of US $30,550 for UNEP;
- US $240,000 plus agency support costs of US $21,600 for UNDP.

The Government of DRC committed to the following control measures with the support of funding and technical assistance from the Multilateral Fund and implementing agency:

Freeze the consumption of HCFCs in 2013 to the agreed baseline figure.
Reduce consumption of HCFCs by 10% from 2015.

The HPMP for the Democratic Republic of the Congo was approved based on the estimated baseline at the time of submission (58 ODP tonnes of HCFC-22). The Government has agreed to establish as its starting point for sustained aggregate reduction in HCFC consumption the baseline of 58 ODP tonnes. The established baseline for the country is now 66.21 ODP tonnes. The Democratic Republic of the Congo requested a revision of the reported consumption of HCFC-22 in 2009 from 890 MT (48.95 ODP tonnes) to 1,014.98 MT (55.82 ODP tonnes). The request for the revision of the baseline submitted by the Democratic Republic of the Congo was reviewed during several meetings of the Implementation Committee (46 to 49). MOP Decision XXV/13 noted that "[…] the Democratic Republic of the Congo […] [has] presented sufficient information, in accordance with decision XV/19, to justify their requests for the revision of their consumption data for hydrochlorofluorocarbons for 2009 […] which are part of the baseline for parties operating under paragraph 1 of Article 5.

The approved HPMP Stage I preparation funds have been fully used, and it is confirmed that there is no balance remaining.

The endorsement from the Government for the request of the Stage-II HPMP preparation has been received.

Progress in the implementation of the Stage-I (brief information)

	Activity	Progress In Implementation
1	*Legislation*	
	Introduction of ODS import monitoring in the curricula of all customs schools;	License and Quota systems in place which currently restrict imports and exports of HCFC. The "Office Congolais du Contrôle" in charge of the control of all imports in DRC has integrated an Ozone Module including the control of ODS and ODS-based equipment into its curricula.
2	*Capacity Building*	
Tranche 1	Customs officers training programme to enhance the surveillance of import of HCFCs and HCFC based equipment;	A training workshop for twenty trainers was organized. Also, five workshops for 120 customs officers and inspectors were completed. Five refrigerant identifiers were purchased and used during the customs training workshops.
Tranche 2	Continuation of training programme for	A total of eighty five (85) customs and other

	Activity	Progress In Implementation
	customs and enforcement officers	enforcement officers were trained on control and identification of ODS and ODS-based equipment including HCFCs and HCFC-based equipment.
Tranche 1	Training of service technicians in good refrigeration practices including the use of hydrocarbon technologies in close cooperation with the refrigeration association in the country.	A training workshop for twenty five (25) trainers was completed. These trainers have provided training to ninety four (94) additional technicians with the main goal of the training workshops to equip refrigeration technicians with knowledge and necessary skills in good refrigeration practices and in hydrocarbon technologies.
Tranche 2	Continuation of the training of service technicians in good refrigeration practices including the use of hydrocarbon technologies in close cooperation with the refrigeration association in the country.	An additional sixty (60) technicians were trained in good refrigeration practices including the use of hydrocarbon technologies during the 2 training workshops that were organized by the NOU in cooperation with the industry association.
3	*Investment project*	
Tranche 1	Provision of Equipment and Reinforcement of 4 Training centres	Equipment received and distributed to 4 training centres of excellence (INPP Kinshasa, ITP N'Galema, ITI N'Djili and the ACROPOF, i.e. the refrigeration Association). A survey of the refrigeration professionals was also completed, accounting for ca. 6,000 technicians in the country
Tranche 2	Provision of new Equipment and Reinforcement of 4 new Training centres	Equipment received and distributed to 4 new training centres of excellence – as per the modification of the targets approved at ExCom 70, this was completed in lieu of commercial refrigeration end user programme and local filling facility development. - Two publications will be printed and widely distributed: • Results of national survey on refrigerant uses in DRC • Manual for importers and users of refrigerants
4	*Monitoring, evaluation of implementation of the HPMP*	
Tranches 1 and 2	Monitoring and evaluation	The NOU recruited two consultants (1 refrigeration expert and 1 customs expert) in addition to the existing NOU team to assist in the monitoring of the effective implementation of all the HPMP activities and collect accurate data for both tranches. Consultants provided to the NOU reports on the implementation of the HPMP.

Overarching Strategy

The overarching strategy that DRC expects to implement assumes that new commercially viable refrigeration and, in particular, air-conditioning technologies that use zero-ODP and low-GWP refrigerants in energy efficient equipment will become available in the coming decade.

The overarching strategy will be based on strengthening the implementation of the existing quota and licensing system and technical capacity building of trainers and technicians, to support appropriate technology choices.

HCFC Consumption

DRC has reported HCFC consumption for 2015 as 15.4 ODP Tonnes and estimated it preliminarily at 15 ODP Tonnes for 2016.

Information to be collected

Information to be collected during the Stage-II HPMP preparation would include:

- The current HCFC quantities consumed by servicing workshop/end users and legally imported HCFCs under the licensing/quota system (update of Stage 1 survey);
- Analysis of the current situation and development trends;
- Inventory of the HCFC-based equipment especially for room air conditioners and commercial HCFC-based equipment;
- Feedbacks from national stakeholders on the possible set-up and enforcement method of a refrigeration servicing technicians certificate system, as well as other policy initiatives and technical interventions;
- Consideration of the need for additional actions for introduction of low-GWP alternatives to HCFCs into the country (standards, training, incentives);
- Estimate of market share of the HCFC-based equipment vs various alternative technologies to get a better understanding of how the ozone- and climate-friendly alternatives technologies are received.

Activities proposed for Stage II Preparation

As requested by the Government, the HPMP stage II would be developed with assistance of UNEP, as leading agency, and UNDP, as cooperating agency. The proposed activities and budget are as per following:

Activities	**Proposed cost**	**UNEP**	**UNDP**
Survey of the HCFC servicing workshops, as well as HCFC importers for the HCFC consumption	30,000	30,000	
Survey of end users, importers of the HCFC-based equipment to update the inventory of the HCFC equipment	5,000		5,000
National review, discussion and consultation meetings on the draft of Stage II HPMP	10,000	10,000	
Consultant for the draft and finalization of stage II HPMP	25,000	10,000	15,000
Total (USD) without PSC	**70,000**	**50,000**	**20,000**

Note: All the preparation activities including the stakeholder consultations and finalization of the Stage-II HPMP will be conducted in an integrated manner for both UNEP- and UNDP-led components. Thus, the funding level of each activity is indicative and subject to changes based on the further discussion between the NOU, implementing agencies and the national stakeholders during the Stage-II preparation.

ANNEX 4

Funding requests for the preparation of investments projects to phase down HFCs in:

China (3 PRPs)
Mexico (1 PRP)

These PRPs are being submitted in response to the ExCom decision 78/3 (g).

Country:	**People's Republic of China**
Project Title:	**Air conditioning and production line optimization from HFC-134a to HFO-1234yf as refrigerant in a mobile air conditioning manufacturer**
Lead Implementing Agency:	**UNDP**
Sectors:	**Mobile Air Conditioning**
Project Duration:	**12 months**
Preparation cost:	**US $30,000**
Implementing Agency Support Cost:	**US$ 2,100**
Total Cost of Project to MLF:	**US$ 32,100**
National Coordinating Agency:	**Foreign Economic Cooperation Office, Ministry of Environmental Protection (FECO/MEP)**

==========

Background and Introduction

The Kigali Amendment was adopted by the 28th Meeting of Parties to the Montreal Protocol on 15 October 2016 in Kigali, Rwanda. Under the amendment, countries committed to cut the production and consumption of HFCs by more than 80 percent over the next 30 years. The ambitious phase down schedule will avoid more than 80 billion metric tons of carbon dioxide equivalent emissions by 2050—avoiding up to 0.5° Celsius warming by the end of the century.

HFC-134a (R134a) is a controlled substance listed in the Annex F under the Kigali Amendment. R134a with Global Warming Potential (GWP) of 1,430, is one of the major refrigerants that contributes to global warming and was used as an alternative to CFC-12 from early 2000's in A5 countries in mobile air conditioning. Due to lack of the low GWP alternatives and strict leakage control policy and measures in most of the A5 countries currently, the consumption of R134a in the MAC sector is quite significant including for the first charge in new cars and for servicing demand. The introduction of low GWP alternative and improvement of leakage control of MAC products will lead to the reduction of consumption of R134a.

R1234yf, with zero ODP and very low GWP (4), was introduced as one of the alternatives of R134a in MAC. It has similar thermal properties as R134a and can be used as direct replacement of R134a after optimization of the system. As early as 2009, SAE's development project "CRP1234" has concluded that R1234yf can be used as the next generation refrigerant.

However, R1234yf is expensive and is slightly flammable; thus, in order to reduce the cost of using R12334yf as a replacement refrigerant, as well as to improve the safety and efficiency of the refrigeration system, it is necessary to control refrigerant leakage of MAC products. In developed countries, there exists strict regulations on the annual leakage rate of refrigerant. United States requires that the leakage rate for single system not to exceed 40g / year, whilst for double system the leakage rate shall not exceed 60g / year. European regulations are even more stringent, the annual leakage rate shall not exceed more than 15g / year.

Automotive air conditioning refrigerant leakage can be caused by different reasons; it can be divided mainly into external leakage and internal leakage. External leakage occurs mainly in the compressor, the pressure switch connection, the evaporator, the tank and the pipeline connection; internal leakage is mainly caused by the compatibility of the refrigerant and the lubricating oil. O**ptimization** of the MAC products for the use of low GWP alternative is needed.

China is now the biggest car market in the world with annual sales over 20 million units, therefore, consumes a considerable amount of R134a both on the manufacturing and servicing sector in MAC.

Project Objectives:

1. To assess the cause and evaluate the current annual refrigerant leakage rate of the mobile air conditioning system; to assess the current level of annual leakage in mobile air conditioning system when R1234yf is used as refrigerant, including both internal leakage and external leakage, to gather demonstration data to propose an industry standards for mobile air conditioning system leakage.
2. To assess the performance of the AC system of using R1234yf as refrigerant after optimization to the AC products through introducing technological improvement.
3. Establish a production line for an optimized automotive air conditioning system.

Project Activities:

- Establish mobile air-conditioning system refrigerant test protocol and internal leakage test protocol to assess the current rate of refrigerant leakage and cause of the leakage in domestic vehicles, and prepare an assessment report;
- Assess the current rate of leakage, the annual leakage quantities when R1234yf is used as replacement refrigerant in automotive air-conditioning refrigeration system, and identify the cause of the leakage;
- Assess the performance of AC system using R1234yf and identify the necessary technological improvement measures;
- Based on the findings above, optimize the design of the automotive air conditioning system;
- Establish an optimized production line for the improved automotive air conditioning systems, generate demonstration data as basis to propose R134a and R1234yf Refrigerant Leakage Standard.

Research Progress and Stage Results

Stage 1:

- Set up automotive air conditioning system refrigerant leakage test protocol and internal leakage test protocol using SAE J2727 standard and JIS-K211 standard to test existing system on external and internal refrigerant leakage level, to assess the existing R134a system refrigerant leakage rate;
- Use R1234yf as replacement refrigerant for R134a and to assess the R1234yf system refrigerant performance and leakage rate;
- Stage results: R134a and R1234yf system refrigerant performance and leakage analysis report.

Stage 2:

- Through results of the test protocol performed on the R1234yf system, identify points of refrigerant leakage;
- Through the compatibility test to determine the compatibility of different lubricants and R1234yf refrigerant, determine the quantities of refrigerant leakage and identify the best lubricants compatible with R1234yf refrigerant;
- Optimize the design of R134a and R1234yf air-conditioning system to achieve reduction in the rate of refrigerant leakage and improve the performance of the system after the conversion;
- Stage results: optimized R134a and R1234yf system design.

Stage 3:

- Convert a production line to produce the optimized mobile air-conditioning system and establish a set of design and production specifications;
- Gather demonstration data as basis to propose a national standard on R134a and R1234yf refrigerant leakage;
- Stage results: the transformation and establishment of an optimized mobile air-conditioning system that generates demonstration data, and the finalization of a draft document to establish sector standard.

Estimated budget of full project proposal: TBD

Partnership
Shanghai Jiao tong University Institute of Automotive Engineering and Nanjing Xiezhong Auto-Airconditioner (Group) Co., Ltd. will jointly carry out the activities of analysis and assessment, and optimization of the MAC products and production line in this project.

Funding for preparation: US $30,000

COUNTRY: People's Republic of China
PROJECT TITLE: Preparation project for Conversion from HFC-245fa to HFO as a foam agent in a refrigerator manufacturer
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: MEP/FECO OF CHINA

Background

1. In China, cyclopentane (C5) and HCFC-141b, as the foaming agents, were adopted to replace CFC-11 by the domestic refrigerator industry during the period from 1995 to 2007. Thanks to the implementation of HCFCs phase-out plans in China, HCFC-141b has been almost phased out in the domestic refrigerator sector in recent years. However, HFC-245fa was introduced to replace HCFC-141b to improve the insulation performance to meet the upgrade of energy efficient standard in China. In recent years, the volume of domestic refrigerators adopting HFC-245fa is increased more than 30% annually. It is estimated that approximately 7,000 tons of HFC-245fa is consumed in domestic refrigerator sector in 2016. Now, HFC-245fa, similar with cyclopentane (C5), has become the major foaming agent in the domestic refrigerator industry in China, and it is estimated that the demand of HFC-245fa will be increased rapidly in the future due to the energy efficient standard becoming more and more strict in the future and in the industry development.

2. Since around the year 2011, some domestic refrigerator companies have started to study the use of C5+HFOs foaming technology and commercialized some products in the last 2 years. However, the market share of domestic refrigerator with C5+HFOs is very low in China due to the higher cost compared with HFC-245fa and C5 technology.

3. China is the largest country to produce domestic refrigerator in the world and 70 million units of domestic refrigerators were produced in 2016. The Kigali Amendment of the Montreal Protocol agreed to phase down HFCs will pose a big challenge to China's domestic refrigerator industry due to its huge size and accordingly the huge demand for HFC-245fa.

4. The proposed project is expected to be designed to encourage the use of C5+HFOs technology as foaming agent in domestic refrigerator industry. It will focus on removing or mitigating the barriers for using this non-HFCs technology in this sector. This project will play an exemplary role in phasing-down the huge size HFCs consumed in this sector in China.

5. Moreover, this proposed project is expected to facilitate the country and industries to adopt non-HFCs technologies, as well as to assist the country to explore the efficient management mechanism on phasing down HFCs as foaming agent. This project will provide valuable references for the country and industry to control HFCs to meet the target of the Kigali Amendment in the future.

Objective of the project

6. Given the situation of China's domestic refrigerator industry and the HFC-245fa consumption, the goals of this proposed project are shown as follow:

   - ✓ To convert one production line for manufacturing domestic refrigerator from using HFC-245fa to adopting C5+HFOs as foaming agent in a beneficial manufacturer;
   - ✓ To collect the information of ICC, IOC and energy efficiency data of the conversion and share the experiences with other related industries in China and with the Ex.Com.

Brief introduction of the beneficiary company

7. In the process of preparing this project concept, UNDP had consulted with relevant governmental agencies in

China and the association CHEAA on the matter of choosing the beneficiary company. Considering the R&D capacity and basic capacity on using C5+HFOs technology, it is proposed that Hisense-Kelon Co., Ltd. To be selected to develop the demo production line as conversion activity. Hisense-Kelon Co., Ltd. is part of the Hisense Group, it is established in 1984 and is a major domestic refrigerator manufacturer in China. Hisense-Kelon has 5 manufacturing factories for domestic refrigerator with annual production capacity of 12.6 million units.

8. It is estimated that 1,200 tons of HFC-245fa is consumed by Hisense-Kelon to manufacture domestic refrigerators. Approximately 200 tons of HFC-245fa will be phased out by this project. It should be noted that the data is estimated and the exact data will be collected during the preparation of the full project proposal.

Project activities

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

- ✓ A demo project of conversion of the domestic refrigerator production line from HFC-245fa to C5+HFOs as foaming agent in the selected company;
- ✓ Research on technical formulation of C5+HFOs as foaming agent in domestic refrigerator with cost-effectiveness and tests on insulation performance of C5+HFOs as foaming agent;
- ✓ Preliminary roadmap to phase down HFC-245fa in the domestic refrigerator sector in China;
- ✓ Summary of the experiences gained by the demo conversion project, as well as the management on controlling HFC-245fa in domestic refrigerator sector;
- ✓ Dialog between the domestic refrigerator manufacturers and HFOs suppliers to communicate on the technical demands;
- ✓ One workshop will be organized to share the technology experiences gained by the demo projects.

Budget for preparing the project document:

10. USD 30,000 is requested for the preparation of the project document on the Demo-Project for converting from HFC-245fa to C5+HFOs in domestic refrigerator industry in China.

No.	Budget description	Budget (US $)
1.	National experts	8,000
2.	Information collection, consolidation and analysis	5,000
3.	Travels	6,000
4.	Meeting/workshop	7,000
5.	Documentation and information materials	4,000
6.	**Total**	**30,000**

Schedule

No.	Activities	2017		2018	
		Q3	Q4	Q1	Q2
Project Start-up					
1.	ExCom Project Approval				
2.	Receipt of Funds				
3.	Project/Grant Signature				
Project Implementation					
4.	Information collection and related survey on-site				

No.	Activities	2017		2018	
		Q3	Q4	Q1	Q2
5.	Meeting with the beneficial company and related parties				
6.	Draft the project document				
7.	Review process				
8.	Finalize the document and submission to the ExCom				

COUNTRY: People's Republic of China
PROJECT TITLE: Preparation project for Conversion from HFC-134a to HC-290 in a freezer manufacturer
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: MEP/FECO OF CHINA

Background

1. At the 28th meeting of the Montreal Protocol, the Parties agreed to phase down HFCs by adopting an amendment of the Protocol naming the Kigali Amendment.

2. In China, HFCs were introduced as alternatives to CFCs and HCFCs in several sectors, such as residential and commercial air conditioner industry, domestic and commercial refrigeration sector. China is the biggest production and consumption country of Ozone Depleting Substances in all A5 countries. It can be estimated that China possibly is in similar situation in terms of HFCs consumption. If there is no plan developed to encourage the industries to the roadmap of non-HFCs technologies at the same time of HCFCs phase-out, it can be predicted that the cost will be multiplied in order to control HFCs consumption in China in future.

3. The domestic freezer sector in China had the production volume of around 19 million units in 2016 and HFC-134a is one kind of refrigerant used in the sector. However, its consumption is not too large as compared with other sectors. It will thus make it a little easier to develop plans to control HFCs when the country does not establish the management system and capacity on handling this issue. Additionally, some companies have the willingness to replace HFC-134a with HC-290 due to HC-290's excellent cooling performance in domestic freezer products in recent years. However, the market penetration of domestic freezer with HC-290 is very low now without the relevant incentive being put in place.

4. Thus, it is the right industry that we can target to develop the project to demonstrate the production line conversion from HFCs to non-HFCs as refrigerants and the relevant management mechanism for the country.

5. This proposed project selected the domestic freezer industry in China to design the suitable activities for the conversion. This project will promote efforts to control HFCs in this domestic freezer industry, and will deliver an important signal for HFCs phase-down trend to fulfill the obligation of the Kigali Amendment.

Objective of the project

6. Given the situation of China's domestic freezer and HFC-134a consumption, the goals of this proposed project are set out as below:

   - ✓ To convert one production line for manufacturing domestic freezer from using HFC-134a to adopting HC-290 in the beneficial manufacturer;
   - ✓ To convert one production line for manufacturing compressors from HFC-134a to HC-290 in a selected company;
   - ✓ To collect the information of ICC, IOC and energy efficiency data of the conversion and to identify the barrier of the conversion.
   - ✓ To disseminate the experience and knowledge gained.

Brief introduction of the beneficiary company

7. After consultation with MEP/FECO and CHEAA, it is proposed that Qingdao Haier Freezer Co., Ltd. would be selected to develop the demo production line's conversion activity. Qingdao Haier Freezer Co., Ltd., which belongs to the Haier Group, is established in 2001 and is the biggest domestic freezer manufacturer in China. They have 3 manufacturing factories for domestic freezer with annual production capacity of 7 million units.

8. It is estimated that approximately 50 tons of HFC-134a will be phased out by this project. It should be noted that the data is estimated and the exact data will be collected during the period of preparing the project document.

Project activities

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

- ✓ A demo project on the conversion of the freezer production line from HFC-134a to R290 in a selected company;
- ✓ Accordingly, a demo project of the conversion of the compressor production line from HFC-134a to HC-290 in a selected company;
- ✓ Research and development on domestic freezer and compressor using HC-290;
- ✓ Research on revising the related safety standards for using HC-290 in freezer product;
- ✓ Summary of the experience gained by the demo conversion projects, as well as the management on controlling HFC-134a in the domestic freezer sector;
- ✓ One workshop will be organized to share the technology experiences gained by the demo projects.

Budget for preparing the project document

10. USD 30,000 MLF fund is requested for the preparation of the project document for converting from HFC-134a to HC-290 in the domestic freezer industry in China.

No.	Budget description	Budget (US $)
1.	National experts	8,000
2.	Information collection, consolidation and analysis	5,000
3.	Travels	6,000
4.	Meeting	7,000
5.	Documentation and information materials	4,000
	Total	**30,000**

Schedule

No.	Activities	2017		2018	
		Q3	Q4	Q1	Q2
Project Start-up					
9.	ExCom Project Approval				
10.	Receipt of Funds				
11.	Project/Grant Signature				
Project Implementation					
12.	Information collection and related survey on-site				
13.	Meeting with the beneficial company and related parties				
14.	Draft the project document				
15.	Review process				
16.	Finalize the document and submission to the ExCom				

环境保护部环境保护对外合作中心
（环境保护部环境公约履约技术中心）
Foreign Economic Cooperation Office
(Environmental Convention Implementation Technical Center)
Ministry of Environmental Protection, P. R. China
FECO

15 May 2017

Dear Ms. Zhou,

In reference to the decision 78/3 (g), through which the MLF Executive Committee (the ExCom) has decided to consider approving a limited number of HFC-related projects in the manufacturing sector without prejudice to different kinds of technology, we request kind support from UNDP to submit the project preparation proposals below for consideration at the 79th ExCom.

1. Air conditioning and production line optimization from HFC-134a to HFO-1234yf as refrigerant in a mobile air conditioning manufacturer
2. Conversion from HFC-134a to R290 as refrigerant in a freezer manufacturer
3. Conversion from HFC-245fa to HFO as foam agent in a refrigerator manufacturer

We are aware of that, when the preparation work are to be completed and full project proposals are to be submitted to the ExCom, a formal letter indicating the government's intention to ratify the Kigali Amendment should be provided to the Secretariat in line with the decision 78/3(g), and that no further funding would be available until the instrument of ratification had been received by the depositary at the Headquarters of the United Nations in New York; and that any amount of HFC reduced as a result of the project would be deducted from the starting point which might be agreed in the future.

We also request UNDP to keep us informed about the review process of this proposal by the MLF Secretariat.

Sincerely yours,

Wang Kaixiang
Division Chief
MEP/FECO

Ms. Xiaofang Zhou
Director
Montreal Protocol Unit/ Chemicals
Sustainable Development Cluster
Bureau for Policy and Programme Support
United Nations Development Programme

C.C. Carsten Germer, UNDP Beijing Office
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FUNDING REQUEST FOR THE PREPARATION OF A DEMONSTRATION PROJECT FOR HFC PHASEOUT IN THE PRODUCTION OF REFRIGERATORS AT MABE MEXICO

Background

With reference to the decision 78/3 (g), through which the MLF Executive Committee (ExCom) has decided to consider approving a limited number of HFC-related projects in the manufacturing sector without prejudice to different kinds of technology, Mexico's NOU requested assistance of UNDP for the funding request for preparation of a demonstration project to phase out the HFC use in the production of refrigerators at MABE-Mexico.

Objective

The objective of this document is to request funding for the preparation of a Demonstration Investment Project for the elimination of HFC-134a in the manufacture of domestic refrigerators and to improve energy efficiency and contribute to global warming reduction as part of the process.

The requested PRP funding is **US $30,000** as the project preparation covers one Company.

Company overview

The MABE Group is the most important appliance producer in Latin America. Its production and commercial operations include Canada, Mexico, Central America, Brazil, Argentina, Colombia, Venezuela, Ecuador, Peru, Chile and Costa Rica.

MABE-Mexico retains its domestic refrigeration production in its Celaya plant. The Celaya plant manufactures over 8,300 refrigerator units daily. Production is geared towards the local market and export including Article 5 countries. MABE-Mexico's local ownership is 51.6%, and the remaining part is owned by other A5 countries.

HFCs consumption for MABE's production

	Consumption in MT				
	2012	**2013**	**2014**	**2015**	**2016 (partial)**
HFC-134a	121	160	147	170	51*
HC-600a**		0.3156	0.19667	0.4994	0.5907

Note*: Complete quantity for 2016 still not available.
Note**: quantity used for testing.

Replacement Technology

During the preparatory work for the demonstration project, the efforts will focus on identifying the suitable alternatives to the use of R-134a in the domestic refrigeration manufacturing at MABE-Mexico. The important criteria, in addition to suitability in terms of technology, cost, availability, etc., will be the low negative climate impact of alternatives. For example the suitability of the use of hydrocarbons will be explored. The final proposal for the demonstration project will specify the replacement technology and activities needed for the conversion.

SEMARNAT

Subsecretaría de Gestión para la Protección Ambiental
Dirección General de Gestión de la Calidad del Aire y Registro de Emisiones y Transferencia de Contaminantes

OFICIO NO. DGGCARETC/ 273 /2017

CIUDAD DE MÉXICO A, 15 MAY 2017

XIAOFANG ZHOU
DIRECTOR
MONTREAL PROTOCOL UNIT
UNITED NATIONS DEVELOPMENT PROGRAMME

Dear Ms. Xiaofang;

Regarding to the procedures of the Multilateral Fund for the Implementation of the Montreal Protocol and the Executive Committee's decision 78/3, I kindly request the submission of the project for the preparation of the Hidrofluorocarbon Phase-out: ir the Domestic Refrigeration Mexican Company Mabe; in order for it to be considered ir the 79th Executive Committee Meeting in July 2017.

In accordance with the referred Decision 78/3, we acknowledge that: a) when the full investment project is approved by the Executive Committee of the Montreal Protocol, no further funding will be available until the Kigali Amendment is ratified and, b) the amount of HFC reduced as a result of the implementation of the project, would be deducted from the agreed starting point.

Thank you for your kind cooperation.

Sincerely Yours,

LA DIRECTORA GENERAL

M. EN I. ANA PATRICIA MARTÍNEZ BOLÍVAR

Por un uso responsable del papel, las copias de conocimiento de éste asunto son remitidas vía electrónica
QFB. Martha Garciarivas Palmeros, Subsecretaría de Gestión para la Protección Ambiental. Presente
Lic. Miguel Ángel Espinosa Luna, Coordinador de Asesores de la SGPA. Presente

APMB/ASGIA/BVBARC