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执行蒙特利尔议定书
多边基金执行委员会
第七十三次会议
2014 年 11 月 9 日至 13 日，巴黎

世界银行 2014 年增订工作方案

基金秘书处的评论和建议

1. 世界银行请执行委员会为表 1 所列其 2014 年增订工作方案核准 1,149,193 美元，外加 80,443 美元的机构支助费用。来文载于本文件后。

表 1: 2014 年世界银行增订工作方案

国家	活动/项目	所需数额（美元）	建议数额（美元）
A 节：建议一揽子核准的活动			
A1：体制建设(IS)项目延长			
约旦	体制建设延长（第十一阶段）	147,333	147,333
	A1 分计	147,333	147,333
机构支助费用（体制建设的 7%）：		10,313	10,313
	A1 共计	157,646	157,646
A2: 项目编制			
菲律宾	编制氟氯烃淘汰管理计划（第二阶段）（总体战略）	90,000	90,000
	编制氟氯烃淘汰投资活动（第二阶段）（空调行业）	150,000	150,000
	A2 分计	240,000	240,000
机构支助费用（项目编制的 7%）：		16,800	16,800
	A2 共计	256,800	256,800
B 节：建议供单独审议的活动			
B1：项目编制			
中国	编制氟氯烃淘汰投资活动（第二阶段）（聚氨酯）（PU）（泡沫塑料）	412,500	*
	编制氟氯烃生产淘汰管理计划（HPPMP）（第二阶段）	349,360	*

	B1 分计	761,860	
机构支助费用（项目编制的 7%）：		53,330	
	B1 共计	815,190	
	总计（A1、A2 和 B1）：	1,229,636	414,446

* 供单独审议的项目。

A 节：建议一揽子核准的活动

A1： 延长体制建设项目

项目说明

2. 世界银行为表 1 所列的国家提出了延长体制建设项目的申请。这一项目的说明载于本文件附件一。

秘书处的评论

3. 秘书处审查了世界银行代表上述政府，对照资格及供资额的准则和有关决定，提出的一个延长体制建设项目的申请。对照以前阶段原来的体制建设工作计划、国家方案和第7条数据、关于执行氟氯烃淘汰管理计划（HPMP）的最新报告、相关机构的工作进度报告、《蒙特利尔议定书》缔约方会议的任何有关决定等，对该申请进行了相互核对。秘书处注意到，该国已遵守了《蒙特利尔议定书》的消耗臭氧层物质淘汰目标，并已提交了2013年国家方案执行情况的报告。

秘书处的建议

4. 秘书处建议按表 1 所示供资金额，一揽子核准约旦的体制建设延长申请。谨建议执行委员会向该国政府转达本文件附件二中的评论意见。

A2:项目编制

菲律宾：编制氟氯烃淘汰投资活动（第二阶段）（空调行业）（150,000 美元）

菲律宾：编制氟氯烃淘汰管理计划（第二阶段）（总体战略）（90,000 美元）

项目说明

5. 世界银行按表 1 所示供资金额，为菲律宾编制氟氯烃淘汰管理计划的第二阶段提出了申请。

秘书处的评论

6. 在审查这些申请时，秘书处考虑到了第 71/42 号决定所载第 5 条国家编制氟氯烃淘汰管理计划第二阶段的供资准则，审查了氟氯烃淘汰管理计划第一阶段的文件，并注意到了编制本文件时氟氯烃淘汰管理计划的执行情况。

7. 秘书处要求对制冷和空调行业（RAC）编制资金的申请要做出解释，因为已经（为世界银行和联合国开发计划署）提供了第一阶段的筹备资金，但在第一阶段的最终氟氯烃淘汰管理计划中没有包括；对为何在原来的提议中为制冷维修行业提出一个单独的项目编制申请（50,000 美元），而这本应是总体战略编制工作的一部分要做出澄清；对根据第 71/42 号决定，在氟氯烃淘汰管理计划第二阶段要实现的目标淘汰量是什么要做出确认。

8. 对此，世界银行确认，根据《蒙特利尔议定书》，到 2020 年淘汰管理计划的第二阶段将涉及到多达 35％的减排目标。世界银行还解释说，对于制冷和空调行业，为世界银行针对制冷和空调行业核准的 60,000 美元资金，在第 67 次会议上已全部退还。给开发计划署的资金被用于对该行业进行一次调查，调查报告包含在淘汰管理计划第一阶段的提案中。作为在菲律宾负责实施第二阶段的唯一机构，世界银行需要收集更多资料，以覆盖整个制冷和空调行业，更新和核实已收集到的数据，查明符合资助条件的企业的基本信息，并制定建议改造这些企业。

9. 世界银行重申，考虑到该行业的氟氯烃消费量，该维修行业需要项目编制资金。但是，经与秘书处进一步讨论，同意就像为第一阶段所做到那样，在一个总体框架中发展该维修行业，于是便在其工作计划取消了这一申请。

10. 世界银行提供了制冷和空调行业和相关总体战略各项活动的详细费用计算。秘书处的结论认为，这一费用计算符合第 71/42 号决定的要求。

秘书处的建议

11. 秘书处建议按本文件表 1 所示的供资数额，一揽子核准世界银行为菲律宾的氟氯烃淘汰管理计划/氟氯烃淘汰投资活动（第二阶段）的项目编制的申请。

B 节：建议供单独审议的活动

B1：项目编制

中国：编制氟氯烃淘汰投资活动（第二阶段）（聚氨酯泡沫塑料）（412,500 美元）

项目说明

12. 世界银行按照在开发计划署 2014 年增订工作方案[1]中原先提出的、为聚氨酯泡沫塑料行业的氟氯烃淘汰管理计划第二阶段编制投资活动有关的 412,000 美元的费用提出了申请。

13. 根据第 71/42 决定提供了在这一行业的项目编制期间要开展活动的细节。聚氨酯泡沫塑料行业的氟氯烃淘汰管理计划第二阶段，将注重于两个分行业：太阳能热水器和管道保温，因为在这些分行业有成熟的替代技术。该申请与其他的行业计划一道，将使中国能够根据《蒙特利尔议定书》达到 35%的减排目标，并预计会淘汰在聚氨酯泡沫塑料行业使用 8,588 公吨的氟氯烃-141b。

秘书处的评论

14. 在审查这一申请时，秘书处考虑到了第 71/42 号决定所载第 5 条国家编制氟氯烃淘汰管理计划第二阶段的供资准则，对氟氯烃淘汰管理计划第一阶段文件的审查，以及在编制本文件时氟氯烃淘汰管理计划的执行情况。秘书处还注意到，世界银行在第 55 次会议上，为编制聚氨酯泡沫塑料行业的行业计划获得了 685,000 美元，作为中国氟氯烃淘汰管理计划第一阶段的一部分。

15. 在项目编制中包括的活动有：政策审查、讲习班、调查、咨询、编制行业计划及执行方式、以及对相关结果进行审查。世界银行提供了这些活动的详细费用计算。

16. 在对项目编制申请的政策方面作答时，世界银行解释说，有必要在第二阶段分析地方一级是如何执行限制氟氯烃消费量和禁止消费量增长之政策的，并确定其对聚氨酯泡沫塑料行业的影响，这将涉及到中小型企业（SMEs）。

17. 关于需要为第二阶段收集的其他信息，世界银行提到，在第一阶段并没有涉及到太阳能热水器和管道保温的分行业。新的调查将涵盖很大一部分中小企业，需要更多的资源和时间去调查，从而证明所申请的资金是合理的。

秘书处的建议

18. 执行委员会不妨核准世界银行为中国聚氨酯泡沫塑料行业的氟氯烃淘汰投资活动（第二阶段）的项目编制，供资额为 412,500 美元外加机构支助费 28,875 美元的申请。

中国：编制氟氯烃生产淘汰管理计划（第二阶段）（349,360 美元）

项目说明

19. 世界银行按原先提出的为中国编制氟氯烃生产淘汰管理计划（第二阶段）的 349,360 美元的费用提出了申请。这一申请也列入了提交给第 73 次会议的世界银行 2015—2017 年

[1] UNEP/OzL.Pro/ExCom/73/26 号文件。

的业务计划 [2]。该提案包括了编制第二阶段的覆盖范围、时间表和费用，将使中国能够到2020 年从基线水平逐步淘汰氟氯烃生产的 35%。

20. 在项目编制中包括的活动有：政策审查、讲习班、调查、咨询、编制氟氯烃生产淘汰管理计划及执行方式、以及对相关结果进行审查。世界银行提供了这些活动的详细费用计算。世界银行重申，这些确定的活动都是编制第二阶段所需要的，而不是重复以前已经做过的工作。

秘书处的评论

21. 在审查这一申请时，秘书处考虑到了第 71/42 号决定所载第 5 条国家编制氟氯烃淘汰管理计划第二阶段的供资准则，以及对相关生产行业具体条件的审查。在第 55 次会议上，世界银行为编制氟氯烃生产淘汰管理计划第一阶段获得了 473,300 美元。

22. 秘书处进一步指出，执行委员会在其第 71 次会议上，决定从世界银行 2014—2016 年的业务计划中，取消有关中国编制氟氯烃生产淘汰管理计划第二阶段的拨款， 对此的理解是，它可以在晚些时日恢复供执行委员会审议（第 71/23 号决定（b）条）。世界银行提出这一申请，是为了执行氟氯烃生产淘汰管理计划的连续性。据世界银行认为，将至少需要 12 个月才能完成的编制氟氯烃生产淘汰管理计划的第二阶段（即：到 2015 年底至 2016 年初完成），届时第一阶段将会申请其最后一次付款。第 71/42 号决定决定规定，氟氯烃生产淘汰管理计划第二阶段的项目编制，可在第一阶段结束之日前两年提出。

秘书处的建议

23. 执行委员会不妨核准世界银行为中国氟氯烃生产淘汰管理计划第二阶段的项目编制，供资额为 349,360 美元外加机构支助费 24,455 美元的申请。

[2] UNEP/OzL.Pro/ExCom/73/23 号文件。

Annex I

INSTITUTIONAL STRENGTHENING PROJECT PROPOSALS

Jordan: Renewal of institutional strengthening

Summary of the project and country profile			
Implementing agency:			World Bank
Amounts previously approved for institutional strengthening (US $):			
	Phase I:	Jul. 1992	170,000
	Phase II:	May 1997	113,333
	Phase III:	Jul. 1999	113,333
	Phase IV:	Jul. 2001	133,333
	Phase V	Jul. 2003	147,333
	Phase VI	Jul. 2005	147,320
	Phase VII	Jul. 2007	147,333
	Phase VIII	Jul. 2009	110,500
	Phase IX	Dec. 2010	147,333
	Phase X	Dec. 2012	147,333
		Total:	1,377,151
Amount requested for renewal (phase XI) (US $):			147,333
Amount recommended for approval for phase XI (US $):			147,333
Agency support costs (US $):			10,313
Total cost of institutional strengthening phase XI to the Multilateral Fund (US $):			157,646
Date of approval of country programme:			1993
Date of approval of HCFC phase-out management plan:			2011
Baseline consumption of controlled substances (ODP tonnes):			
(a) Annex A, Group I (CFCs) (average 1995-1997)			673.3
(b) Annex A, Group II (halons) (average 1995-1997)			210.0
(c) Annex B, Group II (carbon tetrachloride) (average 1998-2000)			40.3
(d) Annex B, Group III (methyl chloroform) (average 1998-2000)			18.2
(e) Annex C, Group I (HCFCs) (average 2009-2010)			83.0
(f) Annex E (methyl bromide) (average 1995-1998)			176.3
Latest reported ODS consumption (2013) (ODP tonnes) as per Article 7:			
(a) Annex A, Group I (CFCs)			0.00
(b) Annex A, Group II (halons)			0.00
(c) Annex B, Group II (carbon tetrachloride)			0.00
(d) Annex B, Group III (methyl chloroform)			0.00
(e) Annex C, Group I (HCFCs)			59.40
(f) Annex E (methyl bromide)			3.60
		Total:	63.00
Year of reported country programme implementation data:			2013
Amount approved for projects (as at May 2014) (US $):			22,826,836
Amount disbursed (as at December 2013) (US $):			20,105,581
ODS to be phased out (as at May 2014) (ODP tonnes):			2,239.0
ODS phased out (as at December 2013) (ODP tonnes):			1924.3

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

Summary of activities	**Funds approved (US $)**
(a) Investment projects:	18,163,123
(b) Institutional strengthening:	1,377,151
(c) Project preparation, technical assistance, training and other non-investment projects:	3,286,562
Total:	22,826,836

Progress report

2. In phase X of the IS project, the national ozone unit (NOU) in the Ministry of Environment (MoE) first focused its efforts on finalizing legal aspects and disbursement arrangements for implementing the IS project and the air-conditioning (AC) Sector Plan with the World Bank. A new grant agreement was required after the previous agreement, ODS II closed at the end of 2012. ODS III has been in place since May 2013 thanks to coordination efforts by the NOU with the Ministry of Planning and International Cooperation and the Prime Minister's office. In addition, during the time between grant agreements, the NOU ensured that day-to-day operations continued and fulfilled its monitoring and reporting obligations to the Montreal Protocol. Of critical importance to the Government of Jordan's ability to comply with Annex C obligations of the Montreal Protocol was the introduction of the HCFC quota system in early 2013. It has issued and enforced quotas for both 2013 and 2014. Other work conducted by the NOU included: organization and hosting of workshops for enterprises, other industry and trade groups and importers; facilitating the issuance of instructions for controlling ODS import and export of ODS and to broaden the quota system for HCFC control; issuance of 455 approvals for HCFC import; reporting to the Ozone and Fund Secretariats, organization of international ozone day celebrations; conducting field visits to HCFC-using industry; and participating in the Jordanian Customs department workshop on the open window system (ASYCUDA). During phase X, the NOU oversaw and managed the implementation of Multilateral Fund approved projects. The implementation of the air-conditioning sector plan under stage I of Jordan's HCFC phase-out management plan was initiated in 2013 and required intensive consultations with beneficiary enterprises. The methyl bromide phase-out project with GIZ was successfully completed during phase X, and the Petra project implemented in coordination with UNIDO is nearing completion. Finally, the NOU actively participated in the network meetings for West Asia, the 69th to 71st and 73rd meetings of the Executive Committee, the 33rd and 34th Open-ended Working Group Meetings and the 24th and 25th Meetings of the Parties (MOPs). The Head of the Jordan Ozone Unit served as the co-chair of the preparatory segment of the 24th MOP in November 2012.

Plan of action

3. The eleventh phase of Jordan's institutional strengthening project covering the 2015-2016 period will prioritize HCFC phase-out from both the policy and regulatory perspective as well as the investment side as enterprises in the air-conditioning sector convert to non-HCFC alternatives ahead of the impending 10 per cent reduction obligation in 2015. In accordance with Jordan's commitment to the Executive Committee, the country intends to institute a ban on manufacturing with R-22 by the end of 2016. The IS project will therefore enable the NOU and MoE to pursue this regulatory measure with the appropriate cooperating ministries and private sector actors, and with technical support from the HPMP project management unit. With the methyl bromide consumption ban coming into force in 2015, phase XI of the IS project will concurrently support sustainable phase-out of both Annexes A and E substances, including ongoing monitoring of importers and industry, training of Customs officers and reinforcing institutions to track potential controlled uses ODS. Renewal of the IS project will allow the NOU to continue to enhance its ability to assure compliance to the Montreal Protocol for all controlled substances. Hence, regular annual monitoring, reporting and public awareness activities are included in the action plan, as is attendance by the NOU at key ozone-related meetings.

附件二

执行委员会对提交给第七十三次会议的延长体制建设项目的看法

约旦

执行委员会审查了为约旦哈希姆王国申请延长体制建设项目所提出的最终报告，并赞赏地注意到约旦多年来表现出的对《蒙特利尔议定书》的承诺。尤其是，委员会祝贺约旦落实了具体针对氟氯烃的许可证和配额制度，根据其有关数据的报告，这似乎已使该国达到 2013 年冻结氟氯烃消费量的目标。执行委员会期待约旦加速实施在基于氟氯烃的制造企业淘汰氟氯烃，以补充其在国家一级为达到《蒙特利尔议定书》的履约目标所作的努力。

2014 BUSINESS PLAN
WORK PROGRAM AMENDMENT

WORLD BANK IMPLEMENTED
MONTREAL PROTOCOL OPERATIONS

Presented to the
73rd Meeting of the Executive Committee
of the Multilateral Fund

14 September 2014

WORK PROGRAM FOR

WORLD-BANK IMPLEMENTED MONTREAL PROTOCOL OPERATIONS

1. This proposed work program amendment for Bank-Implemented Montreal Protocol Operations is prepared on the basis of the 2014-2016 World Bank Business Plan which was approved by the Executive Committee at its 71st meeting.

2. The 2014-2016 World Bank Business Plan consists of investment and non-investment activities to assist Article 5 partner countries to meet their two HCFC reduction targets, the 2015 10% reduction and the 2020 35% reduction. The Business Plan includes, in addition to deliverables associated with previously approved and new investment activities, requests to extend support for implementation of existing institutional strengthening projects in 2 countries.

3. As part of the 2014-2016 Business Plan, the World Bank plans to submit new preparation fund requests for HCFC sector plans Stage II for Argentina, China, Indonesia, Jordan, the Philippines, Thailand and Vietnam, and project proposals for Argentina, China, Indonesia, Jordan, the Philippines, Thailand and Vietnam.

4. The 2014 World Bank Business Plan includes deliverables of five previously approved multi-year projects in four countries totaling US$30.1 million to support national and sectoral HCFC phase-out work in China, Jordan, Thailand and Vietnam. Total deliverables, including investment, non-investment and preparatory activities amounts to US$34.2 million (including agency support costs and core unit costs).

2014 Work Program – ExCom 73 Amendment

5. The proposed 2014 Work Program Amendment being submitted for consideration at the 73rd Meeting of the Executive Committee, includes funding requests for Agency Core Unit Costs, one institutional strengthening renewal and four preparation activities for stage II HPMP for China and Philippines, outlined in Table 1 below. Detailed explanation on China's request for the two Stage II preparation activities are described in Annex 1: foam sector plan, and Annex 2: gradual production phase-out plan.

Table 1: Funding Requests Submitted for Consideration at the 73rd Meeting of the Executive Committee

Country	Request (US$)	Duration	Description
China	412,500	1/2015 – 12/2015	Project preparation for Stage II foam sector plan, further to Decision 64/49
China	349,360	1/2015 – 6/2016	Project preparation for Stage II gradual production phase-out plan, further to Decisions 69/28 and 71/23
Jordan	147,333	1/2015 – 12/2016	Extension of Institutional Strengthening project (Phase XI)
Philippines	90,000	1/2015 – 12/2015	Project preparation for Stage II HPMP, further to Decision 68/36, and in accordance with Decision 71/42
Philippines	150,000	1/2015 – 12/2015	Project preparation for Stage II refrigeration sector plan (air-conditioning), further to Decision 68/36, and in accordance with Decision 71/42
Support Costs	80,444		
Global	1,725,000	1/2015 – 12/2015	Agency Core Unit Costs
Total	**2,954,637**		

Annex 1: Request for Project Preparation (PRP) for Stage II of HPMP for PU Foam Sector in China

1. Background

China's Polyurethane Foam sector plan (Stage I) aims to freeze the consumption of HCFCs in the sector to 5,392.2 ODP tons by 2013, and reduce the consumption of HCFCs to no more than 4,449.6 ODP tons by 2015. To realize these targets, the sector plan covers production line conversion, system house conversion, policy-making and technical assistance activities. The sector plan is funded by the Multilateral Funds at $73,000,000 from 2011 to 2016 in five tranches, which will result in 14,685 MT of HCFC-141b to be eliminated.

To continue the phase-out of HCFCs and achieve the 2020 target of phasing out 35% of HCFC consumption from the baseline level, a Stage II sector plan aims to further reduce HCFC-141b consumption by at least 8,588 MT. This document presents the intended coverage, time-lines and costs for the preparation for Stage II.

2. Sector background and coverage

2.1 Sector Background

The PU Foam Sector of China started phasing out of ODS in the 1990s. In 2001, the Executive Committee of the Multilateral Fund (hereafter referred to as the ExCom) approved the Sector Plan for Phase out of CFC-11 in the PU Foam Sector in China. Due to the advantages of insulation properties, safety in production and low price, HCFC-141b became one of the most widely used alternatives in the PU foam sector. As of today, PU foam sector has become one of the main HCFCs consumers in China, covering various sub-sectors, such as refrigerator and freezer, reefer containers, small household electric appliance, solar water heater, insulation pipe, insulation foam panels, and spray foam, etc. It is estimated that there are more than 3,500 PU foam enterprises all around the country, for which the majority are small-and-medium scale enterprises.

Since the year 2010, China has successively issued the Circular on Strict Control over the Establishment of Facilities Using HCFCs, and the Regulation on ODS Management. In 2013, as the implementation of the sector HPMP commenced the sector quota system was established for enterprises consuming more than 100 MT annually. In addition, the total supply of HCFC-141b was carried out by the production sector. This enables China to have a good control on the overall supply and have a better monitoring system on the HCFC-141b consumption in large enterprises. However, it is still a challenge to track HCFC-141b consumption in a large number of small enterprises. Additionally, the local EPB whose ODS management capacity was built under Stage I HPMP assuming increasing responsibility for implementing local regulations controlling ODS consumption in their administrative areas and enhancing monitoring efforts on HCFC consumption. More efforts are still required in order to have a better understanding of HCFC-141b consumption in small and medium scale enterprises.

2.2 Implementation Progress of HPMP (stage I) and Lessons learnt

In Stage I of the HPMP, the PU foam sector plan aims to phase out 14,685 MT of HCFC-141b, and to convert system houses to provide pre-blended polyol using alternative foaming agents to SMEs. Technical assistance activities including standards formulation, capacity building and training are also covered by the HPMP. The HPMP also supports formulation of policy and regulation to control use of HCFCs in the sector.

By August 2014, 47 conversion contracts were signed, when completed 12,114 MT of HCFC-141b will be phased out. Most enterprises choose cyclopentane or water as the substitute, depending on different characteristics of resulting foam products and their sub-sectors. Contracts to convert 6 system houses are to be signed soon to provide support for conversions by small and medium enterprises that lack the capability to produce handling the blending process by themselves. In order to facilitate the dissemination of alternative technologies, and to regulate the enterprises' safe production practices, corresponding technology and safety standards are being studied and prepared. In the remaining time of Stage I HPMP, about 2,000 MT of HCFC-141b will be phased out through conversion and policies. A technical support system will be considered to ensure sustaining conversion. A ban on using HCFC-141b in three sub-sectors such as small household appliances, reefer containers and refrigerators is undergoing study, and is expected to be issued by the year 2015.

The implementation of the HPMP shows that 1) policies such as quotas and bans play an important role in phase-out and securing the obtained progress; 2) it is important to establish a technical support system to avoid the risk of the conversion to the hydrocarbon technology and provide the support for the SMEs; 3) Strengthening the capacity of local authorities can greatly enhance the overall capability of the country to meet phase-out targets and help the sector achieve fair and sustainable phase-out, and 4) it is important to carry out the system house project to provide water or hydrocarbon pre-blended polyol to enable the small-and-medium scale beneficiary enterprises to undertake conversion away from HCFC-141b. Meanwhile, in the course of HPMP (stage I) implementation, some challenges are also identified. For instance, there are a large number of small and medium sized enterprises in the PU foam sector that comparatively lack of information on alternative technologies and possess limited financial and management capacity. Additionally, due to more and more adoption of HC technology to replace HCFC-141b, the issues on safe production and good practice need to be further emphasized.

2.3 Preparation of HPMP (stage II)

The Stage II PU foam sector plan will focus on the two sub-sectors, which are solar water heater and pipe insulation sub-sectors as the alternative technologies are well proven in the two sub-sectors. Two substitutes, cyclopentane and water, will be applied in these two sub-sectors according to their suitability for specific products. The goal of Stage II of HPMP is to realize the scheduled HCFC cap of not more than 65% of the baseline level. With consideration of the whole country's compliance and the practicality of management, the PU foam sector will have to phase out a larger part of HCFC consumption, resulting in at least 8,588 MT of HCFC phase out. The actual phase-out amount to be captured by the PU foam sector will be determined when the survey results become available and an overall strategy for Stage II is decided. In order to properly develop the HPMP (stage II) for the PU foam sector, the preparation project will include, among others, information collection, policy review, field survey, data and technology analysis, cost calculation, exploration of project implementation modalities and formulation of HPMP. They are detailed as follows:

Data Collection:

A. Collection of general information

- Background information of the PU foam sector will be collected and updated through consultation with industrial associations, HCFC-141b producers, polyol suppliers, MDI suppliers, equipment suppliers, foam producers, and other related stakeholders.
- A brief review of activities undertaken so far under the HPMP (stage I) in the PU foam sector, focusing on lessons learnt and how these could be used for the future HCFCs phase-out.

- Consultation meetings for sub-sector and sector levels will be organized in order to formulate a data collection strategy accordingly.
- Development of the Term of Reference for surveys and data analysis.

B. Development of questionnaire

- Questionnaire for data collection will be designed and developed. Working meetings will be organized with industrial associations, manufacturers and experts to finalize the questionnaire.
- Consultation meetings with all relevant stakeholders will be organized to ensure common understanding of the data collection and the information required by the questionnaire.
- Training will be planned and provided to the staff participating in the data survey.

C. Field survey and data analysis

- Questionnaire will be distributed to ~150 enterprises with the aid of industry association and local authorities.
- Field visits to at least 40 PU foam enterprises mainly covering solar energy, pipe and panel sub-sectors as well as system house companies. A survey plan will be prepared. The field survey will be jointly carried out by the PMO/MEP, industrial associations, local EPBs and external experts, with a view to the eligibility of enterprises, the information on HCFC consumption in recent three years, production lines and applications, technical preference for replacing HCFCs, and any difficulties or challenges to be faced by enterprises in future conversions.
- Upon the data collected, the consumption of HCFC-141b in different sub-sectors and different scales of enterprises will be analyzed, and the situation of different blowing agents used in the PU foam sector will be concluded.

Stage II PU foam sector plan formulation:

D. Policy review

- Existing national and local policies and regulations will be reviewed.
- New policies and regulatory framework for HCFCs phase-out in the PU foam sector might be proposed.

E. Review and analysis of substitute technologies

- Consultation meetings will be held to update technology development and evaluate different alternative technologies, taking into consideration of any technical issues emerging in the process of conversion activities under HPMP (stage I)
- Research on development of both domestic and overseas alternative technologies in PU foam sector will be conducted. Updated information of alternative technologies to HCFC-141b in various sub-sectors will be collected and evaluated.

F. Cost calculation

- Information on the cost for different alternative technologies will be updated.
- Cost calculation methodology will be established, taking into account different scales of enterprises, especially the small and medium sized enterprises in the sector.

G. Project implementation modality

- Project implementation modalities will be proposed. In the Stage I of HPMP in PU foam sector, most beneficiaries are large or medium-sized enterprises. Given the fact that there are

a large number of small and medium sized enterprises in the sector, in Stage II, it is estimated that more of those enterprises will be involved in phase-out activities. Therefore, more implementation modalities, such as region-based phase-out and system house-leading phase-out may be taken into consideration.

- Phase-out priority for stage II will be identified on a sub-sector basis.

H. Formulation of the HPMP(stage II)

- Stakeholders meetings will be organized to review the draft of the sector plan, including proposed HCFC-141b phase-out strategy, technology options, proposed policy framework, cost calculation, proposed implementation modalities, and so on.
- The HPMP (stage II) for PU foam sector will be revised based on the feedback from afore-mentioned meetings, and be concluded for submission.

3. Timelines for preparation

Month / Description	1	2	3	4	5	6	7	8	9	10	11	12
Inception meeting	X											
Field survey planning	X	X	X									
Data collection			X	X	X	X						
Data analysis				X	X	X	X	X				
Project preparation						X	X	X	X			
Stakeholder consultations		X				X		X	X	X	X	
Project document finalization								X	X	X	X	X

4. Project costs and break-down

The project preparation costs for sector projects can be given in the table below.

Particulars	Unit Price	Times or Person-days	Value in USD
Workshops (4 at provincial and 2 at national level)	10,000	6	60,000
National consultant (data collection)	200	300	60,000
Field survey	800	100	80,000
Technology Consultation (International survey of low carbon alternatives)	20,000	1	20,000
PU Foam Sector Plan Stage II Preparation	200	150	30,000
Development of implementation modality (International Consultants and Travel)			62,800
Review of Survey Result and Draft HPMP (International Consultants and Travel)			62,800
Subtotal			375,000
Contingency (10%)			37,500
Total			412,500

Annex 2: Request for Project Preparation (PRP) for Stage II of HPMP for HCFC Production Sector in China

1. Background

At the 19th Meetings of the Parties held in September 2007, the Parties agreed to accelerate the HCFC phase-out schedule. As an Article 5 country, China was required to freeze the production and consumption of HCFCs at the average level of 2009 - 2010 (baseline) by 2013, to realize 10%, 35%, 67.5% reductions in 2015, 2020 and 2025, respectively, and achieve complete phase-out of HCFCs by 2030 with a 2.5% remaining allowed production and consumption of HCFCs to meet the residual demand in the servicing sector during the period of 2030 – 2040.

In cooperation with the World Bank, one of the implementing agencies to the Multilateral Fund for the implementation of the Montreal Protocol, the Sector Plan for Phase out of HCFCs in the Production in China (phase I) was submitted to the 66th ExCom meeting for approval in July 2012, and was approved at 69th ExCom meeting with a funding of US$95,000,000 grant. The objective of the HPMP in production sector in the first stage (2011-2015) is to ensure the HCFC production in China is frozen on an average level of 2009-2010 by 2013 and realizes 10% reduction from the freeze level by 2015. To realize these targets, the sector plan covers enterprise level phase-out, policy-making and technical assistance activities. According to the sector plan, around 47,256 MT of HCFCs, equivalent to 3,970 ODP tonnes, will be phased out by the year 2015.

In the second stage (2015-2020), to continue the phase-out of HCFCs and achieve the 2020 target of phasing out 35% of HCFC production from the baseline level, the HPMP (stage II) of production sector is to be prepared, and will continue to organize the investment activities, policy development, and technical assistance (TA) activities. This document presents the intended coverage, time-lines and costs for the preparation for Stage II.

2. Sector background and coverage

2.1 Sector Background

China produces a variety of HCFC including HCFC-22, HCFC-141b, HCFC-142b, HCFC-123 and HCFC-124. The first three accounts for 99% of total production and are used primarily as refrigerants, foam blowing agents and feedstock. For HCFC-22, HCFC-141b and HCFC-142b, there are 16, 8 and 12 manufacturers, respectively. Total production capacity in 2010 was around one million tons. China HCFC production, excluding feedstock, was 445,887 tons in 2010. In terms of metric tons, HCFC-22 production is about 71% of the total production, follow by HCFC-141b (22%) and HCFC-142b (6%). Phasing out HCFC will pose a very significant challenge to China as HCFC production and consumption plays a critical role in China's economy in terms of raw materials consumed, sectors covered, volume produced and economic value.

2.2 Implementation Progress of HPMP (stage I) and lessons learnt

Since approval of the Sector Plan, China has initiated various activities to ensure the smooth implementation of the sector plan. With regard to policy actions, in order to duly achieve the freeze target in 2013 and 10% reduction in 2015, China has already issued the ODS regulations, strict control of HCFC Production facilities and establishment of facilities, and introduced the quota management in the production sector. As a result of conversion activities carried out under the sector plan, collaborating with

policy measures as well as series of TA activities, China has realized the freeze target for 2013, and implementation of the production sector is also on track as per the commitments set out in the sector plan.

In terms of policy actions, the HCFC export/import license system was implemented and HCFC production and consumption quota system has been implemented since 7 August 2013. A national HCFC production quota of 426,540 MT (28,633 ODP) which includes 281,037 (18,560 ODP) for domestic use was issued for 2013 and 2014. According to the verification report on 2013 production conducted by the World Bank's independent verification team, it shows that the overall production for controlled use and production for domestic sales are within the quotas issued.

HCFC production in 2009-2013 (ODP tonnes)

	2009	2010	2011	2012	2013	Baseline
Production	28,200.60	30,043.30	32,106.07	34,413.51	26,599.33	29,122.00

For meeting the freeze target in 2013, mandatory production reduction was employed. By end of December 2013, 6 HCFC-141b enterprises and 6 HCFC-142b enterprises signed the phase-out contracts with FECO for their reduction from the 2010 level to baseline for a total amount of 10,427 MT of production reduction. Meanwhile, several TA activities were carried out to lay down a solid foundation for smooth implementation of phase-out activities in future. The reduction in 2013 would be at least 19,348 MT with an estimate of climate benefit of about 33 Million tons of CO2eq.

In order to address the 10% reduction in 2015, the bidding for HCFC production line closure projects has been initialed at earlier of August 2014, and the contracts with bid winners are expected to be signed by end of October 2014.

During the implementation of stage I so far, except the funding incentive to encourage the phase-out activities at the enterprise level, quota system is the most effective manner to ensure the China's compliance with the Montreal Protocol. Combination of financial incentives and "tradable" production quota system has shown to be effective tools in enabling China to meet its compliance under the Montreal Protocol. Coordination among management of HCFC production, consumption and import & export is also the key element for China's compliance with the Montreal Protocol.

3. Preparation of HPMP (stage II)

3.1 Objective

The objective of this assignment is to develop a HCFCs Production Phase-out Management Plan for stage II with funding request for China to ensure its production for controlled use will not exceed 18,929 ODP tons by 2020. The plan will include a production phase-out strategy for each HCFCs taking into account current and future demand of HCFCs and expected HCFCs consumption reduction from MLF funded activities in China and other A5 countries, in order to maintain a balance between global demand and supply of HCFCs.

3.2 Scope of works

In order to properly develop the HPMP (stage II) for the production sector, the preparation work will mainly include:

- Review experience and lessons learned from implementation of Stage I HPPMP;

- Determine the demand of each HCFCs in China and other Article 5 countries during the past three years and in the future by reviewing all the HPMP agreements between the ExCom and other A5 countries;
- Conduct consultation with relevant industrial sectors in China and with key non-LVC countries regarding their phase-out policies and future demand of HCFCs;
- Review any potential industrial rationalization including closure in the HCFC production industry in China;
- Develop a comprehensive HCFC production phase-out strategy, reduction schedule, implementation modality, policies framework, technical activities for each HCFC taking into account the need to maintain a balance between the global supply and demand of HCFCs.
- Determine the funding needed for stage II, taking into account different kinds of influencing factor and key sensitivity parameters;

4. Timelines for preparation

Overall time plan for implementation of the preparation project during the 18 months is given in the table below:

	Q1	**Q2**	**Q3**	**Q4**	**Q5**	**Q6**
Inception meeting	X					
Review current domestic demand and HPMP of other A5 countries		X	X			
Analysis on future demand for HCFCs in China and other A5 countries for stage II		X	X	X		
Funding needed for stage II			X	X	X	
Stage II HPPMP formulation				X	X	
Stakeholder consultations				X	X	X
Finalization of stage II HPPMP					X	X

5. Project costs

The project preparation costs for sector projects can be given in the table below.

Particulars	**Unit Price**	**Times or Person-days**	**Value in USD**
Workshops	10,000	6	60,000
National consultant service (analysis on future demand , industry rationalization, global demand and supply, reduction schedule, cost calculation and project formulation)	200	150	30,000
Domestic travel for stakeholder consultation and enterprise visits	800	40	32,000
International travels and accommodation for Chinese experts	6,000	2	12,000
Consultation workshops with non-LVC in China	6,000	8	48,000
Communication, translation, printing, etc.			10,000
Development of Project Implementation Modality taking into account industrial rationalization and the global demand and supply			62,800
Review the consultant's report and finalize the HPPMP document			62,800
Sub-total			**317,600**
Contingency			31,760
Total			**349,360**