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执行蒙特利尔议定书
多边基金执行委员会
第八十六次会议
2020 年 11 月 2 日至 6 日，蒙特利尔
延迟至 2021 年 3 月 8 日至 21 日[1]

世界银行 2020 年工作方案修正案

秘书处序言

1. 如文件 UNEP/OzL.Pro/ExCom/86/31（项目审查过程中发现问题的综述）中第 8 段所解释的, 世界银行提交了其 2020 年工作方案修正案，以供执委会在第八十六次会议上考虑，该修正案包含两项供资申请，一项用于编制马来西亚减排氢氟烃管理计划，另一项用于编制印度氢氟氯烃生产的淘汰管理计划(简称 HPPMP)。

2. 在项目审查过程中，秘书处注意到提交的两个项目都没有满足执委会提交项目的要求，原因如下:

(a) 在提交编制马来西亚减排氢氟烃计划供资申请的时候，该国还没有批准基加利修正案。根据第 79/46(b)(iii)[2]号决定，批准基加利修正案是提交氢氟烃相关申请的先决条件；以及

(b) 按照第 32/78 号决定[3]，编制印度氢氟氯烃生产淘汰管理计划所需供资的申请只有在完成了技术审查之后才可以提出。

3. 基于上述背景，秘书处当时没有发出第八十六次会议世界银行 2020 年工作方案修正案的文件。

4. 继之而后, 马来西亚政府于 2020 年 10 月 21 日批准了基加利修正案，因而具有了申请编制氢氟烃减排计划的供资资格。因为当时世界银行 2020 年工作方案修正案的文件还没有发出，秘书处只能在开发计划署、环境规划署、工发组织以及德国政府的工作方案修正案中的氢氟烃减排计

[1] 由于冠状病毒病（COVID-19）。
[2] 当一个国家已经批准了基加利修正案并符合供资准则（待批）时，编制国家实施氢氟烃减排计划以履行最初的减排义务所需的供资，最早可于履行最初减排义务的前五年提供。
[3] 执委会已经决定，消耗臭氧层物质生产领域编制项目计划所需供资应在完成了技术审查之后批准，这个批准程序目前还在实行。

划预备供资的项下，包含在文件 UNEP/OzL.Pro/ExCom/86/31，中提交申请。该文件请执行委员会按照第 84/54(a)(iii) 号决定，在商定氢氟烃减排管理计划编制资金的准则后，审议表 1 所列的 24 个国家(包括马来西亚政府的申请)编制氢氟烃减排管理计划的资金申请。

5. 随后，在为第八十六次会议制定的闭会期间批准程序中[4], 执行委员会同意审议，除了编制氢氟烃减排计划的资金申请外，在文件 UNEP/OzL.Pro/ExCom/86/31 中提出的所有问题。编制氢氟烃减排计划资金申请包括德国政府双边合作的项目；开发计划署，环境署和工发组织的 2020 工作方案修正案中的项目；以及世界银行提交的马来西亚的项目。这些申请将被提交到推迟的第 86 次会议上进一步审议[5]。

6. 综上所述，发出本文件以供在推迟的第八十六次会议上审议。

基金秘书处的评论和建议

7. 世界银行请求执行委员会为表 1 中所列的 2020 年工作方案修正案的项目提供 250,000 美元, 外加机构支助费用 17,500 美元。

表 1：世界银行 2020 年工作方案修正案

国家	活动/项目	申请数额（美元）	建议数额（美元）
建议单独审议的活动			
氢氟烃减排管理计划项目的编制			
马来西亚	**氢氟烃减排管理计划的编制**	250,000	*
	小计	250,000	*
	机构支助费用	17,500	*
	合计	267,500	*

* 单独审议

[4] 于 2020 年 11 月 10 日到 12 月 14 日举行。

[5] 文件 UNEP/OzL.Pro/ExCom/86/IAP3 第 120 段。

建议单独审议的活动

氢氟烃减排管理计划项目的编制

项目说明

8. 作为指定的执行机构，世界银行提交了编制马来西亚氢氟烃减排管理计划的要求，如表 1 所示。项目建议书含在本文件附件一[6]。

秘书处的评论

9. 作为指定的执行机构，世界银行提交了编制马来西亚氟氯烃减排综合战略的活动描述，其中包括各项活动的相应费用，文件以编制氢氟氯烃淘汰的阶段性计划（HPMPs）的申请格式呈现。呈件中包括估算的 2015 至 2018 年氢氟烃及其混合物的进口量信息；这个信息是从扶持活动期间收集的信息和数据而来；还包括了更新氢氟烃消费量的调查数据，与利益相关者进行磋商制定氢氟烃减排战略，并编制了氢氟烃使用行业的投资项目和技术援助等准备项目的一系列活动。

10. 编制氢氟烃减排计划所需的经费是基于扶持活动的资金（载于第 79/46(c)号决定中）。秘书处指出，为编制计划而请求的供资额是指导性的，因为实际数额将在执行委员会审议第 5 条国家编制氢氟烃减排计划的准则草案，即文件 UNEP/OzL.Pro/ExCom/86/88，时确定（第 84/54(a)号决议）。

11. 由于编制氢氟烃减排管理计划的实际供资量还有待批准，秘书处根据审查氢氟氯烃淘汰管理计划编制要求的经验，并考虑了执委会以前对类似项目的决定，对呈件进行了审查。审查之后，秘书处注意到马来西亚提交的文件符合供资要求，因为该国当时已经批准了《基加利修正案》，并且提交了政府的背书，表明该国打算对氢氟烃减排采取早期行动。列出的活动项目也类似于编制氢氟氯烃淘汰管理计划时需要的活动；一些活动类似于氢氟烃减排扶持活动中所包括的项目，这些项目已经得到了资金，目前正在实施中。

12. 世界银行澄清说，在制定马来西亚氢氟烃减排的总体战略时，将考虑包括在扶持性活动下开展的活动，因为这些活动是与氢氟烃减排有关的首要行动，并为批准《基加利修正案》做出了贡献。在第 86 次会议上批准该资金申请将使氢氟烃的减排活动在 2022 年得以开始实施，并实现对《基加利修正案》的履约。

13. 秘书处曾经通知世界银行不能够推荐这个供资申请，因为相关的供资导则还有待于在 86 次会议上讨论。

秘书处的建议

14. 与议事日程 9(a)下关于项目审查期间发现问题的综述，以及议事日程 13(c)下关于第五条国家氢氟烃减排计划编制的供资导则草案（第 84/54(a)决议）的讨论保持一致，执行委员会可以考虑马来西亚的关于氢氟烃减排管理计划编制的供资申请，详见表 1。

[6] 项目建议书摘自世行 2020 年九月提交的 2020 年工作方案修正案中。

Annex I

REQUEST FOR PROJECT PREPARATION OF STAGE I KIGALI HFC PHASEDOWN MANAGEMENT PLAN FOR MALAYSIA
(Extract from the World Bank's work programme amendments for 2020)

Background

The Government of Malaysia is fully committed to the Montreal Protocol (MP) and the Climate Change Convention. It acceded to both the Vienna Convention for the Protection of the Ozone Layer and the Montreal Protocol on Substances as well as all the subsequent amendments as indicated in Table 1. Malaysia was expected to ratify the Kigali Amendment in 2020 after the Cabinet approved the ratification in early 2020. However, the change in government leadership in March 2020 requires the new Cabinet to re-approve the ratification. The Ministry of Environment and Water had already restarted the process and now expect the ratification would take place in early 2021.

Table 1: Malaysia Ratification Dates - Vienna Convention, MP, and Amendments

Instrument	Date of Ratification
Vienna Convention	29-Aug-1989
Montreal Protocol	29-Aug-1989
London Amendment	16-Jun-1993
Copenhagen Amendment	5-Aug-1993
Montreal Amendment	26-Oct-2001
Beijing Amendment	26-Oct-2001
Kigali Amendment	Expected early 2021

As of 1 January 2010, Malaysia has fulfilled its commitment to phase out consumption of all controlled substances with the exception of hydrochlorofluorocarbons (HCFCs).

Findings from Enabling Activities for HFC Phasedown in Malaysia

The enabling activities for HFC phasedown in Malaysia was approved by the 80th ExCom (decision 80/52) and completed in June 2020.

HFC Consumption in Malaysia

Based on the information and data collected during the implementation of the enabling activities, total consumption of HFCs from 2015 through 2018, grouped into pure HFCs and HFC blends, are shown in Table 2. The import data collected from both the primary and secondary sources indicate that only 11 out of the total 18 pure HFCs controlled by the MP were imported during 2015–2018. In addition to pure HFC imports, Malaysia also imported 19 HFC blends during the same period. Malaysia does not produce HFCs.

Table 2: Consumption of Bulk HFCs and HFC Blends from 2015 to 2018 (MT)

Chemical	2015	2016	2017	2018
Pure HFCs	3,067.45	4,124.54	4,313.48	4,552.96
HFC blends	3,822.00	3,790.58	3,901.75	3,813.25
Total	**6,889.45**	**7,915.12**	**8,215.23**	**8,366.21**

Major consumption of HFCs can be classified into six sectors: (a) AC, (b) refrigeration, (c) mobile AC, (d) foam, (e) fire protection, and (f) solvent cleaning as depicted in Figure 1.

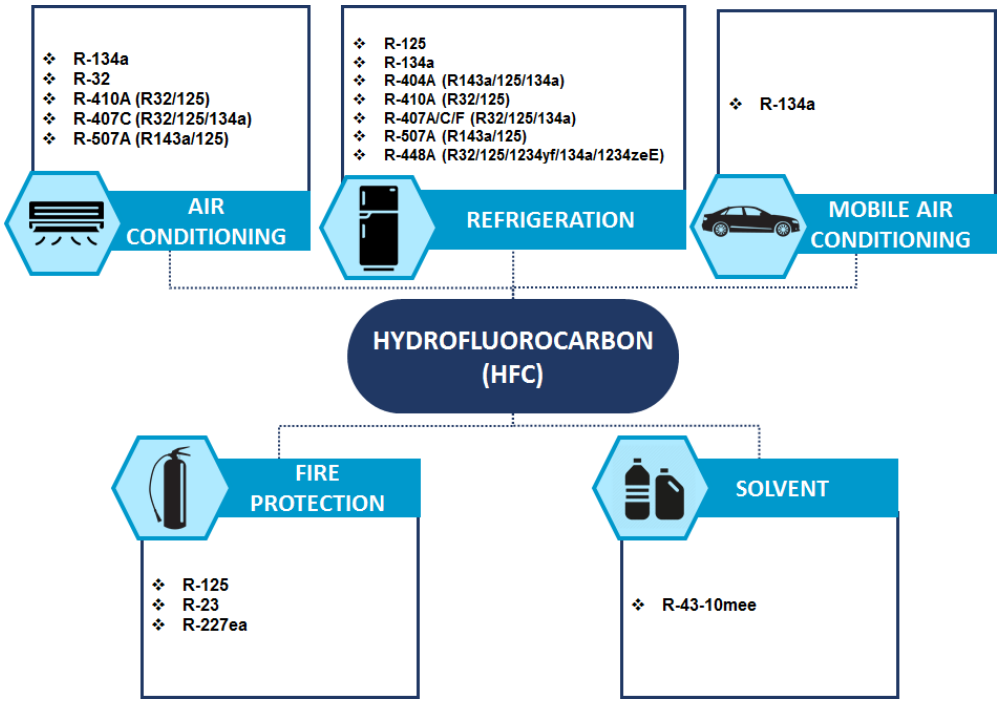

Figure 1: HFC Consumption by Industry Sector

Kigali HFC Baseline for Malaysia

According to the Kigali Amendment, the HFC baseline consumption for Malaysia (as an Article 5, Group 1 country) will be determined by the average HFC consumption between 2020 and 2022 plus 65 percent of the GWP of the HCFC baseline. The calculated GWP of 65% of HCFC consumption baseline of Malaysia is 8.20 million tons CO2 equivalent.

The average HFC consumption between 2020 and 2022 is estimated from the data collected from 2015 through 2018 with the assumption that HFC consumption for each subsector/application will follow the same growth rate. The average HFC consumption for the baseline period (2020 to 2022) is estimated to be 10,631.31 MT, which is equivalent to 21.93 million tons of CO2 equivalent (mtCO2e). Thus the estimated HFC baseline for Malaysia is 30.13 $mtCO_2$ (21.93 $mtCO_2$ from HFCs and 8.20 $mtCO_2$ from 65 percent of the HCFC baseline).

HFC Projection under Business-as-Usual Scenario

Based on the 2015-2018 consumption data and growth rate in each application, consumption forecast in key sectors under the business-as-usual (BAU) scenario from 2018 to 2045 is shown in Figure 2 below.

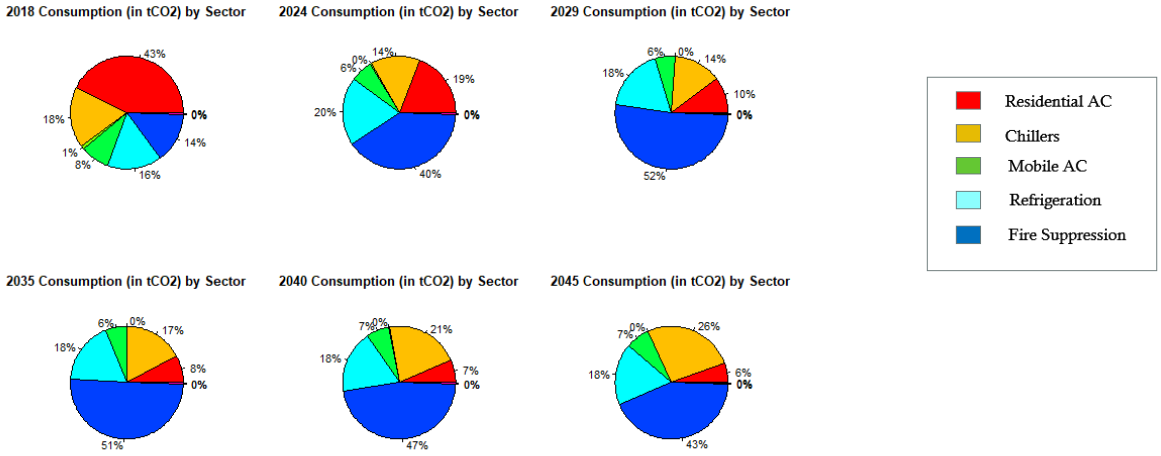

Figure 2: 2018 versus Projected 2024 Consumption in Key Sectors under BAU Scenario

Under the BAU scenario, Malaysia HFC consumption would quickly grow and exceed the freeze target in 2024 as shown in **Table 3**.

Table 3: HFC Consumption under the BAU Scenario (million tCO2)

million tCO2	2018	2024	2029	2035	2040	2045
HFC Consumption (BAU)	16.32	32.21	50.52	70.30	92.51	123.58

Phasedown Intervention

The study developed under the HFC enabling activities considers sector-specific interventions from 2024 to 2045 to support full compliance with all the phasedown targets during the same period. Considering the likely technology pathways that the sectors and applications will follow under the BAU scenario, and taking into account the Stage II HPMP, a series of interventions in the key HFC sectors and subsectors are considered for each major control period of the KA that would enable Malaysia to, at a minimum, comply with the estimated baseline consumption and subsequent reductions up to the final 2045 reduction step. HFC consumption projections for the four scenarios described earlier are shown in Figure 3. All proposed scenarios would secure Malaysia's full compliance with its estimated phasedown obligations under the KA.

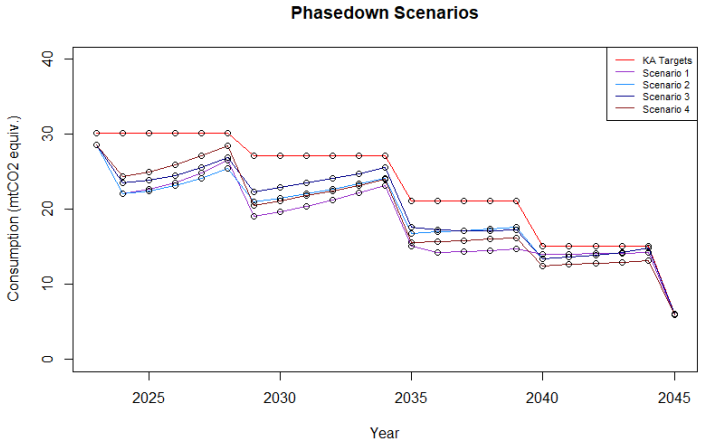

Figure 3: Malaysia's HFC Phasedown Schedule against Intervention Scenarios

However, the COVID-19 pandemic could depress the demand for HFCs and HFC-based equipment during the baseline years (2020–2022). This could result in a lower HFC baseline than the estimate presented above. Phasedown options that are more aggressive than those considered may be required if the demand is restored to normal levels after the baseline years.

Objectives

The Stage I Kigali HFC Phasedown Management Plan (KPMP), to be developed under this activity, will support Malaysia in meeting its compliance with the first two target steps: freeze by 2024 and 10% reduction by 2029. It will serve as the platform for reflecting Malaysia's evolving situation while proposing needed investment, policy, and technical assistance interventions for achieving sustainable HFC reductions.

Proposed approach and activities

The proposed approach includes the following activities:

(i) Update Malaysia HFC survey (inclusion of 2019 and 2020 HFC consumption) and analyze the impact of COVID-19 pandemic that may depress the demand of HFCs and HFC-based equipment during the baseline years (2020 – 2022), resulting in a lower HCFC baseline than the previous estimate. Update HFC consumption projection for the immediate period (2024 – 2029) after the baseline years in case the demand returns to normal post COVID-19 pandemic.

(ii) Develop sector policies and plans to curb the demand of HFC for the fire suppression sector and refrigeration and air-conditioning sectors which are identified as major and high growth HFC consumption sectors by the previous study undertaken as part of the HFC enabling activities. Conduct comprehensive surveys of manufacturing and servicing enterprises in these sectors;

(iii) Develop investment and technical assistance activities in the manufacturing and servicing fire suppression and, refrigeration and air-conditioning sectors including technical and financial viability of recovery, recycle and disposal of HFCs;

(iv) Develop HFC quota allocation options and procedures for consideration of DOE, METI and Customs Department and action plan for implementing the new WCO HS system for HFCs will enter into force in 2022.

Estimated budgets

Activities	**Unit cost (US$)**	**No.**	**Budget(US$)**
National workshops	10,000	2	20,000
National consultant service			100,000
International consultant service			30,000
Domestic travel	600	10	6,000
International travels and accommodation	8,000	4	32,000
Industry consultation workshops	4,000	6	24,000
Communication, translation, printing, etc.			5,500
Review the consultant's report and finalize the KPMP document			10,000
Sub-total			227,500
Contingency (~10%)			22,500
Total			250,000