



**United Nations  
Environment  
Programme**

Distr.  
GENERAL

UNEP/OzL.Pro/ExCom/87/18  
9 June 2021

ORIGINAL: ENGLISH

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EXECUTIVE COMMITTEE OF  
THE MULTILATERAL FUND FOR THE  
IMPLEMENTATION OF THE MONTREAL PROTOCOL  
Eighty-seventh Meeting  
Montreal, 28 June-2 July 2021<sup>1</sup>

### **WORLD BANK'S WORK PROGRAMME FOR 2021**

#### **Background**

1. At the 86<sup>th</sup> meeting, the World Bank submitted a request for the preparation of an HFC phase-down management plan for Malaysia, under its work programme amendments for 2020<sup>2</sup>.
2. At the same meeting, the Executive Committee discussed the draft guidelines for funding the preparation of HFC phase-down management plans,<sup>3</sup> noting that funding requests for the preparation of HFC phase-down plans submitted by bilateral and implementing agencies on behalf of Article 5 countries to that meeting, would be approved once the guidelines had been agreed, in line with decision 84/54(a)(iii). The Executive Committee was unable to reach agreement on the draft guidelines, and decided to continue consideration of the draft guidelines at its 87<sup>th</sup> meeting (decision 86/93).
3. Pursuant to decision 86/93, the Executive Committee decided to defer to its 87<sup>th</sup> meeting consideration of the request, submitted by the World Bank, for funding for the preparation of an HFC phase-down plan for Malaysia (decision 86/60).
4. In line with decision 86/60, the World Bank is requesting approval from the Executive Committee of US \$250,000, plus agency support costs of US \$17,500, for its 2021 work programme programme listed in Table 1.

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<sup>1</sup> Online meetings and an intersessional approval process will be held in June and July 2021 due to coronavirus disease (COVID-19)

<sup>2</sup> UNEP/OzL.Pro/ExCom/86/99

<sup>3</sup> UNEP/OzL.Pro/ExCom/86/88

**Table 1: The World Bank's work programme for 2021**

Country	Activity/Project	Amount requested (US \$)	Amount recommended (US \$)
<b>ACTIVITIES RECOMMENDED FOR INDIVIDUAL CONSIDERATION</b>			
<b>Project preparation for HFC phase-down management plans</b>			
Malaysia	Preparation of an HFC phase-down management plan	250,000	*
	Subtotal	250,000	*
	Agency support costs	17,500	*
	Grand total	267,500	*

\* For individual consideration

### **COMMENTS AND RECOMMENDATION OF THE FUND SECRETARIAT**

#### **Project description**

5. The World Bank submitted a request for the preparation of an HFC phase-down management plan for Malaysia as designated implementing agency, as shown in Table 1. The project proposal is contained in Annex I to the present document.<sup>4</sup>

#### **Secretariat's comments**

6. The World Bank as designated implementing agency, provided a description of the activities required for the preparation of an overarching strategy for HFC phase-down for Malaysia including the corresponding costs of each activity using the format for requests for project preparation for stages of HCFC phase-out management plans (HPMPs). The submission included information about the estimated imports of HFCs and HFC blends for 2015 to 2018 based on information and data collected during the implementation of the enabling activities; list of activities for the project preparation including updating the HFC consumption survey; development of the HFC phase-down strategy including stakeholder consultations; and development of investment and technical assistance activities in the HFC-consuming sectors.

7. The amount requested for the preparation of the HFC phase-down plan was based on the funding for enabling activities (contained in decision 79/46(c)). The Secretariat noted that the funding amounts of project preparation requests are indicative, as the actual amounts will be decided when the Executive Committee concludes its discussion on the Draft guidelines for the preparation of HFC phase-down plans for Article 5 countries (UNEP/OzL.Pro/ExCom/87/46).

8. While the actual funding level for preparation of HFC phase-down management plans still has to be decided, the Secretariat reviewed the submission based on the experience of reviewing requests for preparation of HPMPs, and taking into account guidance provided and decisions adopted by the Executive Committee for such projects. Following this review, the Secretariat noted that the submission for the request for Malaysia met the requirements for submission as the country had ratified the Kigali Amendment, and it included an endorsement letter indicating the country's intention to take early action on HFC phase-down. The activities listed for project preparation were also similar to those required to prepare HPMPs; some activities resembled those included under the enabling activities for HFC phase-down for which funding had already been provided and which is currently ongoing.

9. The World Bank clarified that the project preparation for the overarching strategy for HFC phase-down for Malaysia would draw on the activities implemented under the enabling activities, as these were the first actions associated with the phase-down of HFCs and had contributed to the ratification of the

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<sup>4</sup> The project proposal as submitted was extracted from the World Bank's work programme amendments for 2020 submitted in September 2020.

Kigali Amendment. Approval of funding for the request at the 87<sup>th</sup> meeting will allow implementation of HFC phase-down to begin by 2022, and achieve compliance with the Kigali Amendment.

10. The Secretariat informed the World Bank that it would be unable to make a recommendation on this request as guidelines on funding these requests would be discussed at the 86<sup>th</sup> meeting. Discussions on the draft guidelines will continue at its 87<sup>th</sup> meeting.

**Secretariat's recommendation**

11. The Executive Committee may wish to consider, in line with discussions under agenda item 13(c), Draft guidelines for funding the preparation of HFC phase-down management plans (decision 86/93), the request for project preparation for HFC phase-down management plan for Malaysia as listed in Table 1.

## 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**

<b>Instrument</b>	<b>Date of Ratification</b>
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 80<sup>th</sup> 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)**

<b>Chemical</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>
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
<b>Total</b>	<b>6,889.45</b>	<b>7,915.12</b>	<b>8,215.23</b>	<b>8,366.21</b>

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.

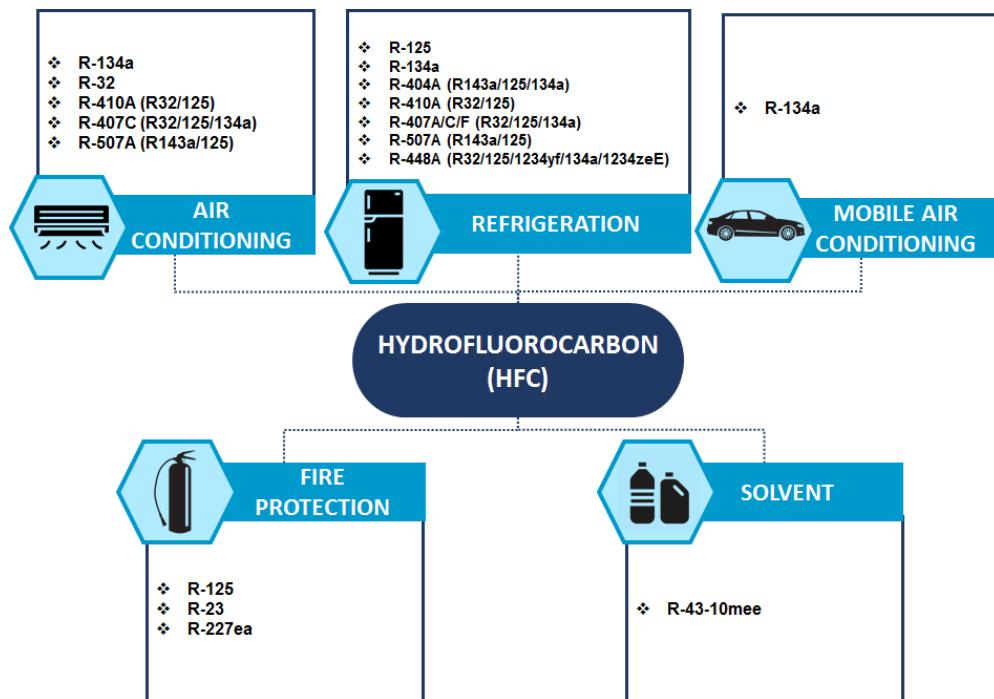


Figure 1: HFC Consumption by Industry Sector

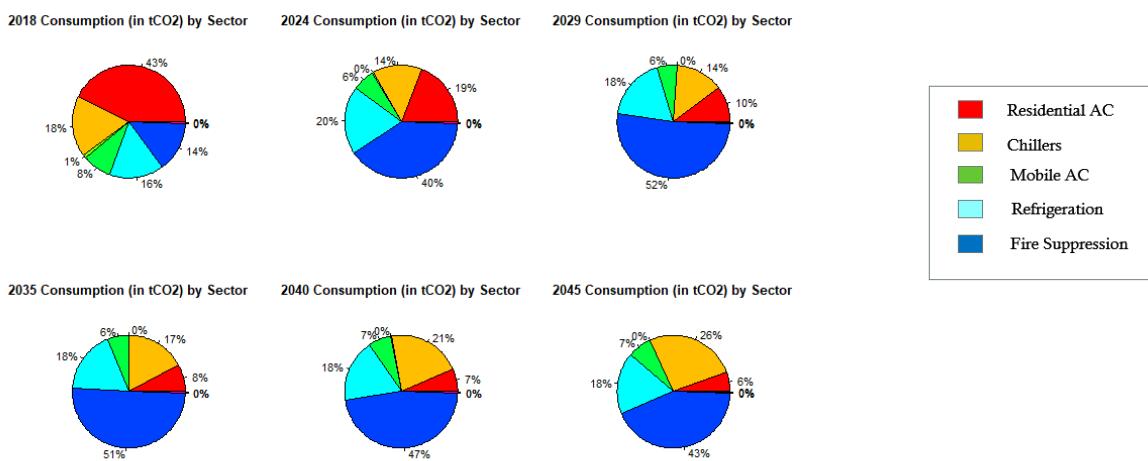
#### Kigali HFC Baseline for Malaysia

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 CO<sub>2</sub> 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 CO<sub>2</sub> equivalent (mtCO<sub>2</sub>e). Thus the estimated HFC baseline for Malaysia is 30.13 mtCO<sub>2</sub> (21.93 mtCO<sub>2</sub> from HFCs and 8.20 mtCO<sub>2</sub> 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**

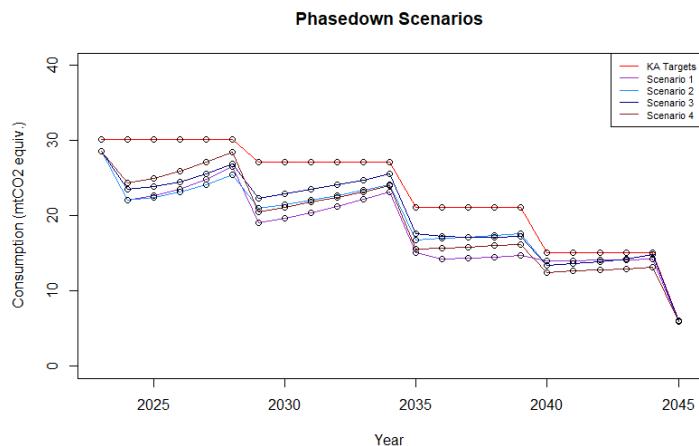
Under the BAU scenario, Malaysia HFC consumption would quickly grow and exceed the freeze target in 2024 as shown in **Table 3**.

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

million tCO2	2018	2024	2029	2035	2040	2045
<b>HFC Consumption (BAU)</b>	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**

<b>Activities</b>	<b>Unit cost (US\$)</b>	<b>No.</b>	<b>Budget(US\$)</b>
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
<b>Sub-total</b>			<b>227,500</b>
Contingency (~10%)			22,500
<b>Total</b>			<b>250,000</b>