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EXECUTIVE COMMITTEE OF  
 THE MULTILATERAL FUND FOR THE  
 IMPLEMENTATION OF THE MONTREAL PROTOCOL  
Ninety-first Meeting

Montreal, 5-9 December 2022

Item 5 of the provisional agenda[[1]](#footnote-1)

**COUNTRY PROGRAMME DATA AND PROSPECTS FOR COMPLIANCE**

# **Introduction**

# A total of 147 countries are currently classified as Article 5 (A5) Parties, including the Republic of Korea, Singapore, and the United Arab Emirates. These three countries[[2]](#footnote-2) have been urged not to request funding from the Multilateral Fund for the phase-out of their consumption and production (where applicable) of controlled substances and, therefore, are not required to submit the mandatory progress report on the implementation of their country programme (CP).[[3]](#footnote-3) However, data on the consumption and production of controlled substances from these three countries is included in some parts of the document to ensure a global analysis of Ozone-Depleting Substances (ODS) production and consumption trends.

# Parties are encouraged to submit annually their Article 7 (A7) data by 30 June, and no later than 30 September (decision XV/15). In addition, A5 Parties are required to submit CP data eight weeks prior to the first meeting of the year of the Executive Committee, if possible, and no later than 1 May (decision 74/9(b)(iv)). Table 1 summarizes data reports submitted by A5 Parties between 2013 and 2021. As of 11 October 2022, the countries that submitted requests for funding to the 91st meeting but not 2021 CP data are the Congo, Djibouti, Gabon and Tuvalu.

**Table 1. A7 and CP data reports submitted by A5 Parties (as of 11 October 2022)**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Data** | **2013** | **2014** | **2015** | **2016** | **2017** | **2018** | **2019** | **2020** | **2021** |
| A7 | 147 | 147 | 147 | 147 | 147 | 147 | 147 | 147 | 127 |
| CP | 145 | 144\* | 144 | 144 | 144 | 144 | 144 | 144 | 127 |

\* Excluding Croatia, which became a non-Article 5 country in 2014.

# The present document consists of the following sections:

## I. Status of and prospects for compliance of A5 countries: This section presents a summary of the status of licensing and quota systems, and the results of the analysis of the status of compliance with the final phase-out of CFCs, halons, carbon tetrachloride (CTC), methyl bromide (MB) and methyl chloroform (TCA), and the 2013 freeze, the 10 per cent reduction by 2015 and the 35 per cent reduction of HCFCs by 2020, in the consumption and production sectors. It assumes that the latest consumption reported under A7 or CP data reports has taken into account the phase-out from completed projects.[[4]](#footnote-4) This section also provides data on HFC under A7 or CP data reports.

## II. A5 countries subject to decisions on compliance by the Parties

## III. Analysis on the CP implementation reports for HCFCs[[5]](#footnote-5) and HFCs:[[6]](#footnote-6) Regarding HCFCs, this section presents an analysis on the data contained in CP data reports, including HCFC production versus consumption, sector distribution of HCFCs, and prices of controlled substances and alternative substances. Regarding HFCs, this section presents an analysis on consumption data contained in the 2021 CP data reports. Out of the 127 CP data reports for 2021 submitted, 102 reports contained HFC data.

IV. Issues related to CP implementation reports

V. Recommendation

I. Status of and prospects for compliance of A5 countries

**I.1 Production and consumption**

# The complete phase-out of production and consumption of CFCs, halons, CTC for all A5 countries occurred on 1 January 2010, except for CFC consumption in metered-dose inhalers and CTC consumption in laboratory and analytical use. The complete phase-out of production and consumption of MB and TCA occurred on 1 January 2015, except for those countries where critical uses for MB were approved by the Parties. Therefore, Annex C Group I (HCFCs) substances and Annex F (for those A5 countries that had ratified the Kigali Amendment) are the only substances under the Montreal Protocol where consumption and production is still allowed.

**A. Production sector**

# MB is produced in one A5 country (China).[[7]](#footnote-7) An MB production closure phase-out plan was approved providing for the country to produce at levels lower than those allowed under the Montreal Protocol.[[8]](#footnote-8) In 2020, zero ODP tonnes of MB were produced.

# There are seven A5 countries that produced HCFCs. The levels of the three main HCFCs produced (i.e., HCFC-22, HCFC‑141b, HCFC‑142b) are shown in table 2. The aggregated latest production for controlled uses was 47.1 per cent below the aggregated production baseline.

# **Table 2. Production for controlled uses of the three main HCFCs (A7, ODP tonnes)**

| **Party** | **2013** | **2014** | **2015** | **2016** | **2017** | **2018** | **2019** | **2020** | **2021** | **Baseline** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **HCFC-22** |  |  |  |  |  |  |  |  |  |  |
| Argentina | 107.3 | 125.7 | 134.5 | 95.8 | 100.3 | 65.6 | 88.3 | 66.3 | 56.6 | 224.6 |
| China | 15,866.9 | 16,497.0 | 13,391.0 | 14,086.3 | 13,445.7 | 13,636.4 | 13,598.2 | 11,042.2 | \*\* | 29,122.0\* |
| Democratic People's Republic of Korea (the) | 31.8 | 28.9 | 27.4 | 24.8 | 24.8 | 24.8 | 27.0 | 27.0 | 24.8 | 27.6 |
| India | 1,352.1 | 1,465.7 | 1,727.6 | 1,665.5 | 1,789.5 | 1,908.0 | 1,933.1 | 1,354.8 | 1,156.2 | 2,399.5 |
| Mexico | 317.1 | 223.5 | 160.9 | 166.8 | 190.1 | 183.8 | 134.8 | 20.2 | -82.1 | 697.0 |
| Republic of Korea | 357.6 | 364.7 | 348.9 | 240.3 | 305.6 | 289.9 | 271.5 | 254.3 | 221.0 | 395.1 |
| Venezuela (Bolivarian Republic of) | 121.2 | 86.1 | 37.2 | 14.3 | 15.0 | 1.9 | 0.0 | 0.0 | 0.0 | 123.1 |
| Total HCFC-22 | 18,153.9 | 18,791.7 | 15,827.6 | 16,293.8 | 15,871.0 | 16,110.3 | 16,052.9 | 12,764.8 | 1,376.5 | 32,988.9 |
| **HCFC-141b** |  |  |  |  |  |  |  |  |  |  |
| China | 9,583.6 | 9,560.2 | 7,246.5 | 7,278.2 | 7,076.8 | 6,321.1 | 6,101.6 | 4,623.3 | \*\* | \* |
| **HCFC-142b** |  |  |  |  |  |  |  |  |  |  |
| China | 1,102.0 | 1,076.8 | 1,224.3 | 1,110.5 | 1,115.5 | 756.3 | 816.0 | 418.3 | \*\* | \* |
| **Total** | **28,839.6** | **29,428.7** | **24,298.3** | **24,682.6** | **24,063.3** | **23,187.7** | **22,970.4** | **17,806.4** | **1,376.5** | **32,988.9** |

\* The HCFC production baseline is 29,122 ODP tonnes and includes all HCFCs produced by China, mainly HCFC‑22, HCFC‑141b and HCFC‑142b, and to a lesser extent HCFC-123 and HCFC-124.

\*\* As of 11 October 2022, A7 data for China has not been submitted.

# An HCFC production phase-out management plan (HPPMP) was approved for one country (China).[[9]](#footnote-9)

# One A5 country, the Democratic People’s Republic of Korea, has reported 24.81 ODP tonnes of HCFC production for the year 2021, which is above the production target set in the plan of action in decision XXXII/6. The 68th meeting of the Implementation Committee requested the country to provide an explanation for the deviations in production and, if appropriate, to submit a revised plan of action to ensure its return to compliance with the Protocol’s control measures for HCFCs in 2023, for consideration by the Implementation Committee at its 69th meeting.[[10]](#footnote-10)

**B. Consumption sector**

# CFCs, halons, CTC, MB and TCA

# All A5 countries have reported zero consumption of CFCs, halons and TCA in 2020 or 2021.

# Only two A5 countries have reported CTC consumption in 2021 for laboratory and analytical‑use (China (329.6 ODP tonnes) and Republic of Korea (0.1 ODP tonnes)). Although the consumption was above the 2010 Montreal Protocol compliance target, the Parties have extended the global laboratory and analytical-use exemption until 31 December 2021 (decision XXXI/5).

# Only one A5 country[[11]](#footnote-11) has reported MB consumption in 2021, as shown in table 3. Although its consumption was above the 2015 Montreal Protocol compliance target, the Parties approved consumption of MB for critical uses for this country.

**Table 3. MB consumption reported by A5 countries (ODP tonnes)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Country** | **Source** | **Year of latest consumption** | **Baseline** | **Latest consumption** |
| Argentina\* | A7 | 2021 | 411.3 | 6.7 |

**\*** Allowable level of consumption of 6.79 ODP tonnes for 2021 per decision XXXII/3.

# Thirty-seven A5 countries reported MB consumption and two A5 countries reported MB production for QPS applications under A7 data, as shown in Annex I to the present document. The consumption for these applications is not eligible for funding.

# HCFCs

# A total of 147 A5 countries have an established HCFC baseline for compliance, with an aggregated latest consumption level of 16,748.8 ODP tonnes (267,920 metric tonnes), as shown in table 4. The three main HCFCs are: HCFC‑22 (73.6 per cent of the total consumption measured in ODP tonnes), HCFC‑141b (24.2 per cent) and HCFC-142b (1.96 per cent).

**Table 4. Baseline and latest HCFC consumption data by type of HCFC (A7 data)**

| **HCFC** | **Baseline** | | **Consumption\*** | | **% of baseline** |
| --- | --- | --- | --- | --- | --- |
| **Metric tonnes** | **ODP tonnes** | **Metric tonnes** | **ODP tonnes** |
| HCFC-123 | 2,337.0 | 46.7 | 1,737.9 | 34.8 | 74.4 |
| HCFC-124 | 1,270.7 | 28.0 | 41.3 | 0.9 | 3.3 |
| HCFC-141b | 107,871.6 | 11,865.9 | 36,816.3 | 4,049.8 | 34.1 |
| HCFC-142b | 33,195.5 | 2,157.7 | 5,053.4 | 328.5 | 15.2 |
| HCFC-22 | 394,654.7 | 21,706.0 | 224,271.0 | 12,334.9 | 56.8 |
| HCFC-225 | 30.4 | 2.1 | 0.0 | 0.0 | 0.0 |
| HCFC-225ca | 70.0 | 1.8 | 0.0 | 0.0 | 0.0 |
| HCFC-225cb | 20.9 | 0.7 | 0.0 | 0.0 | 0.0 |
| **Total** | **539,450.8** | **35,808.9** | **267,920.0** | **16,748.8** | **46.8** |

\* Including Republic of Korea (1,229.1 ODP tonnes), Singapore (76.1 ODP tonnes) and the United Arab Emirates (353.6 ODP tonnes).

# One A5 country, the Democratic People’s Republic of Korea, has reported HCFC consumption above the 2020 Montreal Protocol compliance target. The country has reported 2021 consumption of 58.03 ODP tonnes, which is above the consumption target set in the plan of action in decision XXXII/6. The 68th meeting of the Implementation Committee requested the country to provide an explanation for the deviations in consumption and, if appropriate, to submit a revised plan of action to ensure its return to compliance with the Protocol’s control measures for HCFCs in 2023, for consideration by the Implementation Committee at its 69th meeting.[[12]](#footnote-12) In addition, at the 90th meeting of the Executive Committee, after consideration of the progress report on the implementation of stage I of the HPMP for the Democratic People’s Republic of Korea, the Executive Committee requested the Secretariat to inform the Committee if the situation in relation to the country changed (decision 90/21).

*HCFC phase-out management plans*

# All 145 countries have received financial assistance for the preparation of project proposals to phase out HCFCs. As a result, the Executive Committee has approved stage I of the HPMPs for 145 countries,[[13]](#footnote-13) stage II for 103 countries and stage III for nine countries, at a total value of US $1.16 billion (approved in principle) of which US $970.12 million has been disbursed to address compliance with the Montreal Protocol control levels as follows:

## Thirty countries (19 low-volume-consuming (LVC) and 11 non-LVC countries), to address compliance up to 2020;

## Thirty-three countries to address compliance up to 2025; and

## Seventy-nine countries[[14]](#footnote-14) to completely phase out HCFCs between 2020 and 2035.

# Annex II to the present document includes an analysis of the latest reported HCFC consumption data and control measures addressed by approved HPMPs.

*Remaining HCFCs*

# Implementation of approved stages I, II and III of the HPMPs will result in the phase-out of approximately 73.1 per cent of the starting point for aggregate reduction of HCFC consumption and 89.2 per cent of the consumption of HCFC‑141b contained in imported pre-blended polyols. Table 5 shows the aggregate remaining HCFC consumption[[15]](#footnote-15) by type of HCFC in A5 countries that are receiving assistance from the Fund.

**Table 5. Total remaining HCFC consumption by substance (ODP tonnes)\***

| **HCFC** | **Baseline** | **Starting point** | **Approved** | **Remaining** | **% of approved** |
| --- | --- | --- | --- | --- | --- |
| HCFC-123 | 31.90 | 30.21 | 11.58 | 18.64 | 38.3 |
| HCFC-124 | 26.42 | 26.14 | 2.44 | 24.40 | 9.3 |
| HCFC-141 | 0.94 | 0.94 | 0.94 | 0.00 | 100.0 |
| HCFC-141b | 10,668.24 | 10,676.35 | 10,484.30 | 191.78 | 98.2 |
| HCFC-142b | 2,000.80 | 2,016.80 | 1,383.50 | 632.39 | 68.6 |
| HCFC-21 | 0.74 | 0.74 | 0.74 | 0.00 | 100.0 |
| HCFC-22 | 20,424.65 | 19,851.35 | 11,943.24 | 7,907.36 | 60.2 |
| HCFC-225 | 2.82 | 2.82 | 1.43 | 1.39 | 50.7 |
| HCFC-225ca | 0.42 | 0.42 | 0.00 | 0.42 | 0.0 |
| HCFC-225cb | 0.68 | 0.68 | 0.00 | 0.68 | 0.0 |
| **Total** | **33,157.61** | **32,606.45** | **23,828.17** | **8,777.06** | **73.1** |
| HCFC-141b polyol\*\* | 0.00 | 657.00 | 586.30 | 64.14 | 89.2 |

\* As of the 90th meeting.

\*\* HCFC-141b contained in imported pre-blended polyols.

HFCs

# Of the 147 A5 countries, 117 countries have reported HFC A7 or CP data in 2019, 2020 or 2021. Ninety-two of the 117 countries have ratified the Kigali Amendment. Annex III to the present document includes information on latest reported HFC consumption data for these 117 countries and the 65 per cent of the HCFC baseline (measured in CO2‑equivalent) for all 147 A5 countries.

# **I.2 Licensing and quota systems**

# All A5 countries have established licensing systems pursuant to Article 4B of the Montreal Protocol and had confirmed that an enforceable national system capable of ensuring the country’s compliance with the Montreal Protocol HCFC phase-out schedule is in place. Seventy-eight (48 LVC and 30 non-LVC countries) of the 96 A5 countries[[16]](#footnote-16) that have ratified the Kigali Amendment[[17]](#footnote-17) have established an HFC licensing system.

## **II. A5 countries subject to decisions on compliance by the Parties**

# At their Thirty-Third Meeting, the Parties did not find any Article 5 countries in non-compliance with their obligations under the Montreal Protocol. As mentioned above, the 69th meeting of the Implementation Committee will consider the explanation provided by the Democratic People’s Republic of Korea for the deviations from its commitment as set out in decision XXXII/6 and, if appropriate, a revised plan of action to ensure its return to compliance with the Protocol’s control measures for HCFCs in 2023.[[18]](#footnote-18)

**III. Analysis on the CP implementation reports for HCFCs and HFCs**

|  |
| --- |
| Key messages from the data analysis   * In 2021, the three sectors with the largest consumption of HCFCs (measured in ODP tonnes) were first the refrigeration servicing, second the foam sector and third, the refrigeration manufacturing sector. * Significant decrease in consumption and production of HCFCs in 2020 and 2021. * As the phase-out of HCFCs in the foam and refrigeration manufacturing sectors progresses, the refrigeration servicing sector becomes more prevalent. * 103 A5 countries (66 LVCs and 37 non-LVCs) reported HFC CP data for 2021. * HFC-32, HFC-125, HFC-134a, HFC-227ea, R-404A, R-507A and R-410A account for 94% of the total consumption in CO2-equivalent; refrigeration servicing 32.7%, refrigeration manufacturing – AC 23.1%, and refrigeration manufacturing – others 22.2%. * Most consumed HFCs including blends in 2021 were HFC‑134a, R-404A, R-410A, R-507A and R-407C for LVC countries, and R-410A, HFC-134a, HFC-227ea, HFC-32, R-404A, and R-507A for non-LVC countries. |

**III.1 HCFC data**

**A. HCFC production versus consumption**

# Since 2011, the reported levels of the three main HCFCs produced in A5 countries have been above the levels of consumption except for HCFC‑142b in 2011, as shown in table 6. The data reported shows a significant decrease in consumption and production in 2020 and 2021 and this is primarily due to the reduction required to achieve the 2020 controlled targets and the challenges related to the COVID‑19 pandemic.

**Table 6. HCFC production versus consumption of the three main HCFCs (ODP tonnes)**

| **HCFC** | **2011** | **2012** | **2013** | **2014** | **2015** | **2016** | **2017** | **2018** | **2019** | **2020** | **2021** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Production** | | | | | | | | | | | |
| HCFC-22 | 21,665.7 | 23,552.4 | 18,769.0 | 19,816.3 | 16,782.6 | 16,191.2 | 15,725.9 | 16,061.3 | 15,959.3 | 12,583.5 | 11,407.8 |
| HCFC-141b | 12,311.5 | 12,884.4 | 9,583.6 | 9,560.2 | 7,246.5 | 7,278.2 | 7,076.8 | 6,321.1 | 6,101.6 | 4,623.3 | 3,545.1 |
| HCFC-142b | 1,759.8 | 1,440.4 | 1,102.0 | 1,076.8 | 1,224.3 | 1,110.5 | 1,115.5 | 756.3 | 816.0 | 418.3 | 469.7 |
| **Consumption** | | | | | | | | | | | |
| HCFC-22 | 19,847.6 | 22,581.7 | 17,817.0 | 17,399.4 | 15,289.4 | 15,497.0 | 15,183.0 | 15,193.7 | 14,946.5 | 12,043.2 | 11,051.4 |
| HCFC-141b | 11,978.2 | 11,735.9 | 8,981.3 | 8,348.3 | 6,772.5 | 6,384.9 | 6,312.2 | 5,726.0 | 5,532.2 | 3,696.9 | 3,092.8 |
| HCFC-142b | 1,827.9 | 1,439.4 | 1,014.5 | 761.0 | 890.8 | 726.2 | 774.3 | 430.1 | 486.7 | 183.7 | 304.9 |
| **Production – consumption** | | | | | | | | | | | |
| HCFC-22 | 1,818.1 | 970.7 | 952.0 | 2,416.9 | 1,493.2 | 694.2 | 542.9 | 867.6 | 1,012.8 | 540.3 | 356.40 |
| HCFC-141b | 333.3 | 1,148.5 | 602.3 | 1,211.9 | 474.0 | 893.3 | 764.6 | 595.1 | 569.4 | 926.4 | 452.30 |
| HCFC-142b | (68.1) | 1.0 | 87.5 | 315.8 | 333.5 | 384.3 | 341.2 | 326.2 | 329.3 | 234.6 | 164.8 |

**B. Sector distribution of HCFC consumption**

# Table 7 presents the sector distribution of aggregated HCFC consumption for the period 2011 to 2021, where countries are grouped as follows: China, as the largest consumer (and producer) of HCFCs; the 14 largest consuming countries (excluding China);[[19]](#footnote-19) and all other countries.

# In 2021, the three sectors with the largest consumption of HCFCs (measured in ODP tonnes) were the refrigeration servicing (43.6 per cent of the total), foam (28.7 per cent of the total) and the refrigeration manufacturing sectors (25.4 per cent). As the phase-out of HCFCs in the foam and refrigeration manufacturing sectors progresses, the refrigeration servicing sector becomes more relevant.

**Table 7. Sector distribution of HCFC consumption by group of countries (ODP tonnes)**

| **Sector** | **2011** | **2012** | **2013** | **2014** | **2015** | **2016** | **2017** | **2018** | **2019** | **2020** | **2021** | **2021 (% of total)** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **China** | | | | | | | | | | |  |  |
| Aerosol | 70.5 | 95.4 | 137.8 | 186.2 | 180.4 | 189.4 |  | 154.0 | 163.7 |  |  | 0.0 |
| Foam | 9,576.0 | 9,031.0 | 7,473.9 | 7,404.0 | 5,522.7 | 5,872.8 | 6,220.8 | 5,679.4 | 5,669.2 | 4,241.9 | 3,822.8 | 26.1 |
| Firefighting |  |  |  |  |  |  |  |  |  |  |  | 0.0 |
| Refrigeration manufacturing | 6,740.3 | 6,586.7 | 6,014.3 | 5,602.0 | 4,951.7 | 5,107.1 | 5,106.2 | 4,856.9 | 4,746.9 | 3,149.4 | 3,040.0 | 20.8 |
| Refrigeration servicing | 3,827.0 | 4,857.8 | 3,103.8 | 3,161.7 | 2,412.0 | 2,638.3 | 2,881.4 | 3,316.8 | 3,258.3 | 2,984.4 | 2,982.8 | 20.4 |
| Solvent | 514.1 | 524.1 | 466.0 | 484.8 | 418.5 | 413.4 | 397.0 | 375.1 | 385.0 | 308.0 | 275.0 | 1.9 |
| **Total for China** | **20,727.8** | **21,094.9** | **17,195.8** | **16,838.7** | **13,485.3** | **14,221.1** | **14,605.4** | **14,382.3** | **14,223.2** | **10,683.7** | **10,120.6** | **69.1** |
| **14 largest A5 consuming countries\*** | | | | | | | | | | |  |  |
| Aerosol | 82.8 | 75.0 | 123.8 | 19.3 | 87.3 | 42.4 | 5.5 | 26.9 | 7.8 | 1.1 | 2.6 | 0.0 |
| Foam | 3,517.3 | 3,867.4 | 2,645.6 | 2,153.0 | 2,077.0 | 1,572.7 | 1,501.9 | 1,275.5 | 1,058.7 | 349.0 | 167.8 | 1.1 |
| Firefighting | 9.8 | 6.0 | 5.4 | 4.0 | 4.0 | 4.2 | 4.9 | 2.3 | 2.9 | 2.2 | 2.4 | 0.0 |
| Refrigeration manufacturing | 2,674.2 | 3,142.9 | 2,233.7 | 1,932.1 | 1,862.6 | 1,473.8 | 1,291.6 | 1,238.6 | 1,010.0 | 788.0 | 603.8 | 4.1 |
| Refrigeration servicing | 3,246.7 | 4,213.6 | 3,029.3 | 3,008.3 | 3,148.6 | 3,262.9 | 2,805.0 | 2,615.4 | 2,835.3 | 2,588.0 | 2,289.1 | 15.6 |
| Solvent | 80.0 | 76.3 | 43.3 | 38.5 | 37.1 | 29.6 | 53.9 | 47.5 | 62.7 | 56.2 | 53.1 | 0.4 |
| **Total 14 largest consuming countries** | **9,610.8** | **11,381.3** | **8,081.1** | **7,155.3** | **7,216.7** | **6,385.6** | **5,662.8** | **5,206.3** | **4,977.3** | **3,784.4** | **3,118.8** | **21.3** |
| **129 remaining A5 countries** | | | | | | | | | | |  |  |
| Aerosol | 0.1 | 0.2 | 0.7 | 0.4 | 0.3 | 0.1 | 0.5 |  |  |  | 0.1 | 0.0 |
| Foam | 1,061.5 | 1,258.8 | 963.2 | 916.0 | 869.0 | 826.9 | 731.2 | 497.5 | 472.7 | 381.3 | 215.4 | 1.5 |
| Firefighting | 9.4 | 13.3 | 8.6 | 11.2 | 14.0 | 11.1 | 7.7 | 3.2 | 4.4 | 1.4 | 1.9 | 0.0 |
| Refrigeration manufacturing | 703.8 | 400.7 | 314.3 | 290.2 | 248.9 | 236.1 | 217.3 | 178.7 | 180.0 | 98.6 | 73.3 | 0.5 |
| Refrigeration servicing | 2,178.1 | 2,372.2 | 1,995.8 | 2,011.0 | 1,861.3 | 1,695.3 | 1,608.5 | 1,553.2 | 1,503.0 | 1,325.5 | 1,110.5 | 7.6 |
| Solvent | 38.0 | 34.1 | 5.2 | 3.5 | 4.9 | 5.1 | 3.1 | 3.2 | 3.3 | 0.3 | 0.1 | 0.0 |
| **Total 129 remaining A5 countries** | **3,990.8** | **4,079.3** | **3,287.7** | **3,232.3** | **2,998.3** | **2,774.7** | **2,568.3** | **2,235.8** | **2,163.3** | **1,807.2** | **1,401.1** | **9.6** |
| **All A5 countries** | | | | | | | | | | |  |  |
| Aerosol | 153.4 | 170.5 | 262.2 | 205.9 | 268.0 | 232.0 | 6.0 | 180.9 | 171.5 | 1.1 | 2.6 | 0.0 |
| Foam | 14,154.8 | 14,157.2 | 11,082.6 | 10,473.0 | 8,468.7 | 8,272.4 | 8,453.8 | 7,452.5 | 7,200.6 | 4,972.2 | 4,206.0 | 28.7 |
| Firefighting | 19.1 | 19.4 | 14.1 | 15.2 | 18.0 | 15.2 | 12.6 | 5.6 | 7.3 | 3.6 | 4.3 | 0.0 |
| Refrigeration manufacturing | 10,118.3 | 10,130.3 | 8,562.2 | 7,824.3 | 7,063.2 | 6,817.0 | 6,615.1 | 6,274.2 | 5,936.9 | 4,036.1 | 3,717.1 | 25.4 |
| Refrigeration servicing | 9,251.8 | 11,443.6 | 8,128.9 | 8,181.0 | 7,422.0 | 7,596.5 | 7,294.9 | 7,485.5 | 7,596.6 | 6,897.9 | 6,382.4 | 43.6 |
| Solvent | 632.0 | 634.5 | 514.5 | 526.9 | 460.4 | 448.2 | 454.0 | 425.8 | 450.9 | 364.5 | 328.1 | 2.2 |
| **Total all A5 countries** | **34,329.4** | **36,555.5** | **28,564.6** | **27,226.3** | **23,700.4** | **23,381.4** | **22,836.4** | **21,824.4** | **21,363.8** | **16,275.4** | **14,640.6** | **100.0** |
| % of total for China | 60.4 | 57.7 | 60.2 | 61.8 | 56.9 | 60.8 | 64.0 | 65.9 | 66.6 | 65.6 | 69.1 |  |
| % of total for 14 largest A5 consuming countries | 28.0 | 31.1 | 28.3 | 26.3 | 30.4 | 27.3 | 24.8 | 23.9 | 23.3 | 23.3 | 21.3 |  |
| % of total for 129 remaining A5 countries | 11.6 | 11.2 | 11.5 | 11.9 | 12.7 | 11.9 | 11.2 | 10.2 | 10.1 | 11.1 | 9.6 |  |

# \*Argentina, Brazil, Egypt, India, Indonesia, Iran (Islamic Republic of), Kuwait, Malaysia, Mexico, Nigeria, Saudi Arabia, South Africa, Thailand and Türkiye.

# The sector distribution of the three main HCFCs consumed in A5 countries is presented in table 8. The analysis shows a sustained reduction in the overall consumption of these substances.

# **Table 8. Sector distribution of the main HCFCs consumed in A5 countries (ODP tonnes)**

| **Sector** | **2011** | **2012** | **2013** | **2014** | **2015** | **2016** | **2017** | **2018** | **2019** | **2020** | **2021** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **HCFC-22** | | | | | | | | | | |  |
| Aerosol | 103.9 | 124.9 | 116.4 | 129.5 | 134.2 | 132.0 | 0.3\*\*\*\* | 102.3 | 91.1 |  | 0.1 |
| Foam\* | 1,725.7 | 2,079.2 | 1,805.6 | 1,731.9 | 1,177.3 | 1,518.5 | 1,687.2 | 1,682.3 | 1,616.4 | 1,328.6 | 1,190.3 |
| Firefighting | 6.2 | 0.1 |  |  |  |  |  |  |  |  |  |
| Refrigeration manufacturing | 9,270.7 | 9,474.9 | 8,012.7 | 7,518.0 | 6,747.4 | 6,590.5 | 6,330.0 | 5,999.0 | 5,760.1 | 3,896.0 | 3,649.1 |
| Refrigeration servicing | 8,711.8 | 10,873.6 | 7,882.3 | 8,019.8 | 7,229.8 | 7,255.5 | 7,165.1 | 7,409.7 | 7,478.5 | 6,818.3 | 6,211.9 |
| Solvent | 29.3 | 29.0 |  | 0.3 | 0.7 | 0.6 | 0.4 | 0.4 | 0.4 | 0.3 |  |
| **Total HCFC-22** | **19,847.6** | **22,581.7** | **17,817.0** | **17,399.4** | **15,289.4** | **15,497.0** | **15,183.0** | **15,193.7** | **14,946.5** | **12,043.2** | **11,051.4** |
| **HCFC-141b** | | | | | | | | | | |  |
| Aerosol | 49.4 | 45.4 | 145.8 | 76.4 | 132.0 | 99.9 | 5.7\*\*\*\* | 78.7 | 80.4 | 1.1 | 2.5 |
| Foam | 10,412.3 | 10,355.0 | 7,712.9 | 7,394.0 | 5,828.1 | 5,522.9 | 5,547.5 | 4,943.4 | 4,814.0 | 3,182.9 | 2,684.8 |
| Firefighting | 6.0 | 9.3 | 6.7 | 7.6 | 9.3 | 5.2 | 6.3 | 1.8 | 3.0 | 0.7 |  |
| Refrigeration manufacturing\*\* | 814.7 | 629.6 | 529.6 | 282.9 | 294.2 | 204.8 | 264.9 | 255.8 | 159.7 | 125.6 | 53.0 |
| Refrigeration servicing | 98.7 | 96.4 | 75.7 | 66.5 | 54.6 | 108.8 | 37.1 | 26.4 | 28.0 | 22.7 | 24.5 |
| Solvent | 597.1 | 600.2 | 510.6 | 521.0 | 454.4 | 443.3 | 450.8 | 420.0 | 447.1 | 363.9 | 328.1 |
| **Total HCFC‑141b** | **11,978.2** | **11,735.9** | **8,981.3** | **8,348.3** | **6,772.5** | **6,384.9** | **6,312.2** | **5,726.0** | **5,532.2** | **3,696.9** | **3,092.8** |
| **HCFC-142b** | | | | | | | | | | |  |
| Aerosol | 0.1 | 0.2 | 0.0 | 0.0 | 1.8 | 0.0 | 0.0 | 0.0 | 0.0 |  |  |
| Foam\*\*\* | 1,401.7 | 990.2 | 863.7 | 686.2 | 773.8 | 608.3 | 701.0 | 398.5 | 412.3 | 134.7 | 167.3 |
| Firefighting |  |  |  |  |  |  |  |  |  |  |  |
| Refrigeration manufacturing | 11.1 | 7.8 | 6.5 | 8.0 | 7.2 | 6.9 | 6.1 | 5.9 | 5.9 | 4.2 | 4.2 |
| Refrigeration servicing | 414.7 | 441.3 | 144.4 | 66.7 | 107.9 | 110.9 | 67.3 | 25.7 | 68.5 | 44.8 | 133.4 |
| Solvent | 0.3 |  |  |  |  |  |  |  |  |  |  |
| **Total HCFC‑142b** | **1,827.9** | **1,439.4** | **1,014.5** | **761.0** | **890.8** | **726.2** | **774.3** | **430.1** | **486.7** | **183.7** | **304.9** |
| **Other HCFCs** | 675.7 | 798.5 | 751.7 | 717.6 | 747.8 | 773.3 | 566.8 | 474.6 | 398.4 | 351.6 | 191.4 |
| **Total** | **34,329.4** | **36,555.5** | **28,564.6** | **27,226.3** | **23,700.4** | **23,381.4** | **22,836.4** | **21,824.4** | **21,363.8** | **16,275.4** | **14,640.6** |

\* Used as co-blowing agent.

\*\* Used for insulation of refrigeration equipment.

\*\*\* Used for the production of extruded polystyrene foam.

\*\*\*\* The steep reduction between 2016 and 2017 is due to reduction of consumption in one country (China).

**III.2 HFC data**

# At its 84th meeting, the Executive Committee *inter alia* approved the revised CP data format to include Annex F (HFC) substances noting that the revised format would be used starting in 2020 for 2019 CP data reporting, with a trial period from 2020 to 2022 (decision 84/7(c)). At its 90th meeting, the Executive Committee approved the updated revised format of Section B of the CP data reports, on the understanding that the data required in the column that related to the manufacture of blends under Section B of CP data reports would be reported on a voluntary basis (decision 90/3(c)).

# The present document presents an analysis of the HFC consumption reported by the 103 A5 countries under their CP data reports for 2021. Of the 127 countries which submitted 2021 CP data as of 11 October 2022, 87 countries have ratified the Kigali Amendment. Only 84 of the 87 countries have provided HFC data in their 2021 CP reports on time for this analysis. In addition, 19 countries that have not ratified the Kigali Amendment have provided HFC data in their 2021 CP reports.

# The sector distribution of aggregated HFC consumption for the 103 countries that have submitted 2021 CP data is presented in table 9. Of these 103 countries, 66 are LVC countries and they account for 69.3 per cent of the aggregated HCFC baseline for all LVC countries; 37 are non-LVC countries and they account for 78.8 per cent of the HCFC baselines for all non-LVC countries. The HFC data reported by LVC and non-LVC countries account for 2.7 per cent and 97.3 per cent, respectively, of the total HFC consumption data reported for the year 2021.

**Table 9. Sector distribution of HFCs consumed in 2021 (metric tonnes)**

| **HFC** | **Aerosol** | **Foam** | **Fire fighting** | **Refrigeration manufacturing** | | | **Ref. servicing** | **Solvent** | **Other** | **Total\*\*\*** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Other** | **AC** | **Total\*** |
| HFC-125 |  |  | 1,080.6 | 0.3 | 882.3 |  | 3,719.2 |  | 683.7 | 9,937.0 |
| HFC-134 |  |  |  |  |  |  | 499.4 |  |  | 499.4 |
| HFC-134a | 6,118.0 | 2,258.9 |  | 33,099.0 | 24,660.5 | 2,177.7 | 77,311.7 | 50.1 | 842.3 | 158,078.9 |
| HFC-143a |  |  |  | 18.1 |  |  | 549.8 |  | 216.9 | 784.8 |
| HFC-152 |  | 0.1 |  |  |  |  | 1,000.0 |  |  | 1,000.1 |
| HFC-152a | 4,054.7 | 3,925.2 |  | 25.3 |  |  | 140.8 | 2,400.0 | 29.6 | 13,374.1 |
| HFC-227ea | 356.8 | 16.5 | 26,669.4 |  |  |  | 3.0 |  | 33.6 | 27,237.2 |
| HFC-23 (use)\*\* |  |  | 9.9 | 10.9 |  |  | 5.2 | 1.1 | 638.1 | 676.4 |
| HFC-236cb |  |  |  |  |  |  | 0.0 |  |  | 0.0 |
| HFC-236ea |  |  |  |  |  |  |  |  | 73.3 | 73.3 |
| HFC-236fa |  |  | 36.9 |  |  |  | 0.6 |  |  | 570.3 |
| HFC-245fa |  | 8,893.4 | 0.8 | 300.0 |  |  | 20.3 |  | 18.7 | 9,820.5 |
| HFC-32 |  |  |  | 5,400.0 | 89,816.2 | 32.6 | 13,798.2 |  | 723.4 | 123,607.7 |
| HFC-365mfc | 4.8 | 848.9 |  |  |  | 4.8 |  |  |  | 858.5 |
| HFC-43-10mee |  |  |  |  |  |  |  | 77.1 | 0.9 | 79.9 |
| R-404A | 0.4 |  |  | 5,674.5 | 744.8 | 123.0 | 11,693.3 |  | 178.3 | 19,606.0 |
| R-406A |  |  |  |  |  |  | 11.8 |  |  | 11.8 |
| R-407A | 0.2 |  |  |  | 0.1 |  | 2,525.3 |  |  | 2,530.0 |
| R-407C |  |  |  | 577.0 | 299.1 | 72.2 | 6,060.0 |  | 52.7 | 8,465.5 |
| R-407F |  |  |  | 5.0 |  | 17.9 | 44.1 |  |  | 67.0 |
| R-407H |  |  |  |  |  |  | 5.6 |  |  | 5.6 |
| R-410A | 0.8 |  |  | 40,438.7 | 53,744.0 | 771.2 | 42,896.5 |  | 146.9 | 142,160.2 |
| R-413A |  |  |  |  |  |  | 856.7 |  |  | 856.7 |
| R-417A |  |  |  |  |  | 0.5 | 211.7 |  | 1.0 | 213.2 |
| R-417B |  |  |  |  |  |  | 110.9 |  |  | 110.9 |
| R-417C |  |  |  |  |  |  | 16.2 |  |  | 16.2 |
| R-422A |  |  |  |  |  |  | 1.5 |  |  | 1.5 |
| R-422B |  |  |  |  |  |  | 0.3 |  |  | 0.3 |
| R-422D |  |  |  |  |  |  | 93.4 |  |  | 93.4 |
| R-426A |  |  |  |  |  |  |  |  |  | 60.0 |
| R-427A |  |  |  |  |  |  | 26.4 |  |  | 26.4 |
| R-437A |  |  |  |  |  |  | 182.5 |  |  | 182.5 |
| R-438A |  |  |  |  |  |  | 103.7 |  | 21.3 | 181.7 |
| R-444B |  |  |  |  |  |  | 0.4 |  |  | 0.4 |
| R-448A |  |  |  | 50.0 |  |  | 75.4 |  | 0.7 | 126.1 |
| R-449A |  |  |  |  |  | 2.4 | 76.7 |  | 3.2 | 82.2 |
| R-449C |  |  |  |  |  |  | 1.8 |  |  | 1.8 |
| R-451A |  |  |  |  |  |  | 1.6 |  |  | 1.6 |
| R-452A |  |  |  | 50.0 |  |  | 9.3 |  | 0.9 | 60.2 |
| R-454B |  |  |  |  |  |  | 0.1 |  |  | 0.1 |
| R-454C |  |  |  |  |  |  | 0.0 |  |  | 0.0 |
| R-462A |  |  |  |  |  |  | 1.7 |  |  | 1.7 |
| R-467A |  |  |  |  |  |  | 5.0 |  |  | 5.0 |
| R-507A |  |  |  | 11,249.4 | 0.9 | 165.5 | 3,321.1 |  | 666.7 | 15,979.8 |
| R-507C |  |  |  |  |  |  | 15.7 |  |  | 15.7 |
| R-508B |  |  |  | 270.2 |  | 1.5 | 16.5 |  | 0.0 | 290.0 |
| R-513A |  |  |  | 1.0 |  |  | 13.3 |  | 1.3 | 15.6 |
| HFC-227ea in imported pre-blended polyol |  | 4.0 |  |  |  |  |  |  |  | 4.0 |
| HFC-245fa in imported pre-blended polyol |  | 119.6 |  |  |  |  |  |  |  | 119.6 |
| HFC-365mfc in imported pre-blended polyol |  | 104.3 |  |  |  | 1.8 |  |  |  | 106.1 |
| Other HFCs | 28.2 | 1,718.3 |  | 10.0 | 7.6 |  | 179.6 |  | 73.8 | 2,017.4 |
| **Total** | **10,563.8** | **17,889.2** | **27,797.6** | **97,179.4** | **170,155.5** | **3,370.9** | **165,606.3** | **2,528.2** | **4,407.1** | **540,014.1** |
| **LVC** | **117.3** | **366.6** | **8.6** | **113.2** | **34.9** | **184.0** | **13,789.1** |  |  | **14,613.5** |
| **Non-LVC** | **10,446.5** | **17,522.6** | **27,789.0** | **97,066.2** | **170,120.6** | **3,186.9** | **151,817.2** | **2,528.2** | **4,407.1** | **525,400.6** |

\*If break-down of consumption in manufacturing is not available, information is provided in column “Total”.

\*\*HFC-23 is used as a pure substance and in R-508B blend of which HFC-23 is one component.

\*\*\*Sectoral breakdown columns may not add up to Total because some countries only reported total and no sectoral breakdown.

# In 2021, the five sectors with the largest consumption of HFCs (measured in metric tonnes) were refrigeration manufacturing – air-conditioning (AC) (31.5 per cent of the total), the refrigeration servicing (30.7 per cent), refrigeration manufacturing – others (18 per cent), fire fighting (5.1 per cent) and foam (3.3 per cent).

# The sector distribution of aggregated HFC consumption in CO2-equivalent is presented in table 10. HFC-32, HFC-125, HFC-134a, HFC-227ea, R-404A, R-507A and R-410A account for 94 per cent of the total consumption in CO2‑equivalent; refrigeration servicing, refrigeration manufacturing – AC, and refrigeration manufacturing – others, account for 32.7 percent, 23.1 per cent and 22.2 per cent of the total consumption, respectively.

**Table 10. Sector distribution of HFCs consumed in 2021 (‘000 tons CO2-equivalent)**

| **HFC** | **Aerosol** | **Foam** | **Fire fighting** | **Refrigeration manufacturing** | | | **Ref. servicing** | **Solvent** | **Other** | **Total\*\*\*** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Other** | **AC** | **Total\*** |
| HFC-125 |  |  | 3,782 | 1 | 3,088 |  | 13,017 |  | 2,393 | 34,779 |
| HFC-134 |  |  |  |  |  |  | 549 |  |  | 549 |
| HFC-134a | 8,749 | 3,230 |  | 47,332 | 35,265 | 3,114 | 110,556 | 72 | 1,205 | 226,053 |
| HFC-143a |  |  |  | 81 |  |  | 2,458 |  | 969 | 3,508 |
| HFC-152 |  | 0 |  |  |  |  | 53 |  |  | 53 |
| HFC-152a | 503 | 487 |  | 3 |  |  | 17 | 298 | 4 | 1,658 |
| HFC-227ea | 1,149 | 53 | 85,876 |  |  |  | 10 |  | 108 | 87,704 |
| HFC-23 (use)\*\* |  |  | 147 | 162 |  |  | 77 | 16 | 9,444 | 10,010 |
| HFC-236cb |  |  |  |  |  |  | 0 |  |  | 0 |
| HFC-236ea |  |  |  |  |  |  |  |  | 100 | 100 |
| HFC-236fa |  |  | 362 |  |  |  | 6 |  |  | 5,594 |
| HFC-245fa |  | 9,160 | 1 | 309 |  |  | 21 |  | 19 | 10,115 |
| HFC-32 |  |  |  | 3,645 | 60,626 | 22 | 9,314 |  | 488 | 83,435 |
| HFC-365mfc | 4 | 674 |  |  |  | 4 | 0 |  |  | 682 |
| HFC-43-10mee |  |  |  |  |  |  | 0 | 126 | 1 | 131 |
| R-404A | 1 |  |  | 22,253 | 2,921 | 483 | 45,856 |  | 699 | 76,887 |
| R-406A |  |  |  |  |  |  | 23 |  |  | 23 |
| R-407A | 0 |  |  |  | 0 |  | 5,321 |  |  | 5,331 |
| R-407C |  |  |  | 1,024 | 531 | 128 | 10,750 |  | 93 | 15,016 |
| R-407F |  |  |  | 9 |  | 33 | 80 |  |  | 122 |
| R-407H |  |  |  |  |  |  | 8 |  |  | 8 |
| R-410A | 2 |  |  | 84,416 | 112,191 | 1,610 | 89,546 |  | 307 | 296,760 |
| R-413A |  |  |  |  |  |  | 1,078 |  |  | 1,078 |
| R-417A |  |  |  |  |  | 1 | 497 |  | 2 | 500 |
| R-417B |  |  |  |  |  |  | 336 |  |  | 336 |
| R-417C |  |  |  |  |  |  | 29 |  |  | 29 |
| R-422A |  |  |  |  |  |  | 5 |  |  | 5 |
| R-422B |  |  |  |  |  |  | 1 |  |  | 1 |
| R-422D |  |  |  |  |  |  | 255 |  |  | 255 |
| R-426A |  |  |  |  |  |  |  |  |  | 91 |
| R-427A |  |  |  |  |  |  | 56 |  |  | 56 |
| R-437A |  |  |  |  |  |  | 329 |  |  | 329 |
| R-438A |  |  |  |  |  |  | 273 |  | 48 | 411 |
| R-444B |  |  |  |  |  |  | 0 |  |  | 0 |
| R-448A |  |  |  | 69 |  |  | 104 |  | 1 | 175 |
| R-449A |  |  |  |  |  | 3 | 107 |  | 4 | 115 |
| R-449C |  |  |  |  |  |  | 2 |  |  | 2 |
| R-451A |  |  |  |  |  |  | 0 |  |  | 0 |
| R-452A |  |  |  | 107 |  |  | 20 |  | 2 | 129 |
| R-454B |  |  |  |  |  |  | 0 |  |  | 0 |
| R-454C |  |  |  |  |  |  | 0 |  |  | 0 |
| R-462A |  |  |  |  |  |  | 4 |  |  | 4 |
| R-467A |  |  |  |  |  |  | 7 |  |  | 7 |
| R-507A |  |  |  | 44,829 | 4 | 659 | 13,234 |  | 2,657 | 63,679 |
| R-507C |  |  |  |  |  |  | 63 |  |  | 63 |
| R-508B |  |  |  | 1,840 |  | 10 | 112 |  | 0 | 1,975 |
| R-513A |  |  |  | 1 |  |  | 8 |  | 1 | 10 |
| HFC-227ea in imported pre-blended polyol |  | 13 |  |  |  |  |  |  |  | 13 |
| HFC-245fa in imported pre-blended polyol |  | 123 |  |  |  |  |  |  |  | 123 |
| HFC-365mfc in imported pre-blended polyol |  | 83 |  |  |  | 1 |  |  |  | 84 |
| Other HFCs | 27 | 1,079 |  | 1 |  |  | 29 |  | 52 | 1,188 |
| **Total** | **10,435** | **14,902** | **90,167** | **206,080** | **214,624** | **6,068** | **304,212** | **511** | **18,599** | **929,177** |

\*If break-down of consumption in manufacturing is not available, information is provided in column “Total”.

\*\*HFC-23 is used as a pure substance and in R-508B blend of which HFC-23 is one component.

\*\*\*Sectoral breakdown columns may not add up to “Total” because some countries only reported total and no sectoral breakdown.

# In 2021, the most consumed HFCs including blends were HFC‑134a (38.6 per cent of the total), R‑404A (29.4 per cent), R-410A (16.2 per cent), R-507A (6.0 per cent) and R-407C (4.6 per cent) for LVC countries, and R-410A (32.4 per cent of the total), HFC-134a (23.9 per cent), HFC-227ea (9.7 per cent), HFC-32 (9.3 per cent), R-404A (7.6 per cent), and R-507A (6.9 per cent) for non-LVC countries.

# In addition, 16 countries (six LVC and ten non-LVC countries) reported a total consumption of 676.43 metric tonnes of HFC-23 used in the fire fighting, refrigeration manufacturing – others, refrigeration servicing, solvent, and other sectors. These countries are Argentina, China, Costa Rica, India, Kiribati, Malaysia, Maldives, Mauritius, Mexico, Pakistan, Paraguay, Peru, the Philippines, Seychelles, Türkiye and Viet Nam.

# Five countries (Argentina, China, India, the Democratic People’s Republic of Korea and Mexico) have an obligation to report 2021 data on HFC-23 production and generation under the Kigali Amendment. The amount of HFC-23 emissions generated, reported by those countries in 2021 is 33.31 mt, 1,089.95 mt, 0.00 mt, 8.40 mt and 128.52 mt, respectively.

# Based on the review of HFC data reported for 2021, the Secretariat noted the following:

* Some reporting errors for some countries were observed (e.g., consumption of a substance reported in wrong applications; consumption of a substance reported as that of another substance, such as HFC-134 instead of HFC-134a; consumption reported as HFC components instead of total HFCs in blends).
* For those countries that reported manufacture of HFC blends in their countries, since the quantities of the individual HFCs that are used for manufacturing blends are reported under “others” in Section B of the report, there could be double counting of HFC use (i.e., use reported in “others” for the relevant HFC (pure) components and use reported in “blends”).

# The Executive Committee may wish to request implementing agencies to continue assisting Article 5 countries in accurate data reporting of HFC use, including the reporting of manufacture of blends, in the updated revised CP data report format in accordance with decision 90/3(c).

# **III.3 Prices of HCFCs, HFCs and alternatives**

# The average prices of HCFCs, HFCs and alternatives reported by A5 countries since 2011 are summarized in table 11.[[20]](#footnote-20) The average prices provided are mainly from retailers and suppliers, which can include taxes and transportation costs. However, the price data in project proposals is freight on board (FOB)[[21]](#footnote-21) that is usually obtained from importers.

**Table 11. Average price of HCFCs, HFCs and alternatives[[22]](#footnote-22)**

| **Substance** | **Average price (US $/kg)\*** | | | | | | | | | | | **Range (US $/kg)** | **Countries (2021)\*\*** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **2011** | **2012** | **2013** | **2014** | **2015** | **2016** | **2017** | **2018** | **2019** | **2020** | **2021** |
| HCFC-22 | 9.28 | 10.06 | 9.24 | 10.08 | 10.07 | 9.25 | 10.18 | 10.24 | 9.64 | 10.54 | 10.44 | 2.30 (Brazil) to 42.00 (Turkmenistan) | 115 |
| HCFC-141b | 6.73 | 6.73 | 6.65 | 7.77 | 7.08 | 10.00 | 9.40 | 10.99 | 8.23 | 12.78 | 8.66 | 2.31 (Iran (Islamic Republic of)) to 32.08 (Belize) | 19 |
| R‑600a | 20.97 | 20.49 | 20.20 | 18.02 | 15.23 | 15.98 | 15.80 | 16.03 | 16.72 | 18.30 | 19.35 | 1.68 (Iran (Islamic Republic of)) to 192.00 (the Bahamas) | 85 |
| R‑290 | 22.23 | 15.60 | 14.38 | 21.26 | 19.08 | 16.13 | 16.48 | 15.92 | 21.80 | 23.85 | 21.48 | 3.02 (Indonesia) to 144.00 (the Bahamas) | 63 |
| HFC-134a | 16.64 | 14.96 | 13.65 | 13.30 | 14.26 | 12.83 | 13.94 | 12.35 | 12.31 | 12.71 | 13.48 | 2.47 (Paraguay) to 65.00 (Niue) | 114 |
| R-404A | 20.68 | 18.71 | 15.41 | 15.11 | 15.42 | 15.32 | 15.97 | 14.77 | 13.76 | 14.28 | 15.74 | 4.50 (Malaysia) to 52.00 (Turkmenistan) | 115 |
| R-407C | 21.36 | 19.04 | 16.06 | 15.19 | 13.97 | 12.71 | 13.94 | 13.71 | 13.02 | 13.78 | 14.78 | 3.38 (Paraguay) to 136.26 (Chile) | 84 |
| R-410A | 21.70 | 19.91 | 16.05 | 15.28 | 14.61 | 16.44 | 15.47 | 14.78 | 14.50 | 14.68 | 15.58 | 3.48 (Iran (Islamic Republic of)) to 150.26 (Chile) | 113 |
| R-507A | 20.78 | 15.84 | 13.59 | 12.21 | 11.65 | 11.76 | 13.33 | 13.07 | 12.99 | 13.58 | 15.73 | 4.26 (Indonesia) to 129.24 (Chile) | 59 |

\* All zero entries were excluded.

\*\* Number of A5 countries that reported prices in 2020.

**IV. Issues related to CP implementation reports**

**IV.1 Timely submission of CP data reports**

# In reviewing the timely submission of the CP data reports, the Secretariat noted that, as shown in table 12 there is a slight decrease in the overall submission rate when compared with that of 2020. The Secretariat noted the efforts made by implementing agencies in following up on the submission of outstanding CP data reports, and keeping the Secretariat informed on progress on a regular basis.

**Table 12. Monthly rates of submission of CP data reports (as at 11 October 2022)**

| **Month** | **2014** | | **2015** | | **2016** | | **2017** | | **2018** | | **2019** | | **2020** | | **2021** | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **No\*** | **(%)\*** | **No\*** | **(%)\*** | **No\*** | **(%)\*** | **No\*** | **(%)\*** | **No\*** | **(%)\*** | **No\*** | **(%)\*** | **No\*** | **(%)\*** | **No\*** | **(%)\*** |
| January |  |  | 1 | 0.69 |  |  | 3 | 2.08 |  |  |  |  |  |  |  |  |
| February | 2 | 1.39 | 5 | 4.17 | 9 | 6.25 | 1 | 2.78 | 7 | 4.86 | 1 | 0.69 | 2 | 1.39 | 1 | 0.69 |
| March | 15 | 11.81 | 33 | 27.08 | 9 | 12.50 | 8 | 8.33 | 14 | 14.58 | 9 | 6.94 | 11 | 9.03 | 20 | 14.58 |
| April | 48 | 45.14 | 27 | 45.83 | 49 | 46.53 | 60 | 50.00 | 64 | 59.03 | 63 | 50.69 | 51 | 44.44 | 60 | 56.25 |
| May | 24 | 61.81 | 22 | 61.11 | 26 | 64.58 | 39 | 77.08 | 30 | 79.86 | 29 | 70.83 | 42 | 73.61 | 27 | 75.00 |
| June | 18 | 74.31 | 14 | 70.83 | 10 | 71.53 | 15 | 87.50 | 4 | 82.64 | 4 | 73.61 | 7 | 78.47 | 6 | 79.17 |
| July | 9 | 80.56 | 8 | 76.39 | 7 | 76.39 | 3 | 89.58 | 2 | 84.03 | 8 | 79.17 | 4 | 81.25 | 2 | 80.56 |
| August | 3 | 82.64 | 5 | 79.86 | 2 | 77.78 | 7 | 94.44 | 3 | 86.11 | 5 | 82.64 | 4 | 84.03 | 5 | 84.03 |
| September | 7 | 87.50 | 8 | 85.42 | 19 | 90.97 | 4 | 97.22 | 6 | 90.28 | 10 | 89.58 | 6 | 88.19 | 5 | 87.50 |
| October | 9 | 93.75 | 8 | 90.97 | 7 | 95.83 | 1 | 97.92 | 10 | 97.22 | 2 | 90.97 | 8 | 93.75 | 1\*\* | 88.19 |
| November |  |  | 1 | 91.67 | 2 | 97.22 | 1 | 98.61 | 1 | 97.92 | 3 | 93.06 | 0 | 93.75 |  |  |
| December | 2 | 95.14 |  |  |  |  |  |  | 1 | 98.61 | 8 | 98.61 | 0 | 93.75 |  |  |
| After Dec. | 7 | 100.00 | 12 | 100.00 | 4 | 100.00 | 2 | 100.00 | 2 | 100.00 | 2 | 100.00 | 9 | 100.00 |  |  |
| **Total** | **144** |  | **144** |  | **144** |  | **144** |  | **144** |  | **144** |  | **144** |  | **127** |  |
| **Outstanding** | **0** |  | **0** |  | **0** |  | **0** |  | **0** |  | **0** |  | **0** |  | **17** |  |

\* No: Number of A5 countries reporting. (%): Cumulative reporting.

\*\* Submission as of 11 October 2022. Submissions after this date are not included in the analysis (Mauritania, Morocco, South Sudan and Sri Lanka)

# The Executive Committee may wish to request the Secretariat to send a letter to the Governments of Antigua and Barbuda, Burundi, Cameroon, the Central African Republic, the Congo, the Democratic Republic of the Congo, Djibouti, Gabon, Kuwait, Mali, Sao Tome and Principe, Suriname and Tuvalu regarding the outstanding CP data reports for 2021, urging the submission of those reports as soon as possible, as delays affect the ability of the Secretariat to have comprehensive data on consumption and production levels of controlled substances.

Data discrepancies between CP data reports and A7 data

# The review of the 2021 import data reported under A7 and CP reports revealed potential data discrepancies, as shown in table 13.

**Table 13. Differences between 2021 A7 and CP consumption data (ODP tonnes)**

| **Country** | **ODS** | **Agency for IS** | **A7 data** | **CP data** | **Difference** | **HCFC-141b polyol\*** | **Remarks** |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Burkina Faso | HCFC | UNEP | 5.8 | 6.3 | 0.6 | 0.0 | Issue being clarified with UNEP pending its response. |
| Costa Rica | HCFC | UNDP | 3.3 | 3.4 | 0.1 | 0.0 | Issue being clarified with UNDP pending its response. |
| Dominican Republic (the) | HCFC | UNEP | 12.0 | 12.1 | 0.1 | 0.0 | Issue being clarified with UNEP pending its response. |
| India | HCFC | UNDP | 218.5 | 236.3 | 17.8 | 0.0 | Issue being clarified with UNDP pending its response. |
| Indonesia | HCFC | UNDP | 172.8 | 172.4 | -0.5 | 0.0 | Issue being clarified with UNDP pending its response. |
| Indonesia | MB | UNDP | 0.0 | 48.0 | 48.0 |  | Issue being clarified with UNDP pending its response. |
| Malaysia | HCFC | UNDP | 181.5 | 181.6 | 0.02 | 0.0 | Issue being clarified with UNDP pending its response. |
| Mexico | HCFC | UNIDO | -90.1 | 130.3 | 220.4 | 0.0 | Issue being clarified with UNIDO pending its response. |
| South Africa | HCFC | UNIDO | 12.7 | 88.7 | 76.0 | 0.0 | Issue being clarified with UNIDO pending its response. |

\* HCFC-141b contained in imported pre-blended polyols.

# The Executive Committee may wish to request relevant implementing agencies to continue assisting the respective governments listed in table 13 in clarifying the discrepancies between CP data and A7 data.

**V. Recommendation**

# The Executive Committee may wish:

## To note the information on country programme (CP) data and prospects for compliance contained in document UNEP/OzL.Pro/ExCom/91/8, including that, as at 11 October 2022, 127 countries had submitted 2021 CP data and 17 countries had not done so;

## To request:

### Implementing agencies to continue assisting Article 5 countries in accurate data reporting of HFC use, including the reporting of manufacture of blends, in the updated revised CP data report format in accordance with decision 90/3(c);

### Relevant implementing agencies to continue assisting the respective governments in clarifying the discrepancies between their CP data and Article 7 data for 2021 as indicated in Table 13 of document UNEP/OzL.Pro/ExCom/91/8 and to report back no later than the 92nd meeting; and

### The Secretariat to send letters to the Governments of Antigua and Barbuda, Burundi, Cameroon, the Central African Republic, the Congo, the Democratic Republic of the Congo, Djibouti, Gabon, Kuwait, Mali, Sao Tome and Principe, Suriname and Tuvalu regarding the outstanding CP data reports for 2021, urging them to submit those reports as soon as possible.

**Annex I**

**MB CONSUMPTION AND PRODUCTION FOR QPS APPLICATIONS**

|  |  |  |
| --- | --- | --- |
| **Country** | **Year of latest consumption** | **Latest consumption (ODP tonnes)** |
| **Consumption** |  |  |
| Argentina | 2021 | 26.4 |
| Bahrain | 2021 | 6.8 |
| Brazil | 2021 | 52.5 |
| Chile | 2021 | 45.2 |
| China | 2020 | 478.6 |
| Costa Rica | 2021 | 10.5 |
| Egypt | 2021 | 160.8 |
| El Salvador | 2021 | 115.8 |
| Ethiopia | 2020 | 12.5 |
| Fiji | 2021 | 7.7 |
| Guatemala | 2021 | 13.8 |
| Honduras | 2020 | 15.9 |
| India | 2021 | 932.0 |
| Indonesia | 2021 | 48.0 |
| Iran (Islamic Republic of) | 2021 | 13.2 |
| Jamaica | 2021 | 2.9 |
| Jordan | 2020 | 4.8 |
| Kenya | 2021 | 0.9 |
| Malaysia | 2021 | 70.2 |
| Mexico | 2021 | 254.5 |
| Morocco | 2021 | 6.0 |
| Myanmar | 2021 | 15.6 |
| Nicaragua | 2020 | 16.9 |
| Pakistan | 2021 | 220.8 |
| Philippines (the) | 2021 | 24.5 |
| Republic of Korea (the) | 2021 | 227.8 |
| Saudi Arabia | 2021 | 9.0 |
| Singapore | 2021 | 65.8 |
| South Africa | 2021 | 28.1 |
| Sri Lanka | 2020 | 19.9 |
| Suriname | 2020 | 7.5 |
| Thailand | 2021 | 98.5 |
| Türkiye | 2021 | 33.6 |
| Turkmenistan | 2021 | 12.0 |
| United Arab Emirates (the) | 2021 | 25.8 |
| Uruguay | 2020 | 70.9 |
| Viet Nam | 2021 | 507.1 |
| **Total consumption** |  | **3,662.8** |
| **Production** |  |  |
| China | 2020 | 635.6 |
| India | 2021 | 2,138.5 |
| **Total production** |  | **2,774.1** |

**Annex II**

**HCFC ANALYSIS\***

| **Country** | **Source** | **Year of**  **latest consumption** | **Baseline (ODP tonnes)** | **Latest consumption (ODP tonnes)** | **% over freeze** | **% over 10% reduction** | **% over 35% reduction** | **Control addressed by HPMPs** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Afghanistan | CP | 2021 | 23.6 | 3.3 | 0 | 0 | 0 | 35% by 2020 and 67.5% by 2025 |
| Albania | A7 | 2021 | 6.0 | 2.0 | 0 | 0 | 0 | 35% by 2020 and 67.5% by 2025 |
| Algeria | A7 | 2021 | 62.1 | 38.3 | 0 | 0 | 0 | 20% by 2017 |
| Angola | A7 | 2021 | 16.0 | 6.9 | 0 | 0 | 0 | 10% by 2015 and 67.5% by 2025 |
| Antigua and Barbuda | A7 | 2021 | 0.3 | 0.1 | 0 | 0 | 0 | HPMP cancelled |
| Argentina | A7 | 2021 | 400.7 | 164.2 | 0 | 0 | 0 | 17.5% by 2017 and 50% by 2022 |
| Armenia | A7 | 2021 | 7.0 | 0.6 | 0 | 0 | 0 | 10% by 2015 and 66.6% by 2020 |
| Bahamas (the) | A7 | 2021 | 4.8 | 2.1 | 0 | 0 | 0 | 35% by 2020 and 100% by 2030 |
| Bahrain | A7 | 2021 | 51.9 | 24.6 | 0 | 0 | 0 | 35% by 2020 and 73.5% by 2025 |
| Bangladesh | A7 | 2021 | 72.6 | 46.9 | 0 | 0 | 0 | 30% by 2018 and 67.5% by 2025 |
| Barbados | A7 | 2021 | 3.7 | 0.5 | 0 | 0 | 0 | 35% by 2020 |
| Belize | A7 | 2021 | 2.8 | 0.5 | 0 | 0 | 0 | 35% by 2020 and 100% by 2030 |
| Benin | A7 | 2021 | 23.8 | 12.9 | 0 | 0 | 0 | 35% by 2020 and 100% by 2030 |
| Bhutan | A7 | 2021 | 0.3 | 0.0 | 0 | 0 | 0 | 100% by 2025 |
| Bolivia (Plurinational State of) | A7 | 2021 | 6.1 | 1.1 | 0 | 0 | 0 | 35% by 2020 and 100% by 2030 |
| Bosnia and Herzegovina | A7 | 2021 | 4.7 | 0.0 | 0 | 0 | 0 | 35% by 2020 and 100% by 2026 |
| Botswana | CP | 2021 | 11.0 | 0.0 | 0 | 0 | 0 | 35% by 2020 and 100% by 2030 |
| Brazil | A7 | 2021 | 1,327.3 | 490.9 | 0 | 0 | 0 | 10% by 2015 and 45% by 2021 |
| Brunei Darussalam | A7 | 2021 | 6.1 | 3.8 | 0 | 0 | 0 | 35% by 2020 and 100% by 2030 |
| Burkina Faso | A7 | 2021 | 28.9 | 5.8 | 0 | 0 | 0 | 35% by 2020 |
| Burundi | A7 | 2020 | 7.2 | 1.3 | 0 | 0 | 0 | 35% by 2020 |
| Cabo Verde | A7 | 2021 | 1.1 | 0.0 | 0 | 0 | 0 | 35% by 2020 and 100% by 2030 |
| Cambodia | A7 | 2021 | 15.0 | 5.5 | 0 | 0 | 0 | 100% by 2035 |
| Cameroon | A7 | 2021 | 88.8 | 29.5 | 0 | 0 | 0 | 20% by 2017 and 75% by 2025 |
| Central African Republic (the) | A7 | 2021 | 12.0 | 6.1 | 0 | 0 | 0 | HPMP cancelled |
| Chad | A7 | 2021 | 16.1 | 10.1 | 0 | 0 | 0 | 35% by 2020 and 100% by 2030 |
| Chile | A7 | 2021 | 87.5 | 14.8 | 0 | 0 | 0 | 10% by 2015, 65% by 2021 and 100% by 2030 |
| China | CP | 2021 | 19,269.0 | 10,120.6 | 0 | 0 | 0 | 10% by 2015 and 76% by 2026 |
| Colombia | A7 | 2021 | 225.6 | 25.4 | 0 | 0 | 0 | 10% by 2015, 65% by 2021 and 100% by 2030 |
| Comoros (the) | A7 | 2021 | 0.1 | 0.0 | 0 | 0 | 0 | 35% by 2020 |
| Congo (the) | A7 | 2021 | 10.1 | 6.2 | 0 | 0 | 0 | 35% by 2020 |
| Cook Islands (the) | A7 | 2021 | 0.1 | 0.0 | 0 | 0 | 0 | 35% by 2020 and 100% by 2030 |
| Costa Rica | A7 | 2021 | 14.1 | 3.3 | 0 | 0 | 0 | 35% by 2020 and 97.5% by 2030 |
| Cote d'Ivoire | A7 | 2021 | 63.8 | 35.8 | 0 | 0 | 0 | 35% by 2020 |
| Cuba | A7 | 2021 | 16.9 | 0.8 | 0 | 0 | 0 | 35% by 2020 and 100% by 2030 |
| Democratic People's Republic of Korea  (the)\*\* | A7 | 2021 | 78.0 | 58.0 | 0 | 0 | 14 | 15% by 2018 |
| Democratic Republic of the Congo (the) | A7 | 2020 | 66.2 | 2.1 | 0 | 0 | 0 | 10% by 2017 and 100% by 2030 |
| Djibouti | A7 | 2021 | 0.7 | 0.3 | 0 | 0 | 0 | 35% by 2020 |
| Dominica | CP | 2021 | 0.4 | 0.1 | 0 | 0 | 0 | 35% by 2020 |
| Dominican Republic (the) | A7 | 2021 | 51.2 | 12.0 | 0 | 0 | 0 | 10% by 2015, 40% by 2020 and 100% by 2030 |
| Ecuador | A7 | 2021 | 23.5 | 10.2 | 0 | 0 | 0 | 35% by 2020 and 100% by 2030 |
| Egypt | A7 | 2021 | 386.3 | 209.2 | 0 | 0 | 0 | 25% by 2018 and 70% by 2025 |
| El Salvador | A7 | 2021 | 11.7 | 4.0 | 0 | 0 | 0 | 35% by 2020 and 100% by 2030 |
| Equatorial Guinea | A7 | 2021 | 6.3 | 0.9 | 0 | 0 | 0 | 35% by 2020 |
| Eritrea | A7 | 2021 | 1.1 | 0.6 | 0 | 0 | 0 | 35% by 2020 |
| Eswatini (the Kingdom of) | A7 | 2021 | 1.7 | 0.4 | 0 | 0 | 0 | 35% by 2020 and 100% by 2030 |
| Ethiopia | CP | 2021 | 5.5 | 3.4 | 0 | 0 | 0 | 35% by 2020 and 100% by 2030 |
| Fiji | A7 | 2021 | 5.7 | 0.1 | 0 | 0 | 0 | 35% by 2020 and 100% by 2030 |
| Gabon | A7 | 2021 | 30.2 | 10.7 | 0 | 0 | 0 | 35% by 2020 |
| Gambia (the) | A7 | 2021 | 1.5 | 0.2 | 0 | 0 | 0 | 35% by 2020 and 100% by 2030 |
| Georgia | A7 | 2021 | 5.3 | 0.9 | 0 | 0 | 0 | 35% by 2020 and 100% by 2030 |
| Ghana | CP | 2021 | 57.3 | 16.6 | 0 | 0 | 0 | 35% by 2020 and 100% by 2030 |
| Grenada | A7 | 2021 | 0.8 | 0.1 | 0 | 0 | 0 | 35% by 2020 and 100% by 2030 |
| Guatemala | A7 | 2021 | 8.3 | 2.9 | 0 | 0 | 0 | 35% by 2020 and 100% by 2030 |
| Guinea | CP | 2021 | 22.6 | 1.4 | 0 | 0 | 0 | 35% by 2020 |
| Guinea‑Bissau | A7 | 2021 | 2.8 | 0.8 | 0 | 0 | 0 | 35% by 2020 |
| Guyana | A7 | 2021 | 1.8 | 0.5 | 0 | 0 | 0 | 10% by 2015 and 100% by 2030 |
| Haiti | A7 | 2021 | 3.6 | 1.1 | 0 | 0 | 0 | 35% by 2020 |
| Honduras | CP | 2021 | 19.9 | 7.2 | 0 | 0 | 0 | 35% by 2020 and 100% by 2030 |
| India | A7 | 2021 | 1,608.2 | 218.5 | 0 | 0 | 0 | 10% by 2015 and 60% by 2023 |
| Indonesia | A7 | 2021 | 403.9 | 172.8 | 0 | 0 | 0 | 20% by 2018 and 55% by 2023 |
| Iran (Islamic Republic of) | A7 | 2021 | 380.5 | 123.8 | 0 | 0 | 0 | 10% by 2015 and 75% by 2023 |
| Iraq | A7 | 2021 | 108.4 | 66.4 | 0 | 0 | 0 | 13.82% by 2019 and 69% by 2025 |
| Jamaica | A7 | 2021 | 16.3 | 1.1 | 0 | 0 | 0 | 35% by 2020 and 100% by 2030 |
| Jordan | CP | 2021 | 83.0 | 9.2 | 0 | 0 | 0 | 20% by 2017 and 50% by 2022 |
| Kenya | A7 | 2021 | 52.2 | 4.2 | 0 | 0 | 0 | 21.1% by 2017 and 100% by 2030 |
| Kiribati | A7 | 2021 | 0.1 | 0.0 | 0 | 0 | 0 | 35% by 2020 and 100% by 2030 |
| Kuwait | A7 | 2021 | 418.6 | 224.5 | 0 | 0 | 0 | 39.2% by 2020 and 67.5% by 2025 |
| Kyrgyzstan | A7 | 2021 | 4.1 | 0.0 | 0 | 0 | 0 | 10% by 2015, 97.5% by 2020 and 100% by 2025 |
| Lao People's Democratic Republic (the) | A7 | 2021 | 2.3 | 0.8 | 0 | 0 | 0 | 35% by 2020 and 100% by 2030 |
| Lebanon | CP | 2021 | 73.5 | 26.1 | 0 | 0 | 0 | 18% by 2017 and 75% by 2024 |
| Lesotho | A7 | 2021 | 3.5 | 0.4 | 0 | 0 | 0 | 35% by 2020 and 100% by 2030 |
| Liberia | A7 | 2021 | 5.3 | 1.4 | 0 | 0 | 0 | 35% by 2020 and 100% by 2030 |
| Libya\*\*\* | A7 | 2021 | 118.4 | 75.0 | 0 | 0 | 0 | 10% by 2020 and 80.5% by 2027 |
| Madagascar | A7 | 2021 | 24.9 | 9.5 | 0 | 0 | 0 | 35% by 2020 and 100% by 2030 |
| Malawi | A7 | 2021 | 10.8 | 2.8 | 0 | 0 | 0 | 35% by 2020 and 100% by 2030 |
| Malaysia | A7 | 2021 | 515.8 | 181.5 | 0 | 0 | 0 | 15% by 2016 and 42.9% by 2022 |
| Maldives | A7 | 2021 | 4.6 | 0.1 | 0 | 0 | 0 | 100% by 2020 |
| Mali | A7 | 2021 | 15.0 | 6.9 | 0 | 0 | 0 | 35% by 2020 |
| Marshall Islands (the) | A7 | 2021 | 0.2 | 0.0 | 0 | 0 | 0 | 35% by 2020 and 100% by 2030 |
| Mauritania | A7 | 2021 | 20.5 | 13.1 | 0 | 0 | 0 | 67.5% by 2025 |
| Mauritius | A7 | 2021 | 8.0 | 1.4 | 0 | 0 | 0 | 100% by 2030 |
| Mexico | A7 | 2021 | 1,148.8 | -90.1 | 0 | 0 | 0 | 30% by 2018 and 67.5% by 2023 |
| Micronesia (Federated States of) | A7 | 2021 | 0.2 | 0.0 | 0 | 0 | 0 | 35% by 2020 and 100% by 2030 |
| Mongolia | A7 | 2021 | 1.4 | 0.2 | 0 | 0 | 0 | 35% by 2020 and 100% by 2030 |
| Montenegro | A7 | 2021 | 0.8 | 0.1 | 0 | 0 | 0 | 35% by 2020 and 100% by 2025 |
| Morocco | A7 | 2021 | 51.4 | 17.6 | 0 | 0 | 0 | 20% by 2020 and 67.5% by 2025 |
| Mozambique | A7 | 2021 | 8.7 | 2.2 | 0 | 0 | 0 | 35% by 2020 |
| Myanmar | A7 | 2021 | 4.3 | 1.5 | 0 | 0 | 0 | 35% by 2020 |
| Namibia | A7 | 2021 | 8.4 | 0.7 | 0 | 0 | 0 | 100% by 2025 |
| Nauru | A7 | 2021 | 0.0 | 0.0 | 0 | 0 | 0 | 35% by 2020 and 100% by 2030 |
| Nepal | A7 | 2021 | 1.1 | 0.2 | 0 | 0 | 0 | 35% by 2020 and 100% by 2030 |
| Nicaragua | CP | 2021 | 6.8 | 2.5 | 0 | 0 | 0 | 35% by 2020 and 100% by 2030 |
| Niger (the) | A7 | 2021 | 16.0 | 9.1 | 0 | 0 | 0 | 35% by 2020 and 100% by 2030 |
| Nigeria | CP | 2021 | 344.9 | 150.2 | 0 | 0 | 0 | 10% by 2015 and 51.35% by 2023 |
| Niue | A7 | 2021 | 0.0 | 0.0 | 0 | 0 | 0 | 35% by 2020 and 100% by 2030 |
| North Macedonia | A7 | 2021 | 1.8 | 0.0 | 0 | 0 | 0 | 35% by 2020 and 100% by 2028 |
| Oman | A7 | 2021 | 31.5 | 14.9 | 0 | 0 | 0 | 10% by 2015, 35% by 2020 and 100% by 2030 |
| Pakistan | A7 | 2021 | 248.1 | 120.6 | 0 | 0 | 0 | 10% by 2015, 50% by 2020 and 100% by 2030 |
| Palau | A7 | 2021 | 0.2 | 0.0 | 0 | 0 | 0 | 35% by 2020 and 100% by 2030 |
| Panama | A7 | 2021 | 24.8 | 10.8 | 0 | 0 | 0 | 10% by 2015, 35% by 2020 and 100% by 2030 |
| Papua New Guinea | A7 | 2021 | 3.3 | 0.9 | 0 | 0 | 0 | 100% by 2025 |
| Paraguay | A7 | 2021 | 18.0 | 11.7 | 0 | 0 | 0 | 35% by 2020 and 100% by 2030 |
| Peru | A7 | 2021 | 26.9 | 9.4 | 0 | 0 | 0 | 10% by 2015 and 67.5% by 2025 |
| Philippines (the) | A7 | 2021 | 162.0 | 60.4 | 0 | 0 | 0 | 10% by 2015 and 50% by 2021 |
| Qatar | A7 | 2021 | 86.9 | 56.5 | 0 | 0 | 0 | 20% by 2015 and 67.5% by 2026 |
| Republic of Korea (the) | A7 | 2021 | 1,908.0 | 1,053.1 | 0 | 0 | 0 |  |
| Republic of Moldova (the) | A7 | 2021 | 1.0 | 0.5 | 0 | 0 | 0 | 10% by 2015, 35% by 2020 and 100% by 2030 |
| Rwanda | A7 | 2021 | 4.1 | 1.5 | 0 | 0 | 0 | 35% by 2020 and 100% by 2030 |
| Saint Kitts and Nevis | A7 | 2021 | 0.5 | 0.0 | 0 | 0 | 0 | 35% by 2020 |
| Saint Lucia | A7 | 2021 | 1.1 | 0.2 | 0 | 0 | 0 | 35% by 2020 and 100% by 2030 |
| Saint Vincent and the Grenadines | A7 | 2021 | 0.3 | 0.0 | 0 | 0 | 0 | 100% by 2025 |
| Samoa | A7 | 2021 | 0.3 | 0.0 | 0 | 0 | 0 | 35% by 2020 and 100% by 2030 |
| Sao Tome and Principe | A7 | 2021 | 2.2 | 0.1 | 0 | 0 | 0 | 35% by 2020 |
| Saudi Arabia | A7 | 2021 | 1,468.7 | 879.9 | 0 | 0 | 0 | 40% by 2020 |
| Senegal | A7 | 2021 | 36.2 | 11.9 | 0 | 0 | 0 | 35% by 2020 and 81.1% by 2025 |
| Serbia | A7 | 2021 | 8.4 | 4.6 | 0 | 0 | 0 | 35% by 2020 and 67.5% by 2025 |
| Seychelles | A7 | 2021 | 1.4 | 0.0 | 0 | 0 | 0 | 100% by 2025 |
| Sierra Leone | A7 | 2021 | 1.7 | 0.6 | 0 | 0 | 0 | 35% by 2020 and 100% by 2030 |
| Singapore | A7 | 2021 | 216.1 | 53.3 | 0 | 0 | 0 |  |
| Solomon Islands | A7 | 2021 | 2.0 | 0.1 | 0 | 0 | 0 | 35% by 2020 and 100% by 2030 |
| Somalia | A7 | 2021 | 45.1 | 10.5 | 0 | 0 | 0 | 35% by 2020 |
| South Africa | A7 | 2021 | 369.7 | 12.7 | 0 | 0 | 0 | 35% by 2020 |
| South Sudan | A7 | 2021 | 4.1 | 1.7 | 0 | 0 | 0 | 35% by 2020 |
| Sri Lanka | A7 | 2020 | 13.9 | 8.6 | 0 | 0 | 0 | 35% by 2020 and 100% by 2030 |
| Sudan (the) | A7 | 2021 | 52.7 | 9.4 | 0 | 0 | 0 | 30% by 2017, 75% by 2020 and 100% by 2030 |
| Suriname | A7 | 2020 | 2.0 | 0.3 | 0 | 0 | 0 | 35% by 2020 |
| Syrian Arab Republic | CP | 2021 | 135.0 | 65.4 | 0 | 0 | 0 | 67.5% by 2025 |
| Thailand | A7 | 2021 | 927.6 | 279.0 | 0 | 0 | 0 | 15% by 2018 and 61.8% by 2023 |
| Timor-Leste | A7 | 2021 | 0.5 | 0.2 | 0 | 0 | 0 | 10% by 2015 and 78% by 2025 |
| Togo | A7 | 2021 | 20.0 | 8.8 | 0 | 0 | 0 | 35% by 2020 |
| Tonga | A7 | 2021 | 0.1 | 0.0 | 0 | 0 | 0 | 35% by 2020 and 100% by 2030 |
| Trinidad and Tobago | A7 | 2021 | 46.0 | 8.8 | 0 | 0 | 0 | 35% by 2020 and 100% by 2030 |
| Tunisia | A7 | 2021 | 40.7 | 20.7 | 0 | 0 | 0 | 15% by 2020 and 67.5% by 2025 |
| Türkiye | A7 | 2021 | 551.5 | 3.5 | 0 | 0 | 0 | 100% by 2025 |
| Turkmenistan | A7 | 2021 | 6.8 | 4.4 | 0 | 0 | 0 | 35% by 2020 and 67.5% by 2025 |
| Tuvalu | A7 | 2021 | 0.1 | 0.0 | 0 | 0 | 0 | 35% by 2020 and 100% by 2030 |
| Uganda | A7 | 2021 | 0.2 | 0.1 | 0 | 0 | 0 | 35% by 2020 and 100% by 2030 |
| United Arab Emirates (the) | A7 | 2021 | 557.1 | 359.5 | 0 | 0 | 0 |  |
| United Republic of Tanzania (the) | CP | 2021 | 1.7 | 0.9 | 0 | 0 | 0 | 35% by 2020 and 100% by 2030 |
| Uruguay | CP | 2021 | 23.4 | 11.5 | 0 | 0 | 0 | 10% by 2015, 35% by 2020 and 100% by 2030 |
| Vanuatu | A7 | 2021 | 0.3 | 0.0 | 0 | 0 | 0 | 35% by 2020 and 100% by 2030 |
| Venezuela (Bolivarian Republic of) | A7 | 2021 | 207.0 | 0.0 | 0 | 0 | 0 | 10% by 2015 and 42% by 2020 |
| Viet Nam | A7 | 2021 | 221.2 | 141.8 | 0 | 0 | 0 | 10% by 2015 and 35% by 2020 |
| Yemen | A7 | 2021 | 158.2 | 98.8 | 0 | 0 | 0 | HPMP cancelled |
| Zambia | CP | 2021 | 5.0 | 2.2 | 0 | 0 | 0 | 35% by 2020 and 100% by 2030 |
| Zimbabwe | A7 | 2021 | 17.8 | 4.1 | 0 | 0 | 0 | 35% by 2020 and 100% by 2030 |

(\*) Excluding the Republic of Korea, Singapore, and the United Arab Emirates which do not request assistance from the Multilateral Fund for their phase-out of controlled substances. They are included in the table above.

(\*\*) The Democratic People's Republic of Korea’s latest consumption is above the consumption set in the plan of action in decision XXXII/6.

(\*\*\*) Libya’s latest consumption is below the consumption set in the plan of action in decision XXVII/11.

**Annex III**

**HFC DATA IN Metric tonnes - CO2-EQUIVALENT**

| **Country** | **Source** | **Year of latest consumption** | **65 per cent of HCFC baseline** | **Latest consumption** | **Ratified Kigali Amendment\*** |
| --- | --- | --- | --- | --- | --- |
| Afghanistan | A7 | 2019 | 503,248 | 357,500 |  |
| Albania | A7 | 2021 | 127,303 | 155,940 | Yes |
| Algeria |  |  | 1,258,456 |  |  |
| Angola | A7 | 2021 | 341,185 | 757,864 | Yes |
| Antigua and Barbuda | CP | 2020 | 6,477 | 35,303 |  |
| Argentina | A7 | 2021 | 6,628,416 | 8,933,937 | Yes |
| Armenia | A7 | 2021 | 149,051 | 317,041 | Yes |
| Bahamas (the) |  |  | 102,997 |  |  |
| Bahrain |  |  | 1,102,794 |  |  |
| Bangladesh | A7 | 2021 | 1,196,417 | 4,292,556 | Yes |
| Barbados | A7 | 2021 | 79,176 | 180,981 | Yes |
| Belize | CP | 2021 | 57,879 | 3,776,712 |  |
| Benin | A7 | 2021 | 508,848 | 1,279,095 | Yes |
| Bhutan | A7 | 2021 | 6,610 | 7,941 | Yes |
| Bolivia (Plurinational State of) | A7 | 2021 | 113,214 | 347,983 | Yes |
| Bosnia and Herzegovina | A7 | 2021 | 73,599 | 599,128 | Yes |
| Botswana | CP | 2021 | 235,347 | 42,262 | Yes |
| Brazil | A7 | 2021 | 19,446,375 | 50,519,115 |  |
| Brunei Darussalam | CP | 2021 | 130,143 | 280,769 |  |
| Burkina Faso | A7 | 2021 | 617,810 | 384,485 | Yes |
| Burundi | A7 | 2020 | 152,004 | 51,774 | Yes |
| Cabo Verde | A7 | 2021 | 21,765 | 3,171 | Yes |
| Cambodia | A7 | 2021 | 320,249 | 955,336 | Yes |
| Cameroon | A7 | 2021 | 1,522,510 | 3,164,815 | Yes |
| Central African Republic (the) |  |  | 256,406 |  |  |
| Chad | A7 | 2021 | 344,362 | 3,217,693 | Yes |
| Chile | A7 | 2021 | 1,193,922 | 4,957,950 | Yes |
| China | CP | 2021 | 312,831,196 | 578,645,861 | Yes |
| Colombia | A7 | 2021 | 2,188,294 | 5,086,999 | Yes |
| Comoros (the) | A7 | 2021 | 2,918 | 40,697 | Yes |
| Congo (the) |  |  | 216,947 |  | Yes |
| Cook Islands (the) | A7 | 2021 | 1,049 | 6,647 | Yes |
| Costa Rica | A7 | 2021 | 240,181 | 954,530 | Yes |
| Cote d'Ivoire | A7 | 2021 | 1,363,929 | 25,276,054 | Yes |
| Cuba | A7 | 2021 | 316,671 | 519,644 | Yes |
| Democratic People's Republic of Korea (the) | A7 | 2021 | 1,393,541 | 510,510 | Yes |
| Democratic Republic of the Congo (the) |  |  | 1,235,104 |  |  |
| Djibouti |  |  | 13,800 |  |  |
| Dominica | CP | 2021 | 8,514 | 3,435 |  |
| Dominican Republic (the) | A7 | 2021 | 1,081,344 | 1,656,751 | Yes |
| Ecuador | A7 | 2021 | 485,550 | 1,911,824 | Yes |
| Egypt |  |  | 6,071,380 |  |  |
| El Salvador | A7 | 2021 | 191,353 | 985,085 | Yes |
| Equatorial Guinea | A7 | 2021 | 134,539 | 73,076 |  |
| Eritrea |  |  | 23,183 |  |  |
| Eswatini (the Kingdom of) | A7 | 2021 | 36,895 | 104,320 | Yes |
| Ethiopia | CP | 2021 | 117,650 | 103,481 | Yes |
| Fiji | A7 | 2021 | 122,666 | 239,165 | Yes |
| Gabon | A7 | 2021 | 645,840 | 2,063,886 | Yes |
| Gambia (the) | A7 | 2021 | 33,454 | 282,417 | Yes |
| Georgia |  |  | 112,632 |  |  |
| Ghana | CP | 2021 | 1,249,582 | 550,123 | Yes |
| Grenada | A7 | 2021 | 17,759 | 43,461 | Yes |
| Guatemala | A7 | 2021 | 158,626 | 892,087 |  |
| Guinea | CP | 2021 | 483,647 | 1,391,073 | Yes |
| Guinea-Bissau | A7 | 2021 | 60,002 | 633,559 | Yes |
| Guyana | A7 | 2021 | 36,490 | 112,245 |  |
| Haiti | A7 | 2021 | 77,649 | 98,829 |  |
| Honduras | CP | 2021 | 393,309 | 1,227,052 | Yes |
| India | A7 | 2021 | 19,692,852 | 41,787,290 | Yes |
| Indonesia |  |  | 6,297,991 |  |  |
| Iran (Islamic Republic of) |  |  | 4,428,472 |  |  |
| Iraq |  |  | 2,318,608 |  |  |
| Jamaica |  |  | 286,974 |  |  |
| Jordan | CP | 2021 | 1,282,449 | 1,516,970 | Yes |
| Kenya | A7 | 2021 | 1,115,504 | 365,395 |  |
| Kiribati | A7 | 2021 | 1,141 | 10,471 | Yes |
| Kuwait |  |  | 7,804,024 |  |  |
| Kyrgyzstan | A7 | 2021 | 74,542 | 363,430 | Yes |
| Lao People's Democratic Republic (the) | A7 | 2021 | 49,325 | 70,405 | Yes |
| Lebanon | CP | 2021 | 929,809 | 1,604,665 | Yes |
| Lesotho | A7 | 2021 | 73,744 | 26,230 | Yes |
| Liberia | A7 | 2021 | 112,297 | 85,249 | Yes |
| Libya |  |  | 1,999,326 |  |  |
| Madagascar | A7 | 2021 | 532,813 | 1,437,172 |  |
| Malawi | A7 | 2021 | 230,947 | 196,557 | Yes |
| Malaysia | A7 | 2021 | 8,202,355 | 13,444,256 | Yes |
| Maldives | A7 | 2021 | 85,550 | 315,640 | Yes |
| Mali | A7 | 2021 | 320,302 | 50,780 | Yes |
| Marshall Islands (the) | A7 | 2021 | 4,694 | 4,380 | Yes |
| Mauritania |  |  | 436,482 |  |  |
| Mauritius | A7 | 2021 | 169,182 | 336,000 | Yes |
| Mexico | A7 | 2021 | 13,032,787 | 47,994,455 | Yes |
| Micronesia (Federated States of) | A7 | 2021 | 2,953 | 8,582 | Yes |
| Mongolia |  |  | 27,912 |  | Yes |
| Montenegro | A7 | 2021 | 16,324 | 108,905 | Yes |
| Morocco |  |  | 883,562 |  | Yes |
| Mozambique | A7 | 2021 | 185,593 | 438,536 | Yes |
| Myanmar |  |  | 91,273 |  |  |
| Namibia | A7 | 2021 | 174,500 | 352,865 | Yes |
| Nauru | CP | 2021 | 212 | 39 |  |
| Nepal |  |  | 23,530 |  |  |
| Nicaragua | CP | 2021 | 133,865 | 449,229 | Yes |
| Niger (the) | A7 | 2021 | 341,638 | 843,475 | Yes |
| Nigeria | CP | 2021 | 5,729,101 | 8,454,247 | Yes |
| Niue | A7 | 2021 | 176 | 74 | Yes |
| North Macedonia | A7 | 2021 | 38,570 | 346,785 | Yes |
| Oman | A7 | 2021 | 655,323 | 2,185,789 |  |
| Pakistan | CP | 2021 | 2,945,839 | 10,293,764 |  |
| Palau | A7 | 2021 | 3,494 | 6,626 | Yes |
| Panama | A7 | 2021 | 489,863 | 1,946,551 | Yes |
| Papua New Guinea |  |  | 69,182 |  |  |
| Paraguay | A7 | 2021 | 382,341 | 876,188 | Yes |
| Peru | A7 | 2021 | 545,717 | 1,605,215 | Yes |
| Philippines (the) | A7 | 2021 | 2,539,454 | 6,011,399 |  |
| Qatar | CP | 2019 | 1,868,239 | 21,878,454 |  |
| Republic of Korea (the) |  |  | 25,217,543 |  |  |
| Republic of Moldova (the) | A7 | 2021 | 20,001 | 338,691 |  |
| Rwanda | A7 | 2021 | 84,188 | 266,728 | Yes |
| Saint Kitts and Nevis |  |  | 10,494 |  |  |
| Saint Lucia | A7 | 2021 | 23,013 | 30,454 | Yes |
| Saint Vincent and the Grenadines | A7 | 2021 | 6,036 | 25,807 |  |
| Samoa | A7 | 2021 | 5,412 | 9,997 | Yes |
| Sao Tome and Principe | A7 | 2021 | 45,825 | 29,038 | Yes |
| Saudi Arabia |  |  | 25,777,727 |  |  |
| Senegal | A7 | 2021 | 773,290 | 1,912,559 | Yes |
| Serbia | A7 | 2021 | 179,528 | 1,787,306 | Yes |
| Seychelles | A7 | 2021 | 29,129 | 233,760 | Yes |
| Sierra Leone | A7 | 2021 | 35,724 | 308,252 | Yes |
| Singapore |  |  | 3,704,181 |  |  |
| Solomon Islands |  |  | 41,230 |  | Yes |
| Somalia | CP | 2021 | 567,810 | 883,056 | Yes |
| South Africa | A7 | 2021 | 5,165,272 | 9,164,240 | Yes |
| South Sudan | A7 | 2021 | 88,238 | 166,868 |  |
| Sri Lanka | A7 | 2020 | 264,865 | 478,419 | Yes |
| Sudan (the) | A7 | 2021 | 431,192 | 1,293,587 |  |
| Suriname | A7 | 2020 | 42,410 | 237,803 |  |
| Syrian Arab Republic | CP | 2021 | 1,741,639 | 9,466,500 | Yes |
| Thailand |  |  | 16,228,856 |  |  |
| Timor-Leste | A7 | 2019 | 10,680 | 13,645 |  |
| Togo | A7 | 2021 | 426,581 | 635,045 | Yes |
| Tonga | A7 | 2021 | 3,000 | 6,663 | Yes |
| Trinidad and Tobago | A7 | 2021 | 940,390 | 5,201,433 | Yes |
| Tunisia | A7 | 2021 | 842,287 | 1,223,752 | Yes |
| Türkiye | A7 | 2021 | 8,654,283 | 21,777,055 | Yes |
| Turkmenistan | A7 | 2021 | 146,020 | 510,256 | Yes |
| Tuvalu | A7 | 2021 | 1,933 | 343 | Yes |
| Uganda | A7 | 2021 | 3,142 | 46,209 | Yes |
| United Arab Emirates (the) |  |  | 7,726,879 |  |  |
| United Republic of Tanzania (the) | A7 | 2020 | 36,211 | 252,760 | Yes |
| Uruguay | CP | 2021 | 473,681 | 454,099 | Yes |
| Vanuatu | A7 | 2021 | 6,080 | 13,781 | Yes |
| Venezuela (Bolivarian Republic of) | CP | 2021 | 3,758,330 | 799,335 |  |
| Viet Nam | A7 | 2021 | 3,806,696 | 10,470,044 | Yes |
| Yemen |  |  | 3,367,326 |  |  |
| Zambia | CP | 2021 | 105,826 | 672,226 | Yes |
| Zimbabwe | A7 | 2021 | 364,502 | 733,188 |  |

\*As of 27 July 2022.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  |  |  |  |

1. UNEP/OzL.Pro/ExCom/91/1 [↑](#footnote-ref-1)
2. The aggregated HCFC baseline for compliance for the three countries amounts to 2,681.2 ODP tonnes. In addition, the Republic of Korea produces HCFC-22 with a baseline of 395.1 ODP tonnes. [↑](#footnote-ref-2)
3. CP data reports represent the sole source of information on the sector distribution of controlled substances in A5 countries. [↑](#footnote-ref-3)
4. As of December 2021, completed projects had phased out 289,332 ODP tonnes of consumption and 204,189 ODP tonnes of production. The completed projects were valued at US $3.1 billion out of an approved total of approximately US $3.47 billion. [↑](#footnote-ref-4)
5. The Executive Committee requested the Secretariat to assess the HCFC compliance requirements for all A5 countries in the document Status reports and compliance, to serve as a guide for preparation of the business plan of the Multilateral Fund (decision 67/6(c)). [↑](#footnote-ref-5)
6. At its 84th meeting, the Executive Committee *inter alia* approved the revised CP data report format to include Annex F substances noting that the revised format would be used starting in 2020 for 2019 CP data reporting (decision 84/7(c)). [↑](#footnote-ref-6)
7. The Democratic People’s Republic of Korea reported production of MB only in 1991 and 1995. [↑](#footnote-ref-7)
8. The Agreement between the Government of China and the Executive Committee allows for the production of MB for QPS applications, feedstock and critical uses approved by the Parties (decision 47/54). The implementation of the China MB production sector was completed by 31 December 2021. [↑](#footnote-ref-8)
9. Stage II of the HPPMP for China was approved at the 86th meeting. The Agreement was approved at the 87th meeting. [↑](#footnote-ref-9)
10. Recommendation 68/4 of document UNEP/OzL.Pro/ImpCom/68/5 [↑](#footnote-ref-10)
11. A total of 100 A5 countries received financial assistance from the Multilateral Fund to phase out consumption and production (two countries) of MB. [↑](#footnote-ref-11)
12. Recommendation 68/4 of document UNEP/OzL.Pro/ImpCom/68/5 [↑](#footnote-ref-12)
13. For various reasons, stage I of the HPMPs for three countries (Antigua and Barbuda, the Central African Republic, and Yemen) were cancelled at the 82nd meeting. [↑](#footnote-ref-13)
14. The Bahamas, Belize, Benin, Bhutan, Bolivia (Plurinational State of), Bosnia and Herzegovina, Botswana, Brunei Darussalam, Cabo Verde, Cambodia, Chad, Chile, Colombia, the Cook Islands, Costa Rica, Cuba, the Democratic Republic of the Congo, the Dominican Republic, Croatia (which became a non-Article 5 country in 2014, and completely phased out HCFCs by 2015), Ecuador, El Salvador, Eswatini (the Kingdom of), Ethiopia, Fiji, the Gambia, Georgia, Ghana, Grenada, Guatemala, Guyana, Honduras, Jamaica, Kenya, Kiribati, Kyrgyzstan, the Lao People's Democratic Republic, Lesotho, Liberia, Madagascar, Malawi, Maldives, the Marshall Islands, Mauritius, Micronesia (Federated States of), Mongolia, Montenegro, Namibia, Nauru, Nepal, Nicaragua, the Niger, Niue, North Macedonia, Oman, Pakistan, Palau, Panama, Papua New Guinea, Paraguay, the Republic of Moldova, Rwanda, Saint Lucia, Saint Vincent and the Grenadines, Samoa, Seychelles, Sierra Leone, Solomon Islands, Sri Lanka, the Sudan, Tonga, Trinidad and Tobago, Türkiye, Tuvalu, Uganda, the United Republic of Tanzania, Uruguay, Vanuatu, Zambia and Zimbabwe. [↑](#footnote-ref-14)
15. The remaining HCFC consumption eligible for funding depends on the starting point for aggregate reductions in HCFC consumption selected by each A5 country in their HPMP. [↑](#footnote-ref-15)
16. Of the 96 countries that have ratified Kigali Amendment, four countries have not reported HFC data. [↑](#footnote-ref-16)
17. As of 27 July 2022 [↑](#footnote-ref-17)
18. Recommendation 68/4 of document UNEP/OzL.Pro/ImpCom/68/5 [↑](#footnote-ref-18)
19. Argentina, Brazil, Egypt, India, Indonesia, Iran (Islamic Republic of), Kuwait, Malaysia, Mexico, Nigeria, Saudi Arabia, South Africa, Thailand and Türkiye. [↑](#footnote-ref-19)
20. Several of the CP data reports submitted by A5 countries contain price data for both controlled substances and alternative substances. This information is provided on voluntary basis. [↑](#footnote-ref-20)
21. Decision 68/4(b)(iv) requested Governments to report, on a voluntary basis, the average import FOB price for each controlled substance and substitute in the revised CP format. [↑](#footnote-ref-21)
22. # At its 79th meeting, the Executive Committee requested the Secretariat to include in the document on the Overview of issues identified during project review (issued at each meeting) a summary of the prices of the controlled substances and the alternatives to be phased in, as communicated by enterprises requesting funding in any new project proposals, including clarification of any differences between those and the prices reported in the CP data reports (decision 79/4(c)).

    [↑](#footnote-ref-22)