



**United Nations
Environment
Programme**

Distr.
GENERAL



UNEP/OzL.Pro/ExCom/91/8
19 October 2022

ORIGINAL: ENGLISH

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 agenda¹

COUNTRY PROGRAMME DATA AND PROSPECTS FOR COMPLIANCE

Introduction

1. 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 countries² 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 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.

2. 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.

¹ UNEP/OzL.Pro/ExCom/91/1

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.

³ CP data reports represent the sole source of information on the sector distribution of controlled substances in A5 countries.

Pre-session documents of the Executive Committee of the Multilateral Fund for the Implementation of the Montreal Protocol are without prejudice to any decision that the Executive Committee might take following issuance of the document.

3. 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 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 HCFCs⁵ and HFCs: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

4. 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

5. MB is produced in one A5 country (China).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

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.

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)).

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)).

⁷ The Democratic People's Republic of Korea reported production of MB only in 1991 and 1995.

Protocol.⁸ In 2020, zero ODP tonnes of MB were produced.

6. 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.

7. An HCFC production phase-out management plan (HPPMP) was approved for one country (China).⁹

8. 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

B. Consumption sector

CFCs, halons, CTC, MB and TCA

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

10. 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

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.

⁹ Stage II of the HPPMP for China was approved at the 86th meeting. The Agreement was approved at the 87th meeting.

¹⁰ Recommendation 68/4 of document UNEP/OzL.Pro/ImpCom/68/5

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).

11. Only one A5 country¹¹ 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.

12. 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

13. 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).

14. 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 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).

¹¹ A total of 100 A5 countries received financial assistance from the Multilateral Fund to phase out consumption and production (two countries) of MB.

¹² Recommendation 68/4 of document UNEP/OzL.Pro/ImpCom/68/5

HCFC phase-out management plans

15. 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 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:

- (a) Thirty countries (19 low-volume-consuming (LVC) and 11 non-LVC countries), to address compliance up to 2020;
- (b) Thirty-three countries to address compliance up to 2025; and
- (c) Seventy-nine countries¹⁴ to completely phase out HCFCs between 2020 and 2035.

16. 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

17. 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 consumption¹⁵ 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

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.

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.

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.

HCFC	Baseline	Starting point	Approved	Remaining	% of approved
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

18. 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

19. 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 countries¹⁶ that have ratified the Kigali Amendment¹⁷ have established an HFC licensing system.

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

20. 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

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.

¹⁶ Of the 96 countries that have ratified Kigali Amendment, four countries have not reported HFC data.

¹⁷ As of 27 July 2022

¹⁸ Recommendation 68/4 of document UNEP/OzL.Pro/ImpCom/68/5

III.1 HCFC data

A. HCFC production versus consumption

21. 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

22. 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 and all other countries.

23. 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

¹⁹ Argentina, Brazil, Egypt, India, Indonesia, Iran (Islamic Republic of), Kuwait, Malaysia, Mexico, Nigeria, Saudi Arabia, South Africa, Thailand and Türkiye.

Sector	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2021 (% of total)
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.

24. 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

25. 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)).

26. 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.

27. 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	Aerosol	Foam	Fire fighting	Refrigeration manufacturing			Ref. servicing	Solvent	Other	Total***
				Other	AC	Total*				
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.

28. 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).

29. 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

HFC	Aerosol	Foam	Fire fighting	Refrigeration manufacturing			Ref. servicing	Solvent	Other	Total***
				Other	AC	Total*				
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.

30. 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.

31. 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.

32. 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.

33. 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”).

34. 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

35. The average prices of HCFCs, HFCs and alternatives reported by A5 countries since 2011 are summarized in table 11.²⁰ 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 that is usually obtained from importers.

Table 11. Average price of HCFCs, HFCs and alternatives²²

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

36. 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

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.

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.

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)).

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)

37. 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

38. 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.

Country	ODS	Agency for IS	A7 data	CP data	Difference	HCFC-141b polyol*	Remarks
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.

39. 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

40. The Executive Committee may wish:

- (a) 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;
- (b) To request:
 - (i) 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);
 - (ii) 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
 - (iii) 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

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
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

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
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

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
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

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
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

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
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

Country	Source	Year of latest consumption	65 per cent of HCFC baseline	Latest consumption	Ratified Kigali Amendment*
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	

Country	Source	Year of latest consumption	65 per cent of HCFC baseline	Latest consumption	Ratified Kigali Amendment*
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.