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EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Eighty-sixth Meeting
Montreal, 2-6 November 2020
Postponed to 8-12 March 2021[1]

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 countries[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 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 ODS production and consumption trends.

2. Parties are encouraged to submit annually their Article (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 2020. All countries that submitted requests for funding to the 86th meeting also submitted 2019 CP data.

Table 1. A7 and CP data reports submitted by A5 Parties (as of 5 January 2021)

Data	2013	2014	2015	2016	2017	2018	2019	2020
A7	147	147	147	147	147	147	146	1
CP	145	143*	143**	143**	143**	143**	142***	0

* Except for Yemen as there are 144 A5 countries (excluding Croatia, which became a non-Article 5 country in 2014).
** Except for Yemen.
*** Except for Algeria and Yemen.

[1] Due to coronavirus disease (COVID-19)
[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.

Scope of the document

3. This document consists of the following four parts:

Part 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 CFC, halon, carbon tetrachloride (CTC), methyl bromide (MB) and methyl chloroform (TCA), and the 2013 freeze and the 10 per cent reduction of HCFCs by 2015, 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

Part II: A5 countries subject to decisions on compliance by the Parties

Part III: Data on the implementation of CPs for HCFCs[5] 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, prices of controlled substances and alternative substances, and issues related to CP reports. Regarding HFCs, this section presents an analysis on consumption data contained in the 2019 CP data reports

Part IV: Section B1 of the revised format for CP data reports (decision 84/7(d)): This section presents the format for data reporting on manufacturing of blends containing Annex F substances

4. This document also includes the following four annexes:

Annex I: MB consumption for quarantine and pre-shipment (QPS) applications

Annex II: HCFC analysis

Annex III: HFC data (measured in CO_2-equivalent)

Annex IV: Revised Section B1 for country programme data reporting

PART I: STATUS OF AND PROSPECTS FOR COMPLIANCE OF A5 COUNTRIES

Licensing and quota systems

5. 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. Twenty-five

[4] As at December 2019, completed projects had phased out 285,052 ODP tonnes of consumption and 204,189 ODP tonnes of production. The completed projects were valued at US $2.86 billion out of an approved total of approximately US $3.37 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)).

(14 low-volume-consuming (LVC) and 11 non-LVC countries) of the 75 countries that have ratified Kigali Amendment have established a HFC licensing system.

Production and consumption

6. The complete phase-out of production and consumption of CFC, halon, 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.

Production sector

7. 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 Protocol.[8] In 2019, zero ODP tonnes of MB were produced.

8. 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 30.4 per cent below the aggregated production baseline.

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

Party	2012	2013	2014	2015	2016	2017	2018	2019	Baseline
HCFC-22									
Argentina	230.5	107.3	125.7	134.5	95.8	100.3	65.6	88.3	224.6
China	20,050.1	15,866.9	16,497.0	13,391.0	14,086.3	13,445.7	13,636.4	13,598.2	29,122.0*
Democratic People's Republic of Korea	28.7	31.8	28.9	27.4	24.8	24.8	24.8	27.0	27.6
India	1,565.4	1,352.1	1,465.7	1,727.6	1,665.5	1,789.5	1,908.0	1,933.1	2,399.5
Mexico	298.3	317.1	223.5	160.9	166.8	190.1	183.8	134.8	697.0
Republic of Korea	306.7	357.6	364.7	348.9	240.3	305.6	289.9	271.5	395.1
Venezuela (Bolivarian Republic of)	160.3	121.2	86.1	37.2	14.3	15.0	1.9	0.0	123.1
Total HCFC-22	22,639.9	18,153.9	18,791.7	15,827.6	16,293.8	15,871.0	16,110.3	16,052.9	32,988.9
HCFC-141b									
China	12,884.4	9,583.6	9,560.2	7,246.5	7,278.2	7,076.8	6,321.1	6,101.6	*
HCFC-142b									
China	1,440.4	1,102.0	1,076.8	1,224.3	1,110.5	1,115.5	756.3	816.0	*
Total	**36,964.7**	**28,839.6**	**29,428.6**	**24,298.3**	**24,682.5**	**24,063.3**	**23,187.8**	**22,970.4**	**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.

9. An HCFC production phase-out management plan (HPPMP) was approved for one country (China).[9] One A5 country has reported HCFC production above the 2015 Montreal Protocol compliance target in 2019 (the Democratic People's Republic of Korea); therefore, the country is in non-compliance

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

[8] Decision 47/54. 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. A progress report on the implementation of the China MB production sector has been submitted to the 86th meeting (UNEP/OzL.Pro/ExCom/86/21/Add.1)

[9] UNEP/OzL.Pro/ExCom/68/SGP-InS/2 and Add.1. A revised proposal for stage II of the HPPMP for China has been submitted to the 86th meeting, in line with decision 84/69(b).

with the 10 per cent reduction target.[10] Funding has not been approved for the HCFC production sector for this country.

Consumption sector

CFC, halon, CTC, MB and TCA

10. All A5 countries have reported zero consumption of CFC, halon and TCA in 2019.

11. Only one A5 country (China) has reported CTC consumption in 2019 for laboratory and analytical-use of 156.70 ODP tonnes which was above the 2010 Montreal Protocol compliance target. The Parties have extended the global laboratory and analytical-use exemption until 31 December 2021 (decision XXVI/5).

12. Only two A5 countries[11] have reported MB consumption in 2019 which was above the 2015 Montreal Protocol compliance target, as shown in Table 3. The Parties approved consumption of MB for critical uses for all of these countries.

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

Country	Source	Year of latest consumption	Baseline	Latest consumption
Argentina*	A7	2019	411.3	24.7
South Africa**	A7	2019	602.7	24.6

***** Allowable level of consumption of 24.79 ODP tonnes for 2019 per decision XXX/9.
****** Allowable level of consumption of 24.60 ODP tonnes for 2019 per decision XXX/9.

13. Forty-one 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 countries is not eligible for funding.

HCFC consumption

14. A total of 147 A5 countries have an established HCFC baseline for compliance, with an aggregated latest consumption level of 22,901.9 ODP tonnes (360,936 mt), as shown in Table 4. The three main HCFCs are: HCFC-22 (70.1 per cent of the total consumption measured in ODP tonnes), HCFC-141b (26.3 per cent) and HCFC-142b (3.4 per cent).

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

HCFC	Baseline		Consumption*		% of total
	Metric tonnes	ODP tonnes	Metric tonnes	ODP tonnes	ODP tonnes
HCFC-123	2,337.0	46.7	1,919.1	38.4	0.2
HCFC-124	1,270.7	28.0	440.4	9.7	0.0
HCFC-141b	107,871.6	11,865.9	54,776.9	6,025.5	26.3
HCFC-142b	33,195.5	2,157.7	11,947.2	776.6	3.4
HCFC-22	394,654.7	21,706.0	291,786.8	16,048.3	70.1
HCFC-225	30.4	2.1	38.8	2.7	0.0
HCFC-225ca	70.0	1.8	12.2	0.3	0.0

[10] Decision XXXII/6.
[11] A total of 100 A5 countries received financial assistance from the Multilateral Fund to phase out consumption and production (two countries) of MB.

HCFC	Baseline		Consumption*		% of total
	Metric tonnes	ODP tonnes	Metric tonnes	ODP tonnes	ODP tonnes
HCFC-225cb	20.9	0.7	14.6	0.5	0.0
Total	**539,450.8**	**35,808.9**	**360,936.0**	**22,901.9**	**100.0**

* Including Republic of Korea (1,310.5 ODP tonnes), Singapore (58.0 ODP tonnes) and the United Arab Emirates (475.3 ODP tonnes).

15. Only one A5 country has reported HCFC consumption above the 2015 Montreal Protocol compliance target in 2019 (the Democratic People's Republic of Korea).[12] This country is in non-compliance with the 10 per cent reduction target. UNIDO submitted a progress report on the implementation of stage I of the HCFC phase-out management plan (HPMP) for the Democratic People's Republic of Korea at the 85th meeting.[13]

HCFC phase-out management plans

16. 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 HPMPs for 145 countries,[14] stage II for 73 countries and stage III for three countries, at a total value of US $1.12 billion (approved in principle) of which US $899.96 million has been disbursed to address compliance with the Montreal Protocol control levels as follows:

(a) One non-LVC country (Qatar) to address compliance up to 2015. This country has submitted a request for stage II at the 86th meeting;[15] it is in compliance with the Montreal Protocol;

(b) Sixty-three countries (37 LVC and 26 non-LVC countries), to address compliance up to 2020;

(c) Twenty-seven countries to address compliance up to 2025; and

(d) Fifty countries (Bhutan, Botswana, Brunei Darussalam, Cambodia, the Cook Islands, Costa Rica, Cuba, the Dominican Republic, Croatia,[16] Ecuador, Eswatini (the Kingdom of), the Gambia, Guatemala, Guyana, Honduras, Jamaica, Kenya, Kiribati, Kyrgyzstan, the Lao People's Democratic Republic, Malawi, Maldives, the Marshall Islands, Mauritius, Micronesia (Federated States of), Mongolia, Montenegro, Namibia, Nauru, Nepal, Nicaragua, Niue, Palau, Panama, Papua New Guinea, Rwanda, Saint Vincent and the Grenadines, Samoa, Seychelles, Solomon Islands, Sri Lanka, Tonga, Trinidad and Tobago, Turkey, Tuvalu, Uganda, Uruguay, Vanuatu, Zambia and Zimbabwe), to completely phase out HCFCs between 2020 and 2035.

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

[12] Decision XXXII/6.

[13] The progress report is included in the Reports on projects with specific reporting requirements (UNEP/OzL.Pro/ExCom/86/21) and will be considered at the postponed 86th meeting in line with the procedures for holding the 85th and 86th meetings.

[14] 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 and Saudi Arabia was cancelled at the 86th meeting.

[15] UNEP/OzL.Pro/ExCom/86/70

[16] Croatia became a non-Article 5 country in 2014, and completely phased out HCFCs by 2015.

Remaining HCFC consumption

18. Implementation of approved stages I, II and III of the HPMPs will result in the phase-out of approximately 71 per cent of the starting point for aggregate reduction of HCFC consumption and 86 per cent of the consumption of HCFC-141b contained in imported pre-blended polyols. Table 5 shows the aggregate remaining HCFC consumption[17] 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	30.25	8.91	21.04	29.5
HCFC-124	26.42	26.10	2.22	23.88	8.5
HCFC-141	0.94	0.94	0.94	0.00	100.0
HCFC-141b	10,668.24	10,676.36	10,473.88	202.48	98.1
HCFC-142b	2,000.80	2,016.90	1,376.68	640.22	68.3
HCFC-21	0.74	0.74	0.74	0.00	100.0
HCFC-22	20,424.65	19,851.51	11,385.78	8,282.73	57.4
HCFC-225	2.82	2.82	1.13	1.69	40.1
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**	**32,606.72**	**23,250.28**	**9,173.14**	**71.3**
HCFC-141b polyol**	0.00	657.20	561.97	91.99	85.5

* As of the intersessional approval process for the 86th meeting.
** HCFC-141b contained in imported pre-blended polyols.

HFC consumption

19. Of the 147 Article 5 countries, 92 countries have reported HFC data in 2018 for 2019. Sixty-three of the 92 countries have ratified the Kigali Amendment. Annex III to the present document includes information on the latest reported HFC consumption data (measured in CO_2-equivalent) for these 92 countries.

PART II: A5 COUNTRIES SUBJECT TO DECISIONS ON COMPLIANCE

20. At their Thirty-Second Meeting, the Parties found one Article 5 country (the Democratic People's Republic of Korea)[18] in non-compliance with its obligations under the Montreal Protocol.

PART III: DATA ON THE IMPLEMENTATION OF CPs FOR HCFCs AND HFCs

HCFC data

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.

[17] The remaining HCFC consumption eligible for funding depends on the starting point for aggregate reductions in HCFC consumption selected by each Article 5 country in their HPMP.
[18] Decision XXXII/6.

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

HCFC	2011	2012	2013	2014	2015	2016	2017	2018	2019
Production									
HCFC-22	21,665.7	23,552.4	18,769.0	20,266.4	16,782.6	16,191.2	15,725.9	16,061.3	15,959.3
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
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
Consumption									
HCFC-22	19,847.6	22,581.7	17,817.0	17,486.6	15,191.4	15,404.5	15,092.1	15,102.9	14,803.9
HCFC-141b	11,978.2	11,735.9	8,981.3	8,752.9	6,771.4	6,383.7	6,311.0	5,724.8	5,531.1
HCFC-142b	1,827.9	1,439.4	1,014.5	770.0	889.8	725.4	773.5	429.2	486.1
Production – consumption									
HCFC-22	1,818.1	970.7	952.0	2,779.8	1,591.2	786.7	633.8	958.4	1,155.4
HCFC-141b	333.3	1,148.5	602.3	807.3	475.1	894.5	765.8	596.3	570.5
HCFC-142b	(68.1)	1.0	87.5	306.8	334.5	385.1	342.0	327.1	329.9

Sector distribution of HCFC consumption

22. Table 7 presents the sector distribution of aggregated HCFC consumption for the period 2011 to 2019, 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. In 2019, the three sectors with the largest consumption of HCFCs (measured in ODP tonnes) were the refrigeration servicing (35.2 per cent of the total), foam (33.9 per cent of the total) and the refrigeration manufacturing sectors (28 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
China									
Aerosol	70.5	95.4	137.8	186.2	180.4	189.4		154.0	163.7
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
Fire-fighting									
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
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
Solvent	514.1	524.1	466.0	484.8	418.5	413.4	397.0	375.1	385.0
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**
14 largest A5 consuming countries*									
Aerosol	82.8	75.0	123.8	119.5	87.3	42.4	5.5	26.9	7.8
Foam	3,517.3	3,867.4	2,645.6	2,342.3	2,077.0	1,572.7	1,501.9	1,275.5	1,058.7
Fire-fighting	9.8	6.0	5.4	4.0	4.0	4.2	4.9	2.3	2.9
Refrigeration manufacturing	2,674.2	3,142.9	2,233.7	2,111.7	1,862.6	1,473.8	1,291.6	1,238.6	1,010.0
Refrigeration servicing	3,246.7	4,213.6	3,029.3	3,142.8	3,148.6	3,262.9	2,805.0	2,615.4	2,835.3
Solvent	80.0	76.3	43.3	38.5	37.1	29.6	53.9	47.5	62.7
Total 14 largest consuming countries	**9,610.8**	**11,381.3**	**8,081.1**	**7,758.9**	**7,216.7**	**6,385.6**	**5,662.8**	**5,206.3**	**4,977.3**

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

Sector	2011	2012	2013	2014	2015	2016	2017	2018	2019
129 remaining A5 countries									
Aerosol	0.1	0.2	0.7	0.4	0.3	0.1	0.5		
Foam	1,061.5	1,258.8	963.2	903.8	859.0	818.6	722.4	483.3	458.1
Fire-fighting	9.4	13.3	8.6	11.2	14.0	11.1	7.7	3.2	4.4
Refrigeration manufacturing	703.8	400.7	314.3	289.4	248.3	235.6	216.7	174.7	176.0
Refrigeration servicing	2,178.1	2,372.2	1,995.8	1,910.0	1,761.8	1,601.3	1,516.1	1,464.4	1,362.7
Solvent	38.0	34.1	5.2	3.5	4.9	5.1	3.1	3.2	3.3
Total 129 remaining A5 countries	**3,990.8**	**4,079.3**	**3,287.7**	**3,118.2**	**2,888.4**	**2,671.9**	**2,466.6**	**2,128.8**	**2,004.4**
All A5 countries									
Aerosol	153.4	170.5	262.2	306.1	268.0	232.0	6.0	180.9	171.5
Foam	14,154.8	14,157.2	11,082.6	10,650.1	8,458.8	8,264.1	8,445.0	7,438.3	7,186.0
Fire-fighting	19.1	19.4	14.1	15.2	18.0	15.2	12.6	5.6	7.3
Refrigeration manufacturing	10,118.3	10,130.3	8,562.2	8,003.0	7,062.7	6,816.5	6,614.6	6,270.2	5,932.9
Refrigeration servicing	9,251.8	11,443.6	8,128.9	8,214.6	7,322.5	7,502.5	7,202.5	7,396.6	7,456.3
Solvent	632.0	634.5	514.5	526.9	460.4	448.2	454.0	425.8	450.9
Total all A5 countries	**34,329.4**	**36,555.5**	**28,564.6**	**27,715.9**	**23,590.4**	**23,278.6**	**22,734.7**	**21,717.4**	**21,204.9**
% of total for China	60.4	57.7	60.2	60.8	57.2	61.1	64.2	66.2	67.1
% of total for 14 largest A5 consuming countries	28.0	31.1	28.3	28.0	30.6	27.4	24.9	24.0	23.5
% of total for 129 remaining A5 countries	11.6	11.2	11.5	11.3	12.2	11.5	10.9	9.8	9.5

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

23. 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
HCFC-22									
Aerosol	103.9	124.9	116.4	150.0	134.2	132.0	0.3****	102.3	91.1
Foam*	1,725.7	2,079.2	1,805.6	1,749.5	1,177.3	1,518.5	1,687.2	1,682.3	1,616.4
Fire-fighting	6.2	0.1							
Refrigeration manufacturing	9,270.7	9,474.9	8,012.7	7,531.6	6,746.9	6,590.0	6,329.5	5,995.1	5,756.1
Refrigeration servicing	8,711.8	10,873.6	7,882.3	8,055.1	7,132.4	7,163.5	7,074.7	7,322.9	7,339.9
Solvent	29.3	29.0		0.3	0.7	0.6	0.4	0.4	0.4
Total HCFC-22	**19,847.6**	**22,581.7**	**17,817.0**	**17,486.6**	**15,191.4**	**15,404.5**	**15,092.1**	**15,102.9**	**14,803.9**
HCFC-141b									
Aerosol	49.4	45.4	145.8	156.0	132.0	99.9	5.7****	78.7	80.4
Foam	10,412.3	10,355.0	7,712.9	7,554.8	5,828.1	5,522.9	5,547.5	4,943.4	4,814.0
Fire-fighting	6.0	9.3	6.7	7.6	9.3	5.2	6.3	1.8	3.0

Sector	2011	2012	2013	2014	2015	2016	2017	2018	2019
Refrigeration manufacturing**	814.7	629.6	529.6	447.9	294.2	204.8	264.9	255.8	159.7
Refrigeration servicing	98.7	96.4	75.7	65.5	53.6	107.6	35.9	25.2	26.9
Solvent	597.1	600.2	510.6	521.0	454.4	443.3	450.8	420.0	447.1
Total HCFC-141b	**11,978.2**	**11,735.9**	**8,981.3**	**8,752.9**	**6,771.4**	**6,383.7**	**6,311.0**	**5,724.8**	**5,531.1**
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	697.0	773.8	608.3	701.0	398.5	412.3
Fire-fighting									
Refrigeration manufacturing	11.1	7.8	6.5	8.0	7.2	6.9	6.1	5.9	5.9
Refrigeration servicing	414.7	441.3	144.4	64.9	106.9	110.1	66.5	24.9	67.9
Solvent	0.3								
Total HCFC-142b	**1,827.9**	**1,439.4**	**1,014.5**	**770.0**	**889.8**	**725.4**	**773.5**	**429.2**	**486.1**
Other HCFCs	675.7	798.5	751.7	706.4	737.8	765.0	558.0	460.4	383.8
Total	**34,329.4**	**36,555.5**	**28,564.6**	**27,715.9**	**23,590.4**	**23,278.6**	**22,734.7**	**21,717.4**	**21,204.9**

* 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).

HFC data

24. 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.[20] During the intersessional approval process established for the 86th meeting, it was suggested to consider that an analysis of the production and consumption for all controlled substances by Article 5 countries, including HFCs and HFC-23 production/generation, and the results from the surveys of ODS alternatives carried out in line with decision 79/43, be included in the document on Country programme data and prospects for compliance, to be submitted to the 86th meeting.[21]

25. Of the 142 countries which submitted 2019 CP data as of 5 January 2021, 75 countries have ratified the Kigali Amendment. Only 61 of the 75 countries[22] have provided HFC data in their 2019 CP reports on time for this analysis. In addition, 23 countries that have not ratified the Kigali Amendment have provided HFC data in their 2019 CP reports.

26. The sector distribution of aggregated HFC consumption for the 84 countries that have submitted 2019 CP data (in metric tonnes (mt)) is presented in Table 9. Of these 84 countries, 53 are LVC countries, accounting for 66.8 per cent of all LVC countries and 68.8 per cent of their aggregated HCFC baselines, and 31 are non-LVC countries, accounting for 33.2 per cent of all non-LVC countries and 14.3 per cent of their aggregated HCFC baselines.

[20] Decision 84/7(c).

[21] Paragraph 28 of UNEP/OzL.Pro/ExCom/86/IAP/3

[22] Of the 14 remaining, only three countries (Bhutan, the Democratic People's Republic of Korea, and the Lao People's Democratic Republic) have ratified the Kigali Amendment prior to October 2019 and therefore, have a reporting obligation for 2019; of these, Bhutan and the Lao People's Democratic Republic provided HFC data in their 2019 CP reports in February 2021 after the data compilation and analysis have been completed, and therefore are not included.

27. In 2019, the five sectors with the largest consumption of HFCs (measured in mt) were the refrigeration servicing (58.6 per cent of the total), refrigeration manufacturing – air-conditioning (AC) (17.7 per cent), refrigeration manufacturing – others (5.9 per cent), fire fighting (4.9 per cent) and aerosol (3.3 per cent).

Table 9. Sector distribution of HFCs consumed in 2019 (mt)

HFC	Aerosol	Foam	Fire fighting	Refrigeration manufacturing			Ref. servicing	Solvent	Other	Total
				Other	AC	Total*				
HFC-125	0.3		46.2		1,243.8	1.0	3,104.9		429.8	4,826.0
HFC-134							1,031.3			1,031.3
HFC-134a	1,576.5	5.7		3,056.9	7,362.2	843.4	33,149.4	137.0	4,041.5	50,172.6
HFC-143a							469.2		5.2	474.4
HFC-152							3.9		0.1	4.0
HFC-152a	2,714.5	37.9					173.6		17.2	2,943.2
HFC-227ea		14.8	6,219.3				12.3		52.1	6,298.5
HFC-23 (use)						0.2	3.0		4.7	7.9
HFC-236fa							4.7		0.1	4.8
HFC-245fa		197.4		2,864.6					2.7	3,064.7
HFC-32					1,104.7		2,639.0		1,350.6	5,094.3
HFC-365mfc		203.1	115.2							318.3
HFC-41							1.8			1.8
HFC-43-10mee								3.8	2.1	5.9
R-404A				1,658.7	2.9	155.4	9,080.4		526.2	11,423.6
R-407A							4,551.1		3.6	4,554.7
R-407C					162.5	23.8	6,008.7		203.3	6,398.3
R-407F							16.2			16.2
R-410A				5.0	13,172.4	289.7	14,832.6	65.0	2,365.0	30,729.7
R-413A						0.8	19.1			19.9
R-417A						12.4	55.3		4.5	72.2
R-422A						0.2	2.8			3.0
R-422D						10.7	24.9			35.6
R-425A							0.1			0.1
R-427A							3.9			3.9
R-437A							53.3			53.3
R-438A							66.8		1.4	68.2
R-442A							0.8			0.8
R-448A				35.8			1.1		0.1	37.0
R-449A				27.7			3.9		0.6	32.2
R-452A							0.2		0.6	0.8
R-453A							1.8			1.8
R-507A				21.6		185.9	1,015.9		605.1	1,828.5
R-508B							18.1		0.1	18.2
R-513A							10.4			10.4
HFC-245fa in imported pre-blended polyol		102.4								102.4
HFC-365mfc in imported pre-blended polyol		70.9				2.1				73.0
HFC-365mfc/ HFC-227ea (93/7)		559.7							19.2	578.9
HFC-365mfc/227ea in imported pre-blended polyol		2.5								2.5
Other HFCs							74.7			74.7

HFC	Aerosol	Foam	Fire fighting	Refrigeration manufacturing			Ref. servicing	Solvent	Other	Total
				Other	AC	Total*				
Total	**4,291.3**	**1,194.4**	**6,380.7**	**7,670.3**	**23,048.5**	**1,525.6**	**76,435.2**	**205.8**	**9,635.8**	**130,387.6**
Sub-total LVC	**96.5**	**99.9**	**3.1**	**136.8**	**9.1**	**17.8**	**18,679.8**		**17.5**	**19,060.5**
Sub-total non-LVC	**4,194.8**	**1,094.5**	**6,377.6**	**7,533.5**	**23,039.4**	**1,507.9**	**57,755.4**	**205.8**	**9,618.1**	**111,327.0**

Note: Minor differences in totals are due to rounding.

28. The sector distribution of aggregated HFC consumption in CO_2-equivalent is presented in Table 10. R-404A, HFC-125, HFC-134a, HFC-227ea and R-410A account for 84.2 per cent of the total consumption in CO_2-equivalent; refrigeration and air-conditioning (RAC) servicing, refrigeration manufacturing – air-conditioning and fire fighting account for 60.1 percent, 16.8 per cent and 7.8 per cent of the total consumption, respectively.

Table 10. Sector distribution of HFCs consumed in 2019 ('000 tons CO_2-equivalent)

HFC	Aerosol	Foam	Fire fighting	Refrigeration manufacturing			Ref. servicing	Solvent	Other	Total
				Other	AC	Total*				
HFC-125	1.1		161.7		4,353.3	3.5	10,867.2		1,504.3	16,891.0
HFC-134							1,134.4			1,134.4
HFC-134a	2,254.4	8.2		4,371.4	10,527.9	1,206.1	47,403.6	195.9	5,779.3	71,746.8
HFC-143a							2,097.3		23.2	2,120.6
HFC-152							0.2		0.0	0.2
HFC-152a	336.6	4.7					21.5		2.1	365.0
HFC-227ea		47.7	20,026.1				39.6		167.8	20,281.2
HFC-23 (use)**						3.0	44.4		69.6	116.9
HFC-236fa							46.1		1.0	47.1
HFC-245fa		203.3		2,950.5					2.8	3,156.6
HFC-32					745.7		1,781.3		911.7	3,438.7
HFC-365mfc		161.3	91.5							252.7
HFC-41							0.2			0.2
HFC-43-10mee								6.2	3.4	9.7
R-404A				6,505.4	11.4	609.5	35,613.2		2,063.8	44,803.3
R-407A							9,589.2		7.6	9,596.8
R-407C					288.3	42.2	10,659.4		360.7	11,350.6
R-407F							29.2			29.2
R-410A				10.4	27,504.0	604.9	30,970.5	135.7	4,938.1	64,163.6
R-413A						1.6	39.2			40.9
R-417A						29.1	129.7		10.6	169.4
R-422A						0.6	8.8			9.4
R-422D						29.2	68.0			97.2
R-425A							0.2			0.2
R-427A							8.3			8.3
R-437A							96.2			96.2
R-438A							151.3		3.2	154.5
R-442A							1.5			1.5
R-448A				49.7			1.5		0.1	51.3
R-449A				39.1			5.5		0.8	45.4
R-452A							0.4		1.3	1.7
R-453A							3.2			3.2
R-507A				86.1		740.8	4,048.4		2,411.3	7,286.7
R-508B							242.5		1.3	243.8
R-513A							6.0			6.0
HFC-245fa in imported pre-blended polyol		105.5								105.5
HFC-365mfc in imported pre-blended polyol		56.3				1.7				58.0
HFC-365mfc/ HFC-227ea (93/7)		539.5							18.5	558.0

HFC	Aerosol	Foam	Fire fighting	Refrigeration manufacturing			Ref. servicing	Solvent	Other	Total
				Other	AC	Total*				
HFC-365mfc/ 227ea in imported pre-blended polyol		2.4								2.4
Other HFCs							293.4			293.4
Total	**2,592.0**	**1,128.7**	**20,279.3**	**14,012.6**	**43,430.5**	**3,272.2**	**155,401.5**	**337.9**	**18,282.5**	**258,737.1**

*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.

29. In 2019, the most consumed HFCs including blends were HFC-134a (31.3 per cent), R-410A (20.7 per cent), R-404A (16.7 per cent), R-407C (14.3 per cent) and R-407A (11.8 per cent) for LVC countries, and HFC-134a (39.7 per cent of the total), R-410A (24.1 per cent), R-404A (7.4 per cent), and HFC-227ea (5.7 per cent) for non-LVC countries. In addition, 10 countries (four LVC and six non-LVC countries) reported a total consumption of 7.94 mt of HFC-23 used in the RAC servicing sector including Chile, Costa Rica, Ecuador, Mauritius, Mexico, Nicaragua, Pakistan, Peru, Seychelles and Viet Nam.

30. Seventy-seven of the 84 countries that have submitted HFC data in 2019 also reported data under ODS alternatives surveys. Table 11 shows the trends in total consumption of the 77 countries that have reported 2019 data compared to ODS alternatives survey data. The consumption of HFCs increased 1.54 times in LVC countries and 1.3 times in non-LVC countries between 2015 and 2019. The substances where the consumption increased were HFC-134a, R-404A, R-407C, R-410A and R-507A.

Table 11. Trends in total HFC consumption of the 77 countries that have reported 2019 data compared to ODS alternatives survey data (mt)

Substance	2012 ODS survey	2013 ODS survey	2014 ODS survey	2015 ODS survey	2019 CP data
LVC countries*					
HFC-125	0.7	1.1	0.8	0.3	1.8
HFC-134					218.8
HFC-134a	3,515.4	3,837.7	4,175.3	5,076.6	5,900.9
HFC-143a					222.2
HFC-152a	84.6	132.6	55.0	85.0	60.8
HFC-227ea	3.8	5.7	6.3	9.3	3.5
HFC-227ea/HFC-365mfc	18.5	30.2	36.2	46.4	
HFC-23				0.1	1.9
HFC-245fa	2.3	2.9	2.2	2.1	42.4
HFC-32	0.1	0.2	0.5	4.3	20.8
HFC-41					1.8
R-401A	7.4	1.3	1.3	1.4	
R-404A	1,361.7	1,264.4	1,571.1	2,043.3	3,130.5
R-406A	0.5	0.5		0.2	
R-407A	495.2	538.2	758.9	934.3	2,246.4
R-407C	815.1	882.8	1,169.4	1,384.4	2,727.1
R-407F				40.5	13.6
R-408A	0.4		0.6	0.8	
R-410A	1,333.0	1,405.3	1,771.6	2,358.7	3,910.0
R-413A	1.4	0.6	0.1	0.1	
R-417A	3.3	0.1	18.4	42.2	28.8
R-417B			5.7	25.8	
R-422A	0.5			6.2	
R-422D	0.6	0.6	12.2	12.5	5.7
R-427A		0.1		25	0.3

Substance	2012 ODS survey	2013 ODS survey	2014 ODS survey	2015 ODS survey	2019 CP data
R-436A			0.6		
R-437A	0.5	0.5	0.9	0.7	0.6
R-438A		0.5	1.7	19	15.6
R-448A					1.1
R-449A					
R-507A	67.9	83.2	76.8	109.1	254.8
R-507C	2.3				20.8
R-508B		4.5			16.5
HFC-245fa in imported pre-blended polyol					5.2
HFC-365mfc in imported pre-blended polyol					54.4
Total - LVC countries	**7,715.2**	**8,193.0**	**9,665.6**	**12,228.3**	**18,906.3**
Non-LVC countries					
HFC-125	190.3	338.2	625.2	758.5	678.1
HFC-134		0.5	15.2	30.8	808.0
HFC-134a	20,940.3	21,743.7	24,795.4	26,265.0	26,268.9
HFC-143	191.6	201.3	210.8	216.1	
HFC-134a/HFC-152a	2.3	2.3	2.3	2.3	
HFC-143a	4.3	3.4	3.2	0.8	252.2
HFC-152a	1,272.5	1,988.9	2,746.1	3,340.9	2,848.4
HFC-227ea	102.2	120.6	81.9	158.5	192.6
HFC-227ea/HFC-365mfc	6.2	60.0	74.3	152.7	578.9
HFC-23	2.2	17.5	1.7	7.0	6.1
HFC-236fa					0.8
HFC-245fa	2,813.5	3,402.2	3,415.2	3,590.7	3,022.3
HFC-32	2.1	6.2	17.4	41.2	1,504.9
HFC-365mfc		19.2	8.2	125.4	121.8
HFC-4310		0.1	0.9	1.1	
HFC-43-10mee	15.7	23.9	1.5	9.5	3.8
R-401A	0.1	0.1	0.2	0.2	
R-404A	3,067.3	3,504.7	3,910.1	3,539.9	5,366.6
R-406A	2.7	0.5			
R-407A	12.1	13.4	7.7	18.0	2,307.4
R-407C	1,079.6	1,277.3	1,482.3	1,641.2	3,037.1
R-407F		0.5	0.9	1.4	2.6
R-410A	7,847.6	9,649.2	12,747.6	12,249.0	20,440.7
R-413A	116.1	243.7	158.2	650.8	5.3
R-417A	20.3	18.6	16.9	29.3	31.3
R-417B		0.0	0.1	0.6	
R-419B		1.5	0.8		
R-422A	3.3	9.2	6.3	6.1	3.1
R-422D	19.3	39.2	19.9	40.7	29.0
R-425A			13.7		0.1
R-427A		0.5	12.6	24.2	3.6
R-437A	58.3	113.3	17.6	56.0	22.1
R-438A		12.8	17.8	1.2	5.5
R-442A					0.8
R-448A					36.0
R-449A					30.3
R-452A					0.8
R-507A	664.5	699.8	1,681.0	1,142.9	1,517.5
R-508B	1.1	1.0	1.3	1.4	1.6
R-513A					9.8

Substance	2012 ODS survey	2013 ODS survey	2014 ODS survey	2015 ODS survey	2019 CP data
HFC-245fa in imported pre-blended polyol					97.2
HFC-365mfc in imported pre-blended polyol					18.6
HFC-365mfc/227ea in imported pre-blended polyol					2.5
Total - Non-LVC countries	**38,435.5**	**43,512.8**	**52,094.3**	**54,103.0**	**69,256.2**
Grand total	**46,150.7**	**51,705.8**	**61,759.9**	**66,331.3**	**88,162.5**

Prices of HCFCs, HFCs and alternatives

31. The average prices of HCFCs, HFCs and alternatives reported by A5 countries since 2011 are summarized in Table 12.[23] 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)[24] that is usually obtained from importers.

32. At its 79th meeting, the Executive Committee requested the Secretariat to include in the "Overview of issues identified during project review" document 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)).

Table 12. Average price of HCFCs, HFCs and alternatives

Substance	Average price (US $/kg)*									Range (US $/kg)	Countries (2019)**
	2011	2012	2013	2014	2015	2016	2017	2018	2019		
HCFC-22	9.28	10.06	9.24	10.08	10.07	9.25	10.18	10.24	9.64	1.80 (Dominican Republic (the)) to 38.50 (Chad)	121
HCFC-141b	6.73	6.73	6.65	7.77	7.08	10.00	9.40	10.99	8.23	2.31 (Brazil) to 32.08 (Belize)	26
R-600a	20.97	20.49	20.20	18.02	15.23	15.98	15.80	16.03	16.72	1.43 (China) to 91.58 (Guyana)	84
R-290	22.23	15.60	14.38	21.26	19.08	16.13	16.48	15.92	21.80	0.71 (Cuba) to 119.62 (Antigua and Barbuda)	54
HFC-134a	16.64	14.96	13.65	13.30	14.26	12.83	13.94	12.35	12.34	2.40 (Oman) to 46.00 (Cabo Verde and Chad)	108
R-404A	20.68	18.71	15.41	15.11	15.42	15.32	15.97	14.77	13.82	2.79 (Oman) to 47.50 (Chad)	112
R-407C	21.36	19.04	16.06	15.19	13.97	12.71	13.94	13.71	13.02	2.65 (Oman) to 46.50 (Chad)	80
R-410A	21.70	19.91	16.05	15.28	14.61	16.44	15.47	14.78	14.56	2.07 (China) to 115.59 (Sao Tome and Principe)	111
R-507A	20.78	15.84	13.59	12.21	11.65	11.76	13.33	13.07	12.99	3.70 (Paraguay) to 45.00 (Turkmenistan)	54

* All zero entries were excluded.
** Number of A5 countries that reported prices in 2019.

Issues related to CP data reports

Timely submission of CP data reports

33. In reviewing the timely submission of the CP data reports, the Secretariat noted progress for the year 2019 compared to 2018 as shown in Table 13. Although there is a slight decrease in the monthly

[23] 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.
[24] 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.

submission rates when compared with that of 2018, it can be attributed to the new format and the evolving situation of the COVID-19 pandemic. The Secretariat noted the efforts made by UNEP in following up on the submission of outstanding CP data reports, and keeping the Secretariat informed on progress on a regular basis, including the two countries (Algeria and Yemen) which still have outstanding CP data reports.

Table 13. Monthly rates of submission of CP data reports (as at 5 January 2021)

Month	2013		2014		2015		2016		2017		2018		2019	
	No*	(%)*	No*	(%)*	No*	(%)*	No*	(%)*	No*	(%)*	No*	(%)*	No*	(%)*
January					1	0.69			3	2.08				
February	1	0.69	2	1.39	5	4.17	9	6.25	1	2.78	7	4.86	1	0.69
March	3	2.76	15	11.81	33	27.08	9	12.50	8	8.33	14	14.58	9	6.94
April	38	28.97	48	45.14	27	45.83	49	46.53	60	50.00	64	59.03	63	50.69
May	35	53.10	24	61.81	22	61.11	26	64.58	39	77.08	30	79.86	29	70.83
June	11	60.69	18	74.31	14	70.83	10	71.53	15	87.50	4	82.64	4	73.61
July	6	64.83	9	80.56	8	76.39	7	76.39	3	89.58	2	84.03	8	79.17
August	6	68.97	3	82.64	5	79.86	2	77.78	7	94.44	3	86.11	5	82.64
September	22	84.14	7	87.50	8	85.42	19	90.97	4	97.22	6	90.28	10	89.58
October	12	92.41	9	93.75	8	90.97	7	95.83	1	97.92	10	97.22	2	90.97
November	2	93.79			1	91.67	2	97.22	1	98.61	1	97.92	3	93.06
December			2	95.14							1	98.61	8	98.61
After Dec.	9	100.00	6	99.31	11	99.31	3	99.31	1	99.31	1	99.31		
Total	**145**		**143**		**143**		**143**		**143**		**143**		**142**	
Outstanding	**0**		**1**		**1**		**1**		**1**		**1**		**2**	

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

34. The Executive Committee may wish to request the Secretariat to send letters to the Government of Yemen regarding the outstanding CP data reports for the years 2014 to 2019, and to the Government of Algeria regarding the outstanding CP data report for 2019, urging the submission of those reports as soon as possible, as delays affect the ability of the Secretariat to have comprehensive data on ODS consumption and production levels.

Data discrepancies between CP data reports and A7 data

35. The review of the 2019 import data reported under A7 and CP reports revealed a number of potential data discrepancies, as shown in Table 14. The Secretariat discussed with the relevant bilateral or implementing agency on the potential discrepancies; in all cases discrepancies were clarified or resolved.

Table 14. Differences between 2019 A7 and CP consumption data (ODP tonnes)

Country	ODS	Agency for IS	A7 data	CP data	Difference	HCFC-141b polyol*	Remarks
Angola	HCFC	UNEP	11.0	9.4	-1.7	0	CP data is correct. A7 data has been revised
Benin	HCFC	UNEP	15.2	14.2	-0.9	0	CP data has been revised
Brazil	Halon	UNDP	0	61.4	61.4		Import of reclaimed halon (not considered as consumption)
China	CTC	UNDP	156.7	354.5	197.8		The difference lies in the fact that CP data requires reporting laboratory uses and process agent, while A7 does not include process agents
China	HCFC	UNDP	14,222.9	14,223.2	0.3	0	CP data included 0.3 ODP tonnes of HCFC destroyed, while A7 data did not include it

Country	ODS	Agency for IS	A7 data	CP data	Difference	HCFC-141b polyol*	Remarks
India	HCFC	UNDP	811.3	935.3	123.9	0	Data reported under CP and A7 are consistent (935.27 ODP tonnes). A7 data has been revised
Peru	HCFC	UNEP	16.4	16.3	-0.2	14.6	CP data is correct. Clarification has been sought from the Ozone Secretariat
Philippines (the)	Halon	UNEP	0	0.3	0.3		Import of recycled halon for aviation (not considered as consumption)
Serbia	Halon	UNIDO	0	0.6	0.6		Import of recycled/reclaimed halon-1301, for critical use in civil aviation (not considered as consumption)
South Africa	HCFC	UNIDO	110.7	10.2	-100.5	0	CP data has been revised
South Africa	MBR	UNIDO	14.7	24.6	9.9		CP data has been revised and submitted to the Fund Secretariat
Togo	HCFC	UNEP	14.1	13.2	-0.9	0	CP data has been revised
Trinidad and Tobago	Halon	UNDP	0	2.4	2.4		Import of recycled halon (not considered as consumption)
Uruguay	HCFC	UNDP	13.6	14.1	0.5	5.7	CP data is correct. A7 data has been revised

PART IV: SECTION B1 OF THE REVISED FORMAT FOR CP DATA REPORTS (DECISION 84/7(d))

36. At its 84th meeting, in approving the updated revised format of CP data reports, the Executive Committee requested the Secretariat to revise Section B1 for data reporting on manufacturing of blends containing Annex F substances contained in Annex III to document UNEP/OzL.Pro/ExCom/84/9/Rev.1, for consideration at the 85th meeting (decision 84/7(d)).

37. In response to decision 84/7(d), the Secretariat modified Section B1 to facilitate reporting of information on HFC blends, after discussions and consultations with bilateral and implementing agencies. The draft revised format with background information for Section B1 along with two examples for filling the data is presented in Annex IV to the present document.

RECOMMENDATION

38. 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/86/8, including:

(i) That 142 countries had submitted 2019 CP data;

(ii) That, as at 5 January 2021, Yemen had not submitted CP data for the years 2014 to 2019, and Algeria had not submitted CP data for 2019;

(b) To request the Secretariat to send letters to the Government of Yemen regarding the outstanding CP data reports for the years 2014, 2015, 2016, 2017, 2018 and 2019, and to the Government of Algeria regarding the outstanding CP data report for 2019, urging them

to submit those reports as soon as possible; and

(c) To approve the draft updated revised format of Section B1 of CP data reports as contained in Annex IV to the present document and to request the Secretariat to update the Practical manual for CP data reporting as relevant.

Annex I

MB CONSUMPTION AND PRODUCTION FOR QPS APPLICATIONS

Country	Year of latest consumption	Latest consumption (ODP tonnes)
Consumption		
Argentina	2019	23.60
Bahrain	2019	4.50
Barbados	2019	0.10
Brazil	2019	44.50
Chile	2019	69.90
China	2019	522.70
Costa Rica	2019	20.80
Dominican Republic (the)	2019	10.80
Egypt	2019	138.00
El Salvador	2019	115.70
Ethiopia	2019	7.10
Fiji	2019	10.70
Guatemala	2019	6.00
Honduras	2019	18.70
India	2019	1,067.10
Indonesia	2019	81.50
Iran (Islamic Republic of)	2019	13.20
Jamaica	2019	2.00
Jordan	2019	4.80
Malaysia	2019	102.30
Mexico	2019	162.20
Morocco	2019	6.00
Myanmar	2019	15.00
Nicaragua	2019	17.80
Nigeria	2019	2.70
Pakistan	2019	134.40
Papua New Guinea	2019	1.10
Peru	2019	1.20
Philippines (the)	2019	20.60
Republic of Korea (the)	2019	269.00
Saudi Arabia	2019	6.00
Singapore	2019	25.30
South Africa	2019	47.50
Sri Lanka	2019	16.30
Suriname	2019	3.20
Thailand	2019	93.70
Turkey	2019	21.00
United Arab Emirates (the)	2019	25.80
Uruguay	2019	12.90
Vanuatu	2019	0.40
Viet Nam	2019	549.30
Total consumption		**3,695.40**
Production		
China	2019	663.80
India	2019	2,119.50
Total production		**2,783.30**

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	A7	2019	23.60	17.77	0.0	0.0	16	35% by 2020 and 67.5% by 2025
Albania	A7	2019	6.00	3.41	0.0	0.0	0	35% by 2020 and 67.5% by 2025
Algeria	A7	2019	62.12	46.37	0.0	0.0	15	20% by 2017
Angola	A7	2019	16.00	9.35	0.0	0.0	0	10% by 2015 and 67.5% by 2025
Antigua and Barbuda	A7	2019	0.30	0.00	0.0	0.0	0	HPMP cancelled
Argentina	A7	2019	400.70	150.73	0.0	0.0	0	17.5% by 2017 and 50% by 2022
Armenia	A7	2019	7.00	2.22	0.0	0.0	0	10% by 2015 and 66.6% by 2020
Bahamas (the)	A7	2019	4.80	2.69	0.0	0.0	0	35% by 2020
Bahrain	A7	2019	51.90	37.04	0.0	0.0	10	35% by 2020
Bangladesh	A7	2019	72.60	48.84	0.0	0.0	3	30% by 2018 and 67.5% by 2025
Barbados	A7	2019	3.70	1.70	0.0	0.0	0	35% by 2020
Belize	A7	2019	2.80	1.68	0.0	0.0	0	35% by 2020
Benin	A7	2019	23.80	15.16	0.0	0.0	0	35% by 2020
Bhutan	A7	2019	0.30	0.06	0.0	0.0	0	100% by 2025
Bolivia (Plurinational State of)	A7	2019	6.10	1.96	0.0	0.0	0	35% by 2020
Bosnia and Herzegovina	A7	2019	4.70	1.54	0.0	0.0	0	35% by 2020
Botswana	A7	2019	11.00	6.90	0.0	0.0	0	35% by 2020 and 100% by 2030
Brazil	A7	2019	1,327.30	838.85	0.0	0.0	0	10% by 2015, 35% by 2020 and 45% by 2021
Brunei Darussalam	A7	2019	6.10	3.33	0.0	0.0	0	35% by 2020 and 100% by 2030
Burkina Faso	A7	2019	28.90	8.14	0.0	0.0	0	35% by 2020
Burundi	A7	2019	7.20	1.79	0.0	0.0	0	35% by 2020
Cabo Verde	A7	2019	1.10	0.06	0.0	0.0	0	35% by 2020
Cambodia	A7	2019	15.00	8.08	0.0	0.0	0	100% by 2035
Cameroon	A7	2019	88.80	35.40	0.0	0.0	0	20% by 2017 and 75% by 2025
Central African Republic (the)	A7	2019	12.00	8.25	0.0	0.0	6	HPMP cancelled
Chad	A7	2019	16.10	10.20	0.0	0.0	0	35% by 2020
Chile	A7	2019	87.50	32.21	0.0	0.0	0	10% by 2015, 45% by 2020 and 65% by 2021

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	A7	2019	19,269.00	14,222.91	0.0	0.0	14	10% by 2015 and 37.6% by 2020
Colombia	A7	2019	225.60	80.28	0.0	0.0	0	10% by 2015, 60% by 2020 and 65% by 2021
Comoros (the)	A7	2019	0.10	0.05	0.0	0.0	0	35% by 2020
Congo (the)	A7	2019	10.14	6.89	0.0	0.0	5	35% by 2020
Cook Islands (the)	A7	2019	0.10	0.00	0.0	0.0	0	35% by 2020 and 100% by 2030
Costa Rica	A7	2019	14.10	6.29	0.0	0.0	0	35% by 2020 and 97.5% by 2030
Cote d'Ivoire	A7	2019	63.80	41.36	0.0	0.0	0	35% by 2020
Cuba	A7	2019	16.90	6.25	0.0	0.0	0	35% by 2020 and 100% by 2030
Democratic People's Republic of Korea (the)**	A7	2019	78.00	72.27	0.0	2.9	43	15% by 2018
Democratic Republic of the Congo (the)	A7	2019	66.21	4.68	0.0	0.0	0	10% by 2017
Djibouti	A7	2019	0.70	0.45	0.0	0.0	0	35% by 2020
Dominica	A7	2019	0.40	0.13	0.0	0.0	0	35% by 2020
Dominican Republic (the)	A7	2019	51.20	38.06	0.0	0.0	14	10% by 2015, 40% by 2020 and 100% by 2030
Ecuador	A7	2019	23.49	14.01	0.0	0.0	0	35% by 2020 and 100% by 2030
Egypt	A7	2019	386.30	288.30	0.0	0.0	15	25% by 2018 and 70% by 2025
El Salvador	A7	2019	11.70	3.44	0.0	0.0	0	35% by 2020
Equatorial Guinea	A7	2019	6.31	0.87	0.0	0.0	0	35% by 2020
Eritrea	A7	2019	1.09	0.76	0.0	0.0	7	35% by 2020
Eswatini (the Kingdom of)	A7	2019	1.73	0.32	0.0	0.0	0	35% by 2020 and 100% by 2030
Ethiopia	A7	2019	5.50	3.53	0.0	0.0	0	35% by 2020
Fiji	A7	2019	5.73	4.62	0.0	0.0	24	35% by 2020
Gabon	A7	2019	30.20	18.15	0.0	0.0	0	35% by 2020
Gambia (the)	A7	2019	1.50	0.17	0.0	0.0	0	35% by 2020 and 100% by 2030
Georgia	A7	2019	5.30	2.40	0.0	0.0	0	35% by 2020
Ghana	A7	2019	57.30	17.14	0.0	0.0	0	35% by 2020
Grenada	A7	2019	0.80	0.18	0.0	0.0	0	35% by 2020
Guatemala	A7	2019	8.30	3.36	0.0	0.0	0	35% by 2020 and 100% by 2030
Guinea	A7	2019	22.60	1.93	0.0	0.0	0	35% by 2020
Guinea-Bissau	A7	2019	2.83	1.27	0.0	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
Guyana	A7	2019	1.80	0.99	0.0	0.0	0	10% by 2015, 97.5% by 2025 and 100% by 2030
Haiti	A7	2019	3.63	2.65	0.0	0.0	12	35% by 2020
Honduras	A7	2019	19.90	9.90	0.0	0.0	0	35% by 2020 and 100% by 2030
India	A7	2019	1,608.20	935.27	0.0	0.0	0	10% by 2015, 48% by 2020, 50% by 2021, 56% by 2022 and 60% by 2023
Indonesia	A7	2019	403.90	215.74	0.0	0.0	0	20% by 2018, 37.5% by 2020 and 55% by 2023
Iran (Islamic Republic of)	A7	2019	380.50	63.79	0.0	0.0	0	10% by 2015 and 75% by 2023
Iraq	A7	2019	108.40	93.39	0.0	0.0	33	13.82% by 2019
Jamaica	A7	2019	16.30	2.86	0.0	0.0	0	35% by 2020 and 100% by 2030
Jordan	A7	2019	83.00	16.78	0.0	0.0	0	20% by 2017 and 50% by 2022
Kenya	A7	2019	52.20	6.36	0.0	0.0	0	21.1% by 2017 and 100% by 2030
Kiribati	A7	2019	0.10	0.02	0.0	0.0	0	35% by 2020 and 100% by 2030
Kuwait	A7	2019	418.60	253.63	0.0	0.0	0	39.2% by 2020
Kyrgyzstan	A7	2019	4.10	0.71	0.0	0.0	0	10% by 2015, 97.5% by 2020 and 100% by 2025
Lao People's Democratic Republic (the)	A7	2019	2.30	1.29	0.0	0.0	0	35% by 2020 and 100% by 2030
Lebanon	A7	2019	73.50	43.82	0.0	0.0	0	18% by 2017, 62.5% by 2022 and 75% by 2024
Lesotho	A7	2019	3.50	0.56	0.0	0.0	0	35% by 2020
Liberia	A7	2019	5.30	0.78	0.0	0.0	0	35% by 2020
Libya***	A7	2019	118.38	76.65	0.0	0.0	0	10% by 2020
Madagascar	A7	2019	24.90	9.63	0.0	0.0	0	35% by 2020
Malawi	A7	2019	10.80	4.94	0.0	0.0	0	35% by 2020 and 100% by 2030
Malaysia	A7	2019	515.80	214.20	0.0	0.0	0	15% by 2016, 22.4% by 2019, 35% by 2020, 40% by 2021 and 42.9% by 2022
Maldives	A7	2019	4.60	1.21	0.0	0.0	0	100% by 2020
Mali	A7	2019	15.00	7.54	0.0	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
Marshall Islands (the)	A7	2019	0.20	0.00	0.0	0.0	0	35% by 2020 and 100% by 2030
Mauritania	A7	2019	20.50	13.92	0.0	0.0	4	67.5% by 2025
Mauritius	A7	2019	8.00	4.75	0.0	0.0	0	100% by 2030
Mexico	A7	2019	1,148.80	234.53	0.0	0.0	0	30% by 2018 and 67.5% by 2022
Micronesia (Federated States of)	A7	2019	0.20	0.10	0.0	0.0	0	35% by 2020 and 100% by 2030
Mongolia	A7	2019	1.40	0.74	0.0	0.0	0	35% by 2020 and 100% by 2030
Montenegro	A7	2019	0.80	0.05	0.0	0.0	0	35% by 2020 and 100% by 2025
Morocco	A7	2019	51.35	27.49	0.0	0.0	0	20% by 2020
Mozambique	A7	2019	8.69	3.58	0.0	0.0	0	35% by 2020
Myanmar	A7	2019	4.30	3.50	0.0	0.0	25	35% by 2020
Namibia	A7	2019	8.40	0.77	0.0	0.0	0	100% by 2025
Nauru	A7	2019	0.00	0.00	0.0	0.0	0	35% by 2020 and 100% by 2030
Nepal	A7	2019	1.10	0.64	0.0	0.0	0	35% by 2020 and 100% by 2030
Nicaragua	A7	2019	6.80	2.97	0.0	0.0	0	35% by 2020 and 100% by 2030
Niger (the)	A7	2019	15.98	10.61	0.0	0.0	2	35% by 2020
Nigeria	A7	2019	344.88	239.14	0.0	0.0	7	10% by 2015, 35% by 2020 and 51.35% by 2023
Niue	A7	2019	0.00	0.00	0.0	0.0	0	35% by 2020 and 100% by 2030
North Macedonia	A7	2019	1.80	0.64	0.0	0.0	0	35% by 2020
Oman	A7	2019	31.50	17.90	0.0	0.0	0	10% by 2015 and 35% by 2020
Pakistan	A7	2019	248.11	208.75	0.0	0.0	29	10% by 2015 and 50% by 2020
Palau	A7	2019	0.20	0.01	0.0	0.0	0	35% by 2020 and 100% by 2030
Panama	A7	2019	24.80	14.36	0.0	0.0	0	10% by 2015, 35% by 2020 and 100% by 2030
Papua New Guinea	A7	2019	3.30	1.28	0.0	0.0	0	100% by 2025
Paraguay	A7	2019	18.00	14.59	0.0	0.0	25	35% by 2020
Peru	A7	2019	26.88	16.44	0.0	0.0	0	10% by 2015 and 67.5% by 2025
Philippines (the)	A7	2019	161.98	103.75	0.0	0.0	0	10% by 2015, 35% by 2020 and 50% by 2021
Qatar	A7	2019	86.90	69.52	0.0	0.0	23	20% by 2015

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
Republic of Korea (the)	A7	2019	1,908.00	1,310.53	0.0	0.0	6	
Republic of Moldova (the)	A7	2019	1.00	0.53	0.0	0.0	0	10% by 2015 and 35% by 2020
Rwanda	A7	2019	4.10	1.89	0.0	0.0	0	35% by 2020 and 100% by 2030
Saint Kitts and Nevis	A7	2019	0.50	0.04	0.0	0.0	0	35% by 2020
Saint Lucia	A7	2019	1.09	0.31	0.0	0.0	0	35% by 2020
Saint Vincent and the Grenadines	A7	2020	0.30	0.01	0.0	0.0	0	100% by 2025
Samoa	A7	2019	0.30	0.01	0.0	0.0	0	35% by 2020 and 100% by 2030
Sao Tome and Principe	A7	2019	2.20	0.07	0.0	0.0	0	35% by 2020
Saudi Arabia	A7	2019	1,468.70	953.15	0.0	0.0	0	HPMP cancelled
Senegal	A7	2019	36.20	14.25	0.0	0.0	0	35% by 2020
Serbia	A7	2019	8.40	6.37	0.0	0.0	17	35% by 2020 and 67.5% by 2025
Seychelles	A7	2019	1.40	0.00	0.0	0.0	0	100% by 2025
Sierra Leone	A7	2019	1.70	0.56	0.0	0.0	0	35% by 2020
Singapore	A7	2019	216.10	58.02	0.0	0.0	0	
Solomon Islands	A7	2019	2.00	0.08	0.0	0.0	0	35% by 2020 and 100% by 2030
Somalia	A7	2019	45.10	13.04	0.0	0.0	0	35% by 2020
South Africa	A7	2019	369.70	110.68	0.0	0.0	0	35% by 2020
South Sudan	A7	2019	4.10	1.38	0.0	0.0	0	35% by 2020
Sri Lanka	A7	2019	13.90	9.91	0.0	0.0	10	35% by 2020 and 100% by 2030
Sudan (the)	A7	2019	52.70	30.32	0.0	0.0	0	30% by 2017 and 75% by 2020
Suriname	A7	2019	2.00	0.58	0.0	0.0	0	35% by 2020
Syrian Arab Republic	A7	2019	135.00	71.05	0.0	0.0	0	67.5% by 2025
Thailand	A7	2019	927.60	363.34	0.0	0.0	0	15% by 2018, 55.8% by 2019, 57.9% by 2022 and 61.8% by 2023
Timor-Leste	A7	2019	0.50	0.30	0.0	0.0	0	10% by 2015 and 78% by 2025
Togo	A7	2019	20.00	14.06	0.0	0.0	8	35% by 2020
Tonga	A7	2019	0.10	0.00	0.0	0.0	0	35% by 2020 and 100% by 2030
Trinidad and Tobago	A7	2019	46.00	20.85	0.0	0.0	0	35% by 2020 and 100% by 2030
Tunisia	A7	2019	40.70	25.36	0.0	0.0	0	15% by 2020 and 67.5% by 2025
Turkey	A7	2019	551.47	8.54	0.0	0.0	0	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
Turkmenistan	A7	2019	6.80	4.36	0.0	0.0	0	35% by 2020 and 67.5% by 2025
Tuvalu	A7	2019	0.10	0.00	0.0	0.0	0	35% by 2020 and 100% by 2030
Uganda	A7	2019	0.20	0.07	0.0	0.0	0	35% by 2020 and 100% by 2030
United Arab Emirates (the)	A7	2019	557.10	475.34	0.0	0.0	31	
United Republic of Tanzania (the)	A7	2019	1.70	1.14	0.0	0.0	3	35% by 2020
Uruguay	A7	2019	23.40	14.08	0.0	0.0	0	10% by 2015, 35% by 2020 and 100% by 2030
Vanuatu	A7	2019	0.30	0.01	0.0	0.0	0	35% by 2020 and 100% by 2030
Venezuela (Bolivarian Republic of)	A7	2019	207.00	0.04	0.0	0.0	0	10% by 2015 and 42% by 2020
Viet Nam	A7	2019	221.20	197.55	0.0	0.0	37	10% by 2015 and 35% by 2020
Yemen	A7	2018	158.20	95.56	0.0	0.0	0	HPMP cancelled
Zambia	A7	2019	5.00	2.20	0.0	0.0	0	35% by 2020 and 100% by 2030
Zimbabwe	A7	2019	17.80	9.85	0.0	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 XXVI/15.
(***) 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 - CO_2-EQUIVALENT

Country	Source	Year of latest consumption	Latest consumption	Ratified Kigali Amendment*
Afghanistan	A7	2019	275,000	
Albania	A7	2019	1,091,972	Yes
Antigua and Barbuda	CP	2019	4,079	
Armenia	A7	2019	137,680	Yes
Barbados	A7	2019	158,343	Yes
Benin	A7	2019	1,507,956	Yes
Bhutan	A7	2019	11,659	Yes
Bolivia (Plurinational State of)	CP	2019	773,894	Yes
Botswana	A7	2019	574,098	Yes
Brazil	A7	2019	65,627,001	
Burkina Faso	A7	2019	622,456	Yes
Burundi	A7	2019	46,214	
Cabo Verde	A7	2019	70,072	Yes
Cambodia	A7	2019	344,326	
Cameroon	CP	2019	3,498,447	
Chad	A7	2019	22,341,189	Yes
Chile	A7	2019	4,763,686	Yes
Colombia	A7	2019	5,270,350	
Comoros (the)	A7	2019	34,149	Yes
Cook Islands (the)	A7	2019	3,757	Yes
Costa Rica	A7	2019	1,099,195	Yes
Cote d'Ivoire	A7	2019	24,855,307	Yes
Cuba	A7	2019	1,254,931	Yes
Dominican Republic (the)	A7	2019	2,406,616	
Ecuador	A7	2019	2,370,319	Yes
Equatorial Guinea	A7	2019	39,686	
Eswatini (the Kingdom of)	A7	2019	33,980	Yes
Ethiopia	A7	2019	369,744	Yes
Fiji	A7	2019	280,203	Yes
Gabon	A7	2019	2,353,671	Yes
Ghana	A7	2019	496,683	Yes
Grenada	A7	2019	29,276	Yes
Guatemala	A7	2019	1,169,662	
Guinea	CP	2019	1,391,166	Yes
Guinea-Bissau	A7	2019	1,391,073	Yes
Guyana	A7	2019	92,782	
Haiti	A7	2019	93,303	
Honduras	A7	2019	1,431,079	Yes
Kenya	A7	2019	588,860	
Kiribati	A7	2019	5,572	Yes
Kyrgyzstan	A7	2019	304,301	Yes
Lao People's Democratic Republic (the)	A7	2019	159,041	Yes

Country	Source	Year of latest consumption	Latest consumption	Ratified Kigali Amendment*
Lebanon	CP	2019	30,069	Yes
Lesotho	A7	2019	24,165	Yes
Liberia	A7	2019	12,169	Yes
Madagascar	CP	2019	1,558,144	
Malawi	A7	2019	188,503	Yes
Maldives	A7	2019	358,171	Yes
Mali	A7	2019	108,522	Yes
Marshall Islands (the)	A7	2019	7,096	Yes
Mauritius	A7	2019	587,594	Yes
Mexico	A7	2019	50,263,972	Yes
Micronesia (Federated States of)	A7	2019	14,020	Yes
Montenegro	A7	2019	192,898	Yes
Namibia	A7	2019	729,875	Yes
Nicaragua	A7	2019	558,528	Yes
Niger (the)	A7	2019	1,730,118	Yes
Nigeria	CP	2019	807,493	Yes
Oman	A7	2019	1,988,072	
Pakistan	A7	2019	7,435,247	
Palau	A7	2019	6,436	Yes
Panama	A7	2019	1,565,901	Yes
Paraguay	A7	2019	934,649	Yes
Peru	A7	2019	1,910,807	Yes
Philippines (the)	A7	2019	8,143,976	
Qatar	CP	2019	21,878,613	
Rwanda	A7	2019	700,970	Yes
Saint Lucia	A7	2019	54,429	
Saint Vincent and the Grenadines	A7	2020	16,509	
Samoa	A7	2019	25,170	Yes
Sao Tome and Principe	A7	2019	22,287	Yes
Senegal	A7	2019	1,541,337	Yes
Seychelles	A7	2019	227,367	Yes
South Africa	A7	2019	10,074,432	Yes
Sri Lanka	A7	2019	331,622	Yes
Sudan (the)	A7	2019	735,220	
Suriname	A7	2019	132,696	
Syrian Arab Republic	A7	2018	7,587,048	
Timor-Leste	A7	2019	13,645	
Togo	A7	2019	797,321	Yes
Tonga	A7	2019	1,802	Yes
Trinidad and Tobago	A7	2019	2,755,910	Yes
Tunisia	A7	2019	1,253,622	
Turkey	A7	2019	28,156,692	
Tuvalu	A7	2019	1,006	Yes
Uganda	A7	2019	21,480	Yes
Uruguay	A7	2019	448,663	Yes

Country	Source	Year of latest consumption	Latest consumption	Ratified Kigali Amendment*
Vanuatu	A7	2019	11,351	Yes
Venezuela (Bolivarian Republic of)	A7	2019	240,541	
Viet Nam	A7	2019	6,019,450	Yes
Zambia	CP	2019	208,794	
Zimbabwe	A7	2019	1,024,385	

*As of 5 January 2021.

Annex IV

REVISED SECTION B1 FOR COUNTRY PROGRAMME DATA REPORTING

1. CP data report mainly covers pure substances and blends containing one or more controlled substances; in the majority of A5 countries, all controlled substances including blends are imported.

2. However, some A5 countries are currently manufacturing HFC-blends *in situ* using either locally produced HFCs or imported HFCs, for their local market or for export to other A5 countries. In order to record HFC and HFC-blends in the CP data reports, the Secretariat has designed Section B1 to be used only in A5 countries that manufacture HFC blends. Section B1 is contained in Appendix A to the present document.

3. Column (1) of Section B1 lists all the 18 HFCs included in Annex F of the Montreal Protocol, differentiating between HFC locally produced ("Production") or imported ("Import"); the amount of HFC produced or imported for use in different end-uses should be recorded in column (3) "Pure". Columns (4) to (9) list the most commonly used HFC-blends in Article 5 countries (i.e., R-404A, R-407A, R-407C, R-410A, R-507A and R-508B). Columns (10) and (11) ("Others") allow for reporting HFC-blends not included in Section B1. To reduce the risk of erroneous data reporting, Section B1 has identified only the cells where pure HFCs are components of HFC-blends. Column (12) "Total" is the total amount of the HFC imported or produced that includes quantities used as a pure substance (column (3)) plus the amounts used in HFC-blends (columns (4) to (11)). The data in column (12) should be reported in Section B of the CP data report, either under column "Production", if such HFC was produced in the country, or under column "Import" if such HFC was imported; reporting the data in Section B and Section B1 is necessary to ensure consistency of production data reported under Article 7 of the Montreal Protocol. Column (13) ("Remarks") should provide information on the exact percentage of each of the pure HFCs used for manufacturing such blend, and whether the pure HFCs were produced in situ or imported.

4. The total quantities of pure HFCs used in manufacturing different HFC-blends should be checked against the proportions applicable for the respective HFC-blends. The variances, if any, should be explained in the remarks column against the blends in Section B (e.g., stocks of HFCs that will be blended in a future year).

Example 1: Country ABC imports 50 mt of HFC-32 and 50 mt of HFC-125 and manufactures 100 mt of R-410A using these imports. R-410A manufactured is sold to local users in servicing refrigeration and air-conditioning equipment.

Explanation for filling information in B1: Column "R-410A" (column (7)) includes 50 mt of HFC-32 and 50 mt of HFC-125, for a total of 100 mt (row Total (B1) at the bottom). The data in column "Total" (column 12)) needs to be included in cell on imports relating to HFC-32 and HFC-125 in Section B. Column "Remarks" (column 13)) should include details of use of HFCs including blends.

REVISED COUNTRY PROGRAMME REPORT FORMAT (2019 DATA AND BEYOND)

COUNTRY: ABC **YEAR: January to December of the year** 2019

SECTION B1. ANNEX F - DATA ON PRODUCTION OF CONTROLLED SUBSTANCES AND MANUFACTURING OF BLENDS (METRIC TONNES)

NOTE: Data entry is required in UNSHADED cells only

Substances		Pure	Blends								Total	Remarks
			R-404A	R-407A	R-407C	R-410A	R-507A	R-508B	XYZ	Others[1]		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Annex F												
Controlled Substances												
HFC-32	Production	0.00		0.00	0.00	0.00			**0.00**	0.00	**0.00**	
	Import	0.00		0.00	0.00	**50.00**			0.00	0.00	**50.00**	HFC-32 imported is used for manufacturing R-410A; data in column 12 is reported under imports for HFC-32 in section B.
HFC-41	Production	0.00							0.00	0.00	0.00	
	Import	0.00							0.00	0.00	0.00	
HFC-125	Production	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	
	Import	0.00	0.00	0.00	0.00	**50.00**	0.00		**0.00**	0.00	**50.00**	HFC-125 imported is used for manufacturing R-410A; data in column 12 is reported under imports for HFC-125 in section B.
HFC-134	Production	0.00							0.00	0.00	0.00	
	Import	0.00							0.00	0.00	0.00	
HFC-134a	Production	0.00	0.00	0.00	0.00				0.00	0.00	0.00	
	Import	0.00	0.00	0.00	0.00				0.00	0.00	0.00	
HFC-143	Production	0.00							0.00	0.00	0.00	
	Import	0.00							0.00	0.00	0.00	
HFC-143a	Production	0.00	0.00				0.00		0.00	0.00	0.00	
	Import	0.00	0.00				0.00		0.00	0.00	0.00	
HFC-152	Production	0.00							0.00	0.00	0.00	
	Import	0.00							0.00	0.00	0.00	
HFC-152a	Production	0.00							0.00	0.00	0.00	
	Import	0.00							0.00	0.00	0.00	
HFC-227ea	Production	0.00							0.00	0.00	0.00	
	Import	0.00							0.00	0.00	0.00	
HFC-236cb	Production	0.00							0.00	0.00	0.00	
	Import	0.00							0.00	0.00	0.00	
HFC-236ea	Production	0.00							0.00	0.00	0.00	
	Import	0.00							0.00	0.00	0.00	
HFC-236fa	Production	0.00							0.00	0.00	0.00	
	Import	0.00							0.00	0.00	0.00	
HFC-245ca	Production	0.00							0.00	0.00	0.00	
	Import	0.00							0.00	0.00	0.00	
HFC-245fa	Production	0.00							0.00	0.00	0.00	
	Import	0.00							0.00	0.00	0.00	
HFC-365mfc	Production	0.00							0.00	0.00	0.00	
	Import	0.00							0.00	0.00	0.00	
HFC-43-10mee	Production	0.00							0.00	0.00	0.00	
	Import	0.00							0.00	0.00	0.00	
HFC-23 (use)	Production	0.00						0.00	0.00	0.00	0.00	
	Import	0.00						0.00	0.00	0.00	0.00	
TOTAL (B1)		**0.00**	**0.00**	**0.00**	**0.00**	**100.00**	**0.00**	**0.00**	**0.00**	**0.00**	**100.00**	

Example 2: Country ABC produces 46 mt of HFC-32 and imports 50 mt of HFC-125 and 150 mt of HFC-134a. The country manufactures 200 mt of R-407C (i.e. 25 per cent of HFC-125, 23 per cent of HFC-32 and 52 per cent of HFC-134a), and sells 46 mt of HFC-134a to local users for servicing refrigeration and air-conditioning equipment.

Explanation for filling information in B1: Column "R-407C" (column (6)) includes 46 mt of HFC-32 and 50 mt of HFC-125. The cell relating to HFC-134a imports in column "Pure" (column (3)) includes 46 mt, and the cell relating to import of HFC-134a for manufacturing in column R-407C (column (6)) includes 104 mt. The data in column "Total" (column (12)) needs to be included in the cell on production and imports relating to HFC-125, HFC-134a and HFC-32 in Section B. The percentage of HFC-125, HFC-32 and HFC-134a in column (6) is 25 per cent, 23 per cent and 52 per cent, respectively and matches with the composition of R-407C. Column "Remarks" (column (13)) should include details of use of HFCs including blends.

REVISED COUNTRY PROGRAMME REPORT (2019 DATA AND BEYOND)

COUNTRY: ABC **YEAR: January to December of the year** **2019**

SECTION B1. ANNEX F - DATA ON PRODUCTION OF CONTROLLED SUBSTANCES AND MANUFACTURING OF BLENDS (METRIC TONNES)

NOTE: Data entry is required in UNSHADED cells only

Substances		Pure	Blends								Total	Remarks
			R-404A	R-407A	R-407C	R-410A	R-507A	R-508B	XYZ	Others[1]		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Annex F												
Controlled Substances												
HFC-32	Production	0.00		0.00	**46.00**	0.00			**0.00**	0.00	**46.00**	R-407C blend contains 23 per cent HFC-32, 25 per cent HFC-125 and 52 per cent HFC-134a. HFC-32 produced is used for manufacturing this blend.
	Import	0.00		0.00	0.00	0.00			0.00	0.00	0.00	
HFC-41	Production	0.00							0.00	0.00	0.00	
	Import	0.00							0.00	0.00	0.00	
HFC-125	Production	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	
	Import	0.00	0.00	0.00	**50.00**	0.00	0.00		**0.00**	0.00	**50.00**	R-407C blend contains 23 per cent HFC-32, 25 per cent HFC-125 and 52 per cent HFC-134a. HFC-125 is imported and used for manufacturing this blend.
HFC-134	Production	0.00							0.00	0.00	0.00	
	Import	0.00							0.00	0.00	0.00	
HFC-134a	Production	0.00	0.00	0.00	0.00				0.00	0.00	0.00	
	Import	**46.00**	0.00	0.00	**104.00**				0.00	0.00	**150.00**	R-407C blend contains 23 per cent HFC-32, 25 per cent HFC-125 and 52 per cent HFC-134a. Of the total import of 150 mt of HFC-134a, 104 mt is used for manufacturing blends and 46 mt is used for sale to users in servicing sector
HFC-143	Production	0.00							0.00	0.00	0.00	
	Import	0.00							0.00	0.00	0.00	
HFC-143a	Production	0.00	0.00				0.00		0.00	0.00	0.00	
	Import	0.00	0.00				0.00		0.00	0.00	0.00	
HFC-152	Production	0.00							0.00	0.00	0.00	
	Import	0.00							0.00	0.00	0.00	
HFC-152a	Production	0.00							0.00	0.00	0.00	
	Import	0.00							0.00	0.00	0.00	
HFC-227ea	Production	0.00							0.00	0.00	0.00	
	Import	0.00							0.00	0.00	0.00	
HFC-236cb	Production	0.00							0.00	0.00	0.00	
	Import	0.00							0.00	0.00	0.00	
HFC-236ea	Production	0.00							0.00	0.00	0.00	
	Import	0.00							0.00	0.00	0.00	
HFC-236fa	Production	0.00							0.00	0.00	0.00	
	Import	0.00							0.00	0.00	0.00	
HFC-245ca	Production	0.00							0.00	0.00	0.00	
	Import	0.00							0.00	0.00	0.00	
HFC-245fa	Production	0.00							0.00	0.00	0.00	
	Import	0.00							0.00	0.00	0.00	
HFC-365mfc	Production	0.00							0.00	0.00	0.00	
	Import	0.00							0.00	0.00	0.00	
HFC-43-10mee	Production	0.00							0.00	0.00	0.00	
	Import	0.00							0.00	0.00	0.00	
HFC-23 (use)	Production	0.00						0.00	0.00	0.00	0.00	
	Import	0.00						0.00	0.00	0.00	0.00	
TOTAL (B1)		**46.00**	**0.00**	**0.00**	**200.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**246.00**	

Appendix A

REVISED FORMAT FOR SECTION B1 OF THE CP DATA REPORT FORMAT

REVISED COUNTRY PROGRAMME REPORT (2019 DATA AND BEYOND)

COUNTRY: **YEAR: January to December of the year** **YYYY**

SECTION B1. ANNEX F - DATA ON PRODUCTION OF CONTROLLED SUBSTANCES AND MANUFACTURING OF BLENDS (METRIC TONNES)

NOTE: Data entry is required in UNSHADED cells only

Substances		Pure	Blends								Total	Remarks
			R-404A	R-407A	R-407C	R-410A	R-507A	R-508B	Others[1]	Others[1]		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Annex F												
Controlled Substances												
HFC-32	Production	0.00		0.00	0.00	0.00			0.00	0.00	0.00	
	Import	0.00		0.00	0.00	0.00			0.00	0.00	0.00	
HFC-41	Production	0.00							0.00	0.00	0.00	
	Import	0.00							0.00	0.00	0.00	
HFC-125	Production	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	
	Import	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	
HFC-134	Production	0.00							0.00	0.00	0.00	
	Import	0.00							0.00	0.00	0.00	
HFC-134a	Production	0.00	0.00	0.00	0.00				0.00	0.00	0.00	
	Import	0.00	0.00	0.00	0.00				0.00	0.00	0.00	
HFC-143	Production	0.00							0.00	0.00	0.00	
	Import	0.00							0.00	0.00	0.00	
HFC-143a	Production	0.00	0.00				0.00		0.00	0.00	0.00	
	Import	0.00	0.00				0.00		0.00	0.00	0.00	
HFC-152	Production	0.00							0.00	0.00	0.00	
	Import	0.00							0.00	0.00	0.00	
HFC-152a	Production	0.00							0.00	0.00	0.00	
	Import	0.00							0.00	0.00	0.00	
HFC-227ea	Production	0.00							0.00	0.00	0.00	
	Import	0.00							0.00	0.00	0.00	
HFC-236cb	Production	0.00							0.00	0.00	0.00	
	Import	0.00							0.00	0.00	0.00	
HFC-236ea	Production	0.00							0.00	0.00	0.00	
	Import	0.00							0.00	0.00	0.00	
HFC-236fa	Production	0.00							0.00	0.00	0.00	
	Import	0.00							0.00	0.00	0.00	
HFC-245ca	Production	0.00							0.00	0.00	0.00	
	Import	0.00							0.00	0.00	0.00	
HFC-245fa	Production	0.00							0.00	0.00	0.00	
	Import	0.00							0.00	0.00	0.00	
HFC-365mfc	Production	0.00							0.00	0.00	0.00	
	Import	0.00							0.00	0.00	0.00	
HFC-43-10mee	Production	0.00							0.00	0.00	0.00	
	Import	0.00							0.00	0.00	0.00	
HFC-23 (use)	Production	0.00						0.00	0.00	0.00	0.00	
	Import	0.00						0.00	0.00	0.00	0.00	
TOTAL (B1)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	

1 Please include blends that are manufactured using controlled substance in separate columns; include use data for these blends in Section B.

Note:

Please include individual component quantity for each of the blends (e.g., HFC-125 in R-410A) in the relevant cells, when blends are manufactured in the country.

When blends are imported in the country and/or exported from the country, please include that data in Section B against appropriate row.

Please ensure accurate calculation of components when blends are produced, based on standard composition ratios.