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

**PROJECT PROPOSAL: PARAGUAY**

This document consists of the comments and recommendation of the Secretariat on the following project proposal:

Phase-out

- HCFC phase-out management plan (stage II, first tranche) UNEP and UNDP

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

## PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS

## PARAGUAY

<b>(I) PROJECT TITLE</b>	<b>AGENCY</b>
HCFC phase-out plan (stage II)	UNEP (lead), UNDP

<b>(II) LATEST ARTICLE 7 DATA (Annex C Group I)</b>	Year: 2020	10.91 (ODP tonnes)
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<b>(III) LATEST COUNTRY PROGRAMME SECTORAL DATA (ODP tonnes)</b>								<b>Year: 2020</b>	
Chemical	Aerosol	Foam	Fire-fighting	Refrigeration		Solvent	Process agent	Lab use	Total sector consumption
				Manufacturing	Servicing				
HCFC-22					10.82				10.82
HCFC-123			0.09						0.09
HCFC-141b in imported pre-blended polyols		0.28							0.28

<b>(IV) CONSUMPTION DATA (ODP tonnes)</b>			
2009 - 2010 baseline:	18.0	Starting point for sustained aggregate reductions:	19.31
<b>CONSUMPTION ELIGIBLE FOR FUNDING (ODP tonnes)</b>			
Already approved:	6.28	Remaining:	13.03

<b>(V) BUSINESS PLAN</b>		2021	2022	2023	Total
UNEP	ODS phase-out (ODP tonnes)	1.64	0	0	1.64
	Funding (US \$)	185,090	0	0	185,090
UNDP	ODS phase-out (ODP tonnes)	0.70	0	0	0.70
	Funding (US \$)	76,518	0	0	76,518

<b>(VI) PROJECT DATA</b>			2021	2022-2023	2024	2025-2026	2027	2028-2029	2030	Total
Montreal Protocol consumption limits			11.67	11.67	11.67	5.83	5.83	5.83	0	n/a
Maximum allowable consumption (ODP tonnes)			11.67	11.67	11.67	5.83	5.83	5.83	0	n/a
Projects costs requested in principle (US \$)	UNEP	Project costs	109,055	0	153,382	0	143,703	0	77,150	483,290
		Support costs	14,177	0	19,940	0	18,681	0	10,030	62,828
	UNDP	Project costs	101,545	0	281,077	0	264,238	0	39,850	686,710
		Support costs	7,108	0	19,675	0	18,497	0	2,790	48,070
Total project costs requested in principle (US \$)			210,600	0	434,459	0	407,941	0	117,000	1,170,000
Total support costs requested in principle (US \$)			21,285	0	39,615	0	37,178	0	12,819	110,897
Total funds requested in principle (US \$)			231,885	0	474,074	0	445,119	0	129,819	1,280,897

<b>(VII) Request for approval of funding for the first tranche (2021)</b>			
Agency	Funds requested (US \$)		Support costs (US \$)
UNEP	109,055		14,177
UNDP	101,545		7,108
<b>Total</b>	<b>210,600</b>		<b>21,285</b>

<b>Secretariat's recommendation:</b>	Individual consideration
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## PROJECT DESCRIPTION

### Background

1. On behalf of the Government of Paraguay, UNEP as the lead implementing agency, has submitted a request for stage II of the HCFC phase-out management plan (HPMP), at a total cost of US \$1,280,898, consisting of US \$483,290, plus agency support costs of US \$62,828 for UNEP, and US \$686,710, plus agency support costs of US \$48,070 for UNDP, as originally submitted.<sup>2</sup> The implementation of stage II of the HPMP will phase out the remaining consumption of HCFCs by 2030.

2. The first tranche of stage II of the HPMP being requested at this meeting amounts to US \$447,392, consisting of US \$153,775, plus agency support costs of US \$19,991 for UNEP, and US \$255,725, plus agency support costs of US \$17,901 for UNDP, as originally submitted.

### Status of implementation of stage I of the HPMP

3. Stage I of the HPMP for Paraguay was approved at the 63<sup>rd</sup> meeting<sup>3</sup> to meet the 35 per cent reduction from the baseline by 2020, at a total cost of US \$630,000, plus agency support costs, to phase out 6.28 ODP tonnes of HCFCs used in the refrigeration and air-conditioning (RAC) servicing sector. Stage I was planned to be completed by December 2021 as stipulated in the Agreement between the Government of Paraguay and the Executive Committee, but the Government is requesting an extension of 12 months to complete ongoing activities due to a temporary slowdown of activities caused by the recent new wave of COVID-19.

### HCFC consumption

4. The Government of Paraguay reported a consumption of 10.91 ODP tonnes of HCFC in 2020, which is 39 per cent below the HCFC baseline for compliance. The 2016-2020 HCFC consumption is shown in Table 1.

**Table 1. HCFC consumption in Paraguay (2016-2020 Article 7 data)**

HCFC	2015	2016	2017	2018	2019	2020	Baseline
<b>Metric tonnes (mt)</b>							
HCFC-22	287.72	220.73	230.07	234.31	262.84	196.64	296.0
HCFC-123	2.86	0.68	4.18	6.41	6.45	4.58	15.9
HCFC-124	0.00	0.95	0.00	0.00	0.00	0.00	7.0
HCFC-141b	1.00	6.75	0.00	0.00	0.00	0.00	0.5
HCFC-142b	0.00	0.57	0.00	0.00	0.00	0.00	20.4
<b>Sub-total (mt)</b>	<b>291.58</b>	<b>229.68</b>	<b>234.25</b>	<b>240.72</b>	<b>269.29</b>	<b>201.22</b>	<b>339.8</b>
HCFC-141b in imported pre-blended polyols*	28.75	32.83	12.22	18.00	33.26	2.54	12.7**
<b>ODP tonnes</b>							
HCFC-22	15.82	12.14	12.65	12.89	14.46	10.82	16.3
HCFC-123	0.06	0.01	0.08	0.13	0.13	0.09	0.2
HCFC-124	0.00	0.02	0.00	0.00	0.00	0.00	0.1
HCFC-141b	0.11	0.74	0.00	0.00	0.00	0.00	0.1
HCFC-142b	0.00	0.04	0.00	0.00	0.00	0.00	1.3
<b>Sub-total (ODP tonnes)</b>	<b>15.99</b>	<b>12.95</b>	<b>12.73</b>	<b>13.02</b>	<b>14.59</b>	<b>10.91</b>	<b>18.0</b>
HCFC-141b in imported pre-blended polyols*	3.16	3.61	1.34	1.98	3.66	0.28	1.40**

\* Country programme data.

\*\* Average consumption between 2007 and 2009.

<sup>2</sup> As per the letter of 12 February 2021 from the Ministry of Environment and Sustainable Development of Paraguay to UNEP.

<sup>3</sup> UNEP/OzL.Pro/ExCom/63/48 and Annex XXII of document UNEP/OzL.Pro/ExCom/63/60.

5. Consumption of HCFC-22 has decreased since 2015 mainly on account of the implementation of the HPMP activities, including controls on import of HCFCs, better servicing practices followed by technicians as a result of training, and the adoption of alternative-refrigerant-based RAC equipment. The increase in 2019 was due to temporary stockpiling prior to 2020 when consumption was reduced in line with the HPMP targets.

6. The slight increase in stocks of HCFC-123 in 2018 and 2019 was to meet the future demand in servicing of firefighting equipment, while the increase in imports of pre-blended polyols containing HCFC-141b in 2019 was in response to demand from enterprises that manufacture thermal insulation foam. This consumption will be addressed in stage II of the HPMP.

#### *Country programme (CP) implementation report*

7. The Government of Paraguay reported HCFC sector consumption data under the 2020 CP implementation report that is consistent with the data reported under Article 7 of the Montreal Protocol.

#### Status of progress and disbursement

##### *Legal framework*

8. The Ministry of Environment and Sustainable Development (MADES)<sup>4</sup> regulated the procedures for issuing HCFC licenses and established an electronic licensing system. The Government also adjusted the HCFC import and export licensing system to comply with the maximum allowable consumption as per the Agreement with the Executive Committee.

9. The Government also established a ban on imports of HCFC-based air conditioners in 2015, enforced regulations for standards for HCFC-22 and HCFC-123 containers, and is currently updating the regulations to include a quota system for HFCs, and updating safety standards for the safe adoption of RAC equipment based on flammable refrigerants, expected to be completed by the end of 2022.

##### *Refrigeration servicing sector*

10. Training in the prevention of illegal trade of ODS was provided to 1,084 customs officers, MADES auditors and legal advisers and members of the Judiciary (e.g., judges, prosecutors, judicial actuaries). Sixty-seven trainers and 1,246 servicing technicians were trained in good servicing practices and the safe use of flammable and toxic refrigerants, and 313 refrigeration technicians were certified by the *Instituto Nacional de Tecnología, Normalización y Metrología* (INTN) through theoretical and practical evaluation.

11. Two recovery and recycling centres were established in the *Asociación de Técnicos en Refrigeración del Alto Paraná* (ASOTRAP) and the *Técnicos de Refrigeración Asociados del Paraguay* (TRAP) in 2019 and 2021, respectively. Refrigerant recovery machines, recovery cylinders, scales and pressure valves were delivered to the centres. In addition, equipment and tools (e.g., digital vacuum gauges, protective equipment for servicing, refrigerant cylinders, leak detectors, and air conditioners for training technicians) were provided to eight technical training centres and to 55 technicians for ongoing training and the adoption of good practices for servicing HCFC-based equipment.

12. Awareness and outreach activities were implemented to support HCFC phase-out activities, to encourage users to adopt RAC equipment based on HCFC-free, low-global-warming-potential (GWP) refrigerants and to provide recognition to nine organizations that are actively promoting the adoption of low-GWP alternatives to HCFCs and the implementation of good servicing practices.

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<sup>4</sup> Former Secretariat of the Environment.

13. The Government of Paraguay and UNEP are currently in the process of signing the implementation agreement for the third tranche to continue ongoing activities, including technical legal support to the National Customs Directorate; participation in inspection visits; development of an HCFC-22 sales registry procedure; calibration and maintenance of refrigerant identifiers; training for customs and MADES officers on the illegal trade in HCFCs, appliances based on HCFCs and foam blowing agents contained in pre-blended polyols, and HCFC trade prevention; strengthening of local capacity for the recovery and recycling of refrigerants; promotion of appliances and technologies free of HCFCs; and awareness-building activities addressed to end-users. The signing of the implementation agreement is expected to be completed by the second week of June, the first fund advance in the amount of US \$35,000 is expected to take place in July 2021, and the second one, in the amount of US \$28,000, during the second half of 2021.

Level of fund disbursement

14. As of February 2021, of the US \$630,000 approved under stage I of the HPMP, US \$523,025 had been disbursed (US \$223,025 for UNEP and US \$300,000 for UNDP). The funding for the third tranche (US \$63,000) was only approved during the intersessional approval process for the 86<sup>th</sup> meeting (IAP-86) in December 2020, and will be disbursed in 2021, along with the remaining balance of US \$43,975 from the previous two tranches.

*Request for the extension of stage I of the HPMP*

15. Stage I of the HPMP was planned for completion as of 31 December 2021. During the project review process, UNEP informed the Secretariat that since the time of submission of stage II proposal, the third wave of COVID-19 has stricken the country, causing delays and resulting in a temporary halt in the implementation of ongoing activities. It is therefore anticipated that Paraguay will require an extension of stage I for a period of 12 months.

**Stage II of the HPMP**

Remaining consumption eligible for funding

16. After deducting 6.28 ODP tonnes of HCFCs associated with stage I of the HPMP, the remaining consumption eligible for funding amounts to 13.03 ODP tonnes of HCFCs (i.e., 10.63 ODP tonnes of HCFC-22; 0.20 ODP tonnes of HFC-123, 0.10 ODP tonnes of HCFC-124, 0.96 ODP tonnes of HCFC-141b and 1.14 ODP tonnes of HCFC-142b). This consumption will be completely phased out in stage II.

Sector distribution of HCFCs

17. There are approximately 3,000 technicians and estimated 600 workshops in the servicing sector, consuming HCFC-22 to service domestic and commercial air conditioners, commercial refrigeration units and transport and industrial refrigeration systems, as shown in Table 2. HCFC-22 represents 33 per cent of controlled substances (HCFCs and HFCs) used in the servicing sector. HFCs used include HFC-134a, R-404A and R-410A.

**Table 2. Estimated use of HCFC-22 in Paraguay in the refrigeration servicing sector in 2019\***

Sector/Applications	Equipment inventory	Average charge (kg)	Percentage of equipment served (%)	Average recharge per service**	Estimated use (mt)
Room air-conditioning (AC) (unitary and split)	393,750	1.00	25	1.11	109.36
Commercial AC (roof top, multi-split, chillers)	63,000	8.00	15	8.58	81.13

Sector/Applications	Equipment inventory	Average charge (kg)	Percentage of equipment served (%)	Average recharge per service**	Estimated use (mt)
Commercial refrigeration (medium condensing units)	31,500	10.00	15	11.11	52.49
Transport and industrial refrigeration (medium to large condensing units, centralized systems)	1,575	8.00	25	9.09	3.58
<b>Total</b>	<b>489,825</b>				<b>***246.57</b>

\*Survey for the preparation of stage II completed in 2020 based on 2019 data.

\*\*Including losses during servicing.

\*\*\*The difference of 16.27 mt of HCFC-22 between the estimated use of 246.57 mt in the refrigeration servicing sector and the reported figure of 262.84 mt in 2019 is due to imports that were maintained as stock for the start of 2020.

18. In addition to the use of HCFC-22 in the refrigeration servicing sector, small amounts of HCFC-123 are used in firefighting and small amounts of HCFC-141b contained in imported pre-blended polyols are used by several polyurethane (PU) foam enterprises, mostly in spray foam applications.

#### Phase-out strategy in stage II of the HPMP

19. Stage II of the HPMP aims to achieve a 67.5 per cent reduction from its HCFC baseline consumption by 2025 and 100 per cent reduction by 2030. The Government of Paraguay intends to allow a maximum annual consumption of HCFC in the period from 2030 to 2040 consistent with Article 5, paragraph 8 ter(e)(i) of the Montreal Protocol.<sup>5</sup>

20. Stage II will focus on enhancing the infrastructure established during the implementation of stage I by strengthening ODS regulations to control HCFC trade and applying the HCFC licensing and quota system, providing technical assistance to the refrigeration servicing sector to implement the refrigerant recovery, recycling and reclaiming (RRR) programme and the certification scheme for technicians, and raising the awareness of end-users to promote the transition to low-GWP technologies. The Government of Paraguay will also implement awareness-building activities to promote alternatives to HCFC-123 in fire extinguishers and will control the use of small amounts of HCFC-141b contained in imported pre-blended polyols through a ban scheduled to enter into force on 1 January 2024.

#### Proposed activities in stage II of the HPMP

21. Stage II proposes the following activities:

- (a) *Technical assistance to strengthen the control of trade of HCFC-based substances and equipment/products:* Training of approximately 300 customs officers (increased to 750 upon discussion with the Secretariat) and other authorities on the prevention of illegal trade in HCFCs (i.e., use of refrigerant identifiers, sniffers to detect chlorine and physical analysis of pre-blended polyols); training of approximately 250 importers and brokers on updated regulations; procurement of four refrigerant identifiers and eight basic equipment units to detect HCFC-141b contained in pre-blended polyols;<sup>6</sup> updates to the legal

<sup>5</sup> HCFC consumption may exceed zero in any year so long as the sum of its calculated levels of consumption over the ten-year period from 1 January 2030 to 1 January 2040 divided by 10, does not exceed 2.5 per cent of the HCFC baseline, and provided that such consumption is restricted to the servicing of RAC equipment existing on 1 January 2030. Other applications where HCFCs can be used include the servicing of fire suppression and fire protection equipment existing on 1 January 2030; solvent applications in rocket-engine manufacturing; and topical medical aerosol applications for the specialized treatment of burns.

<sup>6</sup> Including sniffers to detect chlorine in the ambient air and a sampler metal tube to assist in the blending of the material and taking samples to visually detect the viscosity of the material. This kind of system was designed by technicians in a Mexican systems house to detect if a polyol had been pre-blended with HCFC-141b.

framework;<sup>7</sup> meetings with importers and stakeholders to develop a system to avoid the import of new, used and refurbished equipment using HCFCs; and periodic verification visits to importers' and distributors' shops and warehouses to verify compliance with established regulations (UNEP) (US \$89,000);

- (b) *Technical assistance for the technician certification scheme:* Completion of a national labor competency standard in good refrigeration practices, including handling of flammable refrigerants; certification of 150 technicians (increased to 1,000 upon discussion with the Secretariat); design of an online registration system for certified technicians (UNEP) (US \$156,000);
- (c) *Training in good servicing practices:* Continuation of the national training programme in good servicing practices to support the certification system, including training of 1,020 technicians (increased to 1,500 upon discussions with the Secretariat); with an emphasis on refrigerant recovery and recycling, avoidance of use of HCFC-141b as a flushing agent and safe handling of refrigerants; distribution of a set of equipment<sup>8</sup> to an additional training center and of tool kits to 83 technicians (increased to 100 upon discussions with the Secretariat);<sup>9</sup> redesign of the technicians' manual for best practices in RAC maintenance; development of an online training course and update of the on-site training programme (UNDP) (US \$433,739);
- (d) *RRR programme:* Establishment of one reclaiming centre in Asuncion (including one reclaiming unit, one recovery unit, cylinders, vacuum pump, scales, spare parts and laboratory equipment); strengthening of the two existing recovery and recycling centres with additional cylinders, refrigerant identifier, vacuum pump and spare parts (two new recovery and recycling centres will be added upon discussions with the Secretariat); four workshops on RRR; and support to an existing programme on early retirement of inefficient HCFC-22-based air conditioners through three RRR training courses and tool kits (including a recovery unit, a vacuum pump and two cylinders) for eight authorized scrapping centres to ensure proper recovery of the refrigerant during equipment dismantling (UNDP) (US \$252,971); and
- (e) *Awareness raising and education:* An awareness campaign to promote the technician certification scheme and to attract technicians to be certified, an awareness campaign for end-users and consumers to promote the selection of certified technicians when servicing their equipment; five seminars on low-GWP alternative technologies in different applications addressed to different groups of end-users in commercial RAC applications (i.e., hotels and supermarkets); distribution of awareness material (e.g., brochures) to support the campaigns; and five seminars for users of fire extinguishers to promote alternatives, as well as verification visits to monitor the use of HCFC-123 in this application (UNEP) (US \$121,290).

### *Project implementation and monitoring*

22. The system for project implementation and monitoring established under stage I of the HPMP will continue into stage II, where the national ozone unit (NOU) with the assistance of UNEP will coordinate and monitor the implementation of activities, work with stakeholders to phase out HCFCs, monitor the

<sup>7</sup> Measures being considered include *inter alia* the extension of the ban on imports of HCFC-22-based AC equipment to commercial refrigeration equipment and to refurbished parts for HCFC-22-based equipment.

<sup>8</sup> Including a recovery unit, refrigerant identifier, vacuum pump, RAC module for training, cylinders, gauges, thermometer, scale, welding kit for flammable refrigerants and manometers.

<sup>9</sup> Including a charging station and vacuum pump, welding kit, hose, manometer, leak detector and precision balance for flammable refrigerants.

projects to assure that they comply with the gender mainstreaming policy, and report progress. The cost of those activities amounts to US \$117,000.

#### *Gender policy implementation*

23. In line with decision 84/92(d),<sup>10</sup> the Government of Paraguay has taken into account gender mainstreaming and equity in the formulation and implementation of stage II of the HPMP. Eighty per cent of the members of the team that prepared the HPMP are women and, during implementation, gender-balanced representation on boards and committees will ensure that women and men can equally benefit from the activities. Projects will collect gender-disaggregated data and qualitative information to analyze and track any gender-related issues, and the hiring of female consultants, supervisors and trainers to implement the HPMP activities will be promoted.

#### Total cost of stage II of the HPMP

24. The total cost of stage II of the HPMP for Paraguay has been estimated at US \$1,170,000 (plus agency support costs), as originally submitted, for achieving a 67.5 per cent reduction from its HCFC baseline consumption by 2025 and a 100 per cent reduction by 2030. The proposed activities and cost breakdown are summarized in Table 3.

**Table 3. Total cost of stage II of the HPMP for Paraguay as submitted**

Activity	Agency	Cost (US \$)
Technical assistance to strengthen control over trade of HCFC-based substances and equipment/products	UNEP	89,000
Technical assistance for the technician certification scheme	UNEP	156,000
Training in good servicing practices	UNDP	433,739
RRR programme	UNDP	252,971
Awareness-raising and education	UNEP	121,290
Monitoring and reporting	UNEP	117,000
<b>Total</b>		<b>1,170,000</b>

#### Activities planned for the first tranche of stage II

25. The first funding tranche of stage II of the HPMP at the total amount of US \$409,500 (as originally submitted) will be implemented between July 2021 and December 2022 and will include the following activities:

- (a) *Technical assistance to strengthen control over trade of HCFC-based substances and equipment/products*: update of the customs training course to include techniques to identify HCFC-141b contained in pre-blended polyols; first two training courses for 25 customs officers and 25 import brokers; procurement of four refrigerant identifiers and eight basic equipment units to detect HCFC-141b contained in pre-blended polyols; updates to the legal framework; meetings with the customs department and stakeholders to design a way to better enforce the ban on import of HCFC-based equipment; and three verification visits to warehouses to verify compliance with established regulations (UNEP) (US \$42,000);
- (b) *Technical assistance for the technician certification scheme*: completion of a national labor competency standard in good refrigeration practices, including handling of flammable refrigerants; initiation of the design of an online registration system for certified technicians; continued certification of technicians (UNEP) (US \$42,500);

<sup>10</sup> Decision 84/92(d) requested bilateral and implementing agencies to apply the operational policy on gender mainstreaming throughout the project cycle.



- (c) *Training in good servicing practices:* training online and, where possible, in person of 250 refrigeration technicians on good servicing practices; printing of training material and procurement of a set of equipment for training (UNDP) (US \$121,189);
- (d) *RRR programme:* design of the RRR system including procedures and strategy to encourage recovery and recycling; first workshop on RRR for large-scale users, technicians, distributors and potential reclaiming operators; procurement of equipment for the reclaiming and recycling centres; and the first RRR training course for the eight scrapping centres within the framework of the existing programme on early retirement of inefficient HCFC-22-based air conditioners (UNDP) (US \$134,536);
- (e) *Awareness-raising and education:* start of the campaign to promote the technician certification scheme and to attract technicians to be certified; first of the five seminars on low-GWP alternative technologies for end-users and distribution of 1,000 information brochures; and two out of five seminars for users of fire extinguishers to promote alternatives, as well as verification visits to monitor the use of HCFC-123 in this application (UNEP) (US \$36,455); and
- (f) *Project implementation and monitoring:* hiring of one full-time staff member for the continuous assessment, monitoring and reporting of activities being implemented (UNEP) (US \$32,820).

## SECRETARIAT'S COMMENTS AND RECOMMENDATION

### COMMENTS

26. The Secretariat reviewed stage II of the HPMP in light of stage I, the policies and guidelines of the Multilateral Fund, including the criteria for funding HCFC phase-out in the consumption sector for stage II of HPMPs (decision 74/50), and the 2021-2023 business plan of the Multilateral Fund.

#### Overarching strategy

27. In discussing the need for HCFC consumption during the 2030-2040 period, UNEP explained that HCFCs would be needed to service HCFC-based RAC systems remaining after 2030 that had not yet reached their end-of-life or could not yet be replaced with systems based on alternative refrigerants. During that period the Government would control the level of imports and uses of HCFCs through the quota and licensing system and through reports from the importers that would include the uses for which they were requesting the import, as well as the list of customers and quantities for each use. UNEP also confirmed that the Government of Paraguay has committed to implementing a ban on all imports of HCFCs by 1 January 2030; except for the allowance for a servicing tail between 2030 and 2040 consistent with the provisions of the Montreal Protocol.

28. In line with the Executive Committee's decision on this matter at the IAP-86, to allow for consideration of the final tranche of its HPMP, the Government of Paraguay agreed to submit a detailed description of the regulatory and policy framework in place to implement measures to ensure that HCFC consumption was in compliance with paragraph 8 ter(e)(i) of Article 5 of the Montreal Protocol for the 2030-2040 period. The Government also agreed to submit the expected annual HCFC consumption in Paraguay for the 2030-2040 period.

#### HCFC phase-out and duration of stage II

29. On the annual targets proposed for stage II, UNEP explained that the Government had decided to maintain the annual consumption targets set out in the Montreal Protocol schedules from 2022 to 2029,

rather than pursuing more ambitious interim reductions. Consultations with importers and stakeholders had shown that enterprises' plans had already been established in line with the Montreal Protocol control targets, as had HCFC import quotas for 2020 and 2021.

30. Regarding the duration of stage II, UNEP explained that the Government proposed to have stage II achieve total phase-out of HCFC in 2030 rather than the 67.5 per cent reduction in 2025. This was based on a long-term strategy involving activities, such as technician certification and the establishment of the RRR network, that required time for proper development. As those activities would extend through to 2030, dividing the strategy into two different stages would interrupt implementation and create an unnecessary administrative burden. Noting the justification provided, recognizing that the comprehensive strategy for stage II of the HPMP has been developed through extensive consultations with stakeholders, and noting that Paraguay is classified as a low-volume-consuming (LVC) country, the Secretariat supports the approach of total HCFC phase-out in a single stage II selected by the Government of Paraguay.

#### Foam manufacturing sector

31. Upon request, UNEP confirmed that, given the very small consumption of HCFC-141b in the manufacturing sector, no funds would be requested for the conversion of small and medium-sized enterprises (SMEs). Instead, the HPMP would limit and phase out the imports of HCFC-141b contained in pre-blended polyols through the existing licensing system. There are about five SMEs depending mostly on a multinational distributor of PU systems that blends its own HCFC-141b-free systems. The consumption of HCFC-141b contained in pre-blended polyols decreased substantially in 2020 and is expected to continue decreasing. UNEP also confirmed that the Government of Paraguay will ban the import and use of HCFC-141b pure and contained in pre-blended polyols by 1 January 2024.

#### Technical and cost-related issues

32. UNEP explained that the number of customs officers expected to be trained in stage II had dropped compared to stage I (300 instead of 1,084) because the training under stage II focused on intelligence techniques<sup>11</sup> to avoid illegal trade and detect banned refrigerants contained in blends, including pre-blended polyols. This course is in addition to the general customs training provided under stage I and is not required for all customs officers. Discussions on the importance of the proposed training topic, as well as the funds available and the duration of stage II led to an increase in the number of customs officers to be trained through this project from the 300 initially proposed to 750.<sup>12</sup>

33. Further to discussions on the scope of the activity, the number of technicians certified through the technician certification project was increased from the 150 initially proposed to 1,000 to help reach a critical mass aimed at facilitating the future enforcement of potential support measures, such as making certification a mandatory requirement for any technician who services RAC systems, or regulating refrigerant sales through a license given to certified technicians.<sup>13</sup> The number of technicians to be trained in stage II would also be increased from the 1,020 initially proposed to 1,500, and tool kits to be distributed from 83 to 100.<sup>14</sup> Through stage II, the NOU would also enter into discussions with the training institutes to design schemes that could increase training and certification coverage.

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<sup>11</sup> It includes an analysis of variables such as *inter alia* fluctuations of prices of substances, comparison with the prices of alternatives, control measures and labelling in the country of origin, allowance system of the producer country, and historical activity of the importer.

<sup>12</sup> The revised number has already been reflected in the description of the activity in paragraph 21(a) of the present document.

<sup>13</sup> The revised number has already been reflected in the description of the activity in paragraph 21(b) of the present document.

<sup>14</sup> The revised number has already been reflected in the description of the activity in paragraph 21(c) of the present document.

34. Regarding the basis for the RRR project, UNEP informed the Secretariat that during the preparation of stage II, Government counterparts, RAC technicians and end-users expressed the need to establish a reclaiming centre to complete the life-cycle management of refrigerants in Paraguay. The size of the greater metropolitan area of Asuncion, which includes 20 municipalities and close to three million inhabitants, makes the operation of a reclaiming centre economically self-sustainable. The reclaiming centre will comply with the Air-conditioning, Heating and Refrigeration Institute (AHRI) standard 700, so the reclaimed refrigerant will have the same level of purity as virgin refrigerant. Furthermore, the “Early Retirement Project” for inefficient HCFC-based AC appliances being implemented in Paraguay by the Inter-American Development Bank (IDB) is expected to be an additional and significant source of HCFC-22 to be recovered, which could partially satisfy demand for that refrigerant for several more years.

35. With regard to the business model for the RRR operation, UNEP explained that it was based on the difference between the retail price of the imported virgin HCFC-22 at over US\$9.00/kg and the costs related to refrigerant recovery, management, reclamation and re-distribution, which is expected to be below US \$8.00/kg. The technician recovers the refrigerant and sells it to one of the recovery centers, which collect and classify refrigerant from different sources, to be sent to the reclamation center and back to the technicians. The selection of the reclaiming centre operator will take place during the first tranche of stage II of the HPMP. It is estimated that about 14 mt of HCFC-22 could be collected per year solely from the decommissioning of equipment through the IDB project.

36. The RRR infrastructure being introduced will also be able to work with some HFC-based refrigerants; however, at this stage the focus will be on the recovery of HCFC-22, with additional gases to be considered upon the implementation of HFC phase-down plans.

37. The Secretariat also highlighted the importance of having refrigerant emission control measures to support RRR operations. UNEP informed the Secretariat that under stage II, the Government will strengthen the regulatory framework to encourage the recovery and use of reclaimed refrigerant, including regulatory measures to control intended emissions of refrigerant during installation, servicing and decommissioning by 1 January 2024.

38. In relation to the activity proposed to support the IDB energy-efficiency programme for the early retirement of inefficient HCFC-22-based air conditioners<sup>15</sup> by giving RRR training courses and tool kits to eight authorized scrapping centres participating in that project, UNEP emphasized that this is an energy efficiency initiative of the country, the purpose of the HPMP activity is to support the proper management of inefficient retired equipment and the recovery of HCFC-22, as otherwise the scrapping centres would release the refrigerant. Regarding the alternative technologies being considered by the IDB project, which is still in its formulation phase, UNEP indicated that it could be recommended to the stakeholders in charge of this programme to promote more the efficient technologies that use lower GWP refrigerants, noting that there are no suppliers of HC-based AC equipment on the local market at present.

39. Regarding the technical assistance for the fire-extinguishing sector and the alternatives to HCFC-123 being considered, UNEP informed the Secretariat that the purpose of this component is to avoid to the extent possible, the conversion to high-GWP alternatives (at present HFC-227 can be imported for this purpose), and allow the use of HCFC-123 for as long as possible during the time of the plan. A possible alternative considered for the future is hydrofluoroethers (HFE) but market availability is not yet fully ensured.

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<sup>15</sup> This project will be implemented with the support of the IDB through the Vice-Ministry of Energy, which is under the Ministry of Public Works and Communication of Paraguay, and with the participation of MADES.

Total project cost

40. The total cost for stage II of the HPMP amounts to US \$1,170,000, based on decision 74/50(c)(xii). Cost rationalization for some of the equipment being procured will allow for establishing two recovery and recycling centres in addition to the two existing ones, and US \$59,999 has been deducted from the RRR programme and added to the training in good servicing practices, where the number of technicians to be trained has been increased from 1,020 to 1,500, and the number of tool kits has been increased from 83 to 100. The final agreed costs per component are presented in Table 4.

**Table 4. Agreed cost of stage II of the HPMP for Paraguay**

Activity	Agency	Cost (US \$)
Technical assistance to strengthen control over trade of HCFC-based substances and equipment/products:	UNEP	89,000
Technical assistance for the technician certification scheme (number of technicians certified increased from 300 to 750)	UNEP	156,000
Training in good servicing practices (number of technicians trained increased from 1,020 to 1,500, number of tool kits increased from 83 to 100)	UNDP	493,738
RRR programme (number of recovery and recycling centres increased from 2 to 4)	UNDP	192,972
Awareness-raising and education	UNEP	121,290
Monitoring and reporting	UNEP	117,000
<b>Total</b>		<b>1,170,000</b>

Extension of stage I and tranche distribution for stage II

41. In line with decision 82/50, the Government of Paraguay is requesting an extension of the duration of stage I of the HPMP from December 2021 to December 2022. UNEP explained that while the extension had not previously been envisaged, the third wave of COVID-19 has since stricken the country, temporarily halting the implementation of activities. UNEP also provided reassurance that the agreement to implement the funds recently approved for the last tranche of stage I would be signed in June 2021, that the first advance of funds would be released to the country in July 2021, and that all planned activities would be completed before the extended date of completion. Accordingly, it was agreed that the first tranche of stage II would be approved on the understanding that the funds associated to UNEP would be transferred by the Treasurer to UNEP upon confirmation by UNEP to the Secretariat that the agreement for the implementation of the third tranche of stage I had been signed and the first advance of funds for that tranche had been transferred to the Government.

42. UNEP also indicated that the Government confirmed that the ongoing activities under stage I, as well as those proposed for stage II, and their respective timelines could be implemented applying all the safety and health measures required. The virtual training and meetings will continue until the pandemic situation allows for safe in-person meetings. Wherever possible, the practices will be conducted in small groups in the training centres with all the safety and health precautions. The procurement of equipment can continue taking place, as was done in stage I.

43. Upon further discussion regarding the extended completion of stage I and the simultaneous start of stage II under the current conditions of the pandemic, and the need to have a smooth transition among stages, minimizing overlap, the Secretariat and UNEP agreed that the funds allocated to the first tranche of stage II would be reduced to prioritize the completion of ongoing activities under stage I. It was further agreed that, before the second tranche of stage II could be considered, UNDP and UNEP should: provide confirmation to the Secretariat that stage I of the HPMP had been completed, submit the project completion report, and return any unused balances to the Fund.

44. In addition, the last tranche of stage II, initially proposed for 2029, was moved to 2030. The agreed new tranche distribution is presented in Table 5.

**Table 5. Agreed tranche distribution for stage II of the HPMP for Paraguay**

<b>As submitted</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>	<b>2024-2025</b>	<b>2026</b>	<b>2027-2028</b>	<b>2029</b>	<b>2030</b>
UNEP	153,776		134,307		110,857		84,350	
UNDP	255,724	0	275,193		123,143		32,650	
<b>Total</b>	409,500		409,500		234,000		117,000	
<b>As agreed</b>	<b>2021</b>	<b>2022-2023</b>	<b>2024</b>	<b>2025</b>	<b>2026</b>	<b>2027</b>	<b>2028-2029</b>	<b>2030</b>
UNEP	109,055	0	153,382		0	143,703	0	77,150
UNDP	101,545	0	281,077		0	264,238	0	39,850
<b>Total</b>	210,600		434,459			407,941		117,000

45. With the revised funding allocation for the first tranche, UNEP and UNDP aim to achieve the following specific targets in each of the main components of stage II: train 80 customs officers, certify 125 technicians, train 240 technicians; distribute the first 10 tool kits to technicians, organize one workshop on RRR, procure the equipment for two recovery and recycling centres, organize one workshop for the scrapping centres participating in the IDB project and distribute the first four sets of equipment for these centres, conduct one public awareness activity to promote technician certification, complete one technical workshop for large and medium end-users, and prepare the associated progress reports as required by the Government and the Fund.

#### Impact on the climate

46. The proposed activities in the servicing sector, which include better containment of refrigerants through training and the provision of equipment, will reduce the amount of HCFC-22 used for RAC servicing. Each kilogram of HCFC-22 not emitted due to better refrigeration practices results in savings of approximately 1.8 CO<sub>2</sub>-equivalent tonnes. Although a calculation of the impact on the climate was not included in the HPMP, the activities planned by the Government of Paraguay, including its efforts to promote training in good servicing practices and to recover, recycle and reclaim refrigerants, indicate that the implementation of the HPMP will reduce the emission of refrigerants into the atmosphere, resulting in climate benefits.

#### **Co-financing**

47. UNEP indicated that a significant level of co-financing will be provided by assisted stakeholders to ensure the total phase-out of HCFCs. The training programme will reach 1,000 technicians; the estimated additional cost of training for the remaining 1,500 technicians in the country is US \$112,500, and the estimated cost of providing tools to 2,920 technicians is US \$6.5 million (US \$2,225 per kit). Furthermore, the operation and administrative costs of the reclaiming centre and the recovery centres will be covered by the centres themselves.

#### **2021-2023 draft business plan of the Multilateral Fund**

48. UNEP and UNDP are requesting US \$1,170,000, plus agency support costs, for the implementation of stage II of the HPMP for Paraguay. The total requested value of US \$231,855, including agency support costs for the period of 2021–2023, is US \$29,723 below the amount in the business plan.

#### **Draft Agreement**

49. A draft Agreement between the Government of Paraguay and the Executive Committee for the phase-out of HCFCs in stage II of the HPMP is contained in Annex I to the present document.

## RECOMMENDATION

50. The Executive Committee may wish to consider:

- (a) Approving, on an exceptional basis, the extension of the duration of stage I of the HPMP to 31 December 2022, given delay in implementing phase-out activities due to the COVID-19 pandemic, on the understanding that no further extension would be requested;
- (b) Approving, in principle, stage II of the HCFC phase-out management plan (HPMP) for Paraguay for the period from 2021 to 2030 for the complete phase-out of HCFC consumption, in the amount of US \$1,280,897, consisting of US \$483,290, plus agency support costs of US \$62,828 for UNEP, and US \$686,710, plus agency support costs of US \$48,070 for UNDP, on the understanding that no more funding from the Multilateral Fund would be provided for the phase-out of HCFCs;
- (c) Noting the commitment of the Government of Paraguay:
  - (i) To phase out HCFCs completely by 1 January 2030, and to ban the import of HCFCs by 1 January 2030, except for those allowed for a servicing tail between 2030 and 2040, where required, consistent with the provisions of the Montreal Protocol;
  - (ii) To issue a ban on the import and use of HCFC-141b pure or contained in pre-blended polyols from 1 January 2024;
  - (iii) To establish regulatory measures to control intended emissions of refrigerant during installation, servicing and decommissioning by 1 January 2024;
- (d) Deducting 13.03 ODP tonnes of HCFCs from the remaining HCFC consumption eligible for funding;
- (e) Approving the draft Agreement between the Government of Paraguay and the Executive Committee for the reduction in consumption of HCFCs, in accordance with stage II of the HPMP, contained in Annex I to the present document;
- (f) That, to allow for the consideration of the second tranche of stage II of the HPMP, UNEP and UNDP should submit the project completion report for stage I of the HPMP and return any unused balances to the Fund;
- (g) That, to allow for the consideration of the final tranche of stage II of its HPMP, the Government of Paraguay should submit:
  - (i) A detailed description of the regulatory and policy framework in place to implement measures to ensure that HCFC consumption was in compliance with paragraph 8 ter(e)(i) of Article 5 of the Montreal Protocol for the period 2030-2040; and
  - (ii) The expected annual HCFC consumption in Paraguay for the period 2030-2040; and
- (h) Approving the first tranche of stage II of the HPMP for Paraguay, and the corresponding tranche implementation plans, in the amount of US \$231,885, consisting of US \$109,055, plus agency support costs of US \$14,177 for UNEP, and US \$101,545, plus agency support costs of US \$7,108 for UNDP, on the understanding that the funds associated to UNEP

would be transferred by the Treasurer to UNEP upon confirmation by UNEP to the Secretariat that the agreement for the implementation of the third tranche of stage I had been signed and the first advance of funds for that tranche had been transferred to the Government.





## Annex I

### **DRAFT AGREEMENT BETWEEN THE GOVERNMENT OF PARAGUAY AND THE EXECUTIVE COMMITTEE OF THE MULTILATERAL FUND FOR THE REDUCTION IN CONSUMPTION OF HYDROCHLOROFLUOROCARBONS IN ACCORDANCE WITH STAGE II OF THE HCFC PHASE-OUT MANAGEMENT PLAN**

#### **Purpose**

1. This Agreement represents the understanding of the Government of Paraguay (the “Country”) and the Executive Committee with respect to the reduction of controlled use of the ozone-depleting substances (ODS) set out in Appendix 1-A (“The Substances”) to a sustained level of zero ODP tonnes by 1 January 2030 in compliance with Montreal Protocol schedule.
2. The Country agrees to meet the annual consumption limits of the Substances as set out in row 1.2 of Appendix 2-A (“The Targets, and Funding”) in this Agreement as well as in the Montreal Protocol reduction schedule for all Substances mentioned in Appendix 1-A. The Country accepts that, by its acceptance of this Agreement and performance by the Executive Committee of its funding obligations described in paragraph 3, it is precluded from applying for or receiving further funding from the Multilateral Fund in respect to any consumption of the Substances that exceeds the level defined in row 1.2 of Appendix 2-A as the final reduction step under this Agreement for all of the Substances specified in Appendix 1-A, and in respect to any consumption of each of the Substances that exceeds the level defined in rows 4.1.3 , 4.2.3, 4.3.3, 4.4.3 and 4.5.3 (remaining consumption eligible for funding).
3. Subject to compliance by the Country with its obligations set out in this Agreement, the Executive Committee agrees, in principle, to provide the funding set out in row 3.1 of Appendix 2-A to the Country. The Executive Committee will, in principle, provide this funding at the Executive Committee meetings specified in Appendix 3-A (“Funding Approval Schedule”).
4. The Country agrees to implement this Agreement in accordance with the stage II of the HCFC phase-out management plan (HPMP) approved (“the Plan”). In accordance with sub-paragraph 5(b) of this Agreement, the Country will accept independent verification of the achievement of the annual consumption limits of the Substances as set out in row 1.2 of Appendix 2-A of this Agreement. The aforementioned verification will be commissioned by the relevant bilateral or implementing agency.

#### **Conditions for funding release**

5. The Executive Committee will only provide the Funding in accordance with the Funding Approval Schedule when the Country satisfies the following conditions at least eight weeks in advance of the applicable Executive Committee meeting set out in the Funding Approval Schedule:
  - (a) That the Country has met the Targets set out in row 1.2 of Appendix 2-A for all relevant years. Relevant years are all years since the year in which this Agreement was approved. Years for which there are no due country programme implementation reports at the date of the Executive Committee meeting at which the funding request is being presented are exempted;
  - (b) That the meeting of these Targets has been independently verified for all relevant years, unless the Executive Committee decided that such verification would not be required;
  - (c) That the Country had submitted a Tranche Implementation Report in the form of Appendix 4-A (“Format of Tranche Implementation Reports and Plans”) covering each previous calendar year; that it had achieved a significant level of implementation of

activities initiated with previously approved tranches; and that the rate of disbursement of funding available from the previously approved tranche was more than 20 per cent; and

- (d) That the Country has submitted a Tranche Implementation Plan in the form of Appendix 4-A covering each calendar year until and including the year for which the funding schedule foresees the submission of the next tranche or, in case of the final tranche, until completion of all activities foreseen.

### **Monitoring**

6. The Country will ensure that it conducts accurate monitoring of its activities under this Agreement. The institutions set out in Appendix 5-A (“Monitoring Institutions and Roles”) will monitor and report on implementation of the activities in the previous Tranche Implementation Plans in accordance with their roles and responsibilities set out in the same appendix.

### **Flexibility in the reallocation of funds**

7. The Executive Committee agrees that the Country may have the flexibility to reallocate part or all of the approved funds, according to the evolving circumstances to achieve the smoothest reduction of consumption and phase-out of the Substances specified in Appendix 1-A:

- (a) Reallocations categorized as major changes must be documented in advance either in a Tranche Implementation Plan as foreseen in sub-paragraph 5(d) above, or as a revision to an existing Tranche Implementation Plan to be submitted eight weeks prior to any meeting of the Executive Committee, for its approval. Major changes would relate to:
  - (i) Issues potentially concerning the rules and policies of the Multilateral Fund;
  - (ii) Changes which would modify any clause of this Agreement;
  - (iii) Changes in the annual levels of funding allocated to individual bilateral or implementing agencies for the different tranches;
  - (iv) Provision of funding for activities not included in the current endorsed Tranche Implementation Plan, or removal of an activity in the Tranche Implementation Plan, with a cost greater than 30 per cent of the total cost of the last approved tranche; and
  - (v) Changes in alternative technologies, on the understanding that any submission for such a request would identify the associated incremental costs, the potential impact to the climate, and any differences in ODP tonnes to be phased out if applicable, as well as confirm that the Country agrees that potential savings related to the change of technology would decrease the overall funding level under this Agreement accordingly;
- (b) Reallocations not categorized as major changes may be incorporated in the approved Tranche Implementation Plan, under implementation at the time, and reported to the Executive Committee in the subsequent Tranche Implementation Report; and
- (c) Any remaining funds held by the bilateral or implementing agencies or the Country under the Plan will be returned to the Multilateral Fund upon completion of the last tranche foreseen under this Agreement.

### **Considerations for the refrigeration servicing sector**

8. Specific attention will be paid to the execution of the activities in the refrigeration servicing sector included in the Plan, in particular:

- (a) The Country would use the flexibility available under this Agreement to address specific needs that might arise during project implementation; and
- (b) The Country and relevant bilateral and/or implementing agencies would take into consideration relevant decisions on the refrigeration servicing sector during the implementation of the Plan.

### **Bilateral and implementing agencies**

9. The Country agrees to assume overall responsibility for the management and implementation of this Agreement and of all activities undertaken by it or on its behalf to fulfil the obligations under this Agreement. UNEP has agreed to be the lead implementing agency (the “Lead IA”) and UNDP has agreed to be the cooperating implementing agency (the “Cooperating IA”) under the lead of the Lead IA in respect of the Country’s activities under this Agreement. The Country agrees to evaluations, which might be carried out under the monitoring and evaluation work programmes of the Multilateral Fund or under the evaluation programme of the Lead IA and/or Cooperating IA taking part in this Agreement.

10. The Lead IA will be responsible for ensuring co-ordinated planning, implementation and reporting of all activities under this Agreement, including but not limited to independent verification as per sub-paragraph 5(b). The Cooperating IA will support the Lead IA by implementing the Plan under the overall co-ordination of the Lead IA. The roles of the Lead IA and Cooperating IA are contained in Appendix 6-A and Appendix 6-B, respectively. The Executive Committee agrees; in principle, to provide the Lead IA and the Cooperating IA with the fees set out in rows 2.2 and 2.4 of Appendix 2-A.

### **Non-compliance with the Agreement**

11. Should the Country, for any reason, not meet the Targets for the elimination of the Substances set out in row 1.2 of Appendix 2-A or otherwise does not comply with this Agreement, then the Country agrees that it will not be entitled to the Funding in accordance with the Funding Approval Schedule. At the discretion of the Executive Committee, funding will be reinstated according to a revised Funding Approval Schedule determined by the Executive Committee after the Country has demonstrated that it has satisfied all of its obligations that were due to be met prior to receipt of the next tranche of funding under the Funding Approval Schedule. The Country acknowledges that the Executive Committee may reduce the amount of the Funding by the amount set out in Appendix 7-A (“Reductions in Funding for Failure to Comply”) in respect of each ODP kg of reductions in consumption not achieved in any one year. The Executive Committee will discuss each specific case in which the Country did not comply with this Agreement, and take related decisions. Once decisions are taken, the specific case of non-compliance with this Agreement will not be an impediment for the provision of funding for future tranches as per paragraph 5 above.

12. The Funding of this Agreement will not be modified on the basis of any future Executive Committee decisions that may affect the funding of any other consumption sector projects or any other related activities in the Country.

13. The Country will comply with any reasonable request of the Executive Committee, the Lead IA and the Cooperating IA to facilitate implementation of this Agreement. In particular, it will provide the Lead IA and the Cooperating IA with access to the information necessary to verify compliance with this Agreement.

### **Date of completion**

14. The completion of the Plan and the associated Agreement will take place at the end of the year following the last year for which a maximum allowable total consumption level has been specified in Appendix 2-A. Should at that time there still be activities that are outstanding, and which were foreseen in the last Tranche Implementation Plan and its subsequent revisions as per sub-paragraph 5(d) and paragraph 7, the completion of the Plan will be delayed until the end of the year following the implementation of the remaining activities. The reporting requirements as per sub-paragraphs 1(a), 1(b), 1(d), and 1(e) of Appendix 4-A will continue until the time of the completion of the Plan unless otherwise specified by the Executive Committee.

### **Validity**

15. All of the conditions set out in this Agreement are undertaken solely within the context of the Montreal Protocol and as specified in this Agreement. All terms used in this Agreement have the meaning ascribed to them in the Montreal Protocol unless otherwise defined herein.

16. This Agreement may be modified or terminated only by mutual written agreement of the Country and the Executive Committee of the Multilateral Fund.

## **APPENDICES**

### **APPENDIX 1-A: THE SUBSTANCES**

Substance	Annex	Group	Starting point for aggregate reductions in consumption (ODP tonnes)
HCFC-22	C	I	15.95
HCFC-123	C	I	0.20
HCFC-124	C	I	0.15
HCFC-141b	C	I	*1.41
HCFC-142b	C	I	1.60
Total			19.31

\*As determined in stage I of the HPMP, it includes 1.36 ODP tonnes of HCFC-141b contained in imported pre-blended polyols.

**APPENDIX 2-A: THE TARGETS, AND FUNDING**

Row	Particulars	2021	2022-2023	2024	2025-2026	2027	2028-2029	2030	Total
1.1	Montreal Protocol reduction schedule of Annex C, Group I substances (ODP tonnes)	11.67	11.67	11.67	5.83	5.83	5.83	0	n/a
1.2	Maximum allowable total consumption of Annex C, Group I substances (ODP tonnes)	11.67	11.67	11.67	5.83	5.83	5.83	0	n/a
2.1	Lead IA (UNEP) agreed funding (US \$)	109,055	0	153,382	0	143,703	0	77,150	483,290
2.2	Support costs for Lead IA (US \$)	14,177	0	19,940	0	18,681	0	10,030	62,828
2.3	Cooperating IA (UNDP) agreed funding (US \$)	101,545	0	281,077	0	264,238	0	39,850	686,710
2.4	Support costs for Cooperating IA (US \$)	7,108	0	19,675	0	18,497	0	2,790	48,070
3.1	Total agreed funding (US \$)	210,600	0	434,459	0	407,941	0	117,000	1,170,000
3.2	Total support costs (US \$)	21,285	0	39,615	0	37,178	0	12,819	110,897
3.3	Total agreed costs (US \$)	231,885	0	474,074	0	445,119	0	129,819	1,280,897
4.1.1	Total phase-out of HCFC-22 agreed to be achieved under this Agreement (ODP tonnes)								10.63
4.1.2	Phase-out of HCFC-22 to be achieved in the previous stage (ODP tonnes)								5.32
4.1.3	Remaining eligible consumption for HCFC-22 (ODP tonnes)								0.00
4.2.1	Total phase-out of HCFC-123 agreed to be achieved under this Agreement (ODP tonnes)								0.20
4.2.2	Phase-out of HCFC-123 to be achieved in the previous stage (ODP tonnes)								0.00
4.2.3	Remaining eligible consumption for HCFC-123 (ODP tonnes)								0.00
4.3.1	Total phase-out of HCFC-124 agreed to be achieved under this Agreement (ODP tonnes)								0.10
4.3.2	Phase-out of HCFC-124 to be achieved in the previous stage (ODP tonnes)								0.05
4.3.3	Remaining eligible consumption for HCFC-124 (ODP tonnes)								0.00
4.4.1	Total phase-out of HCFC-141b agreed to be achieved under this Agreement (ODP tonnes)								0.96
4.4.2	Phase-out of HCFC-141b to be achieved in the previous stage (ODP tonnes)								0.45
4.4.3	Remaining eligible consumption for HCFC-141b (ODP tonnes)								0.00
4.5.1	Total phase-out of HCFC-142b agreed to be achieved under this Agreement (ODP tonnes)								1.14
4.5.2	Phase-out of HCFC-142b to be achieved in the previous stage (ODP tonnes)								0.46
4.5.3	Remaining eligible consumption for HCFC-142b (ODP tonnes)								0.00

\*Date of completion of stage I as per stage I Agreement: 31 December 2022

**APPENDIX 3-A: FUNDING APPROVAL SCHEDULE**

1. Funding for the future tranches will be considered for approval at the first meeting of the year specified in Appendix 2-A.

#### **APPENDIX 4-A: FORMAT OF TRANCHE IMPLEMENTATION REPORTS AND PLANS**

1. The submission of the Tranche Implementation Report and Plans for each tranche request will consist of five parts:

- (a) A narrative report, with data provided by tranche, describing the progress achieved since the previous report, reflecting the situation of the Country in regard to phase-out of the Substances, how the different activities contribute to it, and how they relate to each other. The report should include the amount of ODS phased out as a direct result from the implementation of activities, by substance, and the alternative technology used and the related phase-in of alternatives, to allow the Secretariat to provide to the Executive Committee information about the resulting change in climate relevant emissions. The report should further highlight successes, experiences, and challenges related to the different activities included in the Plan, reflecting any changes in the circumstances in the Country, and providing other relevant information. The report should also include information on and justification for any changes vis-à-vis the previously submitted Tranche Implementation Plan(s), such as delays, uses of the flexibility for reallocation of funds during implementation of a tranche, as provided for in paragraph 7 of this Agreement, or other changes;
- (b) An independent verification report of the Plan results and the consumption of the Substances, as per sub-paragraph 5(b) of the Agreement. If not decided otherwise by the Executive Committee, such a verification has to be provided together with each tranche request and will have to provide verification of the consumption for all relevant years as specified in sub-paragraph 5(a) of the Agreement for which a verification report has not yet been acknowledged by the Committee;
- (c) A written description of the activities to be undertaken during the period covered by the requested tranche, highlighting implementation milestones, the time of completion and the interdependence of the activities, and taking into account experiences made and progress achieved in the implementation of earlier tranches; the data in the plan will be provided by calendar year. The description should also include a reference to the overall Plan and progress achieved, as well as any possible changes to the overall Plan that are foreseen. The description should also specify and explain in detail such changes to the overall plan. This description of future activities can be submitted as a part of the same document as the narrative report under sub-paragraph (b) above;
- (d) A set of quantitative information for all Tranche Implementation Reports and Plans, submitted through an online database; and
- (e) An Executive Summary of about five paragraphs, summarizing the information of the above sub-paragraphs 1(a) to 1(d).

2. In the event that in a particular year two stages of the HPMP are being implemented in parallel, the following considerations should be taken in preparing the Tranche Implementation Reports and Plans:

- (a) The Tranche Implementation Reports and Plans referred to as part of this Agreement, will exclusively refer to activities and funds covered by this Agreement; and
- (b) If the stages under implementation have different HCFC consumption targets under Appendix 2-A of each Agreement in a particular year, the lower HCFC consumption target will be used as reference for compliance with these Agreements and will be the basis for the independent verification.

## **APPENDIX 5-A: MONITORING INSTITUTIONS AND ROLES**

1. The entity responsible for the implementation of the Montreal Protocol in Paraguay is the Ministry of Environment and Natural Resources, through the National Ozone Unit (NOU).
2. The responsibilities of the NOU are to design and propose all the policy measures, including adjustments to the current regulations, coordination with other stakeholders, institutions and relevant sectors involved in the implementation of the Protocol; to follow up on all the programmes and projects, and to prepare reports to the Ministry and the Secretariat of the Multilateral Fund and the Ozone Secretariat.
3. The PMU will assist the NOU in the following activities:
  - (a) Follow up on the activities described in each of the projects, including training courses, seminars, workshops and presentations;
  - (b) Monitor the purchase of equipment, materials, tools and also contracts for services to be in line with each of the projects and complying with the rules and regulations of the agencies participating in stage II of the HPMP;
  - (c) Assist in the reporting on the activities of the projects, taking into account the schedules defined in each component, and support the NOU in solving any deviations and in timely finalizing all the activities;
  - (d) Support the NOU in defining and selecting the beneficiaries, always as a supporting activity;
  - (e) Support the NOU in gathering data for the tranche request reports required by the Fund Secretariat, and the implementing agencies;
  - (f) Monitor and promote, when necessary, the actions to comply with the gender equality; and
  - (g) Any other monitoring and evaluation activity requested by the NOU.

## **APPENDIX 6-A: ROLE OF THE LEAD IMPLEMENTING AGENCY**

1. The Lead IA will be responsible for a range of activities, including at least the following:
  - (a) Ensuring performance and financial verification in accordance with this Agreement and with its specific internal procedures and requirements as set out in the Country's HPMP;
  - (b) Assisting the Country in preparation of the Tranche Implementation Reports and Plans as per Appendix 4-A;
  - (c) Providing independent verification to the Executive Committee that the Targets have been met and associated tranche activities have been completed as indicated in the Tranche Implementation Plan consistent with Appendix 4-A;
  - (d) Ensuring that the experiences and progress is reflected in updates of the overall plan and in future Tranche Implementation Plans consistent with sub-paragraphs 1(c) and 1(d) of Appendix 4-A;

- (e) Fulfilling the reporting requirements for the Tranche Implementation Reports and Plans and the overall plan as specified in Appendix 4-A for submission to the Executive Committee, and should include the activities implemented by the Cooperating IA;
- (f) In the event that the last funding tranche is requested one or more years prior to the last year for which a consumption target had been established, annual tranche implementation reports and, where applicable, verification reports on the current stage of the Plan should be submitted until all activities foreseen had been completed and HCFC consumption targets had been met;
- (g) Ensuring that appropriate independent technical experts carry out the technical reviews;
- (h) Carrying out required supervision missions;
- (i) Ensuring the presence of an operating mechanism to allow effective, transparent implementation of the Tranche Implementation Plan and accurate data reporting;
- (j) Co-ordinating the activities of the Cooperating IA, and ensuring appropriate sequence of activities;
- (k) In case of reductions in funding for failure to comply in accordance with paragraph 11 of the Agreement, to determine, in consultation with the Country and the Cooperating IA, the allocation of the reductions to the different budget items and to the funding of the Lead IA and each Cooperating IA;
- (l) Ensuring that disbursements made to the Country are based on the use of the indicators;
- (m) Providing assistance with policy, management and technical support when required;
- (n) Reaching consensus with the Cooperating IA on any planning, co-ordination and reporting arrangements required to facilitate the implementation of the Plan; and
- (o) Timely releasing funds to the Country/participating enterprises for completing the activities related to the project.

2. After consultation with the Country and taking into account any views expressed, the Lead IA will select and mandate an independent entity to carry out the verification of the HPMP results and the consumption of the Substances mentioned in Appendix 1-A, as per sub-paragraph 5(b) of the Agreement and sub-paragraph 1(b) of Appendix 4-A.

#### **APPENDIX 6-B: ROLE OF THE COOPERATING IMPLEMENTING AGENCY**

1. The Cooperating IA will be responsible for a range of activities. These activities are specified in the Plan, including at least the following:

- (a) Providing assistance for policy development when required;
- (b) Assisting the Country in the implementation and assessment of the activities funded by the Cooperating IA, and refer to the Lead IA to ensure a co-ordinated sequence in the activities;
- (c) Providing reports to the Lead IA on these activities, for inclusion in the consolidated reports as per Appendix 4-A; and



- (d) Reaching consensus with the Lead IA on any planning, co-ordination and reporting arrangements required to facilitate the implementation of the Plan.

**APPENDIX 7-A: REDUCTIONS IN FUNDING FOR FAILURE TO COMPLY**

1. In accordance with paragraph 11 of the Agreement, the amount of funding provided may be reduced by US \$180 per ODP kg of consumption beyond the level defined in row 1.2 of Appendix 2-A for each year in which the target specified in row 1.2 of Appendix 2-A has not been met, on the understanding that the maximum funding reduction would not exceed the funding level of the tranche being requested. Additional measures might be considered in cases where non-compliance extends for two consecutive years.

2. In the event that the penalty needs to be applied for a year in which there are two Agreements in force (two stages of the HPMP being implemented in parallel) with different penalty levels, the application of the penalty will be determined on a case-by-case basis taking into consideration the specific sectors that lead to the non-compliance. If it is not possible to determine a sector, or both stages are addressing the same sector, the penalty level to be applied would be the largest.

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