



**United Nations
Environment
Programme**

Distr.
GENERAL

UNEP/OzL.Pro/ExCom/92/29

7 May 2023

ORIGINAL: ENGLISH



EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Ninety-second Meeting
Montreal, 29 May to 2 June 2023
Items 9(c) and (d) of the provisional agenda¹

PROJECT PROPOSALS: INDONESIA

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

Phase-out

- HCFC phase-out management plan (stage II, fourth tranche) UNDP and World Bank
- HCFC phase-out management plan (stage III, first tranche) UNDP and Australia

¹ UNEP/OzL.Pro/ExCom/92/1

PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS

Indonesia

(I) PROJECT TITLE	AGENCY	MEETING APPROVED	CONTROL MEASURE
HCFC phase-out plan (stage II)	UNDP (lead), World Bank	76 th	55% phase-out by 2023

(II) LATEST ARTICLE-7 DATA (Annex C Group I)	Year: 2022	137.82 ODP tonnes
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(III) LATEST COUNTRY PROGRAMME SECTORAL DATA (ODP tonnes)								Year: 2022	
Chemical	Aerosol	Foam	Fire-fighting	Refrigeration		Solvent	Process agent	Lab use	Total sector consumption
				Manufacturing	Servicing				
HCFC-22					136.60				136.60
HCFC-123			0.47		0.75				1.22

(IV) CONSUMPTION DATA (ODP tonnes)			
2009-2010 baseline:	403.90	Starting point for sustained aggregate reductions:	403.90
CONSUMPTION ELIGIBLE FOR FUNDING			
Already approved:	219.33	Remaining:	184.59

(V) ENDORSED BUSINESS PLAN		2023	2024	2025	Total
UNDP	ODS phase-out (ODP tonnes)	4.40	0.00	0.00	4.40
	Funding (US \$)	463,631	0	0	463,631
World Bank	ODS phase-out (ODP tonnes)	0.00	0.00	0.00	0.00
	Funding (US \$)	0	0	0	0

(VI) PROJECT DATA		2016	2017	2018	2019	2020	2021	2022	2023	Total	
Montreal Protocol consumption limits (ODP tonnes)		363.51	363.51	363.51	363.51	262.54	262.54	262.54	262.54	n/a	
Maximum allowable consumption (ODP tonnes)		363.51	363.51	323.12	323.12	252.44	252.44	252.44	181.76	n/a	
Funding agreed in principle (US \$)	UNDP	Project costs	2,233,114	0	753,500	0	0	627,086	0	433,300	4,047,000
		Support costs	156,318	0	52,745	0	0	43,896	0	30,331	283,290
	World Bank	Project costs	1,985,743	0	1,276,549	0	0	992,871	0	0	4,255,163
		Support costs	139,002	0	89,358	0	0	69,501	0	0	297,861
Funds approved by ExCom (US \$)	Project costs	4,218,857	0	2,030,049			1,619,957			7,868,863	
	Support costs	295,320	0	142,103			113,397			550,820	
Total funds recommended for approval at this meeting (US \$)	Project costs								433,300	433,300	
	Support costs								30,331	30,331	

Secretariat's recommendation:	Blanket approval
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PROJECT DESCRIPTION

1. On behalf of the Government of Indonesia, UNDP as the lead implementing agency has submitted a request for funding for the fourth and final tranche of stage II of the HCFC phase-out management plan (HPMP), in the amount of US \$433,300, plus agency support costs of US \$30,331 for UNDP only.² The submission includes a progress report on the implementation of the third tranche, the verification report on HCFC consumption for 2021, and the tranche implementation plan for 2023 to 2024.

Report on HCFC consumption

2. The Government of Indonesia reported a consumption of 137.82 ODP tonnes of HCFC in 2022, which is 66 per cent below the HCFC baseline for compliance. The 2018-2022 HCFC consumption is shown in table 1.

Table 1. HCFC consumption in Indonesia (2018-2022 Article 7 data)

HCFC	2018	2019	2020	2021	2022**	Baseline
Metric tonnes (mt)						
HCFC-22	3,114.31	2,993.63	2,952.60	2,913.70	2,483.68	4,861.9
HCFC-123	99.92	106.52	90.98	34.52	60.98	192.2
HCFC-124	0.00	0.00	0.00	0.00	0.00	0.1
HCFC-141b	560.00	440.00	220.00	100.00	0.00	1,205.9
HCFC-142b	8.20	6.41	0.00	6.41*	0.00	0
HCFC-225	2.00	2.00	0.00	0.00	0.00	0.3
Total (mt)	3,784.43	3,548.56	3,263.58	3,054.63	2,544.66	6,260.4
ODP tonnes						
HCFC-22	171.29	164.65	162.39	160.25	136.60	267.4
HCFC-123	2.00	2.13	1.82	0.69	1.22	3.8
HCFC-124	0.00	0.00	0.00	0.00	0.00	0.0
HCFC-141b	61.60	48.40	24.20	11.00	0.00	132.6
HCFC-142b	0.53	0.42	0.00	0.42*	0.00	0.0
HCFC-225	0.14	0.14	0.00	0.00	0.00	0.0
Total (ODP tonnes)	235.56	215.74	188.41	172.36	137.82	403.9

* Country programme (CP) data and verified consumption. See paragraph 6 of the present document.

** CP data.

3. HCFC-22 has been consumed exclusively for servicing following the 2015 ban on its use in refrigeration and air-conditioning (RAC) manufacturing and assembly; its consumption has been declining in light of improved servicing practices, the use of alternative refrigerants, and restrictions on HCFC-22-based equipment. Consumption of HCFC-141b, which was being consumed exclusively as a foam blowing agent, was phased out after the ban on its import and consumption, in effect from 1 January 2022, and following conversions in the polyurethane (PU) foam manufacturing sector. HCFC-123 is consumed to install and service chillers and in the fire-fighting sector; its consumption temporarily declined in 2021 due to issues in the supply chain caused by the COVID-19 pandemic and will be addressed in stage III of the HPMP. HCFC-142b is consumed intermittently as a component of R-406A, which is used as a drop-in replacement for CFC-12-based equipment. Consumption of HCFC-225, which was used for coating syringes and piston rings, was phased out in 2020 given the availability of alternatives for those uses (i.e., HFE-347pc-f and hexamethyldisiloxane, respectively).

² As per the letter of 24 February 2023 from the Ministry of Environment and Forestry of Indonesia to UNDP.

Country programme implementation report

4. The Government of Indonesia reported HCFC sector consumption data under the 2021 CP implementation report that is consistent with the data reported under Article 7 of the Montreal Protocol except as noted in paragraph 6 below.

Verification report

5. While the verification report included verification of the country's 2021 consumption, verification of 2022 consumption was still being undertaken. UNDP expected that the 2022 verification report will be submitted no later than 12 weeks prior to the 93rd meeting.

6. The verification report confirmed that the Government is implementing a licensing and quota system for HCFC imports and exports and that the total consumption of HCFCs reported under Article 7 of the Montreal Protocol for 2021 was correct (as shown in Table 1 above), except for a small difference in the consumption of HCFC-22 reported under Article 7, which inadvertently double-counted the HCFC-22 component of the R-406A that was imported into the country. The country had requested the Ozone Secretariat to revise the Article 7 data, accordingly. The verifier had recommended developing a compendium of the regulatory system, which is composed of a series of linked regulations and procedures; and, because approximately 6 per cent of the allocated quotas had not been used, that the Government carefully monitor the quota utilization and make any adjustments to that allocation, as necessary. The compendium will be developed under stage III; UNDP noted that while the Government monitors quota utilization, there was a legal dispute between two large importers in 2021 that contributed to the reduced quota utilization in 2021, and that such a case is beyond the current quota reallocation mechanism. The verification concluded that Indonesia's permit and import system is transparent and efficient, and that the country is in compliance with its reduction targets and below the targets of the Montreal Protocol.

Progress report on the implementation of the third tranche of stage II of the HCFC phase-out management plan

Legal framework

7. The licensing and quota system for HCFC imports was established in 2012. That system and the country's ODS regulations were further updated in 2014, 2015, 2019, 2020, and 2022, including the following provisions, among others: imports of previously phased out substances are not permitted;³ quotas are only provided to registered importers that have an import licence; implementation of an electronic licensing system; import licence is only valid from the date of issue until 31 December of that year; imports can only enter the country in the assigned six sea ports; imports of RAC equipment through free-trade zones and areas outside customs jurisdictions are governed by the corresponding regulations; and a violation will result in the revocation of the import licence. In addition, in January 2015, the Government implemented a ban on the import, manufacture, and assembly of HCFC-22-based RAC equipment; the use of HCFCs as blowing agents for foam insulation in commercial and industrial refrigeration equipment; and the use of HCFC-141b as a blowing agent in manufacturing domestic refrigerators and freezers, refrigerated trucks, and integral skin foam products. The import of dry (i.e., without refrigerant) CFC-based and HCFC-22-based RAC equipment is also banned. The Government enacted a ban on the use and import of HCFC-141b in bulk and contained in imported pre-blended polyols from 1 January 2022, in line with decision 88/40(a), and ratified the Kigali Amendment on 14 December 2022.

³ Except for imports of methyl bromide for quarantine and pre-shipment uses.

Polyurethane foam manufacturing sector

8. Stage II included the conversion of four large-size (consumption above 20 mt) and eight mid-size (consumption between 5 and 20 mt) enterprises to hydrocarbon (HC)-based blowing agent, with the former blending in-house and the latter purchasing pre-blended HC; a group project for the conversion of 201 small enterprises that would be provided vouchers to purchase low-global-warming-potential (GWP) blowing agents at a reduced price from systems houses; and assistance to two system houses to introduce HC- and hydrofluoroolefin (HFO)-based polyol systems.

9. As of February 2023, all 12 of the large and mid-size enterprises and both systems houses⁴ have completed their conversions. The voucher system for the group project for 201 small enterprises was launched in November 2021 and has distributed 224.26 mt of pre-blended polyol containing HFO as of December 2022, and a further 35 eligible small enterprises were identified and added to the group project; the World Bank has requested an extension of the voucher system to December 2023.

Servicing sector

10. The following activities were undertaken:

- (a) Under the third tranche, 192 (of which 12 were women) of the planned 226 customs officers were trained in refrigerant and RAC equipment identification, control of HCFCs, and monitoring and prevention of illegal trade of HCFCs; trainings are expected to accelerate from 2023 following the end of restrictions related to the COVID-19 pandemic;
- (b) Training of 45 trainers (of which 14 were women) on the curriculum-based competency training on good practices in RAC was completed, for a total of 154 trainers trained in stage II. Of these, 54 trainers have been certified to act as assessors in the competency-based certification of technicians for domestic RAC equipment;
- (c) Training of 720 technicians (of which three were women) on good servicing practices and the safe handling of flammable refrigerants was completed, bringing the total number of technicians trained under stage II to 1,308. Of those, 674 technicians have been certified; to date, an additional 3,060 technicians have been certified with funding from the Government; and
- (d) Awareness-raising activities were implemented to encourage end-users to use environmentally-friendly, low-GWP, non-HCFC technologies in RAC sub-sectors and to use certified technicians for servicing, which included the distribution of 174 informational brochures, and meetings and workshops for 1,237 participants, of which 174 were women.

11. The second and third tranches included the procurement of equipment for five reclamation centres (e.g., multi-refrigerant reclaim unit, vacuum pumps and gauge, cylinders, scale, refrigerant identifier, recovery machine, cylinder inspection borescope) and of 151 tool kits (e.g., recovery machine, vacuum pump and gauge, four-way manifold and hoses for low-pressure refrigerants, four-way manifold and hoses for high-pressure refrigerants, cylinder, scale, leak detector, thermometer, refrigerant identifier) for technicians and training institutions. The equipment for one reclamation centre has been delivered and installed; however, due to supply chain disruptions, the COVID-19 pandemic, and conditions of delivery agreements, procurement and distribution of those remaining tools and equipment were delayed. Accordingly, UNDP and the Government implemented a risk mitigation strategy comprising:

⁴ One of the original two systems houses, PT. MCNS Polyurethane Indonesia, had withdrawn from the project and was replaced with PT. Intimas Chemindo (decision 81/49), which had originally declined to participate in stage II.

- (a) Updating and improving the functionalities of the MontiR-AC mobile application⁵ to screen and pre-select technicians, service workshops, and training institutions that would receive equipment, thereby streamlining the equipment delivery process;
- (b) Prioritizing equipment specifications to allow the staggered delivery of equipment based on whether the equipment required micro-chips; and
- (c) Establishing a staggered delivery schedule in July, September, and December 2023, thereby ensuring that purchase order requirements can be adapted to the available supply chains and allowing for streamlined logistics and distribution.

Technical assistance to the fire-fighting sector

12. A limited assessment of consumption in the fire-fighting sector was completed in 2022 via surveys and consultations with key stakeholders, including seven virtual and two in-person meetings, and potential alternatives to HCFC-123 were identified. A workshop in hybrid format (i.e., allowing for both in-person and virtual participation) on the survey results was organized for 45 people (of which 16 were women), and an awareness activity on alternative technologies was delivered.

Project implementation and monitoring unit

13. The project implementation and monitoring unit (PMU) is supported by the Ministry of Environment and Forestry of Indonesia for the implementation and monitoring of the HPMP, providing technical assistance (TA) to the Government and supported enterprises, organizing meetings and technical visits, preparing reports and budgets, administering finances, and coordinating HPMP activities. Since the end of the second tranche, due to the pandemic, the PMU has focused on improving virtual assistance services with the reduction of in-person meetings and travel. As of March 2023, US \$40,988 had been disbursed by the PMU under the third tranche.

Level of fund disbursement

14. As of March 2023, of the US \$7,868,863 approved so far, US \$4,864,789 had been disbursed (US \$1,662,417 for UNDP and US \$3,202,372 for the World Bank), as shown in table 2. The balance of US \$3,004,074 will be disbursed in 2023.

Table 2. Financial report of stage II of the HPMP for Indonesia (US \$)

Tranche		UNDP	World Bank	Total	Disburse rate (%)
First	Approved	2,233,114	1,985,743	4,218,857	75
	Disbursed	1,165,573	1,985,743	3,151,316	
Second	Approved	753,500	1,276,549	2,030,049	64
	Disbursed	278,046	1,027,496	1,305,542	
Third	Approved	627,086	992,871	1,619,957	25
	Disbursed	218,798	189,133	407,931	
Total	Approved	3,613,700	4,255,163	7,868,863	62
	Disbursed	1,662,417	3,202,372	4,864,789	
	Balance	1,951,283	1,052,791	3,004,074	

⁵ An integrated mobile platform developed with support from the institutional strengthening project to connect technicians and servicing workshops to consumers and equipment owners. The platform allows certified technicians to offer their services in a supply-demand online application where consumers and equipment owners can locate service providers based on qualification and location. The platform also allows clients to rank service providers and collects information on the type and size of equipment (by charge) serviced.

Implementation plan for the fourth and final tranche of stage II of the HCFC phase-out management plan

15. The following activities will be implemented between June 2023 and December 2024:
- (a) Training of 34 customs officers to monitor and prevent illegal trade of HCFCs (US \$8,800); and a refresher training course for 180 customs officers on the identification and handling of ODS (funds from previous tranches) (UNDP);
 - (b) Training and certification of 692 technicians on good servicing practices and the safe handling of alternative refrigerants, including delivery of training materials (US \$200,000); certification of 600 technicians (US \$180,000); delivery of toolkits procured under the third tranche to 151 service shops and technicians, distributed through 10 workshops on the HCFC phase-out and the use of tools for good servicing practices (funds from previous tranche); and delivery, installation, and commissioning of the equipment procured under the third tranche to establish the four reclamation centres (funds from previous tranches) (UNDP);
 - (c) Continued conversions of small enterprises in PU foam manufacturing under the voucher system by December 2023; and monitoring of the PU foam sector activities (World Bank) (funds from previous tranches);
 - (d) A workshop to raise awareness of HCFC alternatives (UNDP) (funds from previous tranches); and
 - (e) Project monitoring (UNDP) (US \$44,500).

SECRETARIAT'S COMMENTS AND RECOMMENDATION**COMMENTS**Report on HCFC consumption and verification report

16. The request for the fourth and final tranche of stage II of the HPMP for Indonesia required the submission of a verification report of HCFC consumption in the country for the years 2021 to 2022. While the 2021 consumption was verified, verification of 2022 consumption was still being undertaken at the time of finalization of the present document. The Secretariat noted that the 2022 HCFC consumption reported under the CP implementation report was 45 per cent below the country's maximum eligible consumption under its Agreement with the Executive Committee. In addition, UNDP committed to submitting the verification of 2022 consumption no later than 12 weeks prior to the 93rd meeting. Accordingly, the Secretariat recommends approval of this funding tranche request in line with decision 72/19(b)⁶, on the understanding that in the unlikely event of non-compliance by the Government of Indonesia with its Agreement with the Executive Committee, relevant actions will be taken by the Executive Committee.

⁶ Decision 72/19(b) states that, should the verification reports not be ready in time for the first meeting of the year, transfer of approved funds to the agencies would occur only after receipt by the Secretariat of the verification report confirming that the country was in compliance with the Montreal Protocol and the Agreement between its Government and the Executive Committee.

Progress report on the implementation of the third tranche of stage II of the HCFC phase-out management plan

Legal framework

17. The Government of Indonesia has already issued HCFC import quotas at 151.25 ODP tonnes, which is lower than the Montreal Protocol control targets.

Polyurethane foam manufacturing sector

18. UNDP reported that the availability of HFOs in 2021 and 2022 was limited, including due to supply chain disruptions; in contrast, the supply of HFOs has been sufficient in 2023 compared to low levels during the 2021-2022 period. The Secretariat supports the extension of the voucher system to December 2023 to maximize the number of small enterprises that can be assisted under the project and enhance the sustainability of the conversion to low-GWP alternatives in the sector.

Refrigeration servicing sector

19. Regarding the delay in the delivery of equipment to the reclamation centres, the Secretariat noted that the equipment for one centre had been delivered and installed, and that centre had started pilot reclaiming; equipment for the remaining four centres would be delivered in the third and fourth quarters of 2023. Those centres are expected to be operational by the second quarter of 2024. The plan implemented by UNDP to address the delays in delivery of equipment to the reclamation centres and tool kits for technicians and training institutions, which includes staggered shipments depending on the availability of specific components and equipment, demonstrates UNDP's sound risk management approach that allowed for the necessary adjustments to ensure the project could be implemented notwithstanding supply chain disruptions and challenges associated with the COVID-19 pandemic. UNDP confirmed that it will include information on the quantity of controlled substances reclaimed at the five reclamation centres as part of the final report on the implementation of stage II that will be submitted to the first meeting of 2025.

Technical assistance to the fire-fighting sector

20. Restrictions due to the COVID-19 pandemic affected the implementation of TA to the fire-fighting sector, limiting the ability of UNDP to organize in-person consultation meetings. Accordingly, virtual consultations were organized where necessary, complemented by in-person consultations where possible. The assessment found that HCFC-123 was used to charge hand-held fire extinguishers and wheeled units; however, it was not clear whether total flooding HCFC-123-based fire suppression systems were used in the country, nor whether enterprises manufacture or assemble HCFC-123-based fire suppression and fire protection equipment. Accordingly, the country proposed to include in stage III of the HPMP activities to address those uncertainties.

21. Based on the activities undertaken, an initial assessment of the market was completed, and importers, distributors, and potential assemblers, as well as alternatives in the sector, were identified. Alternatives identified included not-in-kind alternatives (e.g., dry powder, foam, carbon dioxide, water) and in-kind alternatives, including HFC-125, HFC-227ea, FK-5-1-12, HBFO-1233xfB,⁷ and HFO-1336mzz(Z). An enterprise was going through testing and certification of the latter alternative, which was expected to take at least one year; the alternative was not yet commercially available in the country.

⁷ Known commercially as 2-BTP.

Gender policy implementation⁸

22. The first and second tranche of stage II of the HPMP were approved prior to decision 84/92(d); therefore, UNDP had not collected gender disaggregated data on the activities implemented under those tranches. Gender mainstreaming under the third tranche included the preparation of a gender action plan, which entailed awareness-raising activities on gender-responsive communications and promoting the participation of women in events and activities under the HPMP, including by including gender-related elements in job descriptions and terms of references for HPMP components such as the training sessions, promoting gender mainstreaming in staff training and awareness campaigns, and collecting disaggregated gender data. Implementation of the gender action plan will continue into the fourth tranche and stage III of the HPMP.

Completion of stage II of the HCFC phase-out management plan

23. UNDP has confirmed that stage II for Indonesia will be completed by 31 December 2024 as established in paragraph 14 of the Agreement.

Sustainability of the HCFC phase-out and assessment of risks

24. The Government of Indonesia has an enforceable licensing and quota system, and as of 2015 has prohibited the import, manufacturing, and assembly of HCFC-22-based RAC equipment and the use of HCFCs as blowing agents for specific applications. As of February 2023, all large and mid-size enterprises in the PU foam sector and both systems houses have completed their conversions, and the voucher system for small enterprises is being implemented; the ban on the use and import of HCFC-141b in bulk and contained in imported pre-blended polyols, enacted on 1 January 2022, will further ensure the sustainability of the PU foam sector phase-out. As restrictions have eased following the pandemic, continued training and certification of technicians in 2023 and the strengthening of training institutions will contribute to the further decline of HCFC consumption in RAC servicing, while continued training of customs officers will ensure adherence to the import bans and lower risk of illegal trade. Given the country's progress in implementing activities, including through training and the control of HCFCs, risks to the sustainability of the phase-out are considered low.

Conclusion

25. The 2020, 2021, and 2022 HCFC consumption was 53, 57, and 66 per cent below the country's HCFC baseline for compliance, respectively, and 25, 32, and 45 per cent below the maximum allowable consumption under the Agreement with the Executive Committee for those years. The Government continues to implement a licensing and quota system for monitoring and controlling HCFCs, and to enforce bans on specified imports, manufacturing, and uses of HCFCs, including the 2022 ban on HCFC-141b. Notwithstanding lingering delays caused by the COVID-19 pandemic, implementation of the HPMP progressed, including the conversion of the PU foam manufacturing enterprises and systems houses, though additional time is required to ensure the provision of vouchers to small enterprises in the sector. Capacity-building of customs officers and servicing technicians has proceeded and will continue during 2023, along with equipment support to training and reclamation centres and the use of certified technicians. Knowledge gained from assessments in the fire-fighting sector will aid in addressing the remaining phase-out during stage III of the HPMP. The overall disbursement rate stands at 62 per cent, and 25 per cent of the third tranche has been disbursed, with additional disbursement expected upon delivery of the delayed shipments of equipment. Activities planned in the final tranche will further sustain the results achieved in the course of HPMP implementation and support the transition into the final stage.

⁸ In line with decision 84/92(d), decision 90/48(c) encouraged bilateral and implementing agencies to continue ensuring that the operational gender mainstreaming policy was applied to all projects, taking into consideration the specific activities presented in table 2 of document UNEP/OzL.Pro/ExCom/90/37.

RECOMMENDATION

26. The Fund Secretariat recommends that the Executive Committee:

- (a) Note the progress report on the implementation of the third tranche of stage II of the HCFC phase-out management plan (HPMP) for Indonesia; and
- (b) Request the Government of Indonesia, UNDP and the World Bank to submit a progress report on the implementation of the work programme associated with the final tranche to the first meeting of the Executive Committee in 2025 and the project completion report to the second meeting of the Executive Committee in 2025.

27. The Fund Secretariat further recommends blanket approval of the fourth and final tranche of stage II of the HPMP for Indonesia and the corresponding 2023-2024 tranche implementation plan at the funding level shown in the table below, on the understanding that:

- (a) UNDP has committed to submitting the verification report no later than 12 weeks prior to the 93rd meeting; and
- (b) In the unlikely event of non-compliance by the Government of Indonesia with its Agreement with the Executive Committee, relevant actions will be taken by the Executive Committee.

	Project title	Project funding (US \$)	Support costs (US \$)	Implementing agency
(a)	HCFC phase-out management plan (stage II, fourth tranche)	433,300	30,331	UNDP

PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS

Indonesia

(I) PROJECT TITLE	AGENCY
HCFC phase-out plan (stage III)	UNDP (lead), Australia

(II) LATEST ARTICLE 7 DATA (Annex C Group I)	Year: 2022	137.82 ODP tonnes
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(III) LATEST COUNTRY PROGRAMME SECTORAL DATA (ODP tonnes)							Year: 2022		
Chemical	Aerosol	Foam	Fire-fighting	Refrigeration		Solvent	Process agent	Lab use	Total sector consumption
				Manufacturing	Servicing				
HCFC-22					136.60				136.60
HCFC-123			0.47		0.75				1.22

(IV) CONSUMPTION DATA (ODP tonnes)			
2009-2010 baseline:	403.90	Starting point for sustained aggregate reductions:	403.90
CONSUMPTION ELIGIBLE FOR FUNDING			
Already approved:	219.33	Remaining:	184.59

(V) ENDORSED BUSINESS PLAN		2023	2024	2025	Total
UNDP	ODS phase-out (ODP tonnes)	50.20	0.00	66.90	117.10
	Funding (US \$)	4,687,767	0	6,247,244	10,935,011
Australia	ODS phase-out (ODP tonnes)	0.00	0.00	0.00	0.00
	Funding (US \$)	0	0	0	0

(VI) PROJECT DATA		2023 - 2024	2025 - 2027	2028 - 2029	2030	Total	
Montreal Protocol consumption limits (ODP tonnes)		262.54	131.27	131.27	0.00	n/a	
Maximum allowable consumption (ODP tonnes)		181.76	131.27	131.27	0.00	n/a	
Project costs requested in principle (US \$)	UNDP	Project costs	3,520,244	5,415,032	2,970,571	1,335,000	13,240,847
		Support costs	246,417	379,052	207,940	93,450	926,859
	Australia	Project costs	495,000	415,000	665,000	110,000	1,685,000
		Support costs	57,388	48,113	77,097	12,752	195,350
Total project costs recommended in principle (US \$)		4,015,244	5,830,032	3,635,571	1,445,000	14,925,847	
Total support costs recommended in principle (US \$)		303,805	427,165	285,037	106,202	1,122,209	
Total funds recommended in principle (US \$)		4,319,049	6,257,197	3,920,608	1,551,202	16,048,056	

(VII) Request for approval of funding for the first tranche (2023)		
Implementing agency	Funds recommended (US \$)	Support costs (US \$)
UNDP	3,520,244	246,417
Australia	495,000	57,388
Total	4,015,244	303,805

Secretariat's recommendation:	Individual consideration
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PROJECT DESCRIPTION

Background

28. On behalf of the Government of Indonesia, UNDP as the lead implementing agency has submitted a request for stage III of the HCFC phase-out management plan (HPMP), at a total cost of US \$16,694,453, consisting of US \$13,844,956, plus agency support costs of US \$969,147 for UNDP and US \$1,685,000, plus agency support costs of US \$195,350 for the Government of Australia, as originally submitted.⁹ The implementation of stage III of the HPMP will phase out the remaining consumption of HCFCs by 2030.

29. The first tranche of stage III of the HPMP being requested at this meeting amounts to US \$4,319,049, consisting of US \$3,520,244, plus agency support costs of US \$246,417 for UNDP and US \$495,000, plus agency support costs of US \$57,388 for the Government of Australia, as originally submitted.

Status of implementation of stage II of the HCFC phase-out management plan

30. Stage I of the HPMP for Indonesia was approved at the 64th meeting¹⁰ to meet 20 per cent reduction from the baseline by 2018 at a total cost of US \$12,692,684, to phase out 135 ODP tonnes. Stage II of the HPMP for Indonesia was approved at the 76th meeting¹¹ to phase out 84.33 ODP tonnes of HCFCs used in the servicing of refrigeration and air-conditioning (RAC) equipment and in the manufacture of polyurethane (PU) foam to meet the 55 per cent reduction from the baseline by 2023, at a total cost of US \$8,302,163, plus agency support costs.

31. An overview of the implementation of stage II, including the analysis of HCFC consumption; progress and financial reports on the implementation; and the request for the fourth and final tranche submitted to the current meeting, is available in paragraphs 1 to 25 of the present document.

Stage III of the HCFC phase-out management plan

Remaining consumption eligible for funding

32. After deducting 219.33 ODP tonnes of HCFCs associated with stages I and II of the HPMP, the remaining consumption eligible for funding in stage III amounts to 184.59 ODP tonnes of HCFC.

Sector distribution of HCFCs

33. HCFC-22 is used exclusively to service RAC equipment, including residential air-conditioning (AC), commercial AC, commercial refrigeration equipment, small chillers, and industrial refrigeration equipment; there are approximately 75,000 technicians in the country. HCFC-123 is used to service chillers and fire suppression and fire protection equipment; some HCFC-123 may also be used to assemble and manufacture fire suppression and fire protection equipment. In 2019, five HFCs and HFC blends (HFC-134a, R-410A, R-404A, HFC-32, and R-407C) accounted for 97 per cent of the country's HFC consumption. The aggregated 2019 consumption of those five HFCs and HFC blends was approximately 2.25 times the country's HCFC-22 consumption for that year. Consumption of HFC blends that can be used as drop-ins for HCFC-22 (i.e., R-407F, R-417A, R-438A, R-427A, and R-422D) initially increased following the 2015 ban on the import and manufacture of HCFC-22-based RAC equipment, and then decreased, with relatively small, continued use consistent with testing and trials of those substances by enterprises. Similarly, R-407C, which can be used to retrofit HCFC-22-based RAC equipment, increased substantially after the 2015 ban, decreased, and then started to increase. That trend is likely driven primarily

⁹ As per the letter of 14 February 2023 from the Ministry of Environment and Forestry of Indonesia to UNDP.

¹⁰ Decision 64/42(b)

¹¹ Decision 76/38(a)

by increased uptake of R-407C-based commercial AC units, smaller chillers, and variable refrigerant flow AC units rather than the retrofit of HCFC-22-based equipment.

Phase-out strategy

34. Stage III of the HPMP will focus on strengthening the regulatory framework, promoting the transition to low-global-warming-potential (GWP) technologies in the RAC sector, further strengthening the capacity of the servicing sector, and phasing out the consumption of HCFC-123 used in fire suppression and fire protection equipment and in chillers.

Proposed activities in stage III of the HCFC phase-out management plan

35. The activities proposed under stage III aim to improve the technical capabilities of the country and strengthen its RAC servicing sector, and include updates to the legal framework, strengthening the capacity of customs and the servicing sector, technical assistance (TA) to chillers and the fire-fighting sector, awareness-raising, and implementation and monitoring.

Legal framework

36. Proposed activities under the legal framework amount to US \$510,000 and include:

- (a) Strengthening the regulatory framework: Develop a compendium of the policies and regulations in Indonesia related to the phase-out of controlled substances as a guide for stakeholders (UNDP) (US \$60,000); monitor the use of HCFC-123 in chillers and the fire-fighting sector and issue bans on its import and use (UNDP) (US \$70,000); and update the national safety standards and competency curriculum (Australia) (US \$80,000); and
- (b) Building the capacity of customs: Train 900 customs officers on the import of controlled substances (US \$270,000); update the customs training module (US \$10,000); and develop a risk profiling manual on importing controlled substances (US \$20,000) (UNDP).

Refrigeration and air-conditioning servicing sector

37. The phase-out of HCFC-22 in the RAC servicing sector will be supported through the expansion of technician training and the certification scheme; strengthening of the recovery, recycling, and reclamation (RRR) network; equipment support to technicians and training institutions; analysis of sectors still consuming HCFCs; and awareness-raising campaigns. Funding is being requested in the amount of US \$13,475,760 and includes:

- (a) Strengthening technician capacity: Train 500 trainers and 3,500 technicians in good servicing practices, incorporating gender mainstreaming (Australia/UNDP) (US \$3,385,000); and certify 3,500 technicians under the certification scheme (UNDP) (US \$1,050,000);
- (b) Strengthening the RRR network: Establish nine reclamation centres, including the procurement and delivery of equipment¹² (US \$1,088,488); improve infrastructure and access for self-service stations for these and the five centres established under stage II (US \$700,000); develop standard operating procedures (SOPs) on the proper use of

¹² Includes (per centre): multi-refrigerant reclamation unit, consumables for one year of operation (i.e., molecular sieve, hoses, oil filters), high-speed transfer pump, vacuum pump, vacuum gauge, portable charging unit, ten 100-lb refrigerant cylinders, ten 30-lb refrigerant cylinders, weight scale (up 1,000 kg), two refrigerant identifiers, trolley cart, two cylinder inspection tools, cylinder cleaning platform (with oil catchment unit), cylinder drying equipment, and high pressure washing machine.

reclamation equipment and facilities (US \$126,000); and strengthen the capacity of reclamation technicians through the training of 140 trainers in reclamation practices (US \$28,000) (UNDP);

- (c) Equipment support: Procure training and certification equipment to distribute to 15 vocational training centres¹³ (US \$2,135,340); procure maintenance and recovery equipment¹⁴ for 200 service shops handling large-scale units (US \$1,210,572); procure 1,000 sets of basic servicing tools and deliver to newly certified technicians (US \$2,373,360) (UNDP);
- (d) Strategy development for sensitive sectors: Carry out three national assessments to develop a strategy to manage consumption during the servicing tail in the fisheries sector and agricultural cold chain sector, and for handling unwanted ODS and refrigerants (UNDP) (US \$360,000); and
- (e) Awareness-raising campaigns: Implement seven awareness campaigns on HCFC bans and the phase-out, including controlled uses and leakage reduction; implement 10 end-user-driven campaigns on the safety and benefits of alternative technologies; and upgrade the MontiR-AC mobile application platform to expand functionalities and further integrate its use in the certification programme (UNDP) (US \$469,000); and organize 10 technical workshops covering the main regions of the country on the use and application of low-GWP RAC technologies (Australia) (US \$550,000).

Technical assistance for chillers and in the fire-fighting sector

38. HCFC-123 continues to be consumed for use in chillers and in the fire-fighting sector. Stage II included an assessment of consumption in the latter; however, further TA is needed to identify HCFC-123-based fire suppression and fire protection equipment and to better understand consumption of HCFC-123 post-pandemic, including whether there are HCFC-123-based total flooding systems and manufacturing or assembly of HCFC-123-based fire suppression and fire protection equipment in the country. Funding is being requested for UNDP in the amount of US \$165,696 and includes:

- (a) Map installed capacity of chillers and fire-fighting systems: Conduct in-depth studies, surveys, and assessments to collect data for mapping the current distribution and estimating future servicing needs of chillers (US \$70,000), and the future servicing needs of fire-fighting systems, including if end-users will need a recycling centre (US \$50,000);
- (b) Assessment of needs in chillers and fire-fighting systems: Develop a strategy of managing consumption based on the collected data, e.g., by establishing HCFC-123 recycling banks to support future demand, in chillers (US \$20,000) and in the fire-fighting sector, which will also include an analysis of supply chain, manufacturers, distributors, and installers, and guidance on the deployment of alternative technologies (US \$19,792); and
- (c) SOPs on good service practices for chillers: Develop SOPs on good servicing practices and reduced leakage in chillers, and guidance on replacing HCFC-123 with replacement technologies (US \$5,904).

¹³ Includes (per centre): basic refrigeration, split AC, condensing unit, commercial refrigeration rack, and commercial refrigeration display training units; hydrocarbon (HC) manifold sets, HC leak detectors, weight scales, charging machine; recovery units; vacuum pump, vacuum gauge, thermometer, and refrigerant cylinders.

¹⁴ Includes (per shop): gauge manifold set, basic tools, vacuum pump and gauge, A2L/A3 recovery units, cylinders, leak detector, thermometer, valve core remover, nitrogen service set, and flammable refrigerant labels.

Project implementation and monitoring unit

39. The system established under stages I and II of the HPMP will continue into stage III, with the national ozone unit (NOU) and UNDP monitoring activities, reporting on progress, and working with stakeholders to phase out HCFCs. The cost of those activities for UNDP amounts to US \$1,378,500, and includes project staff and consultants (US \$1,080,000), operational costs (US \$99,000), third-party verification of consumption (US \$24,000); and implementation and monitoring, including meetings and mission travel (US \$175,500).

Gender policy implementation¹⁵

40. Gender mainstreaming under stage III of the HPMP will be based on the gender action plan developed under the third tranche, which included promoting the participation of women in events and activities under the HPMP, promoting gender mainstreaming in staff training and awareness campaigns, and collecting disaggregated gender data. The hiring of female candidates was prioritized during the preparation of stage III. Further plans for stage III include ensuring equal opportunities for women in the RAC sector and creating a safe space for women to participate.

Total cost of stage III of the HCFC phase-out management plan

41. The total cost of stage III of the HPMP for Indonesia has been estimated at US \$15,529,956 (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 III of the HPMP for Indonesia as submitted

Activity	Agency	Cost (US \$)
<i>Legal framework (US \$510,000)</i>		
Strengthening the regulatory framework	UNDP/Australia	210,000
Building the capacity of customs	UNDP	300,000
<i>RAC servicing sector (US \$13,475,760)</i>		
Strengthening technician capacity	UNDP/Australia	4,435,000
Strengthening the RRR network	UNDP	1,942,488
Equipment support	UNDP	5,719,272
Strategy development for sensitive sectors	UNDP	360,000
Awareness-raising campaigns	UNDP/Australia	1,019,000
<i>TA for chillers and in the fire-fighting sector</i>	UNDP	165,696
<i>Project implementation and monitoring unit (PMU)</i>	UNDP	1,378,500
Total		15,529,956

Activities planned for the first tranche of stage III

42. The first funding tranche of stage III of the HPMP in the total amount of US \$4,015,244 will be implemented between June 2023 and May 2025 and will include the following activities:

- (a) *Legal framework and customs*: Develop a compendium of the policies and regulations in Indonesia related to the phase-out of controlled substances as a guide for stakeholders (UNDP) (US \$60,000); update the customs training module (UNDP) (US \$10,000); and update the national safety standards and competency curriculum (Australia) (US \$80,000);

¹⁵ In line with decision 84/92(d), decision 90/48(c) encouraged bilateral and implementing agencies to continue ensuring that the operational gender mainstreaming policy was applied to all projects, taking into consideration the specific activities presented in table 2 of document UNEP/OzL.Pro/ExCom/90/37.

- (b) *RAC servicing sector:* Train 100 trainers in good servicing practices (Australia) (US \$250,000); improve infrastructure and access for self-service stations for the five centres established under stage II (US \$200,000); develop SOPs on the proper use of the reclamation equipment and facilities at five centres (US \$45,000); train 50 trainers in reclamation practices (US \$10,000) (UNDP); procure basic training and certification equipment to distribute to 15 vocational training centres (US \$2,135,340); procure equipment for the establishment of five reclamation centres (US \$600,000); launch two awareness campaigns on HCFC bans and the phase-out, and two end-user-driven campaigns on the safety and benefits of alternative technologies (US \$40,000) (UNDP); and organize three technical workshops on the use and application of alternative technologies (Australia) (US \$165,000);
- (c) *TA for chillers:* Conduct in-depth studies, surveys, and assessments to collect data for mapping the current distribution and estimating future servicing needs of chillers (US \$70,000); develop a strategy of managing consumption based on the collected data in chillers (US \$20,000); and develop SOPs on good servicing practices and reduced leakage in chillers (US \$5,904) (UNDP); and
- (d) *Project implementation and monitoring:* The PMU will coordinate implementation of the first tranche by recruiting staff and extending contracts, establishing agreements to allow for continuation of equipment procurement, conducting stakeholder meetings, organizing two project board meetings, and preparing reports and proposals. The cost of those activities for UNDP amounts to US \$324,000, and includes project staff and consultants (US \$255,000), operational costs (US \$22,000), third-party verification of consumption (US \$8,000); and implementation and monitoring (US \$39,000).

SECRETARIAT'S COMMENTS AND RECOMMENDATION

COMMENTS

43. The Secretariat reviewed stage III of the HPMP in light of stages I and II, 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 2023-2025 business plan of the Multilateral Fund.

Overarching strategy

44. The Government of Indonesia proposes to meet the 100 per cent reduction of its HCFC baseline consumption by 2030, and to maintain a maximum annual consumption of HCFCs in the period of 2030 to 2040 at a level consistent with Article 5, paragraph 8 ter(e)(i) of the Montreal Protocol.¹⁶ The rationale for extending stage III to 2030 was to allow for the development of a comprehensive and coherent set of activities in the servicing sector, complemented by the necessary policies and regulations, and ensuring the continuity of those activities. In addition, the proposal for total phase-out avoids the need for and expense of preparing a fourth stage of the HPMP.

45. In line with decision 86/51, to allow for consideration of the final tranche of its HPMP, the Government of Indonesia agreed to submit a detailed description of the regulatory and policy framework in place to implement measures to ensure that HCFC consumption is in compliance with paragraph 8 ter(e)(i) of Article 5 of the Montreal Protocol for the period 2030–2040, and, if Indonesia intends to have consumption during the period 2030–2040, in line with paragraph 8 ter(e)(i) of Article 5 of

¹⁶ 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.

the Montreal Protocol, proposed modifications to its Agreement with the Executive Committee covering the period beyond 2030.

Legal framework

46. While Indonesia had already implemented a ban on the import and manufacture of HCFC-22-based RAC equipment (effective 1 January 2015), and a ban on the import and use of HCFC-141b pure and contained in pre-blended polyols (effective 1 January 2022), the Secretariat sought to better understand when the Government intended to issue a ban on HCFC-123-based chillers and fire suppression and fire protection equipment, noting that in line with paragraph 8ter(e)(ii)(a) and (b) of Article 5 of the Montreal Protocol, only equipment existing on 1 January 2030 could be serviced with HCFCs between 2030 and 2040, while noting that the circumstances of the chiller and fire-fighting sectors were different.

47. In particular, while the lifespan of a chiller in Indonesia ranges from 15 to 20 years, chillers that are replaced may be shifted as a “back-up” unit, effectively prolonging the equipment’s lifetime. An international chiller manufacturer was considering transitioning to non-HCFC-123 chillers around 2027; however, such a timeline would likely mean that there would be HCFC-123-based chillers in the country within their expected useful lifetime that would need servicing after 2040, which could only be undertaken with recovered or reclaimed HCFC-123. Moreover, while HFC-based chillers were available in the market, consultations with suppliers had indicated a willingness to shift to marketing low-GWP-based chillers. Accordingly, the Government proposed to establish a ban on the import, manufacture, and installation of HCFC-123-based chillers by 1 January 2026. The Secretariat also noted that the Government may wish to consider including measures in its stage I Kigali HFC implementation plan (KIP) to facilitate the uptake of low-GWP-based chillers, in line with the flexibility afforded to Article 5 countries in paragraph 13 of decision XXVIII/2.

48. Regarding the fire-fighting sector, there was a lack of information on whether there exists in the country, and the number of, total flooding fire suppression equipment using HCFC-123; whether there is HCFC-123-based manufacturing and assembly in the sector; and the prevalence of “sensitive” users (e.g., military, civil aviation, and oil and gas sectors) with strict (and often time-consuming) safety requirements that may require detailed assessments to allow the introduction of alternatives. In addition, while some low-GWP and not-in-kind alternatives were available, HFCs (e.g., HFC-227ea, HFC-125) were also believed to be used in the country. Moreover, while preliminary data indicates that very high-GWP HFCs (e.g., HFC-236fa, HFC-23) were not used in Indonesia, they were used in the sector in some countries in the region; accordingly, there was a risk that a premature ban could lead to the introduction of very high-GWP HFC-based equipment. As such equipment would be introduced after the establishment of the country’s HFC baseline, a premature ban on HCFC-123-based fire suppression and fire protection equipment could make the country’s subsequent HFC phase-down more challenging. Accordingly, it was agreed that the Government would develop a timeline for a ban on the import, manufacture, and assembly of HCFC-123-based fire suppression and fire protection equipment that is based on the proposed TA for the sector, as well as the additional TA activities identified in paragraph 55 below, on the understanding that the ban would be no later than 1 January 2030.

Technical and cost-related issues

49. As submitted, funding of stage II of the HPMP was based on the country’s 2021 consumption, the most recent consumption that was available at the time the project was prepared. In line with the decision in paragraph 32(b) of document UNEP/OzL.Pro/ExCom/16/20, and noting the impact of the COVID-19 pandemic on the country’s consumption, it was agreed to use the 2020-2022 average consumption to determine the eligible consumption for the project, resulting in a maximum funding of US \$13,359,984 for the servicing sector and US \$298,368 for activities to reduce consumption of HCFC-123 in chillers and in the fire-fighting sector. On that basis, UNDP reduced the funding allocated to the servicing sector by

US \$625,776 and proposed US \$132,667 for additional activities to address HCFC-123 consumption in chillers and fire suppression and fire protection equipment, as further detailed below.

Refrigeration and air-conditioning servicing sector

50. Noting the reduction of US \$625,776 in funding to the servicing sector, the following adjustments were made to the servicing sector plan:

- (a) Removing the assessment on the handling of unwanted ODS (US \$120,000), noting that Indonesia could submit a proposal under the funding window established in decision 91/66(b) to prepare a national inventory of banks of used or unwanted controlled substances and a plan for the collection, transport, and disposal of such substances, including consideration of recycling, reclamation, and cost-effective destruction;
- (b) Rationalizing the costs associated with the national assessment for the fisheries sector and agricultural cold chain, and associated with upgrading the MontiR-AC platform, resulting in savings of US \$50,000 and US \$15,000, respectively; and
- (c) Reducing the costs to establish new reclamation centres by reducing the number of refrigerant identifiers, cylinders, and cylinder inspection tools procured per centre, with a corresponding reduction in shipping and distribution costs; procuring a lower capacity reclamation unit; and by securing the co-financing from the Ministry of Manpower for the procurement of high-speed transfer pumps and cylinder cleaning and drying equipment, resulting in savings of US \$440,776.

51. In October 2019 a regulation requiring competency-based certification for RAC technicians entered into force. The Secretariat sought clarification on the enforcement of the regulation, noting that there are approximately 75,000 technicians in country, of whom to date 5,390 have been certified; and noting that a small proportion of the remaining technicians would be certified under stage III. UNDP clarified that Indonesia's certification system consists of five levels. The certification system is operational for levels one ("technician assistant"), two ("maintenance technician"), and three ("residential AC and domestic refrigeration technician"),¹⁷ and mandatory for levels two and three. The certification is not yet operational for levels four ("commercial refrigeration technician") and five ("central AC and chiller senior technicians"). The Government considered that level four and five certification would best be addressed under the country's KIP since technicians certified at those levels would likely focus primarily on HFC-based equipment, and given the limited funding available under stage III and the financial resources required to develop the certification scheme for levels four and five, including additional equipment for the vocational centres (e.g., trainer kits for commercial RAC equipment and chillers); a dedicated train-the-trainers programme; and certification of assessors for level four and five competency assessments. The Secretariat considers such prioritization strategic, noting also that the majority of the country's HCFC-22 consumption was to service residential AC units.

52. Regarding the higher cost to train and certify technicians under the plan relative to other Article 5 countries, UNDP explained that the training is a 12-week programme and the certification assessment can take up to two days, reflecting the intent of the Government to professionalize the sector. A similar approach was used by non-Article 5 countries, who required numerous years to professionalize their technicians. Accordingly, the timeline required to certify all technicians in the country at an appropriate level was beyond the period of implementation of stage III. In order to ensure the training and certification system will be sustainable, including after the completion of stage III, the Ministry of Manpower, advised by the

¹⁷ Level three technicians require in-depth knowledge and skills for the installation, maintenance, and troubleshooting of residential RAC equipment, including brazing, flaring, and refrigerant recovery, while level two technicians undertake simple maintenance activities not requiring a complete shut down or interventions on the refrigerant circuit, such as change of spare parts or consumables (i.e., filters) and cleaning and/or sanitizing indoor or outdoor units.

Ministry of Environment and Forestry, will continue training and certifying technicians (at levels two and three) with its own resources. On that basis, the Government committed to training and certifying an additional 3,500 technicians with its own resources by the completion of the project. The Secretariat further noted that certified technicians would be registered with the MontiR-AC mobile application; the use of that application, which connects technicians to consumers and equipment owners,¹⁸ will help spur demand for certified technicians, enhancing the sustainability of the certification scheme.

53. Five reclamation centres were established under stage II and an additional nine centres will be established under stage III. The competency requirements for certification include a comprehensive set of measures to enable reclamation in the country, including requiring recovery of HCFCs during servicing of RAC equipment; measures to prevent venting of HCFCs during installation, servicing and decommissioning of RAC equipment; leak-checking for equipment with a charge above 3 kg; and recovery of HCFC from containers and equipment at their end of life. In addition, the country had established a code of practice for RAC technicians supporting those measures. The centres will be able to reclaim HCFC-22, pure HFCs, the most common HFC blends (R-410A, R-407C, and R-404A), and HFC-32.

Chillers and the fire-fighting sector

54. Regarding the uncertainty on whether there was total flooding HCFC-123-based fire suppression systems and assembly and manufacturing of HCFC-123-based fire suppression and fire protection equipment in the country, notwithstanding the TA for the sector undertaken in stage II and the preparation funding provided for stage III, UNDP emphasized the large geography of the country, the limited funding allocated under stage II and available under stage III project preparation, and the restrictions imposed by the COVID-19 pandemic; and that the assessments planned under stage III would address that uncertainty.

55. In order to ensure the sustainable phase-out of HCFC-123 in the fire-fighting sector and avoid the introduction of HFC-based equipment, it was agreed to include the following additional activities: development of guidelines and a manual for green procurement, and development of case studies for the replacement of HCFC-123-based fire protection and suppression equipment (US \$32,382); and four stakeholder consultations to raise awareness of assessment results and low-GWP and not-in-kind alternatives (e.g., dry powder, foam, carbon dioxide, and water) (US \$20,000). Those activities will be undertaken together with the other TA activities for the sector in the second tranche of the HPMP; accordingly, an update on the timeline for the ban will be included as part of the progress report submitted with the third tranche request.

56. In considering possible additional activities for chillers, the Secretariat inquired whether HCFC-123 that was recovered from chillers could be reclaimed and used for the fire-fighting sector. However, such an approach was considered not practical for Indonesia as the country comprises many islands and the geographic distribution of chillers and fire suppression and fire protection equipment was not clear, including whether chillers were in reasonable proximity to fire suppression and fire protection equipment; the practice in the country for retired chillers to be maintained as a “back-up” unit rather than decommissioned; the need for suitable equipment to reclaim a low-pressure, liquid refrigerant (i.e., HCFC-123); and the need for additional assessments in both sectors. Accordingly, the following additional TA activities for chillers were agreed: an assessment of the alternatives landscape for chillers, including the alternative technologies, supply chain, main manufacturers, distributors, and installers (US \$20,000); development of guidelines and a manual for green procurement for replacement of HCFC-123-based chillers (US \$20,000); seven stakeholder consultations to raise awareness of low-GWP alternatives, SOPs on good servicing practices and reduced leakage in chillers, and assessment results, including the possible establishment of HCFC-123 recycling banks from chillers (US \$40,285).

¹⁸ The MontiR-AC applications is further described in paragraph 11(a) of the present document.

Project implementation and monitoring unit

57. The Secretariat noted that stage II of the HPMP would be completed by December 2024, resulting in an overlap in the operation of the PMU established under that stage and under stage III. Accordingly, it was agreed to reduce the funding for the PMU by US \$111,000, reflecting savings in personnel and operating costs.

Total project cost

58. Stage III of the HPMP will phase-out 2,783.33 mt (153.08 ODP tonnes) of HCFC-22 and 62.16 mt (1.24 ODP tonnes) of HCFC-123, the country's 2020-2022 average consumption for those substances, at a total cost of US \$14,925,847, resulting in a cost-effectiveness of US \$5.25/kg. In addition, the Government had committed to phase out HCFCs completely by 1 January 2030 through the implementation of stage III, resulting in additional reductions from the country's remaining HCFC consumption eligible for funding of 501.58 mt (27.59 ODP tonnes) of HCFC-22, 132.84 mt (2.66 ODP tonnes) of HCFC-123, and 0.29 mt (0.02 ODP tonnes) of HCFC-225, resulting in an overall cost-effectiveness of US \$4.29/kg. The funding for the first tranche was agreed as submitted.

Table 4. Agreed cost of stage III of the HPMP for Indonesia as submitted

Activity	Agency	Cost (US \$)
<i>Legal framework (US \$510,000)</i>		
Strengthening the regulatory framework	UNDP/Australia	210,000
Building the capacity of customs	UNDP	300,000
<i>RAC servicing sector (US \$13,475,760)</i>		
Strengthening technician capacity	UNDP/Australia	4,435,000
Strengthening the RRR network	UNDP	1,501,712
Equipment support	UNDP	5,719,272
Strategy development for sensitive sectors	UNDP	190,000
Awareness-raising campaigns	UNDP/Australia	1,004,000
<i>TA for chillers and in the fire-fighting sector</i>	UNDP	298,363
<i>PMU</i>	UNDP	1,267,500
Total		14,925,847

Impact on the climate

59. The activities proposed 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 the savings of approximately 1.8 CO₂-equivalent tonnes. A calculation of the impact on the climate was provided in the HPMP. The activities planned by Indonesia, including its efforts to promote low-GWP alternatives, as well as refrigerant recovery and reuse indicate that the implementation of the HPMP will reduce the emission of refrigerants into the atmosphere, resulting in climate benefits.

Sustainability of the HCFC phase-out and assessment of risks

60. The Government of Indonesia has implemented a ban on the import and manufacture of HCFC-22 RAC equipment (effective 1 January 2015); a ban on the use of HCFC-141b for various applications as of 1 January 2015; and a ban on the import and use of HCFC-141b pure and contained in pre-blended polyols as of 1 January 2022 (in line with decision 88/40(a)). In addition, the Government will ban the import, manufacture and installation of HCFC-123-based chillers by 1 January 2026, and the import, assembly and manufacture of HCFC-123-based fire suppression and fire protection equipment no later than 1 January 2030. Those bans, combined with measures to enable reclamation in the country, Government support to the reclamation centres, including after the completion of the stage, and the professionalization of the servicing sector will help ensure the long-term sustainability of the phase-out.

61. In addition, the country will 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. The TA to the fisheries sector and agricultural cold chain, two sectors that are critical to Indonesia's economy, will help ensure that any HCFCs that are needed to ensure the continued operation of those sectors during that period are available while also ensuring the country remains in compliance with the Montreal Protocol.

62. Given the long lifetime of chillers, an earlier ban on chillers would further reduce the risk that HCFC-123-based chillers will need servicing after 1 January 2040; however, the Secretariat does not consider an earlier ban feasible given the time the Government requires to establish that regulation. Similarly, while an earlier ban on HCFC-123-based fire suppression and fire protection equipment would reduce the risk that such equipment will need servicing after 1 January 2040, the Secretariat considers the approach of the Government to first undertake detailed assessments of the sector before committing to a ban earlier than 1 January 2030 to be a prudent approach that appropriately balances that risk with the risks associated to the country's HFC phase-down, noting that the country had ratified the Kigali Amendment and that a premature ban of such equipment could result in the introduction of HFC-based, and possibly very high-GWP HFC-based, fire suppression and fire protection equipment.

63. In line with UNDP's enterprise risk management policy,¹⁹ UNDP undertook a comprehensive review to identify and assess project risks. The outcome of that review is the project risk register, which was reviewed by a project appraisal committee, and shared with the Secretariat during its review of stage III. Measures to mitigate risk included the implementation of awareness campaigns to stakeholders about impacts of technology choices and to promote low-GWP alternatives; environmental and social impact assessments and the development of SOPs for the reclamation centres and ensuring that those centres are licensed and abide by local regulations; and application of UNDP's Partner Capacity Assessment Tool and Enterprise Risk Management Policy.

Co-financing

64. The Government of Indonesia will provide co-financing for equipment for reclamation centres amounting to US \$108,000. In addition, the Government will train and certify 3,500 technicians with its own resources during stage III and will continue to provide support for such training and certification after the completion of the stage.

2023-2025 draft business plan of the Multilateral Fund

65. UNDP and the Government of Australia are requesting US \$14,925,847, plus agency support costs, for the implementation of stage III of the HPMP for Indonesia. The total requested value of US \$10,576,246, including agency support costs, for the period of 2023–2025 is US \$358,765 below the amount in the business plan.

Draft Agreement

66. A draft Agreement between the Government of Indonesia and the Executive Committee for stage III of the HPMP is contained in Annex I to the present document.

¹⁹ Described in Annex I of document UNEP/OzL.Pro/ExCom/91/68.

RECOMMENDATION

67. The Executive Committee may wish to consider:

- (a) Approving, in principle, stage III of the HCFC phase-out management plan (HPMP) for Indonesia for the period from 2023 to 2030 for the complete phase-out of HCFC consumption, in the amount of US \$16,048,056, consisting of US \$13,240,847, plus agency support costs of US \$926,859 for UNDP and US \$1,685,000, plus agency support costs of US \$195,350 for the Government of Australia, on the understanding that no more funding from the Multilateral Fund will be provided for the phase-out of HCFCs;
- (b) Noting:
 - (i) The commitment of the Government of Indonesia to completely phase out HCFCs 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) The commitment of the Government of Indonesia to ban the import, manufacture and installation of HCFC-123-based chillers by 1 January 2026;
 - (iii) The commitment of the Government of Indonesia to ban the import, assembly and manufacture of HCFC-123-based fire suppression and fire protection equipment no later than 1 January 2030;
- (c) Deducting 184.59 ODP tonnes of HCFCs from the remaining HCFC consumption eligible for funding;
- (d) Approving the draft Agreement between the Government of Indonesia and the Executive Committee for the reduction in consumption of HCFCs, in accordance with stage III of the HPMP, contained in Annex I to the present document;
- (e) That, to allow for consideration of the final tranche of its HPMP, the Government of Indonesia 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;
 - (ii) If Indonesia were intending to have consumption during the period 2030–2040, in line with paragraph 8 ter(e)(i) of Article 5 of the Montreal Protocol, proposed modifications to its Agreement with the Executive Committee covering the period beyond 2030; and
- (f) Approving the first tranche of stage III of the HPMP for Indonesia, and the corresponding tranche implementation plan, in the amount of US \$4,319,049, consisting of US \$3,520,244, plus agency support costs of US \$246,417 for UNDP, and US \$495,000, plus agency support costs of US \$57,388 for the Government of Australia.

Annex I

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

Purpose

1. This Agreement represents the understanding of the Government of Indonesia (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 and 4.4.3 (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 stage III of the HCFC phase-out management plan 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;
 - (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;
- (c) Any enterprise to be converted to non-HCFC technology included in the Plan and that would be found to be ineligible under the policies of the Multilateral Fund (i.e., due to foreign ownership or establishment post the 21 September 2007 cut-off date), would not

receive financial assistance. This information would be reported as part of the Tranche Implementation Plan;

- (d) The Country commits to examining the possibility of using pre-blended systems with low-global-warming-potential blowing agents instead of blending them in-house, for those foam enterprises covered under the Plan, should this be technically viable, economically feasible and acceptable to the enterprises;
- (e) The Country agrees, in cases where HFC technologies have been chosen as an alternative to HCFCs, and taking into account national circumstances related to health and safety: to monitor the availability of substitutes and alternatives that further minimize impacts on the climate; to consider, in the review of regulations standards and incentives adequate provisions that encourage introduction of such alternatives; and to consider the potential for adoption of cost-effective alternatives that minimize the climate impact in the implementation of the Plan, as appropriate, and inform the Executive Committee on the progress accordingly in tranche implementation reports; and
- (f) 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. UNDP has agreed to be the lead implementing agency (the “Lead IA”) and the Government of Australia 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 coordinated 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 coordination 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	267.40
HCFC-141b	C	I	132.60
HCFC-123	C	I	3.90
HCFC-225	C	I	*0.00
Total			403.90

* The actual consumption for HCFC-225 is 0.02 ODP tonnes.

APPENDIX 2-A: THE TARGETS, AND FUNDING

Row	Particulars	2023	2024	2025	2026	2027	2028	2029	2030	Total
1.1	Montreal Protocol reduction schedule of Annex C, Group I substances (ODP tonnes)	262.54	262.54	131.27	131.27	131.27	131.27	131.27	0.00	n/a
1.2	Maximum allowable total consumption of Annex C, Group I substances (ODP tonnes)	181.76	181.76	131.27	131.27	131.27	131.27	131.27	0.00	n/a
2.1	Lead IA (UNDP) agreed funding (US \$)	3,520,244	0	5,415,032	0	0	2,970,571	0	1,335,000	13,240,847
2.2	Support costs for Lead IA (US \$)	246,417	0	379,052	0	0	207,940	0	93,450	926,859
2.3	Cooperating IA (Australia) agreed funding (US \$)	495,000	0	415,000	0	0	665,000	0	110,000	1,685,000
2.4	Support costs for Cooperating IA (US \$)	57,388	0	48,113	0	0	77,097	0	12,752	195,350
3.1	Total agreed funding (US \$)	4,015,244	0	5,830,032	0	0	3,635,571	0	1,445,000	14,925,847
3.2	Total support costs (US \$)	303,805	0	427,165	0	0	285,037	0	106,202	1,122,209
3.3	Total agreed costs (US \$)	4,319,049	0	6,257,197	0	0	3,920,608	0	1,551,202	16,048,056
4.1.1	Total phase-out of HCFC-22 agreed to be achieved under this Agreement (ODP tonnes)									180.67
4.1.2	Phase-out of HCFC-22 to be achieved in previously approved projects (ODP tonnes)									86.73
4.1.3	Remaining eligible consumption for HCFC-22 (ODP tonnes)									0.00
4.2.1	Total phase-out of HCFC-141b agreed to be achieved under this Agreement (ODP tonnes)									0.00
4.2.2	Phase-out of HCFC-141b to be achieved in previously approved projects (ODP tonnes)									132.60
4.2.3	Remaining eligible consumption for HCFC-141b (ODP tonnes)									0.00
4.3.1	Total phase-out of HCFC-123 agreed to be achieved under this Agreement (ODP tonnes)									3.90
4.3.2	Phase-out of HCFC-123 to be achieved in previously approved projects (ODP tonnes)									0.00
4.3.3	Remaining eligible consumption for HCFC-123 (ODP tonnes)									0.00
4.4.1	Total phase-out of HCFC-225 agreed to be achieved under this Agreement (ODP tonnes)									0.02
4.4.2	Phase-out of HCFC-225 to be achieved in previously approved projects (ODP tonnes)									0.00
4.4.3	Remaining eligible consumption for HCFC-225 (ODP tonnes)									0.00

* Date of completion of stage II as per stage II Agreement: 31 December 2024

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 Plan 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 monitoring process will be managed by the national ozone unit (“the NOU”), the Ministry of Environment and Forestry, with the assistance of the Lead IA.
2. The consumption will be monitored and determined based on official import and export data for the substances recorded by relevant Government departments.
3. The NOU shall compile and report the following data and information on an annual basis on or before the relevant due dates:
 - (a) Annual reports on consumption of the substances to be submitted to the Ozone Secretariat; and
 - (b) Annual reports on progress of implementation of the Plan to be submitted to the Executive Committee.
4. The consumption will be monitored annually throughout the implementation of the Plan and accordingly reflected in the progress report on the implementation of the Plan.
5. The NOU shall endorse the final report and the Lead IA shall submit the same to the relevant meeting of the Executive Committee along with the annual implementation plan and reports.

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 Plan;
 - (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) Coordinating 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 the 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, coordination 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 Plan's 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 AGENCIES

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 coordinated 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, coordination 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 \$161.72 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 Plan 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.
