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EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Ninety-first Meeting
Montreal, 5-9 December 2022
Item 9(d) of the provisional agenda¹

PROJECT PROPOSAL: VIET NAM

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

Phase-out

- HCFC phase-out management plan (stage II, fourth tranche) World Bank and Japan

¹ UNEP/OzL.Pro/ExCom/91/1

PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS

Viet Nam

(I) PROJECT TITLE	AGENCY	MEETING APPROVED	CONTROL MEASURE
HCFC phase-out plan (stage II)	World Bank (lead), Japan	76 th	35% phase-out by 2020

(II) LATEST ARTICLE-7 DATA (Annex C Group I)	Year: 2021	141.79 (ODP tonnes)
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(III) LATEST COUNTRY PROGRAMME SECTORAL DATA (ODP tonnes)								Year: 2021	
Chemical	Aerosol	Foam	Fire fighting	Refrigeration		Solvent	Process agent	Lab use	Total sector consumption
				Manufacturing	Servicing				
HCFC-22				14.63	126.99				141.62
HCFC-123					0.17				0.17
HCFC-141b		9.63							9.63

(IV) CONSUMPTION DATA (ODP tonnes)			
2009-2010 baseline:	221.2	Starting point for sustained aggregate reductions:	385.77
CONSUMPTION ELIGIBLE FOR FUNDING (ODP tonnes)			
Already approved:	273.77	Remaining:	112.00

(V) ENDORSED BUSINESS PLAN		2022	2023	2024	Total
World Bank	ODS phase-out (ODP tonnes)	39.42	26.28	6.57	72.27
	Funding (US \$)	4,700,992	3,133,995	783,499	8,618,486
Japan	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*	Total	
Montreal Protocol consumption limits			199.08	199.08	199.08	199.08	143.78	143.78	143.78	n/a	
Maximum allowable consumption (ODP tonnes)			199.08	199.08	199.08	199.08	143.78	143.78	143.78	n/a	
Funding agreed in principle (US \$)	World Bank	Project costs	302,737	2,179,193	3,781,257	4,393,450	2,928,967	732,242	0	14,317,846	
		Support costs	21,192	152,544	264,688	307,542	205,028	51,257	0	1,002,249	
	Japan	Project costs	43,250	163,980	26,400	0	0	0	0	0	233,630
		Support costs	5,623	21,317	3,432	0	0	0	0	0	30,372
Funds approved by ExCom (US \$)	Project costs	345,987			2,343,173		3,807,657**			6,496,817	
	Support costs	26,814			173,861		268,120**			468,795	
Total funds recommended for approval at this meeting (US \$)	Project costs								711,483	711,483	
	Support costs								49,804	49,804	

* The second, third and fourth tranche were expected to be submitted in 2017, 2018 and 2019, respectively.

** Includes the return of US \$613,568, plus agency support costs of US \$42,950 for the World Bank, associated with the extruded polystyrene foam manufacturing enterprise Phu Vuong Corporation Industry, which was found not eligible for funding (decision 87/28(a)).

Secretariat's recommendation:	Individual consideration
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PROJECT DESCRIPTION

1. On behalf of the Government of Viet Nam, the World Bank 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), at the amount of US \$689,215, plus agency support costs of US \$48,245 for the World Bank only, as originally submitted.² The submission includes a progress report on the implementation of the third tranche and the tranche implementation plan for 2022 to 2023.

Report on HCFC consumption

2. The Government of Viet Nam reported a consumption of 141.79 ODP tonnes of HCFC in 2021, which is 36 per cent below the HCFC baseline for compliance. The 2017-2021 HCFC consumption is shown in table 1.

Table 1. HCFC consumption in Viet Nam (2017-2021 Article 7 data)

HCFC	2017	2018	2019	2020	2021	Baseline
Metric tonnes (mt)						
HCFC-22	3,568.52	3,516.23	3,558.55	2,585.02	2,574.95	3,039.00
HCFC-123	17.17	16.34	16.34	0.00	8.17	8.00
HCFC-141b	0.00	0.00	0.00	0.00	0.00	490.00
HCFC-225	13.90	26.87	21.46	0.00	0.00	0.00
Sub-total (mt)	3,599.59	3,599.44	3,596.36	2,585.02	2,583.12	3,537.00
HCFC-141b in imported pre-blended polyols*	1,879.00	1,145.50	687.29	147.66	87.50	1,496.36*
ODP tonnes						
HCFC-22	196.27	193.39	195.72	142.18	141.62	167.15
HCFC-123	0.34	0.33	0.33	0.00	0.17	0.16
HCFC-141b	0.00	0.00	0.00	0.00	0.00	53.90
HCFC-225	0.97	1.88	1.50	0.00	0.00	0.00
Sub-total (ODP tonnes)	197.58	195.60	197.55	142.18	141.79	221.21
HCFC-141b in imported pre-blended polyols*	206.69	126.00	75.60	16.24	9.63	164.56*

* Average consumption between 2007 and 2009.

3. HCFC consumption in Viet Nam consists predominately of HCFC-22, with refrigeration and air-conditioning (RAC) manufacturing accounting for approximately 10 per cent of that consumption and servicing the remainder; small amounts of HCFC-123 are consumed intermittently to service chillers and HCFC-225 for solvent uses. HCFC-141b has not been consumed since 2015, in line with the 1 January 2015 ban on the import and export of HCFC-141b; in contrast, imports of HCFC-141b contained in imported pre-blended polyols initially increased following the ban and have decreased substantially as foam manufacturers decided to convert to alternatives, most likely water-based pre-blended polyols. On a metric tonne basis, the five most commonly consumed HFCs in 2021 are (in decreasing order): HFC-134a, R-410A, HFC-23, R-404A, and R-407C; the country also consumes HFC-125, HFC-227ea, and HFC-23 in fire fighting, and a variety of HFC blends in different applications.

Country programme (CP) implementation report

4. The Government of Viet Nam 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.

² As per the letter of 26 September 2022 from the Ministry of Natural Resources and Environment of Viet Nam to the World Bank.

Verification report submitted to the 90th meeting

5. 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 was accurately reported under Article 7 of the Montreal Protocol. The verification concluded that Viet Nam is in compliance with the thresholds as stipulated in the Agreement between the Government and the Executive Committee. The verification report did not address consumption of HCFC-141b contained in imported pre-blended polyols.

Progress report on the implementation of the third tranche of stage II of the HPMP

Legal framework

6. Viet Nam has an enforceable licensing and quota system. In January 2022, the joint circular, under which the import and export of HCFCs are regulated, was updated with details on implementing climate-related laws in the country, including on the current regulatory framework of controlled substances under the Montreal Protocol, and included a list of regulated chemicals and equipment as well as guidelines for their use and disposal. The circular also announced the bans on the import and manufacture of HCFC-22-based AC units, implemented on 1 January 2022 (decision 76/42(c)), and on the import and use of HCFC-141b contained in pre-blended polyols, extended to 1 January 2023 given the need for additional time to implement conversions in the polyurethane (PU) foam manufacturing sector (decision 90/22(d)(i)).

7. Under the third tranche, three workshops on controlling and monitoring HCFC import and export were organized and 200 customs officers trained. The safety standard in foam production, on-site storage, and handling with flammable blowing agents took effect in June 2021.

Air-conditioning (AC) manufacturing sector

8. At the 90th meeting, it was reported that the two AC manufacturing enterprises participating in stage II (Hoa Phat and Nagakawa) had signed sub-grant agreements (SGAs) and were waiting for delivery of the manufacturing equipment needed for conversion. Since then, both enterprises have received a portion of the manufacturing equipment needed for conversion; installation and operation of the new equipment and completion of the two projects are expected by December 2022.

PU foam manufacturing sector

9. At the 90th meeting it was reported that three enterprises in the PU foam sector had signed SGAs and were expected to complete their conversion to cyclopentane (Yantai Moon and Tran Huu Duc) and pre-blended cyclopentane (Saree) by December 2022; those SGAs accounted for US \$849,589 and will phase out 86.87 mt of HCFC. Since then, Saree has completed its conversion; equipment installation and retrofitting was expected to be completed by November 2022 for Yantai Moon; and equipment was expected to be delivered to Tran Huu Duc by December 2022, with the conversion completed by March 2023. In addition, two enterprises (Darling and Tan A) with consumption of 61.08 mt of HCFC-141b contained in imported pre-blended polyols, converting to pre-blended cyclopentane, signed SGAs, with the equipment procurement in process and conversion expected by March 2023. Finally, a blending house (GreenMat) has agreed to participate in the project and will provide downstream small- and medium-sized (SMEs) HFO-based preblended polyol. At the time of finalization of the present document, GreenMat had secured four commitment letters with an associated phase-out of 32.47 mt of HCFC-141b contained in pre-blended polyols; it was expected that at least a further 16 SMEs with an associated phase-out of at least 42.53 mt of HCFC-141b contained in pre-blended polyols would sign letters of commitment to participate in the project.

Refrigeration manufacturing sector

10. At the 90th meeting, it was reported that the enterprise Phuong Nam (with an associated consumption of 9.82 mt of HCFC-22) had signed an SGA and was expected to complete its conversion to ammonia by June 2022; two other enterprises, Saree and Hung Tri, had confirmed their interest to participate in the project with SGAs under preparation. Since then, Phuong Nam has completed its conversion and Saree (with a consumption of 14.49 mt of HCFC-22) signed an SGA, with the equipment procurement in process; the conversion to ammonia was expected to be completed by March 2023. Hung Tri decided not to participate in the project; however, an additional refrigeration manufacturing enterprise interested in participating in the project was identified (Nam Dung, with a consumption of 11.55 mt of HCFC-22, converting to ammonia) and was expected to sign an SGA by November 2022, with conversion expected to be completed by October 2023. Further refrigeration manufacturing enterprises have been identified and are in the process of having their documentation collected and consumption and manufacturing data verified.

11. At the 90th meeting the Executive Committee agreed to a revised delivery approach that could overcome barriers and support SME conversions where an intermediary in the supply chain would serve as a group project coordinator to provide TA, know-how on design and development, and hands-on practical training to build refrigeration equipment prototypes using low-global-warming-potential (GWP) alternative refrigerants. At the 90th meeting, it was estimated that approximately 15 SMEs with a combined consumption of approximately 50 mt of HCFC-22 would participate in the project. The recruitment of the group coordinator was ongoing; in the interim, the ongoing refrigeration consultancy has secured the participation of four SMEs with confirmed manufacturing and an associated phase-out of 9.38 mt of HCFC-22. The group coordinator will provide technical assistance (TA) and tools to those enterprises to ensure their conversion is completed by December 2023.

Refrigeration servicing sector

12. The following activities were implemented during the third tranche:

- (a) Under the TA implemented by the Government of Japan, training on the safe use of HFC-32 in the AC sector was completed by one participating AC manufacturing enterprise (Nagakawa); the training of technicians at the remaining enterprise (Hoa Phat) was expected in November 2022;
- (b) A consultant reviewed the standards and regulations related to AC equipment using flammable refrigerants, and virtual consultation workshops for stakeholders were organized in October and December 2021;
- (c) Tool kits (e.g., leak detector; pressure gauge; refrigerant recovery machine; refrigerant containing tank; vacuum pump; AC unit; tool set of torque wrench, flaring, and tubing cutter; refrigerant scale) were delivered to 65 vocational training schools, and 100 tool kits (e.g., vacuum pump; tool set of torque wrench, flaring, and tubing cutter) were delivered to servicing shops;
- (d) The reference database of vocational schools, training schools, and servicing centres continues to make progress, with a contract planned to be signed in October 2022;
- (e) A training curriculum on good and safe servicing practices of flammable refrigerants in RAC was developed, and four training-of-trainers workshops were held for 110 trainers. RAC technician training resumed in October 2021 as restrictions from the COVID-19 pandemic began to lift, with approximately 1,200 technicians trained to date;

- (f) After leakage management activities were evaluated at industrial refrigeration end-users, 20 leak detectors were procured and distributed across nine enterprises; and
- (g) Outreach activities and five technical workshops were conducted with participants from Government and industry to raise awareness of alternative low-GWP technologies and the upcoming bans.

Project implementation and monitoring unit (PMU)

13. Activities undertaken by the PMU included support to the consultants to conduct annual verification of consumption and financial audits; coordination under the TA component, including a revised work plan with the Japan Refrigerants and Environment Conservation Organization, updated to include current impacts of the pandemic on project implementation; and assistance to three PU foam and one refrigeration manufacturing enterprise by assessing their sub-projects and providing support with project proposals, environmental management plans, and meeting organization. Cumulative disbursements for the PMU, which comprises five staff, were US \$424,322, including staff salaries (US \$334,610), office equipment and software (US \$21,676), HCFC consumption verification (US \$14,624), meetings (US \$4,968), and operational costs (US \$48,444).

Level of fund disbursement

14. As of September 2022, of the US \$6,496,817 approved so far, US \$3,007,747 had been disbursed (US \$2,949,709 for the World Bank and US \$58,038 for the Government of Japan), as shown in table 2. The balance of US \$3,489,070 will be disbursed in 2023 and 2024.

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

Tranche		World Bank	Japan	Total	Disbursement rate (%)
First	Approved	302,737	43,250	345,987	100
	Disbursed	302,737	43,250	345,987	
Second	Approved	2,179,193	163,980	2,343,173	71
	Disbursed	1,641,234	14,788	1,656,022	
Third	Approved	3,781,257	26,400	3,807,657	26
	Disbursed	1,005,738*	0	1,005,738*	
Total	Approved	6,263,187	233,630	6,496,817	46
	Disbursed	2,949,709	58,038	3,007,747	
	Balance	3,313,478	175,592	3,489,070	

* Including the return of US \$613,568, plus agency support costs of US \$42,950 for the World Bank, associated with the extruded polystyrene foam manufacturing enterprise Phu Vuong Corporation Industry, which was found not eligible for funding (decision 87/28(a)).

Implementation plan for the fourth and final tranche of the HPMP

15. The following activities will be implemented from December 2022 to December 2023:³
- (a) Two training workshops for approximately 160 customs officers on controlling and monitoring HCFC imports and exports (World Bank) (US \$43,524);
 - (b) Continued technical guidance to facilitate the sustainable introduction of low-GWP alternatives and raise awareness on low-GWP technology and the HCFC phase-out

³ Tranches are not treated as projects in the World Bank system, nor kept in separate subaccounts. Accordingly, the World Bank was not able to allocate activities by tranche and would use remaining balances and funding from the fourth tranche to implement the planned 2022-2023 activities, which have a value greater than the fourth tranche.

(US \$9,259), and evaluation of technology effectiveness at select converted enterprises and TA in sub-project preparation and training programmes (US \$15,922) (World Bank);

- (c) Continued TA to AC manufacturers, the RAC association, the Viet Nam standards agency and other relevant agencies, including the National Center for Technological Progress and testing laboratories, through training on the safe use of HFC-32 (US \$172,082) and follow-up practical training (US \$3,510) (Government of Japan);
- (d) Forty-eight workshops and 1,900 technicians trained on good servicing practices and the safe handling of flammable refrigerants (US \$332,367), and a further 80 vocational school trainers trained (US \$45,689) (World Bank);
- (e) Delivery of an additional 45 tool kits for selected vocational training schools (US \$414,058) and 200 tool kits for servicing shops (US \$667,685) (World Bank);
- (f) Completion of the conversion of the two AC manufacturing enterprises to HFC-32; conversion of two refrigeration manufacturing enterprises to ammonia and four SMEs to low-GWP alternatives with the assistance of the group coordinator; conversion of four foam manufacturing enterprises to cyclopentane or pre-blended cyclopentane and conversion of at least 20 SMEs with the assistance of the blending house (US \$2,185,768) (World Bank);
- (g) Development of an online database of trained technicians and training activities (US \$35,000), a certification and assessment standard for the training of technicians (US \$25,000), and workshops to disseminate the training programme results (US \$24,203) (World Bank); and
- (h) The PMU will commission an independent financial audit (US \$10,376); upgrade administrative software (US \$6,036); support the five project staff comprising the PMU to review quotas, assist enterprises to implement their sub-projects, monitor the implementation of all project activities, conduct annual financial audits of the project expenditures, develop six-month and annual project implementation and financial reports, and coordinate reporting (US \$175,278); and operational costs and meetings (US \$12,528) (World Bank).

SECRETARIAT'S COMMENTS AND RECOMMENDATION

COMMENTS

Progress report on the implementation of the third tranche of stage II of the HPMP

Legal framework

16. The Government has issued quotas for 2022 at the level of 143.78 ODP tonnes, which is in line with the Montreal Protocol control target for that year. In line with decision 76/42(c)(ii), the Government banned the import and manufacture of HCFC-22-based AC units by 1 January 2022.

Manufacturing sector

17. At the 90th meeting, the Executive Committee approved substantial changes to stage II of the HPMP to address the delays in project implementation and challenges in securing the participation of enterprises in the project, including due to the COVID-19 pandemic and hesitancy of manufacturing enterprises to participate in the project given the extensive SGA requirements and commitment to manufacture with

low-GWP alternatives.⁴ Since the 90th meeting, the World Bank had made progress in securing the participation of additional enterprises in the PU foam and refrigeration manufacturing sectors, in line with decision 90/22. Notwithstanding the progress made, the World Bank was able to secure the participation of fewer additional enterprises in the refrigeration and PU foam manufacturing sectors than expected.

18. In order to ensure that as many eligible enterprises as possible could be assisted in the refrigeration manufacturing sector, it was agreed that the World Bank would provide an update on the finalization of the SGA with Nam Dung so that the Secretariat could inform the Executive Committee accordingly during the 91st meeting. At the 90th meeting, the World Bank indicated it expected to secure the participation of approximately 15 SMEs with a combined consumption of 50 mt of HCFC-22 through the group project; in light of continued hesitancy and limited time available to secure the participation of additional enterprises, the participation of only four SMEs with a combined consumption of 9.38 mt of HCFC-22 could be secured. Accordingly, the total phase-out associated with the conversions in the refrigeration manufacturing sector was 45.24 mt and, in line with decision 90/22(c)(iii),⁵ the eligible costs for the refrigeration manufacturing sector are US \$542,904. In line with decision 90/22(c)(iii)d, that reduction in eligible cost would result in a reduction in funding for the project management and implementation unit;⁶ in line with the flexibility provided in decision 90/22(c)(v), the Government chose instead to deduct an additional 0.72 ODP tonnes of HCFC-22 from the country's remaining HCFC consumption eligible for funding.

19. Regarding the PU foam manufacturing sector, decision 90/22(c)(ii)b noted that the World Bank would include in the submission to the 91st meeting the number of SMEs that had signed letters of commitment to participate in the project. However, given the challenge and limited time in securing letters of commitment between the 90th meeting and submission of the present request, the World Bank requested additional time to secure additional letters from eligible SMEs. Furthermore, the Secretariat noted that based on a total phase-out of 222.95 mt at eligible, assisted enterprises, including at least 75.00 mt phase-out at SMEs associated with GreenMat, and the agreed cost-effectiveness of US \$8.07/kg for the sector, the eligible costs for the PU foam sector were US \$22,268 higher than that proposed by the World Bank.⁷ Accordingly, on an exceptional basis, and noting in particular the challenges associated with converting small-sized enterprises and the benefit of facilitating the conversion of additional enterprises to low-GWP alternatives, the Secretariat proposed to increase the funding for the PU foam sector in line with the agreed cost-effectiveness for the sector, resulting in a total cost of US \$1,799,553 for the PU foam sector, as reflected in table 3 below, and a fourth and final tranche of US \$711,483, plus agency support costs of US \$49,804 for the World Bank, on the understanding that:

- (a) The World Bank would provide an update on the number of downstream enterprises that had signed letters of commitment and their associated phase-out no later than 1 December 2022 so that the Secretariat could provide this information, as well as the status of the SGA with Nam Dung, to the Executive Committee during its 91st meeting;
- (b) Additional letters of commitment could be secured through 31 March 2023 to enable participating SMEs to complete their conversion by the date of completion of the project;
- (c) Should fewer PU foam enterprises than anticipated participate in the project, or the phase-out achieved be less than the expected 222.95 mt of HCFC-141b contained in pre-blended polyols, then the World Bank would return the associated funding calculated

⁴ UNEP/OzL.Pro/ExCom/90/9 and Add.2 and decision 90/22

⁵ The revised funding for the refrigeration manufacturing sector of up to US \$1,405,292 based on the phase-out of 117.11 metric tonnes of HCFC-22 at eligible refrigeration manufacturing enterprises (decision 90/22(c)(iii)); the eligible costs would be determined at the 91st meeting based on the phase-out at eligible enterprises and the agreed cost-effectiveness of US \$12.00/kg.

⁶ At 8 per cent of the difference between the agreed maximum funding level (US \$1,405,292) and the eligible costs.

⁷ The proposal submitted by the World Bank was calculated based on the phase-out of 72.24 mt of HCFC-141b contained in pre-blended polyols at SMEs assisted by GreenMat.

at the agreed cost-effectiveness of US \$8.07/kg upon financial completion of the project. For example, if the SGAs of enterprises associated with the project in GreenMat resulted in the phase-out of 72.24 mt rather than 75.00 mt of HCFC-141b contained in pre-blended polyols, then the World Bank would return US \$22,268, plus agency support costs; and

- (d) The World Bank would include the list of all PU foam enterprises assisted under the project and their associated phase-out of HCFC-141b contained in pre-blended polyols in the project completion report (PCR).

Table 3. Agreed funding for revised stage II of the HPMP for Viet Nam (US \$)

Sector	Approved funding (76 th meeting)	Revised funding (90 th meeting)	Agreed funding (91 st meeting)
AC manufacturing	2,184,867	584,612	584,612
Extruded polystyrene (XPS) foam manufacturing	613,568	0	0
PU foam manufacturing	5,522,397	2,529,589*	1,799,553
Refrigeration manufacturing	3,636,000	1,405,292*	542,904
Refrigeration servicing (Japan)	233,630	233,630	233,630
Refrigeration servicing (World Bank)	1,369,570	2,699,570	2,699,570
TA	406,801	734,463**	105,923***
PMU	678,002		628,540***
Total	14,644,834	8,187,156	6,594,732****

* Level of funding may be reduced based on progress reported to the 91st meeting.

** Level of funding may be reduced based on progress reported in the refrigeration manufacturing sector to the 91st meeting. Should funding need to be returned, the Government would have flexibility to instead agree to further reduce the remaining HCFC-22 consumption eligible for funding.

*** In line with decision 90/22(c)(v), the Government chose not to reduce the funding for the TA and PMU but to instead deduct an additional 0.72 ODP tonnes of HCFC-22 from the country's remaining HCFC consumption eligible for funding.

**** Does not include the return of US \$613,568 associated with the XPS foam manufacturing enterprise Phu Vuong Corporation (decision 87/28(a)).

Draft revised Agreement for stage II of the HPMP

20. At the 90th meeting, the Executive Committee requested the Government of Viet Nam to submit, through the World Bank, a draft revised agreement reflecting *inter alia* the revised level of funding, including a possible final tranche in 2022, additional reductions in consumption of HCFC-22 eligible for funding and a revised date of completion of the project (decision 90/22(d)(ii)b). Accordingly, a draft revised Agreement has been prepared, as shown in Annex I to the present document. The full revised Agreement will be appended to the final report of the 91st meeting. For ease of reference, the changes to the Agreement include:

- (a) Updating Appendix 2-A to reflect the agreed costs, shifting the second, third and fourth tranches to reflect the year of their submission;
- (b) Deducting an additional 6.56 ODP tonnes of HCFC-22 from the country's remaining HCFC consumption eligible for funding, in line with decision 90/22(c)(iv) and decision 90/22(c)(v);
- (c) Updating Appendix 7-A to reflect the revised cost-effectiveness of the project; and
- (d) Updating paragraph 17 to indicate that the updated Agreement superseded that reached at the 84th meeting.

Completion of stage II

21. The World Bank has confirmed that stage II for Viet Nam will be completed by 31 December 2023 as established by decision 90/22(c)(vi) of the Executive Committee.

Gender policy implementation⁸

22. While stage II of the HPMP did not include a formal results framework on gender mainstreaming as the project was designed and approved prior to decision 84/92,⁹ the collection of gender-related data and the incorporation of some basic monitoring measures on gender balance were incorporated into the project implementation manual. Accordingly, during the processing of training workshops, gender-related data is collected and indicated in the workshop minutes that are then filed in the information tracking system. For example, of the 146 customs officers trained since gender-related data was collected, 29 per cent were women; of the 102 participants in the awareness-raising workshop, 26 per cent were women; of the 37 trainers at the train-the-trainer workshop, 5 per cent were women; and of the 17 technicians participating in training on the use of HFC-32 in AC equipment, 6 per cent were women. Those results will be reflected in the PCR, along with lessons learned and possible recommendations to be incorporated into stage III of the HPMP and other Multilateral Fund-supported work.

Sustainability of the HCFC phase-out and assessment of risks

23. At the 90th meeting, and following an in-depth review, the World Bank submitted a request for major changes to address challenges in the implementation of the stage II of the HPMP, including due to the COVID-19 pandemic; hesitancy of SMEs to participate in the project given the extensive documentation, validation, and reporting requirements needed to meet SGA requirements; and the required commitment to manufacture with low-GWP alternatives. In addition, a number of enterprises in the refrigeration manufacturing sector that originally identified as manufacturers had changed to assembly. The changes approved by the Executive Committee at its 90th meeting represented a substantial course correction that minimized the risk to the remaining activities to be implemented. The additional time provided to the World Bank at the present meeting to secure the participation of additional enterprises in the refrigeration and PU foam manufacturing sectors will maximize the number of enterprises assisted to convert to low-GWP alternatives while mitigating the risk to the Multilateral Fund given the agreement of the World Bank to return funds should the agreed phase-out not be achieved.

24. As previously noted,¹⁰ there is significant consumption of HFC-32 in the country due to increased penetration of HFC-32-based AC units in the local market. Accordingly, the Secretariat considers that the AC manufacturing enterprises converted under the project are unlikely to face a substantial challenge introducing their products in the market. The ban on the import and manufacture of HCFC-22 AC units (effective 1 January 2022) furthers the sustainability of those conversions. Commercial refrigeration equipment in the country uses a variety of refrigerants, including high-GWP refrigerants, which likely contributed to limiting the participation of enterprises in the refrigeration manufacturing sector. The ban on the import and export of HCFC-141b (effective 1 January 2015) and the forthcoming ban on the import of HCFC-141b contained in pre-blended polyols (1 January 2023) will ensure the sustainability of the phase-out in the foam sector. The PMU has developed a comprehensive project implementation manual that specifies the requirements and processes for sustainable conversions. TA activities to train stakeholders, including technicians, trainers, policymakers, and customs officers, will help further ensure the sustainability of the phase-out.

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.

⁹ Paragraph 24 of document UNEP/OzL.Pro/ExCom/87/40.

¹⁰ Paragraph 193 of document UNEP/OzL.Pro/ExCom/90/9.

Conclusion

25. While additional time is required to enable the participation of additional enterprises in the project, the country has made meaningful progress implementing the planned activities, including the changes made to stage II of the HPMP at the 90th meeting. Implementation of the remaining activities, including the additional activities in the servicing sector agreed at the 90th meeting, will enable the country to continue to reduce its HCFC consumption. The verified 2021 consumption of the country was within the targets stipulated in the Agreement between the country and the Executive Committee. The import licensing and quota system is operational and will enable HCFC consumption reductions in line with the Montreal Protocol's phase-out schedule. Forty-six per cent of the funding approved so far has been disbursed, including 26 per cent of the third tranche. The activities planned under the fourth tranche will enable the country to complete the revised stage II of the HPMP while helping ensure that assisted enterprises transition to low-GWP alternatives.

RECOMMENDATION

26. The Executive Committee may wish to consider:

- (a) Noting:
 - (i) The progress report on the implementation of the third tranche of stage II of the HCFC phase-out management plan (HPMP) for Viet Nam;
 - (ii) That the Fund Secretariat has updated the Agreement between the Government of Viet Nam and the Executive Committee, as contained in Annex I to the present document, specifically: Appendix 2-A, based on the revised funding level and schedule and additional reductions from the remaining consumption eligible for funding, in line with decision 90/22; Appendix 7-A, in line with the revised cost-effectiveness of the project; and paragraph 17, to indicate that the updated Agreement superseded that reached at the 84th meeting;
 - (iii) That, based on additional information provided by the World Bank subsequent to the finalization of the present document, the Fund Secretariat would provide an update during the 91st meeting on the status of the sub-grant Agreement with Nam Dung, an enterprise manufacturing refrigeration equipment, and an update on the number of downstream enterprises in the polyurethane foam manufacturing sector that had signed letters of commitment to participate in the project, and their associated phase-out;
- (b) Requesting the Government of Viet Nam, the World Bank and the Government of Japan to submit a progress report on the implementation of the final tranche to the first meeting of 2024; and
- (c) Approving the fourth and final tranche of stage II of the HPMP for Viet Nam, and the corresponding 2023 tranche implementation plan, at the amount of US \$711,483, plus agency support costs of US \$49,804 for the World Bank only, on the understanding that should the phase-out of HCFC-141b contained in pre-blended polyols at eligible polyurethane foam manufacturing enterprises assisted under the project be less than 222.95 mt, the World Bank would return the associated funding calculated at the agreed cost-effectiveness of US \$8.07/kg upon financial completion of the project.

Annex I

TEXT TO BE INCLUDED IN THE REVISED UPDATED AGREEMENT BETWEEN THE GOVERNMENT OF VIET NAM AND THE EXECUTIVE COMMITTEE OF THE MULTILATERAL FUND FOR THE REDUCTION IN CONSUMPTION OF HYDROCHLOROFLUOROCARBONS IN ACCORDANCE WITH STAGE II OF THE HCFC PHASE-OUT MANAGEMENT PLAN

(Relevant changes are in bold font for ease of reference)

Validity

17. This updated Agreement supersedes the Agreement reached between the Government of Viet Nam and the Executive Committee at the **84th** meeting of the Executive Committee.

APPENDIX 2-A: THE TARGETS, AND FUNDING

Row	Particulars	2016*	2017	2018	2019	2020	2021	2022	Total	
1.1	Montreal Protocol reduction schedule of Annex C, Group I substances (ODP tonnes)	199.08	199.08	199.08	199.08	143.78	143.78	143.78	n/a	
1.2	Maximum allowable total consumption of Annex C, Group I substances (ODP tonnes)	199.08	199.08	199.08	199.08	143.78	143.78	143.78	n/a	
2.1	Lead IA (World Bank) agreed funding (US \$)	302,737	0	0	2,179,193	0	3,781,257	711,483	6,974,670	
2.2	Support costs for Lead IA (US \$)	21,192	0	0	152,544	0	264,688	49,804	488,228	
2.3	Cooperating IA (Japan) agreed funding (US \$)	43,250	0	0	163,980	0	26,400	0	233,630	
2.4	Support costs for Cooperating IA (US \$)	5,623	0	0	21,317	0	3,432	0	30,372	
3.1	Total agreed funding (US \$)	345,987	0	0	2,343,173	0	3,807,657	711,483	7,208,300	
3.2	Total support costs (US \$)	26,814	0	0	173,861	0	268,120	49,804	518,600	
3.3	Total agreed costs (US \$)	372,801	0	0	2,517,034	0	4,075,777	737,461	7,726,900	
4.1.1	Total phase-out of HCFC-22 agreed to be achieved under this Agreement (ODP tonnes)									61.94
4.1.2	Phase-out of HCFC-22 to be achieved in the previous stage (ODP tonnes)									0.00
4.1.3	Remaining eligible consumption for HCFC-22 (ODP tonnes)									105.21
4.2.1	Total phase-out of HCFC-123 agreed to be achieved under this Agreement (ODP tonnes)									0.00
4.2.2	Phase-out of HCFC-123 to be achieved in the previous stage (ODP tonnes)									0.00
4.2.3	Remaining eligible consumption for HCFC-123 (ODP tonnes)									0.16
4.3.1	Total phase-out of HCFC-141b agreed to be achieved under this Agreement (ODP tonnes)									0.00
4.3.2	Phase-out of HCFC-141b to be achieved in the previous stage (ODP tonnes)									53.90
4.3.3	Remaining eligible consumption for HCFC-141b (ODP tonnes)									0.00
4.4.1	Total phase-out of HCFC-141b contained in imported pre-blended polyols agreed to be achieved under this Agreement (ODP tonnes)									75.26
4.4.2	Phase-out of HCFC-141b contained in imported pre-blended polyols to be achieved in the previous stage (ODP tonnes)									89.30
4.4.3	Remaining eligible consumption for HCFC-141b contained in imported pre-blended polyols (ODP tonnes)									0.00

*Funding updated to reflect the return of US \$93,358, plus agency support costs of US \$6,535 due to change of technology at Midea Consumer Electric (Viet Nam) from R-290 to HFC-32 (decision 82/37(b)).

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 **\$105.08** 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.