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EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Eighty-fourth Meeting
Montreal, 16–20 December 2019

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, second tranche) World Bank and Japan

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	63rd	28% by 2021

(II) LATEST ARTICLE 7 DATA (Annex C Group I)	Year: 2018	197.31 (ODP tonnes)
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(III) LATEST COUNTRY PROGRAMME SECTORAL DATA (ODP tonnes)								Year: 2018	
Chemical	Aerosol	Foam	Fire fighting	Refrigeration		Solvent	Process agent	Lab use	Total sector consumption
				Manufacturing	Servicing				
HCFC-22				58.53	136.57				195.10
HCFC-123					0.33				0.33
HCFC-225						1.88			1.88
HCFC-141b in imported pre-blended polyol		126.00							126.00

(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) BUSINESS PLAN		2019	2020	2021	Total
World Bank	ODS phase-out (ODP tonnes)	53.14	65.29	6.53	124.96
	Funding (US \$)	6,377,682	7,834,987	783,499	14,996,168
Japan	ODS phase-out (ODP tonnes)	1.70	0	0	1.70
	Funding (US \$)	215,129	0	0	215,129

(VI) PROJECT DATA			2016*	2017	2018	2019**	2020	2021	Total
Montreal Protocol consumption limits			199.08	199.08	199.08	199.08	143.78	143.78	n/a
Maximum allowable consumption (ODP tonnes)			199.08	199.08	199.08	199.08	143.78	143.78	n/a
Agreed funding (US \$)	World Bank	Project costs	302,737	2,179,193	3,781,257	4,393,450	2,928,967	732,242	14,317,846
		Support costs	21,192	152,544	264,688	307,542	205,028	51,257	1,002,249
	Japan	Project costs	43,250	163,980	26,400				233,630
		Support costs	5,623	21,317	3,432				30,372
Funds approved by ExCom (US \$)		Project costs	345,987						345,987
		Support costs	26,814						26,814
Total funds requested for approval at this meeting (US \$)		Project costs				2,343,173			2,343,173
		Support costs				173,861			173,861

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

** The second tranche was expected to be submitted in 2017.

Secretariat's recommendation:	For blanket approval
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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 second tranche of stage II of the HCFC phase-out management plan (HPMP), at a total cost of US \$2,517,034, consisting of US \$2,179,193, plus agency support costs of US \$152,544 for the World Bank, and US \$163,980, plus agency support costs of US \$21,317 for the Government of Japan.¹ The submission includes a progress report on the implementation of the first tranche, the verification report on HCFC consumption for 2016 to 2018 and the tranche implementation plan for 2019 to 2020.

Report on HCFC consumption

2. The Government of Viet Nam reported a consumption of 197.31 ODP tonnes of HCFC in 2018, which is 11 per cent below the HCFC baseline for compliance. The 2014-2018 HCFC consumption is shown in Table 1.

Table 1. HCFC consumption in Viet Nam (2014-2018 Article 7 data)

HCFC	2014	2015	2016	2017	2018	Baseline
Metric tonnes						
HCFC-22	3,516.71	3,431.00	3,522.61	3,568.52	3,547.25	3,039.00
HCFC-123	19.29	93.13	44.62	17.17	16.34	8.00
HCFC-141b	145.00	0.00	0.00	0.00	0.00	490.00
HCFC-225	15.28	30.45	15.60	13.90	26.88	0.00
Total (mt)	3,696.27	3,554.58	3,582.84	3,599.59	3,590.47	3,537.00
HCFC-141b in imported pre-blended polyols*	2,908.00	3,297.68	3,237.55	1,879.00	1,145.50	1,496.36**
ODP tonnes						
HCFC-22	193.42	188.71	193.74	196.27	195.10	167.15
HCFC-123	0.39	1.86	0.89	0.34	0.33	0.16
HCFC-141b	15.95	0.00	0.00	0.00	0.00	53.90
HCFC-225	1.07	2.13	1.09	0.97	1.88	0
Total (ODP tonnes)	210.82	192.70	195.73	197.58	197.31	221.21
HCFC-141b in imported pre-blended polyols*	319.88	362.74	356.13	206.69	126.00	164.56**

* Country programme data.

** 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 30 per cent of that consumption and servicing the remainder, and with small amounts of HCFC-123 and HCFC-225. 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 steadily decreased with the implementation of the polyurethane (PU) foam conversion activities under the stage I of the HPMP.

Country programme (CP) implementation report

4. The Government of Viet Nam reported HCFC sector consumption data under the 2016, 2017, and 2018 CP implementation report which is consistent with the data reported under Article 7 of the Montreal Protocol.

¹ As per the letter of 7 October 2019 from the Ministry of Natural Resources and Environment (MONRE) of Viet Nam to the World Bank.

Verification report

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 for 2016, 2017, and 2018 were 195.76, 197.38, and 195.60 ODP tonnes, respectively, which differ from the consumption reported under both the CP implementation report and under Article 7 of the Montreal Protocol, as those were based on import permits reflecting the full quota amount; however, actual imports were lower than amounts shown in import permits. It was agreed that the Government would amend the data reported under CP implementation report and under Article 7 to reflect the verified 2016 to 2018 consumption. In addition, the Government had strengthened communication between customs and the national ozone unit (NOU) to ensure that future data reported under the CP implementation report and under Article 7 would reflect actual imports rather than quotas issued. At the time of finalization of the present document, the 2016 to 2018 data had not yet been amended.

6. The verification concluded that the consumption of HCFCs in Viet Nam was within the limits stipulated in the Agreement between the country and the Executive Committee and that the data managed by the MONRE-NOU, the Department of Import and Export, and the General Department of Viet Nam Customs are complete and consistent. The verification report also noted that suspicious shipments are opened for a visual check at the port of entry; however, to date no illegal shipments of controlled substances have been detected, including no shipments with CFC-11 or CFC-12. Importers found to have attempted to illegally import controlled substances may be fined; such imports would only be re-exported to the exporting countries or confiscated for destruction if they are hazardous.

Progress report on the implementation of the first tranche of the HPMP

Legal framework

7. Viet Nam has an enforceable licensing and quota system. In 2018, the procedure for import of ozone-depleting substances was amended by requiring traders to apply for import licenses directly with the Department of Import and Export, and the import and export document verification for HCFC shipments was simplified by the NOU to facilitate enterprises' business. In September 2019, Viet Nam ratified the Kigali amendment.

Phase-out activities

8. Stage I of the HPMP was completed on 30 June 2017; the World Bank had submitted the final progress report and project completion report, and returned funding balances.

9. The first funding tranche of stage II of the HPMP was relatively small (i.e., 3 per cent of the overall funding approved in principle), and included activities to facilitate the signature of the grant agreement between the Government and the World Bank, and establishing the project implementation and monitoring unit (PMU), so that preliminary activities in support of the phase-out of HCFCs could be initiated. The grant agreement was signed on 7 March 2019, the project implementation manual was approved on 25 April 2019, and the PMU was established.

PMU

10. The PMU implemented the following activities:

- (a) Kick-off workshop on implementation of the stage II on 16 September 2019, International Ozone Day (US \$4,968);
- (b) Contracted an independent consultancy to undertake a technical and financial review of

sub-project proposals in the foam and RAC sectors. The contract value was US \$92,000, with the first advance disbursement of US \$9,028 after contract signature on 26 September 2019 and with submission of a detailed work plan and schedule;

- (c) Contracted an independent consultancy to provide technical assistance to selected industrial refrigeration end-users on HCFC leakage management, with a contract value of US \$34,000, with the first advance disbursement of US \$3,028; and
- (d) Contracted an auditor for the verification of 2016-2018 consumption (US \$7,916).

11. Additional disbursements for the PMU, which comprises five staff, included staff salaries (US \$29,668), office equipment (US \$14,338), and operating expenses (US \$1,155). The PMU is planning two workshops to be held in November 2019 to assist beneficiary enterprises in preparation of their sub-project proposals, so that proposals could be submitted in December 2019. The PMU also started discussions with the Directorate of Vocational Education and Training on training of trainers and for technicians at vocational schools, and the General Department of Customs for the training of customs officers; started the review and development of safety standard for the use of flammable refrigerants in RAC equipment; and participated in discussions with the Government of Japan and the World Bank on the terms of reference for technical assistance in the AC manufacturing sector to be implemented by Government of Japan.

Level of fund disbursement

12. As of October 2019, of the US \$345,987 approved so far (US \$302,737 for the World Bank and US \$43,250 for the Government of Japan), US \$70,101 (20 per cent) had been disbursed only for the World Bank. The balance of US \$275,886 will be disbursed by 2020.

Implementation plan for the second tranche of the HPMP

13. The following activities will be implemented by December 2020:

- (a) Two workshops for approximately sixty customs officers on controlling and monitoring HCFC import and export (World Bank) (US \$15,333);
- (b) Continued technical assistance to support enterprises in the preparation and implementation of sub-projects in the foam and RAC manufacturing sectors (US \$49,920), review of the sub-project proposals (US \$50,600), development of a training curriculum on handling flammable refrigerants in RAC equipment (US \$15,000), and development of a safety standard in foam production, on-site storage and handling with flammable blowing agents (US \$5,400) (World Bank);
- (c) Technical assistance to the AC manufacturers on the safe use of HFC-32 in manufacturing (Government of Japan) (US \$163,980);
- (d) Conversion of two AC manufacturing enterprises (Midea and Nagakawa) to HFC-32 (US \$856,875), the XPS manufacturing enterprise Phu Vuong to CO₂ with alcohol/DME/HFO technology (US \$613,568), five refrigeration manufacturing enterprises to HFC-32, ammonia and hydrocarbon technology (US \$427,765), and seven foam manufacturing enterprises to cyclopentane and HFO technology (US \$1,059,917) (World Bank);
- (e) Consultancy to review of vocational training schools (US \$15,000) and to evaluate leakage management activities at industrial refrigeration end-users (US \$27,200) (World Bank);

- (f) Three training workshops for approximately 60 trainers from vocational schools (US \$31,500) and 14 workshops for approximately 700 technicians on good practices to handle HCFCs and flammable refrigerants (US \$128,000) (World Bank);
- (g) Provision of training tool kits (e.g., vacuum pump, pressure gauge, leak detector, portable recovery machine, and refrigerant scale) to about 60 selected vocational training schools, and development of training materials focused on good practices to handle HCFCs and flammable refrigerants, and provision of about 100 tool kits to servicing shops (World Bank) (US \$829,000);
- (h) Verification of 2019 consumption (World Bank) (US \$4,000); and
- (i) The PMU will assist MONRE-NOU to review quotas; assist enterprises in the foam and RAC sectors to implement their sub-projects; monitor the implementation of all project's activities; conduct annual financial audits of the project expenditures; and develop six-month and annual project implementation and financial reports (World Bank) (US \$126,295).

SECRETARIAT'S COMMENTS AND RECOMMENDATION

COMMENTS

Legal framework

14. The Government of Viet Nam has already issued HCFC import quotas for 2019 in accordance with the Montreal Protocol control targets.

15. A ban on import and export of (bulk) HCFC-141b is effective from 1 January 2015, and the Government will implement a ban on imports of HCFC-141b contained in pre-blended polyols by 1 January 2022, which will help ensure the sustainability of the phase-out in the PU foam manufacturing sector. Similarly, the phase-out of HCFC-22 in the AC manufacturing sector will be supported by a ban on imports and manufacture of HCFC-22 air-conditioning units by 1 January 2022.

Revision to stage II of the HPMP Agreement

16. At the 82nd meeting, the Executive Committee decided to approve the change of technology at Midea Consumer Electric (Viet Nam) Co. Ltd. from R-290 to HFC-32, resulting in the return to the Multilateral Fund at the 82nd meeting of US \$93,358, plus agency supports costs of US \$6,535 by the World Bank; the Executive Committee noted that the Agreement between the Government of Viet Nam and the Executive Committee for stage II of the HPMP would be amended, when the second tranche of stage II of the HPMP was submitted, to reflect the returned funds (decision 82/37). Accordingly, a draft amended 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 84th meeting.

17. As the budget for the activities planned for 2020 exceeds the value of the second tranche and the remaining balances under the first tranche, the Secretariat and the World Bank discussed the possibility of also amending Appendix 3-A, to allow the Government of Viet Nam to submit the request for the third and subsequent tranches to the first meeting of the year, thereby allowing for accelerated implementation of activities. The Government decided it preferred to retain the submission to the second meeting of the year in part to ensure that the verification of consumption can be done in time and without compromising its quality. Meeting the 20 per cent disbursement threshold in the limited time available would be an additional challenge. Funding from the third tranche, expected to be submitted at the 86th meeting, would be used to

address those activities for which the budget exceeded the funding available from the first and second tranches.

Sustainability of the HCFC phase-out

18. The project completion report for stage I of the HPMP documented the dismantling and destruction of the 17 HCFC-based foaming machines at the nine enterprises converted under stage I; an additional three foaming machines at two enterprises were retrofitted to non-HCFC-based blowing agents, in line with the implementation plan. The PMU has developed a comprehensive project implementation manual that specifies the requirements and processes for sustainable conversions. Planned technical assistance activities to train stakeholders, including technicians, trainers, policymakers and customs officers, will help further ensure the sustainability of the phase-out.

Conclusion

19. The verified 2016 to 2018 consumption of the country was within the targets stipulated in the Agreement between the country and the Executive Committee. The country’s import licensing and quota system is operational and will enable HCFC consumption reductions in line with the Montreal Protocol’s phase-out schedule. As the grant agreement between the World Bank and the country was signed in March 2019, only limited activities could be undertaken under the HPMP. Nonetheless, sufficient progress was achieved to ensure that 20 per cent of the first tranche had been disbursed; implementation is expected to accelerate given the comprehensive action plan for the second tranche.

RECOMMENDATION

20. The Fund Secretariat recommends that the Executive Committee:

- (a) Takes note of the progress report on the implementation of the first tranche of stage II of the HCFC phase out management plan (HPMP) for Viet Nam; and
- (b) Notes that the Fund Secretariat had updated Appendix 2-A of the Agreement between the Government of Viet Nam and the Executive Committee, based on return of funds approved at the 82nd meeting, and that a new paragraph 17 had been added to indicate that the updated Agreement superseded that reached at the 76th meeting, as contained in Annex I to the present document.

21. The Secretariat further recommends blanket approval of the second tranche of stage II of the HPMP for Viet Nam, and the corresponding 2019-2020 tranche implementation plan, at the funding levels shown in the table below, on the understanding that:

- (a) The Treasurer would transfer the funding to the World Bank and offset the costs associated with the bilateral component by the Government of Japan only upon confirmation by the Secretariat that the 2016, 2017 and 2018 consumption as reported under the country programme implementation report and under Article 7 of the Montreal Protocol had been amended to reflect the verified consumption for those years; and
- (b) If the confirmation referred to in sub-paragraph (a) had not been received by 15 January 2020, then no funding would be transferred or offset and the second tranche could be resubmitted to a future meeting:

	Project title	Project funding (US \$)	Support cost (US \$)	Implementing agency
(a)	HCFC phase-out management plan (stage I, second tranche)	2,179,193	152,544	World Bank
(b)	HCFC phase-out management plan (stage I, second tranche)	163,980	21,317	Japan

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)

17. This updated Agreement supersedes the Agreement reached between the Government of Viet Nam and the Executive Committee at the 76th meeting of the Executive Committee.

APPENDIX 2-A: THE TARGETS, AND FUNDING

Row	Particulars	2016**	2017	2018	2019	2020	2021	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	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	n/a	
2.1	Lead IA (World Bank) agreed funding (US \$)	302,737	2,179,193	3,781,257	4,393,450	2,928,967	732,242	14,317,846	
2.2	Support costs for Lead IA (US \$)	21,192	152,544	264,688	307,542	205,028	51,257	1,002,249	
2.3	Cooperating IA (Japan) agreed funding (US \$)	43,250	163,980	26,400	0	0	0	233,630	
2.4	Support costs for Cooperating IA (US \$)	5,623	21,317	3,432	0	0	0	30,372	
3.1	Total agreed funding (US \$)	345,987	2,343,173	3,807,657	4,393,450	2,928,967	732,242	14,551,476	
3.2	Total support costs (US \$)	26,814	173,861	268,120	307,542	205,028	51,257	1,032,621	
3.3	Total agreed costs (US \$)	372,801	2,517,034	4,075,777	4,700,992	3,133,994	783,499	15,584,097	
4.1.1	Total phase-out of HCFC-22 agreed to be achieved under this Agreement (ODP tonnes)								55.31
4.1.2	Phase-out of HCFC-22 to be achieved in the previous stage (ODP tonnes)								0
4.1.3	Remaining eligible consumption for HCFC-22 (ODP tonnes)								111.84
4.2.1	Total phase-out of HCFC-123 agreed to be achieved under this Agreement (ODP tonnes)								0
4.2.2	Phase-out of HCFC-123 to be achieved in the previous stage (ODP tonnes)								0
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
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
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

*Date of completion of stage I as per stage I Agreement: 1 June 2017.

**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)).