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EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Eightieth Meeting
Montreal, 13-17 November 2017

PROJECT PROPOSAL: MYANMAR

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

Phase-out

- HCFC phase-out management plan (stage I, second and third tranches) UNEP/UNIDO

PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS

Myanmar

(I) PROJECT TITLE	AGENCY	MEETING APPROVED	CONTROL MEASURE
HCFC phase out plan (Stage I)	UNEP (lead)	68 th	35% by 2020

(II) LATEST ARTICLE 7 DATA (Annex C Group I)	Year: 2016	3.34 (ODP tonnes)

(III) LATEST COUNTRY PROGRAMME SECTORAL DATA (ODP tonnes)								Year: 2016	
Chemical	Aerosol	Foam	Fire fighting	Refrigeration		Solvent	Process agent	Lab use	Total sector consumption
				Manufacturing	Servicing				
HCFC-22					3.34				3.34

(IV) CONSUMPTION DATA (ODP tonnes)			
2009 - 2010 baseline:	4.30	Starting point for sustained aggregate reductions:	6.13
CONSUMPTION ELIGIBLE FOR FUNDING (ODP tonnes)			
Already approved:	1.50	Remaining:	4.63

(V) BUSINESS PLAN		2017	2018	2019	2020	Total
UNEP	ODS phase-out (ODP tonnes)	0.2			0.2	0.3
	Funding (US \$)	36,160			32,770	68,930
UNIDO	ODS phase-out (ODP tonnes)	0.3				0.3
	Funding (US \$)	65,400				65,400

(VI) PROJECT DATA			2012	2013	2014	2015*	2016	2017	2018	2019	2020	Total
Montreal Protocol consumption limits			n/a	4.30	4.30	3.87	3.87	3.87	3.87	3.87	2.80	
Maximum allowable consumption (ODP tonnes)			n/a	4.30	4.30	3.87	3.87	3.87	3.87	3.87	2.80	
Agreed funding (US\$)	UNEP	Project costs	159,000	0	0	19,000	0	13,000	0	0	29,000	220,000
		Support costs	20,670	0	0	2,470	0	1,690	0	0	3,770	28,600
Agreed funding (US\$)	UNIDO	Project costs	0	0	0	60,000	0	0	0	0	0	60,000
		Support costs	0	0	0	5,400	0	0	0	0	0	5,400
Funds approved by ExCom (US\$)		Project costs	159,000	0	0	0	0	0	0	0	0	159,000
		Support costs	20,670	0	0	0	0	0	0	0	0	20,670
Total funds requested for approval at this meeting (US\$)		Project costs	0	0	0	79,000		13,000	0	0	0	92,000
		Support costs	0	0	0	7,870		1,690	0	0	0	9,560

* The second tranche due in 2015 is being requested in 2017 together with the third tranche.

Secretariat's recommendation:	Individual consideration
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PROJECT DESCRIPTION

1. On behalf of the Government of Myanmar, UNEP as the lead implementing agency, has submitted to the 80th meeting a request for funding for the second and third tranches of stage I of the HCFC phase-out management plan (HPMP), at a total cost of US \$101,560, consisting of US \$32,000, plus agency support costs of US \$4,160 for UNEP, and US \$60,000, plus agency support costs of US \$5,400 for UNIDO¹. The submission includes a progress report on the implementation of the first tranche, the verification report on HCFC consumption for the years 2013 to 2016 and the tranche implementation plan for 2017 to 2020.

Report on HCFC consumption

HCFC consumption

2. The Government of Myanmar reported a consumption of 3.34 ODP tonnes of HCFC in 2016, which was 22.3 per cent below the baseline level and 13.7 per cent below the maximum allowable consumption of 3.87 ODP tonnes in the Agreement between the Government and the Executive Committee. The 2012-2016 HCFC consumption is shown in Table 1.

Table 1. HCFC consumption in Myanmar (2012-2016 Article 7 data)

HCFC	2012	2013	2014	2015	2016	Baseline
Metric tonnes (mt)						
HCFC-22	175.64	54.91	36.00	26.91	60.73	77.43
HCFC-141b	0	0	0	0	0	0.37
Sub-total (mt)	175.64	54.91	36.00	26.91	60.73	77.80
HCFC-141b in imported pre-blended polyols	0	0	0	0	0	16.64*
ODP tonnes						
HCFC-22	9.66	3.02	1.98	1.48	3.34	4.26
HCFC-141b	0	0	0	0	0	0.04
Sub-total (ODP tonnes)	9.66	3.02	1.98	1.48	3.34	4.3
HCFC-141b in imported pre-blended polyols	0	0	0	0	0	1.83*

*Average consumption between 2007 and 2009.

3. The decrease in the consumption of HCFC-22 between 2013 and 2015 was a result of controls on HCFC-22 imports and reduced demand in HCFC-based equipment, while the consumption increase from 2015 was due to a growth of HCFC-22-based equipment and commercial factors. Consumption of HCFC-141b, both bulk and contained in imported pre-blended polyol, is nil.

Country programme (CP) implementation report

4. The Government of Myanmar reported HCFC sector consumption data under the 2016 CP implementation report that is consistent with the data reported under Article 7.

Verification report

5. The verification report confirmed that the Government is implementing a licensing and quota system for HCFC imports since 2014 in accordance with the requirements under decision 63/17; in 2013, the import/export of ODS were controlled under the Control of Import and Export (Temporary) Act of

¹ As per letter dated 25 August 2017 from the Ministry of Natural Resources and Environment Conservation, Government of the Republic of the Union of Myanmar. The request includes funding for the second and third tranches of stage I of the HPMP, excluding agency support costs, amounting to US \$19,000 (due in 2015) and US \$13,000 (due in 2017) for UNEP, and US \$60,000 (due in 2015) for UNIDO.

1947. The consumption of HCFCs is lower than the limits specified in row 1.2 of the Agreement with the Executive Committee.

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

Legal framework

6. The Government held a consultative meeting on prohibiting import of HCFC-based equipment in June 2017, and decided to prohibit import of HCFC-based room air-conditioners from 1 January 2018 and all HCFC-based refrigeration and air-conditioning equipment (RAC) from 1 January 2021.

7. In December 2016, a total of 26 customs officers from the Customs Department in headquarters, Yangon port and border checkpoints were trained in a train-the-trainer workshop on import-export procedures for ODS, methods of monitoring and reporting ODS trade and use of refrigerant identifiers including blends. A representative from the Thai Customs Department also shared experiences in controlling and monitoring import/export of ODS. In June 2017, 23 additional officers from the Customs Department and the Ministry of Commerce were trained. Fifteen refrigerant identifiers were procured and would be delivered by October 2017. A hundred of copies of national customs handbook on ODS import/export trade control and monitoring were distributed.

Refrigeration servicing sector

8. In December 2016, 33 technicians and representatives from the Ministry of Industry and large service workshops were trained, through a train-the-trainer workshop, on installation, maintenance and servicing of HCFC-based RAC equipment. In 2017, 370 technicians were trained on good servicing practices (in two training centers). Four sets of equipment, including refrigerant recovery and recycling machine, recovery cylinders, service toolbox, vacuum pump would be distributed to four training centers in the country by end of the year 2017. Three-hundred copies of good servicing practices manual developed by UNEP were translated and distributed to the trainers and technicians. The Government is also discussing development of standards for examination and certification of service technicians with the National Skill Standards Authority (NSSA); currently certification system is voluntary.

9. The Government conducted awareness meetings for 245 national stakeholders to inform government policy to phase out HCFCs, licensing system to control import and export of HCFC, establishment of refrigeration and air-conditioning sector association, prohibition of HCFC-based equipment and training programmes under the HPMP.

Project implementation and monitoring unit (PMU)

10. The Government has assigned three officers to manage HPMP implementation under the supervision of Director of Policy, International Relations and Training and Research (PIIR) of Environmental Conservation Department (ECD). A technical consultant is also appointed to manage day-to-day technical and operational issues relating to the HPMP. A multi-disciplinary National Ozone Committee provides policy support and guidance to ECD relating to HPMP planning, implementation and monitoring.

Level of fund disbursement

11. As of September 2017, of the US \$159,000 approved so far, US \$41,516 had been disbursed for UNEP. The balance of US \$117,484, allocated for customs and enforcement officers training (100) including US \$56,000 to be disbursed by October 2017 upon receipt of service tools and refrigerant identifiers, and training workshops of refrigeration and air-conditioning (RAC) technicians (150), will be disbursed in the period 2017/2018.

Implementation plan for the third and fourth tranches of the HPMP

12. The following activities will be implemented:
- (a) Follow-up on finalisation and implementation of regulations relating to import and installation of HCFC-based equipment; training of 100 enforcement officers on import/export regulations and monitoring HCFC trade through four workshops; one refresher training for 30 customs officers; distribution of 200 additional copies of translated customs training manual (UNEP) (US \$8,000);
 - (b) Distribution of equipment for four training centers including refrigerant recovery machine, service tool box, refrigerant cylinder, vacuum pump, refrigerant recovery kit; five training workshops on good service practices for 200 technicians; distribution of 1,300 additional copies of translated RAC good practices training manual; procedures for certification and controls on sales of flammable refrigerants to service agencies that employ certified technicians; and development of database of certified technicians for controlling sales of refrigerants to registered technicians (UNEP) (US \$16,000);
 - (c) Provision of servicing tools such as leak detector, vacuum pump, manifold gauge and hoses, for adopting good service practices to about 50 service agencies (UNIDO) (US \$60,000);
 - (d) Continued the targeted outreach programme mainly covering implementation of HPMP activities, training programmes for the servicing sector and regulations (UNEP) (US \$4,000); and
 - (e) Continued implementation, monitoring and reporting on HPMP activities (UNEP) (US \$4,000).

SECRETARIAT'S COMMENTS AND RECOMMENDATION**COMMENTS**Request for funding for second and third tranches and revision to the HPMP Agreement

13. The second tranche was due in 2015 and the third tranche is due in 2017. Due to delays experienced in the Government clearance process for the signing of project agreements, implementation pace of stage I activities was slow in the past. To ensure timely implementation of remaining activities, the Government needs to accelerate project implementation and requires funds under the second and third tranches. By combining the two funding tranches, the agreements for the activities for both the tranches could be signed and activities could be implemented, expeditiously.

14. Appendix 2-A of the Agreement between the Government of Myanmar and the Executive Committee has been updated to reflect the revised funding schedule, i.e., the combining of the second and third tranches. A new paragraph 16 has also been added to indicate that the updated Agreement supersedes that reached at the 68th meeting, as shown in Annex I to this document. The full revised Agreement will be appended to the final report of the 80th meeting.

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

Legal framework

15. The Government of Myanmar has issued HCFC import quotas for 2017 at 70.36 mt (3.87 ODP tonnes), which is equal to the Montreal Protocol and Agreement targets. Upon a request for clarification, UNEP reported that the import quotas are issued for the maximum allowable level; past experience shows, however, that the actual imports are lower than the quotas.

16. The Secretariat requested information on whether the enterprises identified in the HPMP consuming HCFC-141b are still in operations and if so, why the consumption of HCFC-141b for the period 2011 to 2016 is reported as nil. UNEP clarified that the Ozone Order 2014 treats HCFC-141b in bulk and contained in imported pre-blended polyol as controlled chemicals, and no import quotas had been requested from 2014 and no imports are recorded for the period 2011 to 2013. Based on information available with the Ministry of Industry, the enterprises consuming HCFC-141b are still in operation; however, there is difficulty in confirming the type of blowing agent used by the industry. The Government is still unable to decide whether the HCFC-141b phase-out project as per decision 68/31(f) is needed or not.

Refrigeration servicing sector

17. The Secretariat requested clarification on whether the Government of Myanmar is fully aware of the safety requirements and safeguards associated with use of flammable refrigerants². UNEP clarified that the Government is fully aware of decisions 72/17 and 73/34 regarding retrofitting of equipment designed for non-flammable refrigerants with flammable alternatives; during training programmes, emphasis is given on prohibiting such retrofit practices. Regarding sustainability of training activities, UNEP indicated that this will be achieved by engaging with training institutions on good service practices and safe adoption of alternatives.

18. On the status of introduction of HCFC alternatives in the RAC sector, UNEP informed that R-410A (residential air-conditioning), R-404A (commercial refrigeration), R-134a (chiller), R-407C (chiller) and ammonia (cold storage) are adopted as alternatives in the country. R-600a use is limited to domestic refrigeration, HFC-32 is expected to be introduced in the near future, and R-290-based equipment are not in use in Myanmar.

Conclusion

19. The verification report for the years 2013 to 2016 confirmed that the Government of Myanmar has been in compliance with the Montreal Protocol and the Agreement with the Executive Committee in the years 2013 to 2016. In the past four years, the Government of Myanmar has implemented training of technicians and customs officers, provided equipment support to training institutions, implemented awareness and outreach activities, and monitored and reported on HCFC consumption, despite initial delays in the signing of project agreements. The Government will continue to implement additional capacity building activities for service technicians, customs officers and awareness activities in the next three years. By combining the second and third tranches, the Government would be able to expedite implementation of stage I activities. Further, regulations to prohibit import of HCFC-based room air-conditioning equipment from 1 January 2018 and all HCFC-based equipment from 1 January 2021 will reduce the dependence of the country on HCFC-based equipment progressively.

² Decisions 72/17 and 73/34.

RECOMMENDATION

20. The Executive Committee may wish to consider:
- (a) Noting:
 - (i) The progress report on the implementation of the second tranche of stage I of the HCFC phase-out management plan of (HPMP) for Myanmar;
 - (ii) That the Fund Secretariat had updated Appendix 2-A of the Agreement between the Government of Myanmar and the Executive Committee, on the basis of the revised funding schedule (combining the second (US \$79,000 in 2015) and third (US \$13,000 in 2017) tranches), and that a new paragraph 16 had been added to indicate that the updated Agreement supersedes that reached at the 68th meeting, as contained in Annex I to the present document; and
 - (b) Approving the second and third tranches of stage I of the HPMP for Myanmar, and the corresponding 2017-2020 tranche implementation plan, at the amount of US \$101,560 consisting of US \$32,000, plus agency support costs of US \$4,160 for UNEP; and US \$60,000, plus agency support costs of US \$5,400 for UNIDO.

Annex I

TEXT TO BE INCLUDED IN THE UPDATED AGREEMENT BETWEEN THE GOVERNMENT OF THE REPUBLIC OF THE UNION OF MYANMAR AND THE EXECUTIVE COMMITTEE OF THE MULTILATERAL FUND FOR THE REDUCTION IN CONSUMPTION OF HYDROCHLOROFLUOROCARBONS

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

16. This updated Agreement supersedes the Agreement reached between the Government of the Republic of the Union of Myanmar and the Executive Committee at the 68th meeting of the Executive Committee.

APPENDIX 2-A: THE TARGETS, AND FUNDING*

		2012	2013	2014	2015	2016	2017	2018	2019	2020	Total
1.1	Montreal Protocol reduction schedule of Annex C, Group I substances (ODP tonnes)	n/a	4.30	4.30	3.87	3.87	3.87	3.87	3.87	2.80	n/a
1.2	Maximum allowable total consumption of Annex C, Group I substances (ODP tonnes)	n/a	4.30	4.30	3.87	3.87	3.87	3.87	3.87	2.80	n/a
2.1	Lead IA - UNEP agreed funding(US \$)	159,000	0	0		0	32,000	0	0	29,000	220,000
2.2	Support costs for Lead IA - UNEP (US \$)	20,670	0	0		0	4,160	0	0	3,770	28,600
2.3	Cooperating IA - UNIDO agreed funding (US \$)	0	0	0		0	60,000	0	0	0	60,000
2.4	Support costs for Cooperating IA - UNIDO (US \$)	0	0	0		0	5,400	0	0	0	5,400
3.1	Total agreed funding (US \$)	159,000	0	0		0	92,000	0	0	29,000	280,000
3.2	Total support cost (US \$)	20,670	0	0		0	9,560	0	0	3,770	34,000
3.3	Total agreed costs (US \$)	179,670	0	0		0	101,560	0	0	32,770	314,000
4.1.1	Total phase-out of HCFC-22 agreed to be achieved under this agreement (ODP tonnes)										1.50
4.1.2	Phase-out of HCFC-22 to be achieved in previously approved projects (ODP tonnes)										0
4.1.3	Remaining eligible consumption for HCFC-22 (ODP tonnes)										2.76
4.2.1	Total phase-out of HCFC-141b agreed to be achieved under this agreement (ODP tonnes)										0
4.2.2	Phase-out of HCFC-141b to be achieved in previously approved projects (ODP tonnes)										0
4.2.3	Remaining eligible consumption for HCFC-141b (ODP tonnes)										0.04
4.3.1	Total phase-out of HCFC-141b in pre-blended polyols agreed to be achieved under this agreement (ODP tonnes)										0
4.3.2	Phase-out of HCFC-141b in pre-blended polyols to be achieved in previously approved projects (ODP tonnes)										0
4.3.3	Remaining eligible consumption for HCFC-141b in pre-blended polyols (ODP tonnes)										1.83

* Excludes funding for conversion of HCFC-141b contained in pre-blended polyol