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EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Eighty-sixth Meeting
Montreal, 2-6 November 2020
Postponed to 8-12 March 2021[1]

PROJECT PROPOSAL: INDIA

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, third tranche) UNDP/UNEP/Germany

[1] Due to coronavirus disease (COVID-19)

PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS

India

(I) PROJECT TITLE	AGENCY	MEETING APPROVED	CONTROL MEASURE
HCFC phase-out plan (stage II)	UNDP (lead), UNEP, Germany	77th	60% by 2023

(II) LATEST ARTICLE 7 DATA (Annex C Group l)	Year: 2019	811.33 (ODP tonnes)

(III) LATEST COUNTRY PROGRAMME SECTORAL DATA (ODP tonnes)									Year: 2019
Chemical	Aerosol	Foam	Fire fighting	Refrigeration		Solvent	Process agent	Lab use	Total sector consumption
				Manufacturing	Servicing				
HCFC-22		16.48		219.75	313.14				549.37
HCFC-123			0.54		1.01				1.55
HCFC-141b	3.84	380.52							384.36

(IV) CONSUMPTION DATA (ODP tonnes)			
2009 - 2010 baseline:	1,608.2	Starting point for sustained aggregate reductions:	1,691.25
CONSUMPTION ELIGIBLE FOR FUNDING (ODP tonnes)			
Already approved:	1,111.26	Remaining:	579.99

(V) BUSINESS PLAN		2020	2021	2022	Total
UNDP	ODS phase-out (ODP tonnes)	206.38	0	51.43	257.81
	Funding (US $)	12,888,685	0	3,212,096	16,100,781
UNEP	ODS phase-out (ODP tonnes)	3.60	0	1.54	5.14
	Funding (US $)	235,433	0	100,900	336,333
Germany	ODS phase-out (ODP tonnes)	25.70	0	21.50	47.20
	Funding (US $)	1,667,941	0	1,395,511	3,063,452

(VI) PROJECT DATA			2016	2017	2018	2019	2020	2021	2022	2023	Total
Montreal Protocol consumption limits			1,447.38	1,447.38	1,447.38	1,447.38	1,045.33	1,045.33	1,045.33	1,045.33	n/a
Maximum allowable consumption (ODP tonnes)			1,447.38	1,447.38	1,433.63	1,103.85	832.32	799.76	698.82	643.28	n/a
Agreed funding (US $)	UNDP	Project costs	9,256,000	0	14,608,000	0	12,045,500	0	3,001,959	0	38,911,459
		Support costs	647,920	0	1,022,560	0	843,185	0	210,137	0	2,723,802
	UNEP	Project costs	300,000	0	300,000	0	210,000	0	90,000	0	900,000
		Support costs	36,333	0	36,333	0	25,433	0	10,900	0	108,999
	Germany	Project costs	345,000	0	2,000,000	0	1,500,000	0	1,255,000	0	5,100,000
		Support costs	38,626	0	223,922	0	167,941	0	140,511	0	571,000
Funds approved by ExCom (US $)		Project costs	9,901,000	0	16,908,000	0		0	0	0	26,809,000
		Support costs	722,880	0	1,282,815	0		0	0	0	2,005,695
Total funds requested for approval at this meeting (US $)		Project costs					13,755,500				13,755,500
		Support costs					1,036,559				1,036,559

Secretariat's recommendation:	Individual consideration

PROJECT DESCRIPTION

1. On behalf of the Government of India, UNDP as the lead implementing agency has submitted a request for funding for the third tranche of stage II of the HCFC phase-out management plan (HPMP), at a total cost of US $14,792,059, consisting of US $12,045,500, plus agency support costs of US $843,185 for UNDP, US $1,500,000, plus agency support costs of US $167,941 for the Government of Germany, and US $210,000, plus agency support costs of US $25,433 for UNEP.[2] The submission includes a progress report on the implementation of the second tranche, a report on the continuous foam panel manufacturing enterprises, the verification report on HCFC consumption for 2018 to 2019, and the tranche implementation plan for 2021 to 2022.

HCFC consumption

2. The Government of India reported a consumption of 935.27 ODP tonnes of HCFC in 2019, which is 42 per cent below the HCFC baseline for compliance. The 2015-2019 HCFC consumption is shown in Table 1.

Table 1. HCFC consumption in India (2015-2019 Article 7 data)

HCFC	2015	2016	2017	2018	2019*	Baseline
Metric tonnes (mt)						
HCFC-22	11,777.72	10,884.29	9,376.95	9,936.76	9,988.45	10,944.7
HCFC-123	174.87	373.53	253.47	82.38	77.48	176.5
HCFC-141b	3,028.00	3,638.02	2,526.25	2,896.29	3,494.18	7,868.4
HCFC-142b	126.00	126.00	120.00	0.00	0.00	1,903.0
Total (mt)	**15,106.59**	**15,021.85**	**12,276.67**	**12,915.43**	**13,560.11**	**21,504.5**
ODP tonnes						
HCFC-22	647.77	598.64	515.73	546.52	549.37	602.0
HCFC-123	3.50	7.47	5.07	1.65	1.55	3.5
HCFC-141b	333.08	400.18	277.89	318.59	384.36	865.5
HCFC-142b	8.19	8.19	7.80	0.00	0.0	123.7
Total (ODP tonnes)	**992.54**	**1,014.48**	**806.49**	**866.76**	**935.27**	**1,608.2**

(*) Country programme (CP) implementation report.

3. HCFC-22 is produced in India for both controlled and feedstock uses. The growing consumption of HCFC-22 in 2018 and 2019 was caused by the increased market demand for refrigeration and air-conditioning (RAC) equipment and the greater need for servicing, including due to an increasing number of hot days. It is expected that HCFC-22 consumption will gradually decrease as ongoing projects in the room air-conditioning (AC) manufacturing sector are completed and new equipment based on alternative refrigerants is supplied in the market from the converted lines.

4. HCFC-141b consumption is completely based on imports and has varied due to market forces. While the sharp decrease in HCFC-141b consumption in 2017 (as compared to 2016) can be attributed in part to HPMP activities in the foam sector, imports grew again in 2018 and 2019 when the demand for foam products, especially panels, increased. In 2019, the Government banned the issuance of licenses for imports of HCFC-141b, effective on 1 January 2020.

CP implementation report

5. The Government of India reported HCFC sector consumption data under the 2018 and 2019 CP implementation report showing some differences with the data reported under Article 7 of the Montreal Protocol, namely:

[2] As per the letter of 17 August 2020 from the Ministry of Environment, Forest and Climate Change of India to UNDP.

(a) The domestic use of HCFC-22 in the CP report in 2018 is 33.58 ODP tonnes lower than the consumption recorded under Article 7 of the Protocol; this is due to an export of HCFC-22 for feedstock;

(b) In 2019, the total HCFC use in the CP report is 935.27 ODP tonnes, while the consumption recorded under Article 7 is 811.33 ODP tonnes. The Government of India confirmed that the data reported to both the Fund and the Ozone Secretariats was consistent (935.27 ODP tonnes), and clarification has been sought from the Ozone Secretariat on the reason for a lower official recorded HCFC consumption figure.

6. While the apparent inconsistency is resolved, the Secretariat notes that in both cases, the Government of India is in compliance with its Agreement with the Executive Committee for stage II and with the Montreal Protocol.

Verification report

7. 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 2018 to 2019 is below the maximum allowable consumption for the same years in the Agreement between the Government of India and the Executive Committee. The verified HCFC consumption for India for 2018 and 2019 is 866.76 ODP tonnes and 928.48 ODP tonnes, respectively. The small difference in the 2019 data (928.48 ODP tonnes vs 935.27 ODP tonnes) was explained by the fact that the verification dealt with preliminary data, before the CP data and Article 7 reports were finalized, and final adjustments to data took place after the verification had been completed.

8. The verification concluded that the Government of India is in compliance for the years 2018 and 2019 as per the accelerated phase-out schedule of the Montreal Protocol, and that it meets the targets set in its Agreement with the Executive Committee; it also confirmed that the Ministry of Environment, Forests and Climate Change of India (MoEF&CC) is issuing annual quotas for the production of HCFC-22 for controlled uses in order to comply with the Montreal Protocol schedule.

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

Legal framework

9. The Government issued a ban on the import and use of HCFC-141b pure or contained in pre-blended polyols in all sectors, effective since 1 January 2020, consistent with the Government's commitment reflected in decision 77/43(b)(ii).

AC manufacturing sector

10. Memoranda of Agreement (MoA)[3] have been signed with four of the six AC manufacturing enterprises identified for conversion to HFC-32 technology in the first tranche of stage II (Blue Star, E-Vision, Leel Electricals, and Universal Comforts Pvt Ltd (a wholly owned subsidiary of Voltas)). All of the four enterprises have completed the fourth milestone; disbursement of the associated funding is pending independent verification of milestone completion, expected during October 2020. Blue Star, E-Vision, Leel Electricals, and Universal Comforts Pvt Ltd have designed, respectively, 25, 4, 5, and 80 room AC models with capacity ranging from 0.75 to 2 tonnes of refrigeration. The list of enterprises and the status of their

[3] UNDP's implementation modality entails that the Government of India, though the NOU (Ozone Cell), establishes MoA with beneficiary enterprises, identifying duties and rights between parties, creating a performance-based implementation plan, and allowing verification of compliance at the enterprise level as well as the disbursement of funds.

conversion is presented in Table 2.

Table 2. AC manufacturing enterprises included in stage II of the HPMP

Enterprise	Consumption (mt)	Lines at enterprise	Lines to be converted	Cost (US $)	Status (milestones achieved*)
Blue Star	132.84	3	2	1,785,917	First and second milestone verified; verification of third and fourth milestones pending
E-Vision	113.00	4	2	1,574,300	First and second milestone verified; verification of third and fourth milestones pending
Leel Electricals Ltd (Lloyd Elec.)	141.43	5	3	1,868,372	First and second milestone verified; verification of third and fourth milestones pending
Videocon	163.38	1	1	1,817,975	Eligibility verified
Universal Comforts Pvt Ltd (Voltas)	529.65	2	1	4,303,695	First milestone verified; verification of second, third and fourth milestones pending
Zamil**	60.00	2	1	1,161,200	Eligibility verified**
Total	**1,140.3**	**17**	**10**	**12,511,459**	

*As per the MoA, payments are based on the following milestones: 20 per cent upon signature of the MoA, 40 per cent upon initialization of equipment procurement, 25 per cent upon conversion of the enterprise, 15 per cent once trials and certifications are completed, and IOCs after operationalization of new technology.
** Subsequent to the verification of eligibility, Zamil was purchased by Subros Ltd.

11. Blue Star, E-Vision, Leel Electricals and Universal Comforts Pvt Ltd have multiple HCFC-22-based AC manufacturing lines, only some of which will be converted under the project.[4] The MoA signed with each enterprise includes a provision that the enterprise commits not to increase consumption of HCFC-22 on the non-converted RAC manufacturing line(s) from the date of signing the MoA, in line with decision 77/43(e)(ii); accordingly, there has been no increase in manufacturing on the HCFC-22 lines that have not been converted under the project.

Polyurethane (PU) foam manufacturing sector

12. Upon approval of stage II of the HPMP, UNDP commissioned a firm to verify and determine the eligibility of the foam enterprises. A total of 204 enterprises in the PU foam manufacturing sector with a total consumption of 3,312.39 mt of HCFC-141b were found eligible. Of these, 160 enterprises with a consumption of 2,630.11 mt of HCFC-141b have been included in stage II, while the 44 remaining enterprises, with a consumption of 682.28 mt of HCFC-141b, have not sought support for conversion to non-HCFC-141b technology as they converted or are converting with their own resources.

13. Total funding eligible for the 160 enterprises is US $19,936,234 (US $7.58/kg for 2,630.11 mt), of which US $16,278,307 has been allocated to incremental capital costs (ICCs), and US $3,657,927 will be allocated to incremental operational costs (IOCs) based on the funding criteria of the Multilateral Fund.

14. Of the 160 enterprises assisted, all have signed MOA, and 152 have received their first instalment. A total of 34 enterprises have completed their conversion to low-GWP alternatives (cyclopentane, methyl formate (MF), methylal or water-based technology); upon third-party verification, those conversions will be considered completed and will receive their last payment associated with ICCs. The remaining 118 enterprises are at different stages of implementation. A summary of progress in the conversion of PU foam enterprises to low-GWP alternatives is presented in Table 3.

[4] By the completion of the project, Blue Star and Universal Comforts Pvt Ltd will each have one remaining HCFC-22 line to be converted, while E-Vision and Leel Electricals will each have two remaining HCFC-22 lines to be converted.

Table 3. Status of progress in the conversion of PU foam manufacturing enterprises to low-GWP alternatives

Category	No of enterprises	HCFC-141b (mt)	Status of progress
Micro (up to 1 mt)	28	22.12	• All enterprises were verified and signed MoA comprising two instalments (MoA signature and verification of project completion). 25 of them have received the first instalment • Most enterprises are at an advanced stage of conversion: training, optimization trials, and initiation of HCFC-free manufacturing
Small (between 1 and 5 mt)	40	138.23	• All enterprises have been verified and have signed MoA comprising three instalments (MoA signature, start of equipment procurement, and verification of project completion). 39 of them have received the first instalment • 28 enterprises are at advanced stages of conversion: training, optimization trials, and initiation of HCFC-free manufacturing stages. 16 of them received the second instalment • 12 enterprises have completed their conversion, have submitted the required documents to MOEF&CC, and are awaiting the final verification of completion for the release of their final payment
Medium (above 5 mt)	92	2,469.76	• All enterprises have been verified and have signed MoAs comprising five instalments (MoA signature, start of equipment procurement, conversion of the enterprise, completion of trials and certification, and commencement of commercial production). 88 enterprises have received the first instalment • 72 enterprises are at advanced stages of conversion: training, optimization trials, and initiation of HCFC-free manufacturing stages. All of them have received the second instalment • 22 enterprises have completed their conversions, have submitted the required documents to MoEF&CC, and are awaiting the final verification of completion for the release of their final payment
Total	**160**	**2,630.11**	

15. Even though enterprises have progressed in their conversion and some have already completed it, the COVID-19 pandemic and associated lockdown have caused delays in the submission of requisite documentation and in the physical verification of completion of milestones. With the easing of the COVID-19-related restrictions, enterprises have started to resume operations and submit documentation to process their next instalments. Noting that the ban on HCFC-141b is already in place, it is expected that all PU foam manufacturing sector plans will be completed by the first half of 2021. However, there may be some delay due to the COVID-19 restrictions.

16. The transition to non-ODS and low-GWP alternatives by the foam manufacturing enterprises has been challenging, as the use of new technologies varies across sub-sectors. In addressing these challenges, the Ozone Cell in cooperation with UNDP, an expert technical institute of the Government of India and the international foam experts, has been providing technical support to the enterprises through training workshops, trials, testing facilities, on-site demonstrations, practical hands-on training and product validation.

Assessment of continuous-foam-panel-manufacturing enterprises regarding adherence to the ban (decisions 82/74(b) and (c), 83/21 and 84/34(b)(ii))

17. During the review of the second tranche of stage II submitted at the 82nd meeting, the Secretariat noted that three continuous sandwich panel manufacturers were planned to be included in the HPMP, of which two had signed MoA with the Government, notwithstanding that the Government of India had already introduced a ban on the use of HCFCs in the manufacturing of domestic refrigerators and continuous sandwich panels as of 1 January 2015. UNDP clarified that the Government was assessing whether those

enterprises complied with the ban. Accordingly, the Executive Committee requested the Government of India, through UNDP, to provide at the 83rd meeting an update on the assessment of whether these enterprises had adhered to the HCFC ban, noting that if the Government were to determine that the enterprises were not in compliance with the ban, the MoA with the enterprises would be terminated and any funding disbursed would be returned to the project, in line with decision 77/43(d)(ii). It was also noted that no continuous-foam-panel-manufacturing enterprise would be included in stage II until its eligibility had been assessed by the Executive Committee.[5]

18. At the 83rd, 84th and 85th meetings, UNDP reported that the assessment was still underway. At the 85th meeting, through the intersessional approval process established due to the COVID-19 pandemic, the Executive Committee decided to request the Government of India, through UNDP, to provide by the 86th meeting the assessment by the Government of whether the continuous-foam-panel-manufacturing enterprises had adhered to the ban on the use of HCFC-141b as of 1 January 2015, in line with decision 82/74(b) and (c).

19. In line with decision 82/74(b) and (c), the Government of India submitted through UNDP the final report of the assessment for consideration at the 86th meeting. The report indicated that one of the three enterprises (Zeco Aircon Limited) had not signed a MoA and that the Government of India would not undertake that project. In addition, the information submitted by the other two enterprises (M/s Kingspan Jindal Pvt Ltd (Formerly M/s Jindal Mectec Pvt Ltd) and M/s Industrial Foams Pvt Ltd) in response to the notice of the Ozone Cell was not in consonance with the provisions of the MoA and the ODS (Regulation and Control) Amendment Rules 2014. Accordingly, the Government of India decided that the project component related to the manufacturing of continuous panels for both enterprises should be cancelled, and that the first instalment of US $176,936 released to the former and US $106,920 released to the latter should be returned by the enterprises to UNDP and adjusted against the amount allocated for other projects under stage II of the HPMP.

Refrigeration servicing sector

20. The Government of Germany has completed the following activities under the second tranche: training of the Industrial Technical Institute (ITI) instructors and 6,500 RAC technicians on good refrigeration practices (temporarily discontinued due to the COVID-19 pandemic); revision of the syllabus for ITI; consultation with stakeholders[6] on the strengthening of the RAC certification system based on the concept note prepared ("National Qualification, Certification and Compliance scheme (Q2C) for best servicing practice"); and publication on the Ozone Cell website and circulation of the consultation proceedings to vocational training institutes across the country.

Enabling activities in the servicing sector

21. The Ozone Cell signed a MoA with the National Academy of Customs, Indirect Taxes and Narcotics (NACIN) to implement activities under customs and enforcement capacity building. Training has been provided to 79 customs and enforcement personnel on HCFC controls and the regulatory system, the identification of refrigerants, the prevention of illegal trade, the role of customs officers and a new module related to enforcing the import ban on HCFC-141b started on 1 January 2020. Customs officers were sensitized through NACIN about the ban on HCFC-141b imports in the country. As the workshop schedule in 2020 was affected by the COVID-19 pandemic, an alternate plan to hold workshops virtually is underway.

[5] Decision 82/74(c)(i) and (ii).

[6] National experts from the Government, industry, servicing sector associations, think tanks, vocational institutes, Electronic Sector Skill Council of India, service aggregators and international experts from GIZ, UNIDO, European Commission, and the Galileo Institute of Italy.

22. The following studies have been commissioned: opportunities for application of low-GWP alternatives in building cooling; application of low-GWP alternatives in the cold-chain sector; development of a framework for bulk procurement of low-GWP air conditioners to promote energy-efficient and climate-friendly cooling equipment; and development of a database of servicing enterprises and technicians in the states.

23. A database of trained servicing sector technicians continues to be updated as more technicians receive training. Information to promote the RAC training programme and certification of RAC technicians was disseminated to technicians across the country. An awareness workshop for RAC dealers' technicians has been commissioned. Information and outreach materials for RAC technicians on good servicing practices for the improvement of energy efficiency in RAC equipment have been developed and disseminated through different means including a website, a YouTube channel, Facebook and Twitter. Two booklets, "Good servicing practices for flammable refrigerants: A quick guide" and "Efficient and sustainable cooling – energy efficiency and the RAC servicing sector," were distributed to vocational training institutes including 500 ITIs in 18 states and to training centres providing upskilling and certification to on-the-job service technicians under the National Skill Qualification Framework.

Project implementation and monitoring

24. The Project Management Unit (PMU), established within the Ozone Cell, coordinates the implementation of the HPMP, facilitating communication among key stakeholders and increasing awareness on ODS issues amongst senior decision makers. Tasks undertaken by the PMU include *inter alia* commissioning and facilitating third-party verification of enterprises for eligibility and implementation milestones through physical on-site visits; technical assistance to eligible enterprises; management in the implementation of investment projects; organization of missions, meetings and technical visits to enterprises; day-to-day administration of the HPMP activities; and preparation of periodic progress and financial reports to the Project Steering Committee, the Ozone Cell, MoEF&CC and UNDP. The PMU disbursement for the first two tranches and the indicative budget for the third tranche are presented in Table 4.

Table 4. PMU disbursement (US $)

Particulars	Cumulative*	Third tranche
Staff and consultants	104,013	200,000
Travel	33,883	50,000
Workshops / meetings	2,441	150,000
Monitoring	58,814	350,000
Others	2,455	50,000
Total	**201,606**	**800,000**

* As of December 2019; additional ongoing expenditures for US $250,000 for the year 2020 are being reconciled.

Impact of the COVID-19 pandemic on project implementation

25. The COVID-19 pandemic and the ensuing complete lockdown of economic activity at the national and global levels have adversely affected the manufacturing sector and slowed down the implementation of conversion projects. The lockdown had also frozen travel nationwide, and the unlocking of the country, implemented in a staggered manner from June 2020 onwards, has obliged the Ozone Cell, MoEF&CC, UNDP and the third-party verifier to review safety protocols to assure that everyone involved is minimally exposed to the risk of COVID-19 while carrying out visits across the country. Accordingly, the disbursements linked to milestones concerned with site verification have been delayed.

26. The impacts of the pandemic and the lockdown will continue to unfold, and need to be carefully monitored, especially given the fact that HCFC-141b imports have been prohibited in the country as of 1 January 2020. All necessary technical assistance and support will be provided to enterprises for

technology conversion and in order to sustain the phase-out.

Level of fund disbursement

27. As of August 2020, of the US $26,809,000 approved so far, US $8,453,237 had been disbursed (US $6,801,462 for UNDP, US $1,343,275 for Germany, and US $308,500 for UNEP) as shown in Table 5. The balance of US $18,355,763 will be disbursed in 2020 and 2021.

Table 5. Financial report of stage II of the HPMP for India (US $)

Agency	First tranche		Second tranche		Total approved	
	Approved	**Disbursed**	**Approved**	**Disbursed**	**Approved**	**Disbursed**
UNDP	9,256,000	2,976,588	14,608,000	3,824,874	23,864,000	6,801,462
UNEP	300,000	172,500	300,000	136,000	600,000	308,500
Germany	345,000	345,000	2,000,000	998,275	2,345,000	1,343,275
Total	**9,901,000**	**3,494,088**	**16,908,000**	**4,959,149**	**26,809,000**	**8,453,237**
Disbursement rate (%)	35		29		31	

Implementation plan for the third tranche of the HPMP

28. The following activities will be implemented between January 2021 and December 2023:[7]

(a) *PU foam manufacturing*: continue the conversion of the remaining PU foam enterprises to low-GWP alternatives and provide technical assistance to the enterprises through on-site customization, optimization and adjustment of alternative formulations; address issues in conversions; monitor alternative technology penetration in the foam sector, including raw materials, for the sustainability of HCFC-141b phase-out; adapt alternative technologies to local circumstances; facilitate the safe use of alternative technologies in enterprises; conduct workshops, seminars and awareness-raising activities; and develop a compendium of global best practices in the conversion to non-ODS and low-GWP technology in the foam manufacturing sector (UNDP) (US $7,790,280);

(b) *AC manufacturing*: sign MoA with two remaining AC manufacturing enterprises and complete the ongoing conversion of the four AC manufacturing enterprises (UNDP) (US $3,455,220);

(c) *RAC servicing sector*: train additional ITI trainers and 10,000 RAC technicians in good servicing practices and in the installation of room air conditioners, including those with flammable refrigerants; continue work related to the technician certification system; and prepare an action plan to strengthen, in cooperation with an industry association, an existing training facility with the latest equipment and tools (Germany) (US $1,500,000);

(d) *Enabling activities in the servicing sector:* update the customs and enforcement officers on the latest policy and enforcement capacity-building activities in the RAC servicing sector; train new customs officers in the enforcement of the Montreal Protocol and HCFC control; organize one or two border dialogues along with capacity-building activities; promote public procurement policies for non-HCFC alternatives by disseminating the findings of the studies commissioned by stakeholders; conduct awareness and capacity-building activities and wider dissemination of knowledge products produced in previous tranches; and update the Ozone Cell website regularly with material from the HPMP (UNEP) (US $210,000); and

[7] The remaining balance from the first and second tranches is to be used in addition to the funds requested.

(e) *Project implementation and monitoring:* continue third-party verification of enterprise eligibility and implementation milestones through on-site visits; manage the implementation of investment projects; organize missions, meetings and technical visits to enterprises; and prepare periodic progress and financial reports for submission to the Project Steering Committee, the Ozone Cell and UNDP (UNDP) (US $800,000).

SECRETARIAT'S COMMENTS AND RECOMMENDATION

COMMENTS

Report on HCFC consumption

29. Regarding the inconsistency in the consumption reported under Article 7 of the Protocol and CP data for 2019, the Government of India, through UNDP, informed the Secretariat that the country reported 935.27 ODP tonnes of HCFC consumption for 2019, both to the Ozone Secretariat and the Fund Secretariats. Noting that the Ozone Secretariat recorded a consumption of 811.33 ODP tonnes, the Government of India requested clarification regarding the difference. Once the Ozone Secretariat provides a response it will be communicated to the Multilateral Fund Secretariat.

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

Legal framework

30. The Government of India will not issue HCFC-141b or HCFC-22 import quotas for 2021; there will only be a HCFC-22 production quota, for which details will be finalized during the first quarter of 2021.

AC manufacturing sector

31. During the implementation of the second tranche, eligibility of Zamil Air Conditioners, an AC manufacturing enterprise with two lines that was included in stage II of the HPMP, was independently verified. In the process, it was found that Subros Ltd, a multinational enterprise with 38.9 per cent Article-5 ownership, acquired Zamil Air Conditioners. However, at the time the third tranche was submitted, the enterprise had not yet decided on whether it would continue to participate in the HPMP.

32. During the project review, the Secretariat informed UNIDO that if the enterprise were to convert with assistance from the Multilateral Fund, funding in the amount of US $709,493 associated with non-Article-5 ownership would be returned to the Fund. However, should the enterprise decide not to participate, the Government could consider substituting Zamil/Subros with another enterprise, a change that would need to be considered by the Executive Committee at the time of submitting the request for the fourth and final tranche of stage II of the HPMP. In such case, the eligibility of the alternate enterprise, its level of HCFC-22 consumption, the associated baseline equipment and incremental costs would then be assessed. Alternatively, the funding associated with non-Article-5 ownership of Subros (i.e., US $709,493) would be returned when the fourth and final tranche was submitted.

PU foam manufacturing sector

33. In line with the ban on the import and use of HCFC-141b pure or contained in pre-blended polyols from 1 January 2020, the Secretariat enquired about the blowing agent currently used by the PU foam enterprises identified under stage II. UNDP explained that the enterprises that joined stage II early on had progressed and were using alternative technologies (i.e., cyclopentane, MF, methylal and water-blown), while enterprises in the early stages of conversion were not in the production phase and were expected to complete their conversions to low-GWP technologies by early 2021. The enterprises that did not participate in stage II of the HPMP converted with their own resources to HCFC-141b-free technologies,

including HFCs.

Compliance with decision 77/43(d)(ii)

34. In approving stage II of the HPMP, the Executive Committee noted that if, during the implementation of the PU foam sector plan, the total tonnage to be phased out in enterprises eligible for funding was found to be less than the 3,166 mt of HCFC-141b approved for phase-out under stage II of the HPMP, funding associated with the PU foam sector plan would be reduced to account for that reduced tonnage, at a rate of US $7.58/kg (decision 77/43(d)(ii)).

35. Based on the independent verification of the eligibility of PU foam enterprises commissioned by UNDP, it was determined that the total tonnage to be phased out in the 160 enterprises eligible for funding was 2,630 mt of HCFC-141b, i.e., 535.89 mt less than the 3,166 mt approved for phase-out. The associated reduction in funding amounts to US $4,062,046 (plus agency support costs).

36. Accordingly, the Secretariat suggested undertaking this reduction from the present tranche, which includes US $7,790,280 for the PU foam sector. After the deduction, the amount of funds available for the PU foam sector in the present tranche would be US $3,728,234, which would be used for the remaining expenditures (mostly IOCs) needed to complete the conversions of 160 eligible enterprises receiving assistance.

37. Upon discussion on the matter, the Government of India and UNDP agreed to the reduction from the present tranche. Accordingly, the overall level of funding to be received by UNDP in the present tranche (including the PU foam and room AC sectors as well as PMU), once approved, is US $7,983,454, plus agency support costs.

Assessment of continuous-foam-panel-manufacturing enterprises regarding adherence to the ban (decisions 82/74(b) and (c), 83/21 and 84/34(b)(ii))

38. The Secretariat notes that the Government of India had cancelled the project components related to the manufacturing of continuous panels of Zeco Aircon Limited, M/s Kingspan Jindal Pvt Ltd and M/s Industrial Foams Pvt Ltd, (the latter two had signed MoA). However, as the two enterprises that signed MoA are converting their eligible manufacturing lines for discontinuous panels, UNDP will deduct the first instalment of US $176,936 released to M/s Kingspan Jindal Pvt Ltd and US $106,920 released to M/s Industrial Foams Pvt Ltd from the funding earmarked for the conversion of those lines.

39. The Secretariat also notes that the consumption of 558.69 mt of HCFC-141b used for the manufacturing of continuous panels will be phased out without receiving assistance from the Multilateral Fund.

Sustainability of the conversions to low-GWP technologies selected

40. Regarding the current availability and affordability of the variety of low-GWP technologies being adopted by the PU foam enterprises, UNDP reported that, so far, none of the participating enterprises had raised any issues or concerns relating to the availability of HCs, MF, methylal or water-blown alternatives being adopted in stage II. With regard to the supply chain of HFOs, however, UNDP reported that it was not well established and that affordability continued to be an issue.

41. Regarding the sustainability of the conversions to low-GWP alternatives and the potential risk of migration to HFCs after completing conversions, UNDP clarified that the MoA signed by the enterprises specifically mandate the technology to be adopted by the enterprise. An expert Government technical institute initiated a partnership with the Ozone Cell to provide technical support to some participating foam manufacturing enterprises under a competency enhancement framework. In addition, continuous support

will be made available to the enterprises for a period of three years under the competency enhancement framework.

Refrigeration servicing sector

42. The Secretariat asked whether the 10,000 technicians estimated to be trained in the third tranche were in addition to the 10,000 included in the plan of action for the second tranche. UNDP explained that overall, the Government of Germany had identified 17,000 technicians to be trained under stage II. Of these, training activities organized in the second, third and fourth tranches were to cover 10,000, 6,000 and 1,000 technicians, respectively. However, due to delays in the training schedule caused by the COVID-19 pandemic, the implementation of training for the remaining 3,500 technicians from the second tranche would take place simultaneously with the training for the 6,000 technicians proposed for the third tranche (an estimated 9,500 from both tranches).

43. In view of the current situation caused by the COVID-19 pandemic, the Secretariat enquired about the extent to which technician training could be provided virtually, and about the estimated date when training in person could resume. UNDP reported that the practical part of the training for RAC technicians in India would resume once the lockdown imposed by the Government on educational institutions was lifted. Once training resumes, the norms of social distancing and the use of personal protective equipment laid down by the Government will be followed. The Government of Germany has prepared guidelines to be followed during practical training and has reorganized/modified the training schedule, including the requirement for the training hall to be larger than usual and equipped with multiple audio-visual systems. This will constitute an additional cost for the project. Alternatively, smaller batches of technicians will have to be registered for training.

Enabling activities in the servicing sector

44. The Secretariat enquired about the progress achieved in the organization of the 12 consultation workshops with stakeholders, planned for the second tranche. UNDP explained that the workshops would take place in November and December 2020, following the completion of study reports commissioned during the second tranche. The workshops include: six addressed to RAC dealers and relevant stakeholders; four on promoting low-GWP alternatives in the cold-chain sector, the building sector and public procurement; one on standards in the RAC sector, in collaboration with the Bureau of Indian Standards; and one on capacity building to improve energy efficiency in RAC equipment.

PMU

45. Noting that only US $201,606 had been disbursed of the US $1,400,000 approved so far for the PMU, the Secretariat enquired about the additional US $800,000 requested for the PMU in the present tranche. UNDP explained that US $650,000 had already been committed on contracts signed for activities. Beside the salaries of project staff/consultants and office expenses, a major part of the PMU expenditure relates to physical verification and monitoring of implementation; stakeholder and industry meetings, including awareness workshops on low-GWP alternatives for small and medium-sized enterprises; industry visits for monitoring and coordination, and national-level verifications.

46. One of the reasons for the delayed disbursement of the amount for the above commitments is that the capacity-building programmes and workshops for foam-manufacturing enterprises planned for 2020 could not be undertaken due to the COVID-19 pandemic. With the easing of lockdown restrictions, field activities including workshops and industry visits are being planned, including in virtual mode. In addition, during 2020, the PMU has been strengthened and fully staffed to support implementation. Considering all of the costs involved in PMU operationalization, its annual costs are around US $250,000. UNDP estimated that the overall maximum cost of sustaining the PMU until the end of stage II (31 December 2024) would be US $1,000,000, without including the more in-depth technical activities sought for the PU foam sector

plan. The Secretariat notes that this explanation and planning are consistent with the total level of funds of US $2,400,000 approved in principle for the PMU.

Monitoring, reporting and verification, and sustainability of the phase-out

47. With regard to the sustainability of the phase-out of all ODS, UNDP indicated that the relevant provisions in the ODS (Regulation and Control) Amendment Rules concerning the already phased-out ODS for controlled uses have been widely disseminated to all concerned stakeholders. The national authorities operating the licensing system[8] also track the trade in these chemicals and are aware of the provisions contained in the ODS Amendment Rules. The enforcement bodies and customs are also aware and informed about the relevant phased-out chemicals. The Ozone Cell interacts regularly with these bodies to enforce the bans.

48. There is not any known controlled use of ODS that have been phased out in the market in India, and the data collected by the Ozone Cell indicates that there are no stocks of phased-out controlled substances in the country.

Level of fund disbursement

49. It is expected that the entire balance in the PU foam and AC manufacturing sectors will be disbursed by March 2021. Signed MoA in the AC manufacturing sector already account for more than the approved funding allocated to the sector; with implementation, and completion of additional milestones, additional funding will be required. In spite of the constraints imposed by the COVID-19 prevention protocols and restrictions, efforts are being made to speed up the disbursements.

Gender policy implementation

50. In line with decision 84/92(d),[9] the operational policy on gender mainstreaming will be applied wherever feasible in the implementation of stage II of the HPMP, by encouraging women's participation in the events and activities organized under stage II, such as meetings, training courses, workshops, capacity-building activities and outreach activities; promoting training and awareness campaigns to develop staff competency and awareness on gender mainstreaming; and discussing gender issues in thematic workshops to share experiences and lessons learned on gender mainstreaming.

Conclusion

51. The Government of India is in compliance with the Montreal Protocol and its Agreement with the Executive Committee. The consumption of HCFCs in 2019 was already 42 per cent below the baseline for compliance, and the level of disbursement for the second tranche was 29 per cent. The Government of India issued a ban on the import and use in all sectors of HCFC-141b, pure or contained in pre-blended polyols, by 1 January 2020. Substantive progress has been achieved in the conversion of PU foam enterprises and RAC manufacturing enterprises. Training continued to be provided to customs officers as well as to refrigeration technicians in good refrigeration practices and the installation of room air conditioners. The Government concluded that the continuous-panel-manufacturing enterprises were not in compliance with the 1 January 2015 ban, removed them from stage II of the HPMP, and deducted the advanced funds from the amount earmarked for the conversion of other eligible lines by the same enterprises. In line with decision 77/43(d)(ii), a total of US $4,062,046 is being deducted from the approval of the third tranche for UNDP.

[8] Directorate General of Foreign Trade and Directorate General of Commercial Intelligence and Statistics.

[9] Decision 84/92(d) requested bilateral and implementing agencies to apply the operational policy on gender mainstreaming throughout the project cycle.

RECOMMENDATION

52. The Executive Committee may wish to consider:

(a) Noting the progress report on the implementation of the second tranche of stage II of the HCFC phase-out management plan (HPMP) for India;

(b) Noting:

(i) That as part of the submission for the fourth and final tranche of stage II of the HPMP, the Government of India would either return US $709,493, plus agency support costs for UNDP associated with the non-Article-5 ownership of Subros Ltd, or propose to switch that enterprise with an alternate enterprise, at which time any adjustments to the funding level and remaining HCFC consumption eligible for phase-out would be made;

(ii) That the Government determined that the continuous-panel-manufacturing production lines of three enterprises initially included in stage II of the HPMP were not in compliance with the 1 January 2015 ban, excluded the conversion of these lines from the HPMP, and will return the disbursed amount of US $283,856 to the project, in line with decision 82/74(c);

(iii) That US $4,062,046, plus agency support costs of US $284,343, would be deducted from the approval for UNDP, in in line with decision 77/43(d)(ii); and

(c) Approving the third tranche of stage II of the HPMP for India and the corresponding 2021-2022 tranche implementation plan in the amount of US $14,792,059, consisting of US $12,045,500, plus agency support costs of US $843,185 for UNDP, US $210,000, plus agency support costs of US $25,433 for UNEP and US $1,500,000, plus agency support costs of US $167,941 for the Government of Germany.