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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: KENYA

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) France

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

PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS

Kenya

(I) PROJECT TITLE	AGENCY	MEETING APPROVED	CONTROL MEASURE
HCFC phase-out plan (Stage II)	France (lead)	80th	100% by 2030

(II) LATEST ARTICLE 7 DATA (Annex C Group l)	Year: 2019	5.95 (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					5.95				5.95

(IV) CONSUMPTION DATA (ODP tonnes)			
2009 - 2010 baseline:	52.15	Starting point for sustained aggregate reductions:	33.41
CONSUMPTION ELIGIBLE FOR FUNDING (ODP tonnes)			
Already approved:	33.41	Remaining:	0.0

(V) BUSINESS PLAN		2020	Total
France	ODS phase-out (ODP tonnes)	7.61	7.61
	Funding (US $)	687,810	687,810

(VI) PROJECT DATA			2017	2018-2019	2020	2021	2022	2023	2024	2025	2026	2027-2029	2030	Total
Montreal Protocol consumption limits			46.98	46.98	33.93	33.93	33.93	33.93	33.93	16.96	16.96	16.96	1.31	n/a
Maximum allowable consumption (ODP tonnes)			22.41	16.70	15.00	12.50	10.00	8.00	5.00	3.00	2.00	1.31	0.00	n/a
Agreed funding (US $)	France	Project costs	456,500	0	616,500	0	0	601,500	0	0	0	0	89,350	1,763,850
		Support costs	52,803	0	71,310	0	0	69,575	0	0	0	0	10,335	204,023
Funds approved by ExCom (US $)		Project costs	456,500	0	0	0	0	0	0	0	0	0	0	456,500
		Support costs	52,803	0	0	0	0	0	0	0	0	0	0	52,803
Total funds requested for approval at this meeting (US $)		Project costs	0	0	**616,500**	0	0	0	0	0	0	0	0	**616,500**
		Support costs	0	0	**71,310**	0	0	0	0	0	0	0	0	**71,310**

Secretariat's recommendation:	Blanket approval

PROJECT DESCRIPTION

1. On behalf of the Government of Kenya, the Government of France as the designated implementing agency, has submitted a request for funding for the second tranche of stage II of the HCFC phase-out management plan (HPMP), at the amount of US $616,500, plus agency support costs of US $71,310.[2] The submission includes a progress report on the implementation of the first tranche, the verification report on HCFC consumption for 2017 to 2019 and the tranche implementation plan for 2020 to 2022.

Report on HCFC consumption

2. The Government of Kenya reported a consumption of 5.95 ODP tonnes of HCFC in 2019, which is 88.6 per cent below the HCFC baseline for compliance. The 2015-2019 HCFC consumption is shown in Table 1.

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

HCFC-22	2015	2016	2017	2018	2019	Baseline[3]
Metric tonnes (mt)	374.62	274.00	96.16	80.79	108.27	948.15
ODP tonnes	20.60	15.07	5.29	4.44	5.95	52.15

3. HCFC consumption is decreasing due to enforcement of HCFC import/export licensing system; decrease in demand for HCFCs due to reduction in population of HCFC-based equipment and implementation of good practices while servicing HCFC-based equipment as a result of training activities under the HPMP; and increase in adoption of HCFC-free alternatives in air-conditioning and commercial refrigeration applications. The sharp decrease in the consumption since 2017 is due to the continued use of HCFC-22 that was stockpiled by the dealers/distributors from previous years.

Country programme (CP) implementation report

4. The Government of Kenya reported HCFC sector consumption data under the 2019 CP implementation report which is consistent with the data reported under Article 7 of the Montreal Protocol.

Verification report

5. The verification report confirmed that the Government of Kenya is implementing a licensing and quota system for HCFC imports and exports. However, the data reported under Article 7 for the years 2017, 2018 and 2019 were different from the data confirmed by the verifier as given in Table 2.

Table 2. HCFC-22 consumption in Kenya for 2017-2019 under A7 data and the verification report

Year	Metric tonnes		ODP tonnes	
	Article 7	Verification report	Article 7	Verification report
2017	96.16	102.97	5.29	5.66
2018	80.79	81.68	4.44	4.49
2019	108.27	115.66	5.95	6.36

6. The verifier noted that in some instances, the data recorded by Customs data did not fully capture the actual amounts that were imported, or HCFCs were imported without a license; the Government is

[2] As per the letter of 24 August 2020 from the Ministry of Environment and Forestry of Kenya to the Secretariat.

[3] Stage II of the HPMP for Kenya submitted to the 80th meeting (UNEP/OzL.Pro/ExCom/80/41), recognized that the HCFC baseline of 52.15 ODP tonnes (which was also the starting point for sustained aggregate reduction in HCFC consumption) was not reflective of the actual consumption of the base years. On this basis, the Government proposed a revised starting point of 607.45 mt (33.41 ODP tonnes), resulting in a remaining consumption eligible for funding of 407.45 mt (22.41 ODP tonnes). On this basis, the Executive Committee approved stage II of the HPMP.

contacting those importers and taking measures in line with the penalties applicable under national regulations. The verification report further indicated that the electronic single window clearance system for licensing has facilitated stronger monitoring of HCFC imports and exports, and recommended to strengthen data monitoring and reporting through *inter alia* greater coordination and information sharing between the National Environment Management Authority (NEMA) (located under the Ministry of Environment and Natural Resources, and the body designated to issue licenses and enforce the ODS regulations, in collaboration with the Customs Service Department and other Government agencies) and the Kenya Revenue Authority (KRA); implementation of information outreach programmes on an ongoing basis on HCFC monitoring and controls to importers, and regulatory agencies; and training and capacity building programmes for customs and enforcement officers on data reporting, and procedures relating to use of electronic data monitoring and reporting systems.

7. Based on the verification report and further consultations with relevant authorities, on 18 October 2020, the Government of Kenya requested the Ozone Secretariat to revise the data that it has previously reported under Article 7, and submitted the revised CP data to the Fund Secretariat.

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

Legal framework

8. Ozone protection activities are a part of the Environment Management and Coordination Act (EMCA) promulgated in 1999. The Environmental Management and Coordination Regulation of 2007 established mandatory licenses to import, export or handle ODS, including HCFCs, and for the application of ODS import quotas. The ODS regulations are currently being amended to include HFCs as well as controls on all refrigerants imported and exported into the country, and include the provision of a ban on the import of all HCFC-based equipment from 1 January 2021.

Refrigeration servicing sector

9. The following activities have been implemented:

(a) Assistance to NEMA in coordinating and monitoring import/export licenses issued and following-up with KRA on HCFC consumption data; one online training for 21 customs officers on controlling and monitoring ODS trade and on proposed changes in the ODS regulations; consultations with KRA on information sharing of import/export of ODS; and planning of two other online programmes including one for clearing agents and the other for enforcement officers on HCFC import regulations including proposed prohibition on HCFC-based equipment from 1 January 2021, and monitoring and reporting of HCFC imports, that will take place before December 2020;

(b) One nine-week train-the-trainers course for three participants in South Africa covering theoretical and practical aspects relating to refrigeration technologies and safe handling of flammable/toxic refrigerants; four training courses for 81 technicians on best practices and safe handling of flammable/toxic refrigerants; training equipment (e.g., recovery units, recovery cylinders, vacuum gauges, charging equipment for hydrocarbon (HC) refrigerants) provided to technical training institutes for RAC technicians; and developed training modules on the use of HCs under the Green Cooling Initiative project with support from the Government of Germany;

(c) One expert trained on different standards related to refrigeration and air-conditioning (RAC) equipment in different applications and energy efficiency assessment for the equipment; and technical support provided to officers in the standards authority for adopting new standards for training and safe operations of RAC equipment; and

(d) Technical assessment and specifications finalised for a demonstration project for one R-290/glycol-based chiller at Horticulture Crops Development Authority that would be commissioned by early 2021, to build technical know-how of local technicians for operations and maintenance of these systems and information outreach on performance of the equipment within the country and in the region.

Project implementation and monitoring

10. Project management is undertaken by one permanent staff based in the Ministry of Environment and Natural Resources who is involved in day-to-day management of project activities. The expenditures as of August 2020 amounted to US $12,366 (i.e., US $7,320 for staff and consultants, US $947 for travel, US $1,199 for workshops and meetings, and US $2,900 for other operating costs).

Level of fund disbursement

11. As of August 2020, of the US $456,500 approved so far, US $144,787 (31.7 per cent) had been disbursed. The balance of US $311,713 is expected to be disbursed by July 2022, once the restrictions related to the COVID-19 pandemic are removed, facilitating full-fledged project implementation.

Implementation plan for the second tranche of the HPMP

12. The following activities will be implemented between December 2020 and July 2022:

(a) Training of 160 enforcement officials and clearing agents on ODS regulations, monitoring and reporting of HCFC imports; support for NEMA for coordination and monitoring of import/export licenses issued and periodic follow-up with KRA on HCFC consumption data; and support to the national ozone unit (NOU) for consultations with importers for strengthening HCFC data collection and preventing illegal trade (US $42,100);

(b) Training of five trainers on theoretical and practical aspects relating to good servicing and maintenance of RAC equipment and safe use of alternative technologies; training of 200 technicians on good service practices and servicing equipment using low-global-warming potential (GWP) refrigerants; equipment support to five technical institutions (e.g., recovery machines, manifold gauges, digital manifold gauge); equipment support (e.g., digital manifolds, vacuum pumps, vacuum gauges, nitrogen cylinders) for 30 service agencies for adopting good service practices; and support to heating ventilation air-conditioning (HEVAC) association for the development of database of trained service technicians, information outreach on training to the servicing sector and consultations relating to HPMP activities and licensing system (US $119,478);

(c) Creation of a supply chain of R-290-based air-conditioners through identification of importers of the equipment, training of 50 importers/distributors, and procurement and distribution of 500 units for use by consumers to demonstrate their successful performance (US $40,000);

(d) Technical assessment and stakeholder consultations for use of self-contained refrigeration equipment using R-290 in small size cold rooms installed in small shops, schools and food and beverage storage applications with charge size of up to 0.5 to 1 kg/unit (US $20,000);

(e) Technical assessment of operations and development of equipment specifications for CO_2-based cascade systems for use in one supermarket; purchase, installation and commissioning of CO_2-based cascade systems in supermarkets for refrigerating display unit/freezers for vegetables, beverages and other food products; procurement of tools and

servicing spares for CO_2-based systems; training of 30 technicians for maintenance and servicing of the new systems (US $365,000);

(f) Awareness and information outreach on HPMP activities; prohibition of import of HCFC-based equipment and components that is planned to be enforced from 1 January 2021; incentive programmes and low-GWP alternatives in air-conditioning and commercial refrigeration applications for industry stakeholders (e.g., retailers, service agencies, large installations); and workshops for Government officials on HPMP activities and regulations relating to HCFC phase-out and results of end-user incentive projects (funds from the first tranche allocated for awareness and information outreach activities); and

(g) Project management, monitoring and reporting (US $29,922): US $12,268 for staff/consultants, US $3,590 for travel, US $4,488 for workshops and meetings, and US $9,576 for other operating costs.

SECRETARIAT'S COMMENTS AND RECOMMENDATION

COMMENTS

Status of completion of stage I

13. Stage I of the HPMP for Kenya was completed in December 2018 and the project completion report has been submitted to the Secretariat.

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

Legal framework

14. The Government of Kenya has already issued HCFC import quota for 2020 at 15.0 ODP tonnes for 16 importers, which is based on the levels allowed under its Agreement with the Executive Committee.

15. The Secretariat noted that the verification report recommended *inter alia* additional actions to be implemented to strengthen the import/export licensing and quota system for HCFCs and to share information on HCFC import available at NEMA with KRA, given the new electronic data monitoring and reporting systems. The Government of Kenya agreed to address the recommendations contained in the verification report during implementation of the second tranche and that it will submit, through the Government of France, a report on actions taken to the last meeting in 2021.

Optimisation of stage II of the HPMP (decision 80/58(h)(i))

16. The Secretariat requested clarifications on whether the assessment to identify activities other than those that were included in stage II to optimise its effectiveness requested in decision 80/58(h)(i), had been undertaken. The Government of France clarified that, in response to decision 80/58(h)(i) further discussions were held with RAC associations and other industry stakeholders (similar to those held during the preparation of stage II of the HPMP). Among the topics discussed included the importance of replacing HCFC-based air-conditioning equipment and commercial refrigeration equipment used in cold rooms for floriculture, horticulture and food storage, with low-GWP-refrigerant based equipment. On this basis, the activities in stage II have been designed to promote the adoption of R-290 in air-conditioning applications and low-GWP refrigerants such as R-290 and CO_2 in commercial refrigeration applications. With the enforcement of regulations to prohibit import of HCFC-based RAC equipment, and propensity of the industry relying on RAC equipment to adopt the use of low-GWP technologies, the activities included in

stage II would facilitate its effective implementation and assist the country in long-term sustainable phase-out.

Refrigeration servicing sector

17. With regard to activities related to the use of flammable refrigerants, the Government of France confirmed that the Government of Kenya is fully aware of the safeguards that need to be undertaken while promoting the use of flammable refrigerants,[4] and further confirmed that retrofit of equipment designed for non-flammable refrigerants using flammable alternatives is not encouraged and servicing sector activities are taking all safeguards into consideration.

18. Upon request for clarifications on demonstration of R-290/glycol-based chillers implemented in the Horticultural Crops Development Authority, the Government of France explained that the proposed technology will be used in agriculture applications, providing efficient cooling based on low-GWP refrigerants. The chiller that is currently being procured is factory pre-charged with around 5 kg of R-290 and tested before shipment; during installation, modification of civil works and electrical components (at an estimated cost of US $20,000) would be required at the facility. Given the proposed import ban on HCFC-based equipment and its components from 1 January 2021, and the results of the proposed technology, it could be adopted in cold rooms of the flower and horticulture export industry in Kenya. The Government of France further indicated that the success of this technology would be publicised in regional and international agricultural shows and programmes, and could be introduced in neighbouring countries (e.g., Somalia, Uganda, and the United Republic of Tanzania).

19. The Secretariat also requested information on scalability and extended adoption of R-290-based air-conditioners in Kenya, after implementation of the project component. The Government of France informed that most of the 70,000 residential air-conditioners currently imported are HFC-based; the prohibition of import of HCFC-based equipment from 1 January 2021 and additional measures to publicise the performance of the R-290-based air-conditioners, would increase its adoption; it is estimated that in 2023, 2024, 2025 and 2026, approximately 2,000, 4,000, 6,000 and 8,000 units are expected to be sold, respectively. On this basis, stage II had included training and technical support to refrigeration technicians on the safe use of HCs while servicing these equipment. The Government of Kenya may also consider implementing additional measures for introducing low-GWP refrigerant technologies, as a part of the implementation of minimum energy performance standards for RAC equipment.

20. On technical assessment for promotion of R-290-based equipment in small cold rooms, the Government of France explained that the project would aim to promote low-GWP self-contained refrigeration systems in small shops, schools and other food and beverage storage applications. With the prohibition of import of HCFC-based equipment from 1 January 2021, the market for low-GWP HCFC-free alternatives is expected to grow; furthermore, technicians will be trained on safe installation, maintenance and servicing of these systems. In 2023, 2024, 2025 and 2026 about 5, 10, 40 and 80 cold rooms are expected to be sold, respectively; the results of the projects would be publicised in national and regional awareness programmes for promoting adoption of the technology in cold rooms.

21. In line with decision 84/84, the Secretariat requested information on project costs, co-financing and expected impact of the project relating to the incentive scheme for CO_2-based cascade systems in supermarkets. The Government of France clarified that there are approximately 200 medium- to large-size supermarkets; the Government of Kenya was at advanced stages of consultations with one large supermarket for implementation of this project. The total cost of the installation is estimated at US $300,000 and co-financing is expected to amount to US $100,000; approximately 30 technicians would be trained on installation, maintenance and servicing of these systems. In 2023, 2024, 2025 and 2026, approximately 2, 4, 8 and 16 such systems are expected to be installed, respectively; the results of the projects would be

[4] Decisions 72/17 and 73/34.

publicised in different national and regional programmes for promoting the adoption of the technology in supermarkets.

22. In line with decision 84/84(d), the Government of France will submit detailed reports on the results of the above-mentioned demonstration projects and incentive schemes once they have been completed, to allow the Secretariat to develop fact sheets to inform future projects.

23. With reference to the certification of refrigeration technicians system, the Government of France explained that the NOU would work with the national authorities for implementing the competency curriculum that has been finalised under the Green Cooling Initiative project, for training and competency testing for certification and licensing of servicing technicians; HEVAC association would work with NEMA for maintaining a database of certified technicians and progressively ensuring only licensed technicians can handle refrigerants with potential safety concerns.

Impact of the COVID-19 pandemic on HPMP implementation

24. In 2020, the COVID-19 pandemic has affected the overall pace of implementation of business and economic activities, including HPMP activities, in Kenya. While the situation in the country is experiencing some improvement, with shops and business operations allowed with necessary safeguards and restrictions and schools to resume, the pace of return back to full normalcy is uncertain. Taking this into account, the Government is planning to implement online activities for training programmes and consultations with KRA and other preparatory activities such as planning for equipment using R-290 in small-size cold rooms and CO_2-based cascade systems in the initial few months of implementation of the second tranche.

Gender policy implementation[5]

25. The Government of France informed that the Government of Kenya is implementing the gender policy and that activities for gender-sensitive project implementation are undertaken on an ongoing basis, *inter alia*, greater gender balance among experts/trainers recruited for HPMP activities and participants in different programmes, presentation of data on gender distribution in training and outreach materials, and collection and reporting of gender-disaggregated data on project activities. Over time, technicians training has included more women, while customs training in general has between 20 to 30 per cent women participation. In the implementation report for the second tranche, information on women in training of customs and enforcement officers has already been included in the training programme content and gender-disaggregated data would be collected and reported.

Sustainability of the HCFC phase-out

26. The sustainability of the HCFC phase-out would be ensured by: ongoing support provided to the technical training centres; capacity building of trainers and progressive implementation of certification of RAC technicians; effective enforcement of HCFC licensing and quota system and the ban on import of HCFC-based equipment; and awareness and outreach activities to promote the adoption of low-GWP HCFC-free technologies in residential air-conditioning and commercial refrigeration applications.

Conclusion

27. Kenya continues to be in compliance with the Montreal Protocol control targets through reduction in demand of HCFC-22 and implementation of the national regulations including a licensing and quota system for HCFC imports and exports. The verified consumption of HCFC-22 for 2019 of 6.36 ODP tonnes was 62 per cent below the Agreement target of 16.7 ODP tonnes for that year. The Government has achieved

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

progress in the HPMP activities including capacity building of customs and servicing technicians, equipment support to training institutions, and promoting adoption of HCFC-free low-GWP alternatives in residential air-conditioning and commercial refrigeration. Over 31 per cent of the approved funds has been disbursed. The activities planned for the second tranche, *inter alia*, strengthening the licensing and quota system and greater information exchange and coordination with KRA as recommended in the verification report, prohibition of import of HCFC-based RAC equipment from 1 January 2021, training of customs and enforcement officers, training and certification of technicians, implementing end-user incentive programmes and awareness and outreach activities to promote adoption of HCFC-free low-GWP alternative technologies in the servicing sector, will further contribute to a sustainable reduction of HCFC consumption.

RECOMMENDATION

28. 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 Kenya;

(b) Requests the Government of Kenya to submit, through the Government of France, a status report, to the last meeting of 2021, on the strengthening of the licensing and quota system for HCFCs and information sharing with Kenya Revenue Authority on HCFC imports in light of the recommendations made in the verification report; and

(c) Requests the Government of France to submit detailed reports on the results of the demonstration projects/incentive schemes for residential air-conditioning and commercial refrigeration once they have been completed, to allow the Secretariat to develop fact sheets to inform future projects, in line with decision 84/84(d).

29. The Fund Secretariat further recommends blanket approval of the second tranche of stage II of the HPMP for Kenya, and the corresponding 2020-2023 tranche implementation plan, at the funding level shown in the table below:

	Project title	Project funding (US $)	Support cost (US $)	Implementing agency
(a)	HCFC phase-out management plan (stage II, second tranche)	616,500	71,310	France