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EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Ninety-sixth Meeting
Montreal, 26-30 May 2025
Item 9(c) of the provisional agenda¹

PROJECT PROPOSAL: ETHIOPIA

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) | UNEP and UNIDO | Blanket approval |
|---|--|----------------|------------------|

¹ UNEP/OzL.Pro/ExCom/96/1

PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS

Ethiopia

(I) PROJECT TITLE	AGENCY	MEETING APPROVED	CONTROL MEASURE
HCFC phase-out plan (stage II)	UNEP (lead), UNIDO	88 th	100% phase-out by 2030

(II) LATEST ARTICLE 7 DATA (Annex C, Group I)	Year: 2024	1.02 ODP tonnes
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(III) LATEST COUNTRY PROGRAMME SECTORAL DATA (ODP tonnes)								Year: 2023	
Chemical	Aerosol	Foam	Fire-fighting	Refrigeration		Solvent	Process agent	Lab use	Total sector consumption
				Manufacturing	Servicing				
HCFC-22					3.37				3.37

(IV) CONSUMPTION DATA (ODP tonnes)			
2009–2010 baseline:	5.5	Starting point for sustained aggregate reductions:	5.5
CONSUMPTION ELIGIBLE FOR FUNDING			
Already approved:	5.50	Remaining:	0.00

(V) ENDORSED BUSINESS PLAN		2025*	2026	2027	Total
UNEP	ODS phase-out (ODP tonnes)	0.61	0.60	0.00	1.21
	Funding (US \$)	192,000**	111,000	0	303,000**
UNIDO	ODS phase-out (ODP tonnes)	0.55	0.23	0.00	0.78
	Funding (US \$)	130,000**	40,000	0	171,000**

* Second tranche request delayed from 2024

** Including US \$79,000 for UNEP and US \$32,000 for UNIDO, for additional activities to maintain energy efficiency (decision 89/6)

(VI) PROJECT DATA			2021	2022-2023	2024	2025*,**	2026	2027-2029	2030	Total
Montreal Protocol consumption limits (ODP tonnes)			3.58	3.58	3.58	1.79	1.79	1.79	0	n/a
Maximum allowable consumption (ODP tonnes)			3.58	3.58	3.58	1.79	1.79	1.79	0	n/a
Funding agreed in principle (US \$)	UNEP	Project costs	137,000	0	100,000	100,000	98,000	0	63,000	498,000
		Support costs	17,810	0	13,000	13,000	12,740	0	8,190	64,740
	UNIDO	Project costs	60,000	0	90,000	0	37,000	0	0	187,000
		Support costs	5,400	0	8,100	0	3,330	0	0	16,830
Funds approved by ExCom (US \$)		Project costs	197,000	0	0	0	0	0	0	197,000
		Support costs	23,210	0	0	0	0	0	0	23,210
Total funds recommended for approval at this meeting (US \$)		Project costs	0	0	0	290,000	0	0	0	290,000
		Support costs	0	0	0	34,100	0	0	0	34,100

*Second tranche request delayed from 2024

**Funding for 2025 includes US \$100,000, plus agency support costs of US \$13,000, for UNEP for additional activities to maintain energy efficiency (decision 89/6)

Secretariat's recommendation:	Blanket approval
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PROJECT DESCRIPTION

1. On behalf of the Government of Ethiopia, UNEP 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 \$324,100, consisting of US \$200,000, plus agency support costs of US \$26,000, for UNEP and US \$90,000, plus agency support costs of US \$8,100, for UNIDO.² The submission includes a progress report on the implementation of the first tranche, the verification report on HCFC consumption for 2020 to 2024, a request for funding additional activities to maintain energy efficiency in the refrigeration servicing sector,³ and the tranche implementation plan for 2025 to 2027.

Report on HCFC consumption

2. The Government of Ethiopia reported a consumption of 1.02 ODP tonnes of HCFCs in 2024, which is 81.5 per cent below the country's HCFC baseline for compliance. The 2020-2024 HCFC consumption is shown in table 1.

Table 1. HCFC consumption in Ethiopia (2020-2024 Article 7 data)

HCFC-22	2020	2021	2022	2023	2024	Baseline
Metric tonnes (mt)	62.00	61.20	57.62	61.20	18.46	100.00
ODP tonnes	3.41	3.37	3.17	3.37	1.02	5.50

3. Ethiopia's only consumption is HCFC-22, used exclusively in the servicing sector. Consumption continues to decline with the implementation of the activities in the refrigeration servicing sector included in the HPMP, the enforcement of the licensing and quota system, and the increased adoption of alternative refrigerants, such as ammonia (R-717) and carbon dioxide (R-744). The drop in HCFC imports in 2024 was due to overstock in 2023; the national ozone unit (NOU) has reminded importers not to stockpile to continue being included as quota beneficiaries.

Country programme implementation report

4. The Government of Ethiopia reported HCFC sector consumption data under the 2023 country programme (CP) implementation report that is consistent with the data reported under Article 7 of the Montreal Protocol. The Government is preparing the CP report for 2024 to be submitted online.

Verification report

5. The verification report confirmed that the Government was implementing a licensing and quota system for HCFC imports and exports and confirmed the total volume of imports of HCFCs for 2020 to 2024 which are in line with currently reported Article 7 data as shown in table 1 (see paragraph 14 on previously reported data). The verification confirmed that the country has an operational licensing system housed at the Environmental Licensing Division (ELD) and a quota allocation system administered by the NOU under the Environmental Law and Standards Directorate in the Ministry of Environment, Forestry and Climate Change. The verification concluded that Ethiopia is in compliance with the HCFC phase-out schedule, set by the Montreal Protocol and outlined in the Agreement between the country and the Executive Committee.

² As per the letter of 10 March 2025 from the Federal Democratic Republic of Ethiopia Environmental Protection Agency to the Secretariat.

³ In line with decision 89/6, low-volume-consuming countries can include in their HPMPs additional activities for the introduction of alternatives to HCFCs with low or zero global-warming potential and for maintaining energy efficiency in the refrigeration servicing sector.

Status of implementation of stage I of the HCFC phase-out management plan

6. Stage I of the HPMP was completed on 1 December 2022, in line with the extension approved by the Executive Committee in decision 85/22(a).⁴ The project completion report was submitted on 26 April 2023.

Progress report on the implementation of the first tranche of stage II of the HCFC phase-out management plan

Legal framework

7. Ethiopia ratified the Kigali Amendment on 5 July 2019. Ethiopia's ODS regulations, gazetted in 2011, cover the imports and exports of ODS and ODS-based equipment, and provide for a licensing system for all ODS, including HCFCs. Draft revisions have been prepared introducing new provisions to ban imports of both new and used HCFC-based equipment by 1 January 2026 and imports of virgin HCFC refrigerants by 2030. The regulations are being revised further to cater to the control measures that would assist the country in meeting the phase-down of HFCs. Introduction of the bans and other regulatory measures to control HCFC emissions were delayed due to lengthy government procedures. The draft regulations were submitted to the ministers' counsels for review and further presentation to Parliament for endorsement. It is now expected that the regulations will be approved before 31 December 2025.

Refrigeration servicing sector

8. During the first tranche, the following activities were implemented:

- (a) *ODS policy and regulations:* Developed national standards in the refrigeration and air-conditioning (RAC) sector for the safe use of energy-efficient, low-global-warming-potential (GWP) RAC equipment; conducted three stakeholder consultation workshops on the draft standards for a total of 75 participants (against 60 planned); conducted two training sessions on enforcement of the standards for 50 standards officers and environmental inspectors, (against 30 planned); conducted monthly monitoring inspections at 14 border checkpoints to oversee the import of RAC equipment and refrigerants; and conducted two workshops on green procurement for 46 procurement officers (against 40 planned);
- (b) *ODS customs and enforcement training:* Two border dialogues conducted to address the issue of counterfeit refrigerants and illegal trade in controlled substances; four training sessions conducted for 55 customs officers (against 40 planned), clearing agents, and cargo inspectors; developed four specialized training programmes to build capacity in monitoring and preventing illegal trade; held two annual meetings with major importers and stakeholders to enhance compliance; and conducted one training of trainers for 20 trainers (against 15 planned);
- (c) *RAC technician certification and training:* The national code of conduct for RAC technicians and the technician training curriculum was revised to align with international best practices. Stakeholder consultations were conducted with 50 key stakeholders (against 30 planned). The certification scheme was scheduled to be in place by 31 December 2024, but it was delayed due to the absence of a NOU for over a year. It is currently under the approval process, and the country hired an expert to develop a comprehensive competency-based certification programme for handling HCFCs/HCFC alternatives. One workshop to introduce and discuss the certification scheme was conducted with

⁴ Approval provisions contained in annex IV of document UNEP/OzL.Pro/ExCom/85/67

34 stakeholders, and 300 RAC technicians have been trained in good servicing practices, promoting environmental sustainability and improved technical standards. The NOU registered all RAC technicians and organized four meetings for the RAC technician association; and

- (d) *Strengthen the vocational training centres and establish a reclamation centre:* The procurement process has been delayed due to NOU turn over. Remaining activities include the installation and setup of the procured equipment at the identified vocational training centres.

Project implementation and monitoring

- 9. A total of US \$10,000 was disbursed for staff, operations, and meeting costs.

Level of fund disbursement

- 10. As of March 2025, of the US \$197,000 approved so far (US \$137,000 for UNEP and US \$60,000 for UNIDO), US \$145,000 (73.6 per cent) had been disbursed (US \$137,000 for UNEP and US \$8,000 for UNIDO). The balance of US \$52,000 will be disbursed during the second tranche.

Implementation plan for the second tranche of stage II of the HCFC phase-out management plan

- 11. The following activities were proposed to be implemented between July 2025 and June 2027:
 - (a) *ODS policy and regulations:* Conduct four training workshops for custom officers, other law enforcement agencies and sensitize the general public on benefits of adopting and using green RAC systems; conduct four capacity building for 70 standards officers, environmental inspectors and other key stakeholders for the development and enforcement of technical standards in the RAC sector; and conduct monitoring inspections on imported RAC equipment and refrigerants to ensure compliance with the technical standards (UNEP) (US \$20,000);
 - (b) *ODS customs and enforcement training:* Facilitate one border dialogue on illegal trade prevention of controlled substances and counterfeit refrigerants; conduct one training session for 15 trainers by national expert; conduct four training workshops to build capacity of 100 custom officers, consumer protection officers, and other law enforcement agencies on standards and ODS regulations (UNEP) (US \$30,000);
 - (c) *RAC technician certification and training:* Organize, train and certify 300 RAC technicians on good servicing practices in collaboration with vocational training institutes and industry partners (UNEP) (US \$40,000);
 - (d) *Strengthen the vocational training centres and establish a reclamation centre:* Continue the procurement of safety-related tools (e.g., charging station for hydrocarbons (HCs), leak detector for HCs, manifold gauges, brazing unit, compression fitting tools, recovery machines, safety related tools, miscellaneous tubing tools) for four identified vocational training centers for handling alternative refrigerants and making equipment accessible to technicians on demand; and procurement, installation and delivery of reclaim units for multiple refrigerants for two refrigerant reclaiming centers in Addis Ababa (UNIDO) (US \$90,000) (plus US \$52,000 from previous tranche);
 - (e) *Activities to maintain energy efficiency:* These activities are described in detail in the following section (UNEP) (US \$100,000); and

- (f) *Project monitoring*: Conduct project monitoring and follow-up activities, including operation costs for at least four meetings with stakeholders. (UNEP) (US \$10,000).

Activities to maintain energy efficiency in the refrigeration servicing sector

12. The project related to energy efficiency, submitted in line with decision 89/6, has been designed to strengthen Ethiopia's institutional and technical capacity to implement minimum energy performance standards (MEPS) in the RAC sector through enhanced cooperation among relevant institutions and stakeholders and policy development to promote energy efficiency. The description and proposed cost breakdown of activities to maintain energy efficiency in the sector are presented in table 2.

Table 2. Additional activities proposed to maintain energy efficiency in the servicing sector

Activity	Performance indicators	Cost (US \$)
Component 1: Capacity building for the implementation of MEPS		
Coordination meetings and workshops	Establishment of a national coordination mechanism among key stakeholders.	14,000
Training for RAC technicians, customs officers and compliance monitoring and enforcement experts	Two workshops for 85 customs officers to enforce MEPS at Ethiopia's borders, ensuring that all imported RAC equipment complies with national energy efficiency standards. Two workshops for 70 RAC technicians to install, maintain, and repair energy-efficient and low-GWP RAC systems. One workshop for 50 compliance monitoring experts to gain a comprehensive understanding of MEPS and how to ensure compliance monitoring and enforcement mechanisms in the RAC sector Reports and information notes produced.	22,000
Educational field visit for key stakeholders on the establishment of labelling system and energy efficiency standards in other countries in Africa.	Organize educational field visit for key stakeholders including the NOU under the Environmental Protection Authority (EPA), Ethiopian Energy Authority, Ethiopian Standards Institute and customs officials to improve participants' understanding of different aspects involved in the establishment and implementation of labelling system and energy efficiency standards and design of implementation strategy.	25,000
Subtotal		61,000
Component 2: Awareness raising and outreach		
Development of communication tools	Produce two videos paired with infographics to showcase the benefits of MEPS and energy-efficient technologies in the RAC sector for the general public, consumers, technicians, educators, and importers, with the products disseminated via social media platforms, government websites, local TV channels, and at community events. Banners on the benefits of energy-efficient RAC technologies and MEPS to be placed in high-traffic areas such as markets, bus terminals, schools, and community centres. Workshop and media briefings. Development of reports.	23,000
Conduct awareness-raising campaigns and develop materials	One roadshow featuring live demonstrations of energy-efficient RAC technologies (e.g., real-time demonstrations, interactive displays) including information sharing by training centres to enhance learning experiences. Interactive demonstrations in high-population localities, such as village meetings, local market days, and religious events, to enhance awareness on energy-efficient RAC equipment and hands-on experience on how to read MEPS labels when buying appliances	16,000
Subtotal		39,000
Total		100,000

13. The above-mentioned activities would be implemented over a period of 24 months in close consultations with relevant stakeholders and in coordination with ongoing HPMP activities.

SECRETARIAT'S COMMENTS AND RECOMMENDATION

COMMENTS

Report on HCFC consumption and verification

14. The verification report initially submitted did not identify an inconsistency between the verified data and that reported under Article 7 for 2023 and did not include the data for 2024. Upon UNEP's clarification with the Ozone Secretariat, it was found that R-404A was incorrectly recorded as R-401A in the Article 7 data form, resulting in the reporting of the use of 1.598 mt of HCFC-124 as a component of R-401A. The Article 7 data for 2023 was subsequently corrected together with other minor corrections. The verification report was also updated and resubmitted to the Fund Secretariat to include 2024 data as well.

Progress report on the implementation of the first tranche of stage II of the HCFC phase-out management plan

Legal framework

15. The Government of Ethiopia has already issued HCFC import quotas for 2025 of 1.79 ODP tonnes in accordance with the Montreal Protocol control targets.

16. The Secretariat noted the efforts of the Government in preparing for the implementation of the ban on both new and used HCFC-based equipment by 1 January 2026 and inquired from UNEP about the status of the establishment or regulatory measures to control intended emissions of HCFCs during installation, servicing and decommissioning, which was expected to be implemented by 1 January 2024.⁵ The delay in introducing the ban on import of HCFC equipment and other regulatory measures to control HCFC emissions were caused by the long government procedures. The process is now waiting for government approval which involves Cabinet and Parliament approval. It is expected that the approval will be achieved by mid 2025.

Delays in implementation

17. The submission of the second tranche of the HPMP for Ethiopia, originally due in 2024, was delayed due to institutional changes in the country. The absence of a designated ozone officer in the EPA further contributed to the delay, affecting the coordination and submission process. A new national ozone officer (NOO) has recently been recruited, and efforts are actively underway to ensure timely progress in meeting the country's commitments under the HPMP. On the delay in procurement processes, UNEP explained that key decisions were put on hold pending the new NOO's confirmation; currently, stakeholders, including UNIDO, are awaiting the finalized list of required tools to proceed with implementation; with the new NOO on board, the issue is expected to be resolved.

Implementation plan for the second tranche of stage II of the HCFC phase-out management plan

Technical and cost issues

18. The Secretariat had detailed discussions with UNEP about the inclusion of certain proposed activities for the second tranche since some of them have already been reported as completed, such as updating the national code of conduct. The Secretariat also reminded UNEP that updating the customs

⁵ Government's commitment contained in decision 88/48(b)(iii)

training curriculum had been shifted to the third tranche as per the approved HPMP from the 88th meeting. UNEP submitted a revised implementation plan that included activities such as sensitizing the general public on benefits of adopting and using green RAC systems, continuation of training of trainers for customs and enforcement training, one border dialogue, etc. to better align with the approved stage II activities which are detailed in paragraph 11.

Activities to maintain energy efficiency in the refrigeration servicing sector

19. In line with decision 89/6(d), UNEP has included in the tranche implementation plan the specific actions, performance indicators and funding associated with additional activities to maintain energy efficiency. The additional activities would complement those planned under the HPMP relating to the strengthening of national standards for equipment. The main activities under this project include enhancing engagement of relevant stakeholders handling energy efficiency in different activities implemented under the HPMP and other Montreal Protocol activities, raising public awareness on energy efficiency and adoption of low-GWP refrigerant-based RAC equipment and fostering collaboration between the NOU and energy efficiency authorities.

Gender policy implementation

20. In line with the Multilateral Fund's operational policy on gender mainstreaming, the NOU has encouraged the engagement of women in the implementation of HPMP activities and training programmes and initiated efforts to collect gender disaggregated data. The NOU is undertaking targeted activities to promote participation of women in different activities (e.g. career fairs) and would continue to undertake different steps to promote implementation of gender mainstreaming such as engagement of a gender specialist to develop a strategy, establishing a database of women experts, developing gender-sensitive training material and gender-responsive knowledge management, dissemination and capacity building.

Updated Agreement

21. In view of the inclusion of funding for additional activities to maintain energy efficiency in the refrigeration servicing sector and the accordingly revised funding schedule, the Agreement between the Government of Ethiopia and the Executive Committee has been updated. Specifically, Appendix 2-A has been revised and paragraph 17 has been added to indicate that the updated Agreement supersedes that reached at the 88th meeting by decision 88/47, as contained in annex I to the present document. The full updated Agreement will be appended to the final report of the 96th meeting.

Sustainability of the HCFC phase-out and assessment of risks

22. The Government of Ethiopia is making efforts to ensure the long-term sustainability of the HPMP activities and while phasing out the remaining HCFCs. Importers, distributors and retailers of cooling equipment are already being engaged and sensitized on the upcoming bans on the import of both new and used HCFC-based equipment by 1 January 2026 and imports of virgin HCFC refrigerants by 2030, combined with the increased capacity of customs and other border enforcement agencies provides confidence that the ban will be effectively enforced. Training of RAC technicians on the safe use of low-GWP refrigerants will continue; to facilitate a smooth transition and ensures they have the capacity required. In addition, the activities to maintain energy efficiency in the refrigeration servicing sector proposed along with this tranche request will result *inter alia* in better institutional coordination among stakeholders handling energy efficiency and the NOU, greater awareness on implementation of energy efficiency related activities while phasing down HFCs and increased public awareness on making more informed decisions using MEPS when purchasing appliances. To mitigate risks of the sustainability of the HCFC phase-out, the NOU has registered all HCFC importers, enforces that only registered importers may be granted a quota permit and performs regular inspections on their 14 border control points to ensure enforcement and prevent illegal trade. The mandatory certification scheme for servicing technicians will

strengthen their technician workforce on the safe handling of ODS alternatives, ensuring effective implementation and industry-wide adoption for sustainability.

Conclusion

23. The Government of Ethiopia has reduced its consumption of HCFCs to 1.02 ODP tonnes in 2024 which is 81.5 per cent below the HCFC baseline for compliance and 72 per cent below the Agreement target for that year. As of April 2025, 73.6 per cent funds approved under the first tranche were disbursed. The Government of Ethiopia continues to implement and strengthen its HCFC licensing and quota system as well as introduce complementary legislation to strengthen the sustainability of the HCFC phase-out. Training will be conducted to strengthen the capacity of customs and enforcement officers and service technicians. The Government is in the process for approval of their mandatory certification scheme for RAC technicians which will facilitate the adoption of good service practices and safe transition to low-GWP alternatives. The activities proposed to maintain energy efficiency in the refrigeration servicing sector are consistent with decision 89/6. During the second tranche of stage II, the HPMP will continue to contribute to strengthening the capacity of service technicians and customs officers and raise awareness on the use of low-GWP refrigerants.

RECOMMENDATION

24. The Fund Secretariat recommends that the Executive Committee:

(a) Note:

- (i) The progress report on the implementation of the first tranche of stage II of the HCFC phase-out management plan (HPMP) for Ethiopia;
- (ii) The submission of additional activities to maintain energy efficiency in the refrigeration servicing sector in the amount of US \$100,000, plus agency support costs of US \$13,000, for UNEP;
- (iii) That the Fund Secretariat has updated the Agreement between the Government of Ethiopia and the Executive Committee, as contained in annex I to the present document, specifically: Appendix 2-A, based on the inclusion of funding for additional activities to maintain energy efficiency in the refrigeration servicing sector referred to in subparagraph (a)(ii) above; and paragraph 17 that has been added to indicate that the updated Agreement supersedes that reached at the 88th meeting in decision 88/47.

25. The Fund Secretariat further recommends blanket approval of the second tranche of stage II of the HPMP for Ethiopia, and the corresponding 2025-2027 tranche implementation plan, at the funding levels shown in the table below.

	Project title	Project funding (US \$)	Support costs (US \$)	Implementing agency
(a)	HCFC phase-out management plan (stage II, second tranche)	200,000	26,000	UNEP
(b)	HCFC phase-out management plan (stage II, second tranche)	90,000	8,100	UNIDO

Annex I

**TEXT TO BE INCLUDED IN THE UPDATED AGREEMENT BETWEEN THE
GOVERNMENT OF ETHIOPIA 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 Ethiopia and the Executive Committee at the 88th meeting of the Executive Committee.

APPENDIX 2-A: THE TARGETS, AND FUNDING

Row	Particulars	2021	2022- 2023	2024	2025	2026	2027- 2029	2030	Total
1.1	Montreal Protocol reduction schedule of Annex C, Group I substances (ODP tonnes)	3.58	3.58	3.58	1.79	1.79	1.79	0	n/a
1.2	Maximum allowable total consumption of Annex C, Group I substances (ODP tonnes)	3.58	3.58	3.58	1.79	1.79	1.79	0	n/a
2.1	Lead IA (UNEP) agreed funding (US \$)	137,000	0	0	200,000	98,000	0	63,000	498,000
2.2	Support costs for Lead IA (US \$)	17,810	0	0	26,000	12,740	0	8,190	64,740
2.3	Cooperating IA (UNIDO) agreed funding (US \$)	60,000	0	0	90,000	37,000	0	0	187,000
2.4	Support costs for Cooperating IA (US \$)	5,400	0	0	8,100	3,330	0	0	16,830
3.1	Total agreed funding (US \$)	197,000	0	0	290,000	135,000	0	63,000	685,000
3.2	Total support costs (US \$)	23,210	0	0	34,100	16,070	0	8,190	81,570
3.3	Total agreed costs (US \$)	220,210	0	0	324,100	151,070	0	71,190	766,570
4.1.1	Total phase-out of HCFC-22 agreed to be achieved under this Agreement (ODP tonnes)								3.58
4.1.2	Phase-out of HCFC-22 to be achieved in the previous stage (ODP tonnes)								1.92
4.1.3	Remaining eligible consumption for HCFC-22 (ODP tonnes)								0.00