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EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Forty-fourth Meeting
Prague, 29 November-3 December 2004

PROJECT PROPOSAL: NIGERIA

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

Phase out

- National CFC phase-out plan (third tranche): the 2005 annual work programme UNDP

PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS
COUNTRY: NIGERIA

PROJECT TITLE

National CFC phase-out plan: (third tranche) the 2005 annual work programme

BILATERAL/IMPLEMENTING AGENCY

UNDP – Lead Implementing Agency UNIDO – Cooperating Implementing Agency Government of Japan – Cooperating Agency
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SUB-PROJECT TITLES

(a) Foam sector phase-out plan
(b) Refrigeration servicing sector phase-out plan including management
(c) Refrigeration manufacturing sector phase-out Plan
(d) Aerosol Manufacturing sector Phase out Plan
(e) National information, education and communication campaign

UNDP
UNDP
UNIDO
UNIDO
Government of Japan

NATIONAL CO-ORDINATING AGENCY:	National Ozone Office, Federal Ministry of Environment
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LATEST REPORTED CONSUMPTION DATA FOR ODS ADDRESSED IN PROJECT**A: ARTICLE-7 DATA (ODP TONNES, 2003, AS OF SEP 2004)**

Annex A Group 1 Substances (CFCs)	2,662.40
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B: COUNTRY PROGRAMME SECTORAL DATA (ODP TONNES, 2003, AS OF 1 JUNE 2004)

ODS	Foam	Ref.	Aerosol	ODS	Solvents	Process agent	Fumigant
CFC-11	1,825.70						
CFC-12		772.70	58.0				
CFC-114		3.0					
CFC-115		3.0					

CFC consumption remaining eligible for funding (ODP tonnes)	nil
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CURRENT YEAR BUSINESS PLAN: Total funding US \$ 2,261,000: total phase-out 407 ODP tonnes.

PROJECT DATA		2004	2005	2006	2007	2008	2009	2010	Total
CFCs (ODP tonnes)	Montreal Protocol limits	3,650	1,825	1,825	547.5	547.5	547.5	0	n.a.
	Annual consumption limit	3,137	1,725	1,016	508	286	86	0	n.a.
	Annual phase-out from ongoing projects	561	0	0	0	0	0	0	
	Annual phase-out newly addressed	845	688	492	200	200	65	0	
	Annual unfunded phase-out	0	0	16.5	0	0	0	0	
	Phase out from IS and bilateral	5.7	21.5	0	21.5	0	21.5	0	
TOTAL ODS CONSUMPTION TO BE PHASED OUT		1,412	710	508	222	200	86	0	
Total ODS consumption to be phased-in (HCFCs)									
Project cost as originally submitted (US \$)									
Final Project costs (US \$):									
	Funding for lead agency UNDP	2,077,141	797,122	489,181	385,000	341,200	113,000	0	
	Funding for UNIDO	0	0	0	0	0	0	0	
	Funding for Govt. of Japan	0	0	0	0	0	0	0	
	Total project funding	2,077,141	797,122	489,181	385,000	341,200	113,000	0	
Final Support costs (US \$)									
	Support cost for lead agency UNDP	183,863	69,261	42,146	32,770	28,228	8,290	0	
	Support cost for UNIDO	0	0	0	0	0	0	0	
	Support cost for Govt of Japan	0	0	0	0	0	0	0	
	Total support costs	183,863	69,261	42,146	32,770	28,228	8,290	0	
TOTAL COST TO MULTILATERAL FUND (US \$)		2,261,004	866,383	531,327	417,770	369,428	121,290	0	
Final project cost effectiveness (US \$/kg)									5.27

FUNDING REQUEST: Approval of funding for 3rd tranche (2004) as indicated above.

SECRETARIAT'S RECOMMENDATION

For individual consideration

PROJECT DESCRIPTION

1. The Agreement for the National CFC Phase-Out Plan between the Government of Nigeria and the Executive Committee targets the total phase out of CFCs in the aerosol, foam and refrigeration manufacturing and servicing sectors by December 31, 2009. The agreement was approved in principle for a total funding level (including support cost) of US \$14,325,167 to be released in 8 tranches. UNDP, as the lead implementing agency, is responsible for the implementation activities in the foam manufacturing and refrigeration servicing sectors, as well as for overall management of the Plan. UNIDO is responsible for the aerosol and refrigeration manufacturing sectors. The government of Japan will assist in the national information, education and communication campaign. The breakdown of approved funding, disbursement schedule and annual CFC consumption and phase-out targets, as per the Agreement, is shown below.

Table 1 - Approved Funding, Disbursement Schedule and Annual CFC Consumption and Phase-out Targets, as per the Agreement

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	TOTAL	
Montreal Protocol consumption limits (ODP tonnes)	3,650	3,650	3,650	3,650	3,650	1,825	1,825	547.5	547.5	547.5	0	n/a	
Reported/Expected Consumption ODP tonnes	4094.8*	4,115.5	3,686.2	-	-	-	-	-	-	-	-	-	
Maximum allowable total consumption (ODP tonnes)	-	-	-	3,352.7	3,137.0	1,725.4	1,015.9	507.6	286.1	86.1	0	-	
Reduction from ongoing projects (ODP tonnes)	171.3	429.3	333.5	194.2	560.7	0.0	0.0	0.0	0.0	0.0	0	1689	
New reduction under plan (ODP tonnes)	0.0	0.0	0.0	0.0	845.3	688.0	491.8	200.0	200.0	64.6	0	2,489.7	
Ineligible ODS reduction (ODP tonnes)	0.0	0.0	0.0	0.0	0.0	0.0	16.5	0.0	0.0	0.0	0	16.5	
Reduction for I.S. component @\$12.1 per kg (ODP tonnes) and Japan bilateral	0.0	0.0	0.0	21.5	5.7	21.5	0.0	21.5	0.0	21.5	0	91.7	
Total annual reduction	171.3	429.3	333.5	215.7	1,411.6	709.5	508.3	221.5	200.0	86.1	0	4,286.8	
Annual funding instalments where applicable in US \$	UNDP agreed funding	-	-	5,013,929	2,976,827	2,077,141	797,122	489,181	385,000	341,200	113,000	0	12,193,400
	UNDP support costs	-	-	449,318	264,834	183,863	69,261	42,146	32,770	28,228	8,290	0	1,078,710
	UNIDO agreed funding	-	-	682,386	255,000	-	-	-	-	-	-	0	937,386
	UNIDO support cost	-	-	82,521	33,150	-	-	-	-	-	-	0	115,671
	Total agreed funding	-	-	5,696,315	3,231,827	2,077,141	797,122	489,181	385,000	341,200	113,000	0	13,130,786
	Total agency support cost	-	-	531,839	297,984	183,863	69,261	42,146	32,770	28,228	8,290	0	1,194,381
	Total cost to MLF	-	-	6,228,154	3,529,811	2,261,004	866,383	531,327	417,770	369,428	121,290	0	14,325,167

2. The funding in 2002 (for 2003 activities) was approved at the 38th Meeting of the Executive Committee and the funding in 2003 (for 2004 activities) was approved at the 41st Meeting of the Executive Committee.
3. The maximum allowable consumption in 2003 was 3,352.7 ODP tonnes.
4. UNDP, as the lead implementing agency, submitted on behalf of the Government of Nigeria the progress report on activities implemented in 2003-2004 and the 2005 Work Plan with the request for funding of the third tranche at US \$2,077,141.
5. According to the progress report, all ongoing projects in the foam and refrigeration manufacturing sectors approved for UNDP and UNIDO prior to the approval of the national CFC phase-out plan have been completed in 2004 except one, where the enterprise has declared bankruptcy and all equipment (including equipment supplied under the project) has been seized by the bank. UNOPS is working with the Government to resolve the issue. As the company is currently not producing, there is no CFC consumption at this enterprise. The total CFC phase-out from completion of ongoing projects was 576.5 ODP tonnes in 2003 and 140.8 ODP tonnes in 2004
6. In the aerosol manufacturing sector, under the Plan, UNIDO signed the contract for provision of equipment and engineering for the use of hydrocarbon aerosol propellants in two enterprises. The contractor's initial site visit was conducted in July 2004. It is expected that 58 ODP tonnes of CFC will be phased out in 2005.
7. In the refrigeration manufacturing sector, under the Plan, all the preparatory work has been completed in 2003. Major production equipment has been delivered to the project sites and is being commissioned. It is expected that 34.65 ODP tonnes will be phased out by the end of 2004.
8. The implementation of UNDP activities in the foam and refrigeration servicing sectors was delayed due to difficulties associated with a higher than expected UNOPS agency fee and elections in Nigeria. The project document for the first funding tranche was signed in August 2003. A training workshop for the foam enterprises is planned to be conducted later this year. The equipment is expected to be in place by June 2005. Coming tranches will be implemented much faster as no further prototyping is required.
9. Equipment specifications for the training equipment and recovery/recycling equipment will be finalized by mid October 2004. Training of Trainers in Good Refrigerant Management Practices is expected to be completed by mid 2005. This will be followed by Training of Technicians across the country over the next several years. Recovery and Recycling equipment is to be distributed and installed over a period of 3 years. After the first batch of equipment is distributed and put in use, the impact of recovery and recycling will be evaluated before procuring the rest of the equipment.
10. Under the Legislation and Customs Training component, a draft of comprehensive import/export licensing regulations for ODS was prepared. Workshops involving major stakeholders were held in August 2004. The final draft is under preparation before submission to

the Government for approval. UNDP has sent a letter to the Federal Ministry of Environment requesting urgent attention to the matter, and close follow-up is being maintained. Training of Customs officers is planned to start in 2005.

11. Expected CFC phase-out in 2004 from ongoing and new projects is estimated at 340.75 ODP tonnes. According to the progress report, there is currently no binding requirement for importers and exporters to provide import/export data to the Government. Thus, the development of a methodology for independent auditing to verify consumption limits is proving to be difficult. Once the legislation is in place, it will be possible to have a methodology to verify the data for each year. Meanwhile, some independent auditors are being identified and it is proposed to discuss the issue with them. Pending the finalization and implementation of the legislation, UNDP has proposed development of a sample audit procedure to understand whether such a procedure can come up with justifiable consumption verification.

2005 Annual Implementation Programme

12. The 2005 annual implementation programme contains planning activities to be implemented by UNDP in the foam and refrigeration servicing sectors. No new activities are envisaged for UNIDO in the aerosol and refrigeration manufacturing sectors. Estimated CFC consumption of 3,137 ODP tonnes in 2004, based on the allowable limit included in the Agreement, is expected to be reduced by 1,411.6 ODP tonnes to 1,725.4 ODP tonnes in 2005. The proposed activities cover the organization of industry workshops, procurement of equipment, training in the foam industry and of refrigeration servicing technicians, and awareness campaigns in the foam manufacturing sector. In 2005, policy development activities at the Government level will address:

- (a) ban on new installations and equipment using ODS;
- (b) import concessions and tax incentives to promote the use of substitutes and alternative technologies, as well as for Recovery and Recycling equipment;
- (c) establishment of an inventory ODS importers;
- (d) implementation of an ODS import quota system;
- (e) certification of technicians and/or establishing conditions for recognition of professional associations, which can provide certification.

Requested budget

13. The 2005 annual implementation programme contains the 2005 budget of US \$2,077,141 for the implementation of the proposed activities and US \$183,863 in support costs for UNDP.

SECRETARIAT'S COMMENTS AND RECOMMENDATION

COMMENTS

14. Article 7 CFC consumption data of 2,662.4 ODP tonnes have been reported to the Ozone Secretariat for the year 2003. According to the Agreement, the maximum total allowable CFC consumption in 2003 is 3,352.7 ODP tonnes. On the basis of reported data, the consumption limit specified in the Agreement was achieved.

15. The requested funding of US \$2,077,141 for the implementation of the proposed activities and US \$183,863 in UNDP support costs corresponds to the 2005 funding instalment contained in the Agreement.

16. The Secretariat, in reviewing the progress report, drew UNDP's attention to requirements to establish a system to conduct an independent audit of CFC phase-out and consumption in the country. The Secretariat pointed out that the 41st Meeting of the Executive Committee, in considering the release of the second tranche for Nigeria, requested UNDP to make provisions in the 2004 annual implementation programme for the development of methodology for an independent audit to be used to verify consumption limits for 2003 and subsequent years as required under the agreement on the national CFC phase-out plan. (Decision 41/57)

17. The current status of independent auditing of CFC consumption data is described in Paragraph 10 above. Additionally, UNDP clarified that, currently, the legislation is at the draft stage and UNDP is working with the Ministry of Environment to accelerate the adoption of the necessary regulations establishing the import quota system. In the absence of legislation, UNDP has been undertaking the development of verification procedures involving importers identified with the assistance of the customs office. UNDP started the process of selecting independent officers.

18. It appears from the 2004 progress report that the conditions in the Agreement between the Executive Committee and the Government of Nigeria in relation to the verification of established targets have not been fully complied with. Additionally, the requirements of Decision 41/57 do not appear to have been met.

19. In reviewing the 2005 annual work programme, the Secretariat noticed that performance indicators such as consumption in the preceding year (2004) and the reduction target reflecting the difference in consumption between 2004 and 2005 are exactly the same as the targets reflected in the Agreement. As per the Agreement, the 2004 consumption limit is 3,137 ODP tonnes. It should be noted that reported actual consumption for 2003 was lower than the 2003 maximum allowable limit incorporated in the Agreement by 689.6 ODP tonnes. The reduction achieved during 2004 is estimated at about 340 ODP tonnes. It appears that 2004 consumption is expected to be about 800 ODP tonnes lower than the 2004 allowable limit reflected in the Agreement.

20. Similarly, the reduction target included in the 2005 work programme is equal to the 2004 annual reduction of 1,411.6 ODP tonnes included in the Agreement. This target, however, could

not realistically be achieved through activities already undertaken and to be undertaken in 2004, because the expected consumption in 2004 would be much lower than the value reflected in the Agreement.

21. The Secretariat proposed that UNDP make the necessary adjustments to the 2005 work programme. UNDP has revised the 2005 work programme on the basis of actual CFC consumption in 2003 and estimated consumption in 2004. Reduction targets have been adjusted respectively. The 2005 CFC consumption target remains the same as per the Agreement.

RECOMMENDATION

22. The Executive Committee may wish to consider the approval of the 2005 annual work programme and the requested tranche of funding in light of the information provided above.

PROJECT COVER SHEET – MULTI-YEAR PROJECTS
COUNTRY: NIGERIA

PROJECT TITLE

National CFC Phaseout Plan in Nigeria

BILATERAL/IMPLEMENTING AGENCY

UNDP – Lead Implementing Agency
 UNIDO – Cooperating Implementing Agency
 Government of Japan – Cooperating Agency

SUB-PROJECT TITLES

- (a) Foam Sector Phase Out Plan
- (b) Refrigeration Servicing Sector Phaseout Plan including Management
- (c) Refrigeration Manufacturing Sector Phaseout Plan
- (d) Aerosol Manufacturing sector Phaseout Plan
- (e) National information, education and communication campaign

UNDP
 UNDP
 UNIDO
 UNIDO
 Government of Japan

NATIONAL CO-ORDINATING AGENCY: National Ozone Office, Federal Ministry of Environment

LATEST REPORTED CONSUMPTION DATA FOR ODS ADDRESSED IN PROJECT

A: ARTICLE-7 DATA (ODP TONNES, 2003, AS OF SEP 2004)

Annex A Group 1 Substances (CFCs)	2,662.40		
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B: COUNTRY PROGRAMME SECTORAL DATA (ODP TONNES, 2003, AS OF 1 JUNE 2004)

ODS	Foam	Ref.	Aerosol	ODS	Solvents	Process agent	Fumigant
CFC-11	1,825.70						
CFC-12		772.70	58.0				
CFC-114		3.0					
CFC-115		3.0					

CFC consumption remaining eligible for funding (ODP tonnes)	2,662.40
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CURRENT YEAR BUSINESS PLAN: Total funding US \$ million: total phase-out ODP tonnes.

PROJECT DATA		2004	2005	2006	2007	2008	2009	2010	Total
(ODP tonnes)	CFCs								
	Montreal Protocol limits	3,650	1,825	1,825	547.5	547.5	547.5	0	n.a.
	Annual consumption limit	3,137	1,725	1,016	508	286	86	0	n.a.
	Annual phase-out from ongoing projects	561	0	0	0	0	0	0	
	Annual phase-out newly addressed	845	688	492	200	200	65	0	
	Annual unfunded phase-out	0	0	16.5	0	0	0	0	
	Phase out from IS and bilateral	5.7	21.5	0	21.5	0	21.5	0	
TOTAL ODS CONSUMPTION TO BE PHASED OUT		1,412	710	508	222	200	86	0	
Total ODS consumption to be phased-in (HCFCs)									
Project cost as originally submitted (US \$)									
Final Project costs (US \$):									
	Funding for lead agency UNDP	2,077,141	797,122	489,181	385,000	341,200	113,000	0	
	Funding for UNIDO	0	0	0	0	0	0	0	
	Funding for Govt. of Japan	0	0	0	0	0	0	0	
	Total project funding	2,077,141	797,122	489,181	385,000	341,200	113,000	0	
Final Support costs (US \$)									
	Support cost for lead agency UNDP	183,863	69,261	42,146	32,770	28,228	8,290	0	
	Support cost for UNIDO	0	0	0	0	0	0	0	
	Support cost for Govt of Japan	0	0	0	0	0	0	0	
	Total support costs	183,863	69,261	42,146	32,770	28,228	8,290	0	
TOTAL COST TO MULTILATERAL FUND (US \$)		2,261,004	866,383	531,327	417,770	369,428	121,290	0	
Final project cost effectiveness (US \$/kg)									5.27

FUNDING REQUEST: Approval of funding for 3RD tranche (2004) as indicated above.

NIGERIA

National CFC Phase-Out Plan

**Report on 2003/2004 Implementation
2005 Annual Implementation Programme and
Request for Release of the Third Funding Tranche**

**Prepared Jointly By:
UNDP (Lead Agency)
UNIDO (Cooperating Agency)**

NIGERIA NATIONAL CFC PHASE-OUT PLAN

Report on 2003/2004 Implementation

1. Background

The Agreement for the National CFC Phase-Out Plan for Nigeria between the Government of Nigeria and the Executive Committee of the Multilateral Fund (UNEP/OzL.Pro/ExCom/38/70/Rev.1 Annex XII) covers the total phase out of CFCs in the Aerosol, Foam and Refrigeration Manufacturing and Servicing sectors by December 31, 2009. The maximum allowable consumption in 2003 was 3,352.7 ODP tonnes. The agreement was approved for a total funding level (including support cost) of \$14,325,167 to be released in 8 tranches.

UNDP as the lead agency would be responsible for the Foam manufacturing and refrigeration servicing sector as well as the management. UNIDO would be responsible for the Aerosol and Refrigeration manufacturing sectors. Government of Japan would assist in the National information, education and communication campaign. It should be noted that the funding from Government of Japan has been converted to notional ODP tonnes reduced using the \$12.1/kg formula as is the case with the Institutional strengthening projects.

The breakdown of the approved funding, disbursement schedule and annual CFC consumption and phase-out targets, as per the Agreement is shown below.

Table 1 - Approved Funding, Disbursement Schedule and Annual CFC Consumption and Phase-out Targets, as per the Agreement

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	TOTAL	
Montreal Protocol consumption limits (ODP tonnes)	3,650	3,650	3,650	3,650	3,650	1,825	1,825	547.5	547.5	547.5	0	n/a	
Reported/Expected Consumption ODP tonnes	4094.8*	4,115.5	3,686.2	-	-	-	-	-	-	-	-	-	
Maximum allowable total consumption (ODP tonnes)	-	-	-	3,352.7	3,137.0	1,725.4	1,015.9	507.6	286.1	86.1	0	-	
Reduction from ongoing projects (ODP tonnes)	171.3	429.3	333.5	194.2	560.7	0.0	0.0	0.0	0.0	0.0	0	1689	
New reduction under plan (ODP tonnes)	0.0	0.0	0.0	0.0	845.3	688.0	491.8	200.0	200.0	64.6	0	2,489.7	
Ineligible ODS reduction (ODP tonnes)	0.0	0.0	0.0	0.0	0.0	0.0	16.5	0.0	0.0	0.0	0	16.5	
Reduction for I.S. component @ \$12.1 per kg (ODP tonnes) and Japan bilateral	0.0	0.0	0.0	21.5	5.7	21.5	0.0	21.5	0.0	21.5	0	91.7	
Total annual reduction	171.3	429.3	333.5	215.7	1,411.6	709.5	508.3	221.5	200.0	86.1	0	4,286.8	
Annual funding instalments where applicable in \$	UNDP agreed funding	-	-	5,013,929	2,976,827	2,077,141	797,122	489,181	385,000	341,200	113,000	0	12,193,400
	UNDP support costs	-	-	449,318	264,834	183,863	69,261	42,146	32,770	28,228	8,290	0	1,078,710
	UNIDO agreed funding	-	-	682,386	255,000	-	-	-	-	-	-	0	937,386
	UNIDO support cost	-	-	82,521	33,150	-	-	-	-	-	-	0	115,671
	Total agreed funding	-	-	5,696,315	3,231,827	2,077,141	797,122	489,181	385,000	341,200	113,000	0	13,130,786
	Total agency support cost	-	-	531,839	297,984	183,863	69,261	42,146	32,770	28,228	8,290	0	1,194,381
	Total cost to MLF	-	-	6,228,154	3,529,811	2,261,004	866,383	531,327	417,770	369,428	121,290	0	14,325,167

The funding for 2002 (for 2003 activities) was approved at the 38th ExCom and the funding for 2003 (for 2004 activities) was approved at the 41st ExCom.

2. Compliance Analysis

Table 2 summarises the phase out or expected phase out in 2004 by UNIDO and UNDP as well as Government of Japan project being implemented by UNDP.

Table 2 - 2004 Expected Phase Out

UNIDO		UNDP		Total
Ongoing	New	Ongoing	New	
38.4	34.65	97.7	150.0	340.75

From the Table 1 above, it can be noted that the maximum allowable consumption for 2003 is 3,352.7 ODP tonnes and for 2004, the maximum allowable consumption is 3,137.0 ODP Tonnes. Thus Nigeria's reported data for 2003 of 2662.40 ODP tonnes ensures that it is in compliance with the Plan and should be in compliance for 2004 also.

For 2005 there is a possibility of exceeding the maximum allowable consumption of 1,725.4 ODP Tonnes if the foam projects being executed by UNDP under the Plan get delayed too much. UNDP is taking all the possible steps to speed up the activity and is already doing long range planning to smooth any possible bottlenecks that may occur. Meanwhile, during validation visits, UNDP experts did provide actively formulation support and were able to reduce at least 150 ODP Tonnes CFC-11 through reformulation. UNDP is currently following up on this reformulation program to assure that the reductions achieved through formulation change are sustainable.

3. Status of Ongoing Projects

3.1 Refrigeration Manufacturing Sector UNIDO

All ongoing projects of UNIDO in the refrigeration manufacturing sector which were approved prior to the phase out plan have been completed by 2004.

Table 3 – 2003 and 2004 Phase Outs from UNIDO Projects

Inventory Number	Project Title	Phase Out (ODP T)
Completed in 2003		
NIR/REF/26/INV/44	Replacement of CFC-12 with HFC-134a and foam blowing agent CFC-11 with cyclopentane in the manufacture of domestic refrigeration appliances at Kolinton Technical Industries	39.5
NIR/REF/28/INV/48	Replacement of refrigerant CFC-12 with HFC-134a and foam blowing agent CFC-11 with HCFC-141b in the manufacture of domestic refrigeration at Soesons Ltd.	16.1
NIR/REF/28/INV/51	Replacement of refrigerant CFC-12 with HFC-134a and foam blowing agent CFC-11 with HCFC-141b in the manufacture of domestic refrigeration at Onward Electrical Industry Ltd.	10.7
NIR/REF/28/INV/52	Replacement of refrigerant CFC-12 with HFC-134a and foam blowing agent CFC-11 with HCFC-141b in the manufacture of domestic refrigeration at United Technologies Ltd.	9.6
Total phased out in 2003		75.9
Completed in 2004		
NIR/REF/26/INV/30	Replacement of refrigerant CFC-12 with HFC-134a and foam blowing agent CFC-11 with cyclopentane in the manufacture of domestic refrigeration appliances at A.G. Leventis	19.1
NIR/REF/35/INV/97	Replacement of refrigerant CFC-12 with HFC-134a and foam blowing agent CFC-11 with HCFC-141b in the manufacture of commercial refrigeration equipment at Polade	8.3
NIR/REF/35/INV/98	Replacement of refrigerant CFC-12 with HFC-134a and foam blowing agent CFC-11 with HCFC-141b in the manufacture of domestic and commercial refrigeration equipment at Ristian	11.0
Total phased out in 2004		38.4

3.2 Foam Sector UNDP

All ongoing UNDP projects in the foam sector which were approved prior to the phase out plan will be completed in 2004, except one where the enterprise has declared bankruptcy and all equipment (including equipment supplied under the project) have been seized by the bank. UNOPS is working with the Government to resolve the issue. As the company is currently not producing, there is technically no ODS use.

Table 4 – 2003 and 2004 Phase Outs from UNDP Projects Approved before Plan

Inventory Number	Project Title	Phase Out (ODP T)
Completed in 2003		
NIR/FOA/23/INV/25	Conversion to CFC-free technology in the manufacture of flexible polyurethane foam at Safa Foam Products (Nig) Ltd.	24.4
NIR/FOA/26/INV/31	Phase-out of CFC-11 by conversion to methylene chloride in the manufacture of flexible polyurethane foam at Orbit Foam Ltd.	25.1
NIR/FOA/26/INV/42	Phase-out of CFC-11 by conversion to methylene chloride in the manufacture of flexible polyurethane foam at Yinka-Oba Foam Nig. Ltd.	30.0
NIR/FOA/28/INV/46	Phase-out of CFC-11 by conversion to methylene chloride in the manufacture of flexible polyurethane foam (slabstock) at United Foam Products Nig. Ltd.	25.0
NIR/FOA/29/INV/55	Phase-out of CFC-11 by conversion to methylene chloride in the manufacture of flexible polyurethane foam at Rubez (Nig.) Ltd. (Current Foam)	21.9
NIR/FOA/34/INV/85	Phasing out of CFC-11 in the manufacture of flexible slabstock foam by conversion to methylene chloride at Gasfa Industries Nig., Ltd. (Meka Foam)	40.5
NIR/FOA/35/INV/94	Phasing out of CFC-11 in the manufacture of flexible slabstock foam by conversion to methylene chloride at Bamako Industrial, Ltd.	24.0
NIR/FOA/35/INV/95	Phasing out of CFC-11 in the manufacture of rigid polyurethane foam by conversion to a combination of water and HCFC-141b based systems at Agric Services (Nig.), Ltd.	43.7
NIR/FOA/35/INV/96	Conversion from CFC-11 to methylene chloride (MC) technology in the manufacture of flexible polyurethane at ten box-foam enterprises in Lagos area	199.2
NIR/FOA/32/INV/74	Phasing out of CFC-11 in the manufacture of flexible slabstock foam at Mac-Vico (Nig.) Limited by conversion to methylene chloride (GOJ Bilateral executed by UNDP)	28.4
NIR/FOA/32/INV/75	Phasing out of CFC-11 in the manufacture of flexible slabstock foam at Martchem Industries Limited (at 2 plants) by conversion to methylene chloride (GOJ Bilateral executed by UNDP)	38.4
Total phased out in 2003		500.6
Completed or to be completed in 2004 (all technically completed)		
NIR/FOA/26/INV/32	Phase-out of CFC-11 by conversion to methylene chloride in the manufacture of flexible polyurethane foam at Olufoam and Plastic Industries Ltd.	21.0
NIR/FOA/26/INV/35	Phase-out of CFC-11 by conversion to methylene chloride in the manufacture of flexible polyurethane foam at Confidence Products and Services Ltd.	27.3
NIR/FOA/34/INV/89	Phasing out of CFC-11 in the manufacture of flexible slabstock foam by conversion to methylene chloride at Harmony Foam Nigeria Ltd.	22.3
NIR/FOA/32/INV/73	Phasing out of CFC-11 in the manufacture of flexible slabstock foam at Eastern Wrought Iron Limited by conversion to methylene chloride	27.1
Total phase out in 2004		97.7
Unable to formally Complete		
NIR/FOA/34/INV/91	Phasing out of CFC-11 in the manufacture of rigid polyurethane foam by conversion to a combination of water and HCFC-141b based systems at Global Plastic Industries, Ltd.	(4.7)

4. Status of UNIDO Components of Plan

4.1 *Aerosol Manufacturing Sector*

- This activity was taken up in 2004 after the second tranche of funds was approved.
- The contract for provision of equipment and engineering for the use of HAP has been signed for two enterprises.
- Initial site visit of the contractor was conducted in July 2004.
- It is expected that 58 ODP tonnes of CFC will be phased out in 2005.

4.2 *Refrigeration Manufacturing Sector*

- The workshop for redesign of the refrigeration cycles was completed and the study tour to IKK 2003 show by representatives of enterprises was successfully conducted in 2003.
- The specification of necessary production facility and equipment for alternative refrigerant and the foam blowing agent was determined followed by bidding of the equipment.
- Major production facility and equipment have been delivered to the project sites and is being commissioned.
- It is expected that the ODS impact of the project, 34.65 ODP tonnes will be phased out by the end of 2004.

5. Status of UNDP Components of Plan

UNDP received the first tranche of funding in January 2003. In view of the reduced support cost, UNDP was unable to carry out implementation with UNOPS. Instead, the 'Direct Execution' modality was selected. UNDP's internal procedures were completed by May 2003. However, Nigeria went through elections in May 2003 and it was late July 2003 when the new Minister for Environment took office. The project document for the first tranche was signed in August 2003.

The second tranche of funds was requested and approved at the 41st Executive Committee meeting. The funds were received by UNDP in January 2004. The project document for the second tranche has been prepared, DEX approval obtained and submitted to the Government for signature.

5.1 *Management and Expert Support*

- A Regional Project Coordinator has been based in Abuja, Nigeria from November 2003
- A National Coordinator has been recruited since January 2004 and manages the Ozone Programme Implementation and Management Unit (OPIAMU).
- An international expert for the foam sector has been contracted.
- An international expert for the Refrigeration service sector has been contracted.

5.2 *Foam Sector*

- Invitations for Expression of Interest by equipment suppliers were posted on the websites of UN Development Business and IAPSO. Responses to the first posting in April 2003 were not received due to miscommunication with UNDP Nigeria. Reposted in February 2004.
- Short list of vendors based on the evaluation of Expressions of Interest and roster of existing suppliers prepared.
- Equipment specifications for the box foam subproject and two rigid foam subprojects were finalised January 2004.
- Government of Nigeria required that 20%-25% of the box foam equipment should be locally manufactured.
- In view of this requirement, and since the budget allows only very elementary equipment which is not available in standard, proven format, it was decided to procure prototypes from three

suppliers. The equipment, with the local content, would be evaluated and validated before bulk supply began.

- In view of the large quantity of box foam equipment required in a short time, it was decided to simultaneously procure from three equipment manufacturers.
- Invitations to Bid (ITB) were issued for the first tranche of equipment and bids received from 5 suppliers for the box foam equipment in April 2004.
- The Bid Analysis was completed in May 2004 after obtaining several clarifications from the bidders.
- Negotiations on technical issues were held in Lagos in June 2004 with the three lowest bidders and the BAR was finalised.
- One bidder advised that they already had 20%-25% local component on equipment earlier supplied against UNDP projects. The expert verified and confirmed this.
- The Technical Review Committee comprising Government of Nigeria, Federal Ministry of Environment (FMEnv), OPIAMU representative and UNDP-MPU representative reviewed the final Bid Analysis Report and recommended that orders be placed on the three suppliers with quantities based on an optimized delivery schedule. The committee also confirmed that the requirement for prototype be waived for the supplier with proven local content.
- The Contracts, Assets and Procurement Committee (CAP) of the UNDP Country Office convened in September 2004 and approved the recommendations of the expert and the Technical Review Committee. The documents have now been forwarded to UNDP New York for the final approval, which is expected by end October/early November.
- Purchase Orders are expected to be sent out within 2 weeks of receipt of approval from UNDP New York.
- Delivery of equipment will begin within 10 weeks thereafter.
- As soon as approval is received from New York, vendors will be asked to confirm that additional quantities of equipment for the second tranche can be supplied at the same price. If there is agreement, the process to increase the quantities will be started.
- ITBs for auxiliary equipment for the boxfoam units (safety related), as well as for the two rigid foam projects were sent out and bids received in May 2004.
- The BARs for these were finalised and were sent to the CAP of UNDP CO along with the boxfoam equipment documents.
- Purchase Orders are expected to be sent out within 2 weeks of receipt of approval from UNDP New York.
- Training workshop for the boxfoam enterprises in the first tranche to provide technical information and assistance are planned to be conducted later this year. The equipment is expected to be in place by June 2005. Next tranches will be implemented much faster as no further prototyping is required and the results from the current BAR—if accepted—can be applied.

5.3 Refrigeration Service Sector

- Equipment specifications for the training equipment and second tranche recovery/recycling equipment will be finalised by mid October 2004.
- ITBs will be sent out immediately thereafter and bids received by mid November 2004.
- Bid Analysis, Technical Review and UNDP CO CAP review expected to be completed by end December, followed by request for approval from UNDP New York.
- Orders will be placed early 2005.
- Training of Trainers in Good Refrigerant Management Practices is expected to be completed by mid 2005.
- This will be followed by Training of Technicians across the country over the next several years.
- Recovery and Recycling equipment are to be phased in over a period of 3 years. After the first lot of equipment are distributed and put in use, the impact of recovery and recycling will be evaluated before procuring the rest of the equipment.

5.4 *Legislation and Customs Training*

- A draft comprehensive import export licensing regulation for ODS was prepared.
- Stakeholders' workshops were held in August 2004.
- The final draft is under preparation before submission to the Government for approval.
- Training of Customs will start in 2005.

UNDP has sent a letter to the Federal Ministry of Environment requesting urgent attention to the matter and close follow up is being maintained.

6. **Methodology for Audit**

Currently there is no binding requirement for importers and exporters to provide import/export data to the Government. Thus developing a methodology for independent audit to verify consumption limits is proving to be difficult. Once the legislation is in place, it will be possible to have a methodology to verify the data for each year.

In the meanwhile, some independent auditors are being identified and it is proposed to discuss the issue with them. Pending the finalisation and implementation of the legislation, UNDP proposes to suggest development of a sample audit procedure to understand whether such a procedure can come up with justifiable consumption verification.

7. **Comment**

UNDP's change to a new accounting system, UNDP Country Office moving from Lagos to Abuja, first time involvement in procurement of high value technical equipment and ensuring due process is followed led to several procedural delays. However, with the experience gained from the foam equipment procurement exercise, it is felt that subsequent procurement requirements will move much faster.

8. **2005 Annual Implementation Programme and Release of 2004 Funding Tranche**

The 2005 Annual Implementation Programme is attached in Annex 1, with a request to the ExCom for release of the third (2204) funding tranche, as below:

Table 5 – Funding Request for 2004 to be Implemented in 2005

Sector	Agency	Tranche Amount (US\$)	Agency Fees (US\$)	Total (US\$)
Foam	UNDP	1,500,000	133,800	1,633,800
Refrigeration Servicing	UNDP	577,141	50,063	627,204
		2,077,141	183,863	2,261,004

Release of this funding will enable completing procurement of all foam manufacturing equipment and ensure expected phase out for 2005 and 2006. The foam sector phase out will make compliance in future years much easier.

NIGERIA
NATIONAL CFC PHASE OUT PLAN
2005 Annual Implementation Programme

1. Data

Country		Nigeria
Year of plan		2004 (2005 implementation)
# of years completed		2 (2002, 2003)
# of years remaining under the plan		6 (2004-2009)
Target ODS consumption of the preceding year		3,137 t (2004)
Target ODS consumption of the year of plan		1,725.4 t (2005)
Level of funding requested		US\$ 2,077,141
Lead implementing agency		UNDP
Co-operating agency		UNIDO

2. Targets

Indicators		Preceding Year (2004)	Year of Plan (2005)	Reduction
Supply of ODS	Import	3,137.0 ODP t	1,725.4 ODP t	215.7 ODP t
	Production	n/a	n/a	n/a
	Total (1)	3,137.0 ODP t	1,725.4 ODP t	1,411.6 ODP t
Demand of ODS	Manufacturing	2,322.4 ODP t	1,060.8 ODP t	1,261.6 ODP t
	Servicing	814.6 ODP t	664.6 ODP t	150.0 ODP t
	Stock piling	n/a	n/a	n/a
	Total (2)	3,137.0 ODP t	1,725.4 ODP t	1,411.6 ODP t

3. Industry Action

Sector	Consumption Preceding Year (2004)	Consumption Year of Plan (2005)	Reduction within Year of Plan (2005)-(2004)	Number of Projects to be Completed	Number of Servicing Related Activities	ODS Phase-out (ODP t)
Manufacturing						
Aerosol	58.0	58.0	0	0		0
Foam	2,195.4	813.1	1,382.3	*		1,382.3
Refrigeration	69.0	45.4	23.6	*		23.6
Total	2,322.4	916.5	1,405.9	*		1,405.9
Servicing						
Refrigeration	814.6	814.6	0			0
Total	814.6	814.6	0			0
GRAND TOTAL	3,137.0	1,731.1	1,405.9⁺⁺			1,405.9

Note: * Includes ongoing and umbrella projects

++ Does not include reduction due to IS at \$12.1/kg

4. Technical Assistance

4.1 FOAM MANUFACTURING

Proposed Activity: Awareness Campaign

Objective: Ensure that every ODS user in the foam sector is aware of the phase-out obligation in this sector and the possibility to participate in the program.
Continuing activity

Target Group: Foam sector

Impact: No ODP impact.

Proposed Activity: Implementation Work Plans

Objective: Plan the implementation of the 2nd and 3rd phase in all details/prepare specifications

Target Group: Eligible phase 3 recipients

Impact: No ODP impact

Proposed Activity: International procurement

Objective: Conduct invitation to bid/select bidder (if needed), place purchase order(s)

Target Group: Equipment manufacturers

Impact: No ODP impact.

Proposed Activity: Implementation Workshops

Objective: To confirm (i) the conversion plan, (ii) to present bidding results, (iii) to document commitment and (iv) to collect any missing baseline information

Target Group: Eligible phase 3 recipients

Impact: No ODP impact.

Proposed Activity: Training, Technical Support

Objective: Introduce CFC-free formulations

Target Group: Eligible phase-3 recipients

Impact: Phaseout of 291.8 t CFCs/y at baseline conditions

4.2 REFRIGERATION SERVICING

Proposed Activity: Training of Technicians in Good Refrigerant Management Practices

Objective: To train technicians.

Continuing activity

Target Group: R&AC Technicians

Impact: 1500 – 1800 R&AC technicians trained. No ODP impact.

Proposed Activity: R & R equipment ordered

Objective: Equip service companies with R&R equipment.

To be implemented.

Target Group: R&AC service companies

Impact: Equipment distributed. No ODP impact

4. Government Action

The Control Measures listed below are under consideration. Some will definitely be implemented; the others have to be evaluated carefully before a final decision is taken.

Policy/Activity Planned	Schedule of Implementation
Control Measures under consideration are:	
<ul style="list-style-type: none"> • Ban on new installations and equipment using ODS. • Provide import concessions and tax incentives to promote use of substitutes and alternative technologies, as well as for Recovery and Recycling equipment. • Establish an inventory of importers of ODS. • Implementation of an ODS import quota system. • Certification of technicians/practitioners and/or establishing conditions for recognition of Associations, which can provide certification and enforce conditions. 	<ul style="list-style-type: none"> • 2005 • 2005 • 2005 • 2005 • 2005

5. Budget for 2004 to be implemented in 2005

Activity	Planned Expenditures (US \$)
Foam Manufacturing Sector	
Equipment	1,470,000
Management Activities	30,000
FUNDING REQUIRED – FOAM MANUFACTURING SECTOR	1,500,000
Refrigeration Servicing Sector	
Training in Good Refrigerant Management Practices-Training of Technicians	
National Consultant	\$22,500
Travel, DSA & Communications for Cons.	\$10,500
Train the Technicians	
Awareness	\$20,000
Material	\$7,200
Organisation	\$72,000
Remuneration to Trainers	\$72,000
Total for Training of Technicians	\$204,200
Recovery & Recycling	
R&R Equipment	\$236,313
MAC Equipment	\$56,628
National Consultant	\$22,500
Travel, DSA & Communications for Cons.	\$10,500
Total for R&R & Equipment	\$325,941
Implementation & Management	
Steering Committee	\$5,000
IMU Staffing	\$35,000
Communication	\$2,000
Travel & DSA	\$5,000
Total for Implementation Management	\$47,000
FUNDING REQUIRED – REFRIGERATION SERVICING SECTOR	\$577,141
TOTAL FUNDING REQUIRED IN 2004 FOR 2005 ACTIVITIES	\$2,077,141

6. Administrative Fees for 2004 program to be implemented in 2005

Agency	Amount
UNDP – Foam Manufacturing Sector	\$133,800
UNDP – Refrigeration Servicing Sector	\$50,063
TOTAL	\$183,863