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EXECUTIVE COMMITTEE OF
THE MULTILATERAL FUND FOR THE
IMPLEMENTATION OF THE MONTREAL PROTOCOL
Fifty-eighth Meeting
Montreal, 6-10 July 2009

PROJECT PROPOSAL: THE REPUBLIC OF IRAQ

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

Phase-out

- National phase-out plan (first tranche) UNEP/UNIDO

PROJECT EVALUATION SHEET – MULTI-YEAR PROJECTS

Iraq

(I) PROJECT TITLE	AGENCY
ODS phase out plan Proposal	UNEP, UNIDO

(II) LATEST ARTICLE 7 DATA (ODP Tonnes)			Year: 2008	
CFC: 1,597.1	CTC: 4.6	Halons: 39.1	MB: 5.0	TCA: 0

(III) LATEST COUNTRY PROGRAMME SECTORAL DATA (ODP Tonnes)						Year:							
Substances	Aerosol	Foam	Halon	Refrigeration		Solvent	Process Agent	MDI	Lab Use	Methyl Bromide		Tobacco fluffing	Total Sector Consumption
				Manufacturing	Servicing					QPS	Non QPS		
CFC													0.
CTC													0.
Halons													0.
Methyl Bromide													0.
Others													0.
TCA													0.

(IV) PROJECT DATA			2009	2010	2011	2012	Total
Montreal Protocol Consumption Limits		CFC					
		HAL					
		CTC					
		TCA					
Maximum Allowable Consumption (ODP Tonnes)		CFC	1,350.				
		HAL					
		CTC					
		TCA					
Project Costs (US$)	UNEP	Project Costs	1,136,000.		505,000.		1,641,000.
		Support Costs	147,680.		65,650.		213,330.
	UNIDO	Project Costs	4,353,530.		303,000.		4,656,530.
		Support Costs	326,515.		22,725.		349,240.
Total Funds Requested for Current Year (US$)		Project Costs	**5,489,530.**				5,489,530.
		Support Costs	**474,195.**				474,195.

(V) SECRETARIAT'S RECOMMENDATION:	Individual consideration

PROJECT DESCRIPTION

1. On behalf of the Government of Iraq, UNEP, as the lead implementing agency, has submitted a national phase-out plan (NPP) for consideration by the Executive Committee at its 58th Meeting. The total cost of the Iraq NPP as originally submitted is US $1,756,000 plus agency support costs of US $228,280 for UNEP and US $8,739,698 plus agency support costs of US $655,477 for UNIDO. The Government of Iraq has also submitted the Iraq country programme to the 58th Meeting.

Background

2. At its 57th Meeting, the Executive Committee approved the following two investment projects in the foam and refrigeration manufacturing sectors in Iraq, without prejudice to the non-compliance mechanism of the Montreal Protocol, and on the understanding that no other project for the phase-out of CFCs in these sectors would be approved for Iraq outside the national phase-out plan (decisions 57/26 and 57/27):

(a) Conversion from CFC-11 to methylene chloride in the production of flexible slabstock foam at Al Hadi Co. Implementation of this project will result in the phase-out of 20 ODP tonnes of CFC-11; and

(b) Replacement of refrigerant CFC-12 with HFC-134a and foam blowing agent CFC-11 with cyclopentane in the manufacture of domestic refrigerators and chest freezers at Light Industries Company. Implementation of this project will result in the phase out of 151.5 ODP tonnes of CFC-11 and 42.1 ODP tonnes of CFC-12.

Overview of the national phase out plan

ODS consumption

3. Based on a national survey conducted in 2008 covering all manufacturing and servicing sectors in Iraq, the ODS baselines for compliance have been calculated as follows:

ODS name	ODP tonnes			
	2006	2007	2008	Baseline
CFCs	1,414.1	1,686.1	1,597.1	1,517.0
Halons	56.6	29.0	39.1	70.4
CTC	6.0	6.0	4.6	21.4
MB	8.4	5.8	5.0	4.6

4. More than 95 per cent of the total ODS consumption in Iraq is CFC-11 (about 20 per cent) and CFC-12 (more than 75 per cent) as shown in the table below:

ODS name	ODP tonnes				
	2006	2007	2008	Average (06-08)	% of total
CFC-11	292.3	356.4	342.5	330.4	20.3%
CFC-12	1,117.1	1,320.2	1,244.6	1,227.3	75.3%
CFC-115	4.7	9.5	10.0	8.1	0.5%
Halon-1211	6.6	6.0	8.1	6.9	0.4%
Halon-1301	38.0	23.0	31.0	30.7	1.9%
Halon-2402	12.0	-	-	4.0	0.2%
CTC	6.0	6.0	4.6	5.5	0.3%
MB	8.4	5.8	5.0	6.4	0.4%

ODS name	ODP tonnes				
	2006	2007	2008	Average (06-08)	% of total
HCFC-22	9.5	10.9	10.7	10.4	0.6%
Total	1,494.6	1,737.8	1,656.5	1,629.6	100.0%

5. About 93 per cent of the total ODS consumption (excluding HCFCs) is in the foam sector (18 per cent) and the refrigeration servicing sector (75 per cent) as shown in the table below:

ODS name	Sectoral distribution (ODP tonnes)						
	Foam*	Ref.Man.**	Ref.Serv.	Fire fighting	Solvent	Non-QPS	Total
CFC-11	290.0		52.5				342.5
CFC-12		65.3	1,179.3				1,244.6
CFC-115			10.0				10.0
Halon-1211				8.1			8.1
Halon-1301				31.0			31.0
CTC					4.6		4.6
MB						5.0	5.0
Total	**290.0**	**65.3**	**1,241.8**	**39.1**	**4.6**	**5.0**	**1,645.7**

(*) Including 20 tonnes of CFC-11 used in the Al Hadi Co., foam project approved at the 57th Meeting.
(**) Including 151.5 ODP tonnes of CFC-11 and 42.1 ODP tonnes of CFC-12 used in the Light Industries Company refrigeration project approved at the 57th Meeting.

6. The prices of the most commonly used ODS in Iraq per kg are: US $2.80 for CFC-11; US $2.90 to US $5.20 for CFC-12 depending on source of import and brand; US $3.30 to US $4.00 for HCFC-22; and US $4.00 to US $6.60 for HFC-134a. The price fluctuation of CFC-12 and HFC-134a is due to counterfeit cylinders labelled as these refrigerants although they contain drop-in refrigerants or unknown mixtures of refrigerants.

ODS legislation

7. Currently, no ODS legislation has been enacted and no ODS import/export licensing system has been established in Iraq. Therefore, imports of ODS and ODS-based products are not currently monitored or controlled. The Government is proposing to enact relevant ODS legislation to meet the objectives of the phase-out action plan and to improve monitoring capabilities so as to ensure effective implementation of the Montreal Protocol.

Phase-out strategy and action plan

8. The Government of Iraq is committed to phasing out ODS consumption in a controlled and cost-effective manner, without significant disruption of the CFC-based manufacturing enterprises and the refrigeration servicing workshops. Accordingly, the Government is proposing to completely phase out CFC-11 and CFC-12 consumption used in the manufacturing of rigid polyurethane foam products and commercial refrigerators through two investment project components; implement a phase-out plan addressing CFC-11, CFC-12 and CFC-115 consumption in the refrigeration servicing sector; phase out consumption of halon-1211 and halon-1301 through a halon banking system; and phase out CTC and CFC-113 and TCA used in laboratory applications and as solvents through a technical assistance programme. The phase-out of MB will be achieved through a project that will be submitted to a future meeting of the Executive Committee.

9. The Government of Iraq has submitted an official request to the Parties to the Protocol to consider essential use nominations for 290 ODP tonnes of CFC-11 for foam manufacturing and 400 ODP tonnes of CFC-12 for the manufacture of domestic refrigerators, freezers and small commercial refrigeration equipment and servicing for each year of 2010 and 2011.

Foam manufacturing sector

10. In addition to the Al-Hadi, Co., foam manufacturing enterprise (for which a phase-out project was approved at the 57th Meeting), there are three other rigid foam manufacturing enterprises in Iraq, namely: Iraq Steel Construction (Iraq Steel), Nassr State Company for Mechanical Industries (Nassr State) and Baghdad Industrial Co. The project completion time covering the three enterprises has been estimated at 24 months.

Iraq Steel foam plant

11. Iraq Steel was established in 1980 and manufactures rigid polyurethane foam insulation panels used for the construction of cold rooms, cold stores, and wall and roof panels for buildings. The installed capacity of the plant, based on a two-shift production, is 2 million m^2 of insulation foam. The foam production line is based on a continuous foaming technology using a 16 kg/min low-pressure foaming machine (Ceria model) with polyol metering and MDI (methylene di-phenyl di-isocyanate) metering pumps each with a capacity of 8 kg/min, conveyor and curing tunnel.

12. The project is to replace 508 ODP tonnes of CFC-11 used as a blowing agent with pentane. The technology has been selected after a review of several other alternative blowing agents, such as HFCs and methyl formate. It was concluded that pentane is an optimal solution as it is a mature and widely available technology, it has a high blowing efficiency, low operational costs and a very low global warming potential (GWP). However, due to the flammability of pentane, higher investment costs for safety would be needed.

13. The project covers an underground pentane storage tank and accessories; replacement of the existing metering and dosing pumps for pentane and other chemicals; replacement of the existing low-pressure foaming machine with a high pressure machine with one injection head; enclosure of the curing and cutting areas and enhanced ventilation systems; ex-proofing preheating systems; installation of gas sensors, alarm system, lightning and grounding; technical assistance (i.e., independent inspection and certification; insurances, commissioning, production trials, services and training); and 10 per cent contingency. The total capital cost of the conversion of the plant has been estimated at US $2,555,553. Operating savings over a two-year period have been estimated at US $7,643.

Nassr State foam plant

14. The production line for rigid polyurethane foam panels at Nassr State was established in 1984. The installed capacity of the plant, based on a two-shift production, is 2 million m^2 of insulation foam. The foam production line is based on a continuous foaming technology using a 16 kg/min low-pressure foaming machine (Ecorsin model) with polyol metering and MDI (methylene di-phenyl di-isocyanate) metering pumps each with a capacity of 8 kg/min, conveyor and curing tunnel. The plant has also a 40 kg/min low pressure foam dispenser (Cannon) for discontinuous panel production where special-demand single panels or parts of caravans are produced.

15. The project is to replace 445 ODP tonnes of CFC-11 used as a blowing agent with pentane. The technology has been selected for the same reasons as indicated for the Iraq Steel plant. The same type of equipment and plant modifications proposed for Iraq Steel is being proposed for Nassr State as the continuous rigid foam production lines at both plants are very similar. The project also includes the replacement of the low-pressure foaming machine (discontinuous production of foam panels) with a high pressure unit. The total capital cost of the conversion of the plant has been estimated at US $2,705,967. Operating savings over a two-year period have been estimated at US $6,687.

Baghdad Industries

16. Baghdad Industries was established in 1975 and manufactures rigid polyurethane foam insulation panels used for the construction of cold rooms, cold stores and insulating panels for buildings. The installed capacity of the plant, based on a two-shift production, is 160,000 m^2 of insulation foam. The foam production line is based on a discontinuous foaming technology using an 80 kg/min low-pressure foaming machine (Elastogran) and a five stage daylight press. The plant also has a 40 kg/min high pressure foaming machine (Krauss Mafei) that was installed in 2005.

17. The project is to replace about 40 ODP tonnes of CFC-11 used as a blowing agent with pentane. The project covers a pentane storage tank and accessories; a premixing unit; replacement of the existing low-pressure foaming machine with a high pressure unit; modification of the presses for the use of pentane; safety related equipment and systems; technical assistance; and 10 per cent contingency. The total capital cost of the conversion of the plant has been estimated at US $410,630. Operating savings over a two-year period have been estimated at US $602.

Refrigeration manufacturing sector

18. The investment project in the commercial refrigeration manufacturing sector is for the conversion of the following six manufacturing plants producing water coolers:

Manufacturing plant	Production (units)	CFC consumption (kg)
Albaidaa Factory	70	35
Dijlah Company	3,000	1,500
Alrafiddain Factory	95	50
Alnahrain Company	2,500	1,250
AlKassar Company	5,500	2,500
State Company of Electrical Industry	9,200	10,000
Total	20,365	15,335

19. All the manufacturing plants use similar manufacturing techniques. Production is generally on a batch and on-order basis. Production lines are in open workshops with a series of workstations for specific tasks. Work in progress is moved from one station to another using trolleys or conveyors. In the majority of cases, production lines can be reconfigured to suit the particular production and market requirements. The companies presently use CFC-12-based compressors, evaporators and condensers, which are procured mainly from Lebanon, Spain and Syrian Arab Republic. CFC-12 is often supplied in 13.5 kg disposable cylinders.

20. The project is to replace 15.3 ODP tonnes of CFC-12 with HFC-134a refrigerant. Although hydrocarbon-based refrigerants have very low GWP, hydrocarbon technology was not selected due to the high investment needed to address safety issues due to flammability and the very small size of the manufacturing plants. Conversion to HFC-134a technology includes the replacement of the six current vacuum pumps, refrigerant charging units (four fixed units and seven portable units and leak detectors; model re-design; and technical assistance. The total cost of the conversion of the plants has been estimated at US $246,050. The project completion time covering the six enterprises has been estimated at 18 months.

Refrigeration servicing phase-out plan

21. The majority of ODS consumption in Iraq is in the refrigeration and air-conditioning servicing sector. In 2008, the CFC consumption in the servicing sector was estimated at 50 ODP tonnes of CFC-11 and 1,150 ODP tonnes of CFC-12, distributed as follows:

Sub-sector (and units)	CFC consumption (ODP tonnes)			
	CFC-11	CFC-12	CFC-115	Total
Chillers (300 units)	30.0	50.0		80.0
Domestic/small commercial refrigerators (6 million)	20.0	400.0		420.0
Commercial systems (5 million)		100.0	10.0	110.0
MAC units (1.75 million)		600.0		600.0
Total	50.0	1,150.0	10.0	1,210.0

22. Most of the HCFC-22 consumed in the country is for servicing refrigeration and air-conditioning systems, with small amounts used for manufacturing air-conditioning systems (the HCFC sector will be surveyed in depth during the preparation of Iraq's HPMP).

23. There are around 270 large refrigeration servicing workshops, 80 large scale refrigeration and air-conditioning contracting/servicing companies and more than 3,800 small/medium scale servicing workshop in the country. The population of servicing technicians has been estimated at 10,500 technicians working in registered workshops and 9,000 technicians registered in governmental/public sector workshops. In some workshops, CFC-11 is used for cleaning refrigeration and air-conditioning circuits.

24. The following activities are proposed for addressing CFC consumption in the refrigeration servicing sector:

(a) Drafting and enacting comprehensive ODS legislation including an ODS import/export licensing system; conducting consultation meetings with major stakeholders; establishing and operating an enforcement task-force; implementing a thematic awareness campaign including seminars and development of awareness materials; and favouring regional coordination with neighbouring countries (US $160,000);

(b) Implementing train-the-trainers and training programmes for some 500 customs officers and relevant authorities, and providing ODS identification equipment (US $251,000);

(c) Establishing a refrigeration task force to update the curricula of the technical and vocational training centres, develop codes of good service practice, and establish a compulsory certification scheme for technicians; equipping 10 centres with refrigeration training equipment; implementing training programmes for 3,000 technicians on good servicing practices; developing a demonstration training programme for retrofitting domestic, small commercial and chiller systems, including the proper handling and servicing of alternative refrigerants (US $695,000);

(d) Implementing a national recovery and recycling scheme consisting of 350 recovery machines of different capacities with ancillary equipment; 150 MAC recovery and recycling machines; and 1,000 servicing toolboxes for the small service workshops (US $2,680,000).

Halon management programme

25. According to the survey conducted during the preparation of the NPP for Iraq, the installed capacity of halons in the country is 118.4 ODP tonnes of halon-1211, 555.5 ODP tonnes of halon 1301 and 48.0 ODP tonnes of halon-2402.

26. Halon-1211 is contained in portable and fixed-installation fire extinguishers. It is imported in bulk quantities (0.6 to 1.3 tonnes cylinders) and refilled into portable fire extinguishers by manufacturers and distributors of fire fighting equipment. Portable halon-1211 extinguishers (1 to 6 kg cylinders)

containing two metric tonnes are imported annually. Halon-1301 is used in fixed fire fighting systems for protecting installations and valuable property; it is imported in fixed systems and in bulk for refilling. Some stocks of halon-2402 that were imported from the Russian Federation are used by civil defence and various ministries.

27. The project proposes to introduce and promote sustainable and safe use of halon alternatives by providing technical assistance to the fire protection industry and fire authorities; establishing a halon users' database; training programmes on halon management, alternative technologies for fire fighting and proper maintenance of halon equipment; and developing and implementing public awareness and education activities.

28. The project consists of two main components: a technical assistance component to facilitate the transition to halon alternatives and a halon management component to recover and recycle halons for non-critical uses. The activities will be implemented by a subcontracting company and consultants. US $34,430 is being requested for a halon recovery and recycling machine and ancillary equipment, to ensure that halons can be recovered from retired halon fire extinguishers and fire extinguishing systems; and US $30,000 is being requested for technical assistance, training and management. The project implementation timeframe is 36 months.

Technical assistance for the phase-out of CTC, TCA and CFC-113

29. The objective of the project is to achieve the complete phase-out of CTC, CFC-113 and very small amounts of TCA (i.e., 0.2 metric tonnes) used in the solvent sector in Iraq. CTC and CFC-113 are currently used in small amounts for analysis and quality control in three laboratories (mainly for analyzing oil in water). After extracting the water with CTC/CFC-113, the oil content in the solvents is analyzed. A few others laboratories have small stocks of CTC of reagent grade, which is used in non-routine tests; the CTC consumption in these laboratories will be phased out by 2010.

30. The project is proposing to conduct a survey of all users of CTC/CFC-113 in the country, identifying the analytical methods used at each laboratory; provide technical assistance through an international consultant; and conduct a workshop presenting suitable alternative technologies in the laboratory/analytical sector. The total cost of the project is US $92,000, with an implementation timeframe of 18 months.

Project management unit

31. In order to ensure sustainable implementation of the activities as planned in the NPP and to ensure close collaboration between major stakeholders and the implementing agencies, a project implementation and monitoring component has been included. The project management unit will be responsible for:

(a) Managing and co-ordinating implementation of the NPP in accordance with established Government policies;

(b) In consultation with the Ozone Unit and the implementing agencies, contracting and managing teams of national experts that will assist in implementing the various project components of the NPP;

(c) Developing and implementing training, awareness and capacity-building activities for key Government departments, legislators, decision-makers and other stakeholders;

(d) Creating awareness of the ODS phase-out plan among ODS users and the public, through workshops, media publicity and other information dissemination measures;

(e) Preparing annual implementation plans, verification reports certifying ODS phase-out in completed sub-projects, site visits and auditing, and annual performance-based disbursement reports;

(f) Establishing and operating a decentralized mechanism for monitoring and evaluation of the NPP activities, in association with provincial regulatory environmental bodies to ensure sustainability.

32. Given the prevailing situation in Iraq and the size of the NPP that would need to be implemented in a very short period of time, the establishment of a permanent backstopping unit is being proposed. This unit will be located at the UN Assistance Mission for Iraq (Amman, Jordan), where administrative and field visit services can be offered to ensure timely implementation of the NPP. In addition, the support and experience of UNIDO's special office for Iraq, also based in Amman, will be utilized.

33. The total cost of the project management unit has been estimated at US $650,000, including the permanent backstopping unit (US $200,000).

Total cost of the NPP

34. The total cost of the NPP for the complete phase-out of all ODS excluding MB and HCFCs as submitted is US $10,495,698. The cost of each of the sub-project components of the NPP is presented in the table below:

Sub-project components	US $		
	Total	1st tranche	2nd tranche
Foam manufacturing sector	5,657,218	5,347,218	310,000
Refrigeration manufacturing sector	246,050	246,050	
Refrigeration servicing phase-out plan	3,786,000	3,786,000	
Halon management programme	64,430	64,430	
Phase-out of CTC, TCA and CFC-113	92,000	92,000	
Project management unit(*)	650,000	386,000	264,000
Total cost	**10,495,698**	**9,921,698**	**574,000**

(*) Including US $200,000 for UNEP permanent backstopping unit.

SECRETARIAT'S COMMENTS AND RECOMMENDATION

COMMENTS

35. For the benefit of Executive Committee Members, the Secretariat's comments on the NPP for Iraq are organized in the following sub-sections:

(a) Policy issues;

(b) ODS consumption;

(c) Foam investment project component;

(d) Refrigeration manufacturing project component;

(e) Refrigeration servicing component;

(f) Halon management programme;

(g) Technical assistance for the phase-out of CTC, TCA and CFC-113;

(h) Project management unit;

(i) Summary of the agreed incremental cost of the NPP for Iraq;

(j) Draft agreement between the Government of Iraq and the Executive Committee;

(k) Secretariat's recommendation

Policy issues

36. The Government of Iraq became a Party to the Montreal Protocol only in June 2008. In comparison to all other Article 5 countries that became Parties to the Montreal Protocol at a much earlier date, the Government of Iraq will have to completely phase-out consumption of CFCs, halons, CTC and TCA solely through the implementation of the NPP. In addressing the issues raised by the Secretariat on the NPP for Iraq, UNEP indicated that the Government of Iraq had recognized the importance of the international ozone treaties two years earlier where it worked with UNEP and UNIDO in obtaining answers on key policy, legal and technical implications of ratifying the Vienna Convention and the Montreal Protocol and its amendments, and worked through a dedicated committee established under the Ministry of Environment to deal with the ratification of the Protocol.

Apparent status of non-compliance of Iraq

37. At their 20th Meeting, the Parties to the Montreal Protocol requested the Executive Committee, when considering ODS phase-out projects for Iraq, to take into account the special situation of this new Party, which may face difficulties in the phase-out of Annexes A and B substances, and to be flexible in considering the project proposals, without prejudice to the possible review of the non-compliance situation of Iraq by the Parties (paragraph 2 of decision XX/15).

38. The CFC and halon consumption reported by the Government of Iraq for 2008 was above the level allowable under the Montreal Protocol. Accordingly, it appears that Iraq is in non-compliance with its obligations under the Protocol. In its report on data under Article 7 to the 42nd Meeting of the Implementation Committee (July 2009), the Ozone Secretariat will report *inter alia* on cases of apparent non-compliance by the Parties, including Iraq.

Licensing system

39. On 19 May 2009, the Government of Iraq submitted an official communication to the Regional Office for West Asia of UNEP on the Council of Ministers of Iraq's approval to establish a licensing system to control imports of ODS (a copy of this communication was also forwarded to the Ozone Secretariat). The ODS legislation will be finalized during the implementation of the NPP and will introduce elements of the licensing/quota system and other regulatory measures (i.e., controls on ODS emissions, control of internal trade, new installations, recovery/recycling, certification of technicians and workshops). The Ministry of Environment of Iraq is currently preparing an official communication to the Ozone Secretariat in this regard.

Request for essential uses

40. In reviewing the essential use nomination for foam, refrigeration and air conditioning uses submitted by the Government of Iraq, TEAP was unable to recommend this nomination. In its report, TEAP stated *inter alia* that "there is extensive global expertise in CFC recovery and recycling, and sufficiently large stocks of recycled CFCs that could be used quickly to help Iraq meet its requirements.

Parties may wish to consider Iraq's situation as a new Party to the Protocol and its recent domestic circumstances that make assistance a priority. A bilateral project with another Party may help to solve quickly any problems with recycled CFC supply until the technology transfer projects are completed. Furthermore, there are two priority measures that TEAP believes could quickly reduce CFC demand for servicing requirements and minimize the volume of imports of recycled CFC-11 and CFC-12; programs to retire installed leaking equipment with new CFC-free equipment, and adoption of recovery and recycling. Both of these actions would liberate recycled CFCs for servicing equipment that has not yet reached its end-of-life and remains in good working order. Equipment replacement can provide additional benefits, including higher energy efficiency and better performance".

ODS consumption

41. Due to the prevailing difficulties in sending UNEP and UNIDO staff and consultants into Iraq, ODS data collection and verification was carried out by national experts who received training outside the country. The survey was also supported by questionnaires prepared by UNEP and UNIDO. Accordingly, the accuracy of the ODS consumption data understandably varies across sectors and substances, and is particularly low for CFCs used in the servicing sector, where broad assumptions have been used.

42. A number of issues were raised in regard to the level of CFC consumption in the refrigeration servicing sector, including the large number of CFC-based refrigeration systems estimated to still be in operation considering the number of households (about 2.5 million households) and the limited number of domestic refrigeration systems and water coolers locally produced; the large number of CFC-12 MAC systems still in operation considering the old age of many of the vehicles and the fact that a large number of vehicles manufactured prior to 1995 were not fitted with a MAC system.

43. UNEP and UNIDO noted the higher accuracy in consumption data for the industrial sector in comparison with the servicing sector, which is the case in the majority of countries where the entire industrial sector can be surveyed. In spite of the fact that the licensing system is not yet operational, the Ministry of Environment managed to identify almost all ODS importers through several public announcements. All importers submitted historical consumption data, particularly for the last three years. A crosscheck exercise, conducted by the Ministry to verify the reliability of submitted data amongst importers provided more confidence in the data that was collected. In regard to the relatively large number of CFC-based equipment still in operation in the country, UNEP reported that the equipment had been imported into the country over the last 20 years; and that such imports were particularly high during the 2003-2005 period. Additionally, a large number of HFC-134a based equipment was serviced with CFC-12 due to its much lower price and availability (HFC-134a only started to be available in the country in the last 3-4 years).

Reduction in CFC consumption

44. It was pointed out that the amounts of CFCs currently used in the refrigeration servicing subsector could be substantially reduced by introducing drop-in refrigerants. The introduction of drop-in blends was being proposed for only a short period of time to allow for the immediate phase-out of CFCs in equipment with a very short remaining life-time. However, any proposal potentially involving HCFCs must be reviewed carefully and assessed to avoid an increased dependence on these ODS. In the mid-term, additional reductions would be achieved through the introduction of good servicing practices, the retrofitting of refrigeration systems and some recovery/recycling of refrigerants.

45. Noting that a large number of chillers have exceeded their useful life, and would therefore need to be replaced, it was suggested to UNIDO that it provide assistance to the Government in undertaking a thorough technical review of the chillers, assessing their working condition and implementing a comprehensive maintenance programme.

46. The Secretariat also discussed with the agencies the following potential sources for supplying CFCs post 2009 in Iraq: CFCs currently available in old chillers that could be decommissioned in Iraq (or any other country), possible banks of recycled CFCs from any country (which will not be considered as consumption), and/or or potential stocks of virgin CFCs other than domestic stocks. Regarding imports of virgin CFCs post 2009, the Fund Secretariat suggested that UNEP and UNIDO seek advice from the Ozone Secretariat on the necessary procedure to be followed by the Government of Iraq, as such imports would result in non-compliance with the Montreal Protocol.

47. UNEP and UNIDO advised that:

(a) Confirmed data shows that 434.8 ODP tonnes of CFC-11 are stored in Iraq. This amount will be used to cover part of the needs for foam manufacturing post 2010. Currently, all manufacturing companies are considering stockpiling additional amounts of CFCs in 2009, although the actual amounts are still under discussion with local importers;

(b) In the margin of the regional network meeting held in Manama, Bahrain on 10-13 May 2009, UNEP facilitated a meeting with the Ozone Officer of Iraq, local ODS importers, and UNIDO, with the participation of a representative from the Fund Secretariat, where the issue of the availability of CFCs post 2009 was discussed. As a result of the discussion, all available stocks of virgin CFCs (particularly CFC-12) will be re-checked at trader's facilities, large end-users and foam and refrigeration manufacturing plants, and major CFC users will explore with traders the options of stockpiling CFCs that would be needed post 2009 until the conversion projects are completed. The Government of Iraq, in cooperation with UNEP and UNIDO, will exert all possible efforts to expedite the implementation of the investment projects and technical assistance and training activities in the NPP, particularly those than can supply recycled CFC from large decommissioned refrigeration installations, promote the introduction of drop-in refrigerants and examine the import of recycled CFC from different reliable sources.

48. Therefore, the phase-out schedule for the NPP has been revised accordingly to include zero consumption of ODS, excluding HCFCs, by 1 January 2010.

Foam investment project component

49. According to the foam umbrella project proposal, conversion of the three manufacturing plants will result in the phase-out of 993 ODP tonnes of CFC-11 (i.e., are 508 ODP tonnes for Iraq Steel, 445 ODP tonnes for Nassr State and 40 ODP tonnes for Baghdad Industrial). However, it was pointed out that data reported in the country programme/NPP indicated that, of the 342.5 ODP tonnes of CFC-11 imported in 2008, 290 ODP tonnes were used in the foam sector and 52.5 ODP tonnes were used in the refrigeration servicing sub-sector (i.e., 20 ODP tonnes for cleaning refrigeration circuits and 32.5 ODP for servicing chillers). Furthermore, at its 57th Meeting, the Executive Committee approved two investment projects in the foam and refrigeration manufacturing sectors for a total phase-out of 171.5 ODP tonnes of CFC-11. Accordingly, the remaining eligible CFC-11 consumption associated with the foam sector is 118.5 ODP tonnes.

50. A number of technical and cost-related issues were discussed with UNIDO. Specifically, capacity increase and technological upgrade associated with the replacement of the equipment baseline in the production lines of the three enterprises had not been fully considered when calculating the incremental costs. The costs for the proposed high pressure foaming machine were very high (i.e., US $290,000 each for the Iraq Steel and Nassr State plants, and US $130,000 for Baghdad Industries) as compared to similar equipment in other approved projects. The costs associated with safety-related items for the use of pentane as blowing agent, representing almost 45 per cent of the total costs, was very high and not all the proposed items were eligible (for example, the proposed enclosure on the conveyor, which adds

considerable cost to the project, may only add marginal safety value given that the companies produced mainly steel-faced sandwich panels and not foam blocks).

51. UNIDO indicated that the umbrella project was prepared on the basis of the information provided by the enterprises in accordance with the UNIDO questionnaire, including the technical parameters of their foam production facilities, and consumption of chemicals for foam formulations (including CFC-11). It was also reported that the manufacturing plants were operating on a two-shift basis, and that stocks of CFC-11 from previous years were also used.

52. Noting that the proposals were prepared based on information provided by local experts and the constraints in verifying the data at plant level by UNIDO's experts, it was agreed to recalculate the projects on the basis of a similar one approved by the Executive Committee. Of the 16 rigid foam projects for the replacement of CFC-11 with pentane that have been approved under the Fund, one project in Serbia (approved at the 35th Meeting) had production baseline equipment very similar to that installed at Iraq Steel and Nassr State (i.e., foaming machine with a mixing head with a maximum output capacity of 15 kg/min and polyol and MDI metering pumps each with a maximum capacity of 7.5 kg/min). In the case of Baghdad Industries, the cost of the high pressure machine and the safety related issues were adjusted.

53. The final agreed cost of the umbrella project covering the three foam manufacturing plants amounts to US $1,778,105 (after deducting US $4,005 of operating savings) to phase out 266 ODP tonnes of CFC-11 by July 2011. The cost effectiveness of the project is US $6.68/kg.

Refrigeration manufacturing project component

54. Justification for selecting HFC-134a technology has been included in the proposal for the conversion of the commercial refrigeration sub-sector. However, the use of low-GWP hydrocarbon-based refrigerants (i.e., HC-600a), is a viable sound technology in particular for the medium and larger companies with annual production volumes above 100 units. Given that HC-600a was chosen for the Light Industries domestic refrigeration project approved at the 57th Meeting, the technology and refrigerant will be available in the country. UNIDO reported that although HC-600a has proven to be efficient and safe for low refrigerant charges, this has not been the case for higher refrigerant charges. The average charge of CFC-12 required for the water coolers in Iraq is high (around 0.5 kg) as compared to other CFC-phase-out water coolers projects so far approved, therefore, hydrocarbon-based refrigerants are not a viable alternative technology.

55. Technical and cost-related issues were discussed, including the request for equipment items (i.e., vacuum pumps, charging units, leak detectors and recycling equipment) that should be based of the current production output and not the installed capacity; the eligibility of charging boards in light of the very low production volumes at the enterprises; and the request for recovery machines for after-sales servicing of the equipment. UNIDO indicated that one of the companies in the umbrella project (State Company of Electrical Industry) has three main manufacturing workshops, one for the production of CFC-based water coolers and the other two for production of HCFC-based equipment (different types of air conditioner systems). In light of the comments of the Secretariat and in view of the baseline equipment available at each company and the production needs, the number of vacuum pumps has been adjusted accordingly; the three existing charging machines at the largest enterprise will be replaced; and no leak detectors will be requested. The equipment required for servicing has been included as a component of the umbrella project, while the training for refrigeration service technicians will be provided under the refrigeration servicing component of the NPP.

56. The final agreed cost of the umbrella project covering the six commercial refrigeration manufacturing plants amounts to US $227,425 to phase out 15.3 ODP tonnes of CFC-12 by December 2010. The cost effectiveness of the project is US $14.83/kg.

Refrigeration servicing component

57. In discussing the refrigeration servicing component of the NPP, it was noted that over US $2,680,000 of the total US $3,786,000 requested was for to establishment of a network of recovery and recovery/recycling machines of various capacities. Taking into account the requirements of decisions 41/100 and 49/6, and the comments and observations raised on ODS consumption, this activity could not be recommended for approval as submitted. UNIDO was invited to consider developing a broader technical assistance programme, with the following potential activities:

(a) Performing a technical assessment of CFC-based chillers, with a comprehensive service and maintenance programme;

(b) Conducting a detailed analysis of CFC requirements post 2009 for the manufacturing and servicing sector, identifying potential sources for supplying CFCs, preferably recycled CFCs, and assessing the establishment of a CFC bank for those uses (preferably in 2009);

(c) Implementing a mechanism to allow for the importation of non-CFC blends that could be used immediately for servicing the various types of CFC-based refrigeration equipment still in operation;

(d) Identifying medium-to-large size CFC-based commercial refrigeration systems that could be retrofitted to alternative refrigerants in a technically viable and economically feasible manner;

(e) Potentially assembling simple recycling machines, combined with a limited number of multi-refrigerant recovery/recycling machines that could be used when servicing large commercial refrigeration systems and chillers;

(f) Providing basic servicing tools for a limited number of certified workshops, such as brazing equipment, vacuum pumps, scales and leak detectors.

58. Further to several discussions on this issue, UNEP and UNIDO agreed to revise the project component following the suggested approach. The total agreed cost for the refrigeration servicing sector, including the technical assistance programme, amounts to US $3,632,000 with the following breakdown:

(a) Drafting and enacting comprehensive ODS legislation and establishing and operating an enforcement task-force (US $80,000 for UNEP);

(b) Implementing train-the-trainers and training programmes for 500 customs officers and relevant authorities, and providing ODS identification equipment (US $266,000 for UNEP);

(c) Establishing a refrigeration task force to update the curricula of the technical and vocational training centres, develop codes of good service practice, and establish a compulsory certification scheme for technicians (US $110,000 for UNEP);

(d) Implementing train-the-trainers and training programmes for 3,000 technicians on good servicing practices; developing a training programme on retrofitting of refrigeration systems to hydrocarbon-based refrigerants and equipping 10 training centres (US $615,000 for UNEP);

(e) Establishing three recovery and recycling centres in the North, South and Central provinces of Iraq, to secure supply of recycled CFC to the local servicing market with focus on collecting CFCs from large/medium scale old/retired/decommissioned

refrigeration systems, and promoting recycled CFCs (US $719,000 for UNIDO);

(f) Establishing an incentive programme for retrofitting CFC-based equipment to drop-in refrigerants (US $562,000 for UNIDO);

(g) Providing technical assistance to the refrigeration servicing sub-sector, including upgrading the technical capacities of small and medium-size servicing workshops including MAC; technical support to owners of large CFC-based chillers and large commercial refrigeration systems to promote the retirement of older systems and raise awareness on available alternative technologies (particularly non-HCFC and preferably low-GWP refrigerants); and proper management and distribution of equipment and supplies to be distributed to major stakeholders (US $1,280,000 for UNIDO).

59. Concurrently with the implementation of projects for phasing out ODS excluding HCFCs, the Government of Iraq has to prepare a phase-out plan and strategy for achieving the HCFC freeze and 10 per cent reduction in HCFC baseline consumption by 2013 and 2015 respectively (funding for the preparation of the Iraq HPMP was approved at the 55th Meeting). In reviewing the proposal for addressing the phase-out of CFCs in the servicing sector, it was noted that:

(a) Several of the proposed phase-out activities will also be relevant for the phase-out of HCFC-22 used in the refrigeration servicing sector. These activities include: developing ODS regulations and the licensing system; training customs officers; training and certifying refrigeration service technicians; implementing technical assistance programmes such as recovery/recycling, equipment retrofit and the introduction of alternative refrigerants;

(b) Similarly, establishment of the project management unit and public awareness and information dissemination activities will also be relevant for both CFC and HCFC phase-out.

60. Accordingly, it was suggested that, when implementing activities for phasing out CFCs in the refrigeration servicing sector and establishing the project management unit, UNEP and UNIDO give due consideration of the imminent phase-out of HCFC-22. UNEP and UNIDO indicated that they will attempt to so. For example, the ODS regulations to be developed during the implementation of the NPP will cover the phase-out of HCFCs; the recovery machines and recovery/recycling machines to be procured will have multi-refrigerant capabilities (i.e., for CFCs and HCFCs). The focus of the activities will however be on CFCs given the urgent need to totally phase out CFCs in the country. Furthermore, it should be noted that HCFCs are heavily consumed in the servicing sector. Therefore, the requirements needed to allow Iraq to comply with its obligations to phase out HCFCs will be assessed in greater detail during the preparation of the HPMP.

Halon management programme

61. In regard to the request for a halon recovery and recycling equipment, UNIDO's attention was drawn to the requirement to develop a business plan, which should include calculations of operational costs and projections of revenues, as well as costs and modalities for transporting halon and/or equipment to and from clients (decision 44/8 (d)). Accordingly, in the absence of a business plan, the request for the equipment is ineligible. On this issue, UNIDO indicated that the main entity benefiting from the project will be Civil Defence, as the main body consuming halon and responsible for fire fighting operations in Iraq. Civil Defence will therefore be responsible for the operation and management of the equipment. In the absence of the business plan, UNIDO agreed to withdraw the request for the halon recovery/recycling machine. The cost of this project component was therefore adjusted to US $30,000.

Technical assistance for the phase-out of CTC, TCA and CFC-113

62. Noting that the 2008 CTC consumption reported under Article 7 is 4.6 ODP tonnes (with a baseline of compliance of 21.4 ODP tonnes), an explanation was sought as to whether all controlled uses of CTC and CFC-113 would be completely phased out through the technical assistance component in the solvent sector. Taking into consideration the very low consumption of ODS to be phased out through this technical assistance programme, and based on other proposals with similar levels of consumption, it was agreed to adjust the level of funding to US $60,000. The project will also address the very small amounts of TCA used in Iraq.

Project management unit

63. The request of US $200,000 for UNEP backstopping support, as a component of the project management unit, was considered ineligible. Previously, the Secretariat raised the difficulties involved in travelling to and working in Iraq with UNIDO in the context of the foam and refrigeration projects submitted to the 57th Meeting. As reported to the Executive Committee, UNIDO indicated that technicians working for suppliers of refrigeration and foam equipment had no restrictions in travelling to Iraq. On the issue of accountability and reporting requirements to the Executive Committee, UNIDO pointed out that a United Nations Country Team (consisting of 17 agencies and programmes including UNIDO) is working under the coordination of the United Nations Assistance Mission for Iraq. UNIDO will rely on the services and support of the existing United Nations network in the country, and particularly on the assistance of the UNIDO office for Iraq (based in Amman, Jordan). Also, the project monitoring unit will be staffed by locally recruited experts.

64. The total cost of the project management unit has been recalculated at 10 per cent of the total agreed cost of the NPP for Iraq, and has not included UNEP's request for backstopping support. This level of funding is similar to the project management unit cost calculations for most NPPs approved so far.

Summary of the agreed incremental cost of the NPP for Iraq

65. The total level of funding for the NPP for Iraq has been agreed at US $6,297,530 with the following breakdown:

Sub-project components	US $			ODS (ODP tonnes)
	Total	UNEP	UNIDO	
Foam manufacturing sector	1,778,105		1,778,105	266.0
Refrigeration manufacturing sector	227,425		227,425	15.3
Refrigeration servicing phase-out plan	3,632,000	1,071,000	2,561,000	1,102.2
Halon management programme	30,000		30,000	-
Phase-out of CTC, TCA and CFC-113	60,000		60,000	0.7
Project management unit	570,000	570,000		
Total	6,297,530	1,641,000	4,656,530	1,384.2

66. Of the total amount of the NPP, US $5,489,530 is being requested for funding at the 58th Meeting. This level of funding is required to implement the activities in the foam and refrigeration manufacturing sectors (i.e., purchase of the equipment required for the conversion to non-CFC technologies) and to start implementation of activities related to the servicing sector (i.e., training programmes and equipment and tools for service technicians, retrofit of CFC-based refrigeration equipment, and introduction of drop-in refrigerants).

Draft agreement between the Government of Iraq and the Executive Committee

67. The Government of Iraq submitted a draft agreement between the Government and the Executive Committee with the conditions for the complete phase-out of CFCs, halons, CTC and TCA in Iraq, which is contained in the annex to the present document.

RECOMMENDATION

68. The Secretariat recommends that the Executive Committee:

(a) Notes with appreciation the commitment by the Government of Iraq to completely phase out consumption of CFCs, halons, TCA and CTC by 1 January 2010;

(b) Further notes with appreciation the assistance and guidance provided to the Government of Iraq by UNEP and UNIDO, which led to the ratification of the Vienna Convention and the Montreal Protocol and all its amendments, the establishment of an ODS licensing system, and the preparation and submission of the national phase-out plan for Iraq,

(c) Approves, in principle, the national phase-management plan for Iraq, at the amount of US $6,297,530, plus agency support costs of US $213,330 for UNEP, and agency support costs of US $349,240 for UNIDO;

(d) Approves the draft agreement between the Government of Iraq and the Executive Committee for the implementation of the terminal phase-out management plan as contained in Annex I to this document;

(e) Approves the 2009 annual implementation programme (first tranche);

(f) Urges UNEP and UNIDO to take full account of the requirements of decisions 41/100 and 49/6 of the Executive Committee during the implementation of the terminal phase-out management plan; and

69. The Secretariat further recommends approval of the first tranche of the 2009 annual plan at the funding levels shown in the table below:

	Project Title	Project Funding (US$)	Support Cost (US$)	Implementing Agency
(a)	National phase-out plan (first tranche)	1,136,000	147,680	UNEP
(b)	National phase-out plan (first tranche)	4,353,530	326,515	UNIDO

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DRAFT AGREEMENT BETWEEN REPUBLIC OF IRAQ AND THE EXECUTIVE COMMITTEE OF THE MULTILATERAL FUND FOR THE PHASE-OUT OF OZONE DEPLETING SUBSTANCES

1. This Agreement represents the understanding of the Government of Iraq (the "Country") and the Executive Committee with respect to the complete phase-out of controlled use of the ozone-depleting substances set out in Appendix 1-A (the "Substances").

2. The Country agrees to meet the annual consumption limits of the Substances as set out in rows 2, 5, 8 and 11 of Appendix 2-A (the "Targets, and Funding") in this Agreement. The Country accepts that, by its acceptance of this Agreement and performance by the Executive Committee of its funding obligations described in paragraph 3, it is precluded from applying for or receiving further funding from the Multilateral Fund in respect to the Substances.

3. Subject to compliance by the Country with its obligations set out in this Agreement, the Executive Committee agrees in principle to provide the funding set out in row 15 of Appendix 2-A (the "Targets, and Funding") to the Country. The Executive Committee will, in principle, provide this funding at the Executive Committee meetings specified in Appendix 3-A (the "Funding Approval Schedule").

4. The Country will meet the consumption limits for each of the Substances as indicated in Appendix 2 -A. It will also accept independent verification by the relevant implementing agency of achievement of these consumption limits as described in sub-paragraph 5(b) of this Agreement.

5. The Executive Committee will not provide the Funding in accordance with the Funding Approval Schedule unless the Country satisfies the following conditions at least 60 days prior to the applicable Executive Committee meeting set out in the Funding Approval Schedule:

(a) That the Country has met the Targets for the applicable year;

(b) That the meeting of these Targets will be independently verified;

(c) That the Country has substantially completed all actions set out in the last annual implementation programme; and

(d) That the Country has submitted and received endorsement from the Executive Committee for an annual implementation programme in the form of Appendix 4-A (the "Format of Annual Implementation Programme") in respect of the year for which tranche funding is being requested.

6. The Country will ensure that it conducts accurate monitoring of its activities under this Agreement. The institutions set out in Appendix 5-A (the "Monitoring Institutions and Roles") will monitor and report on that monitoring in accordance with the roles and responsibilities set out in Appendix 5-A. This monitoring will also be subject to independent verification as described in sub-paragraph 5(b).

7. While the Funding was determined on the basis of estimates of the needs of the Country to carry out its obligations under this Agreement, the Executive Committee agrees that the Country may have the flexibility to reallocate the approved funds, or part of the funds, according to the evolving circumstances to achieve the goals prescribed under this Agreement. Reallocations categorized as major changes must be documented in advance in the next annual implementation programme and endorsed by the Executive Committee as described in sub-paragraph 5(d). Reallocations not categorized as major changes may be incorporated in the approved annual implementation programme, under implementation at the time, and

reported to the Executive Committee in the report on implementation of the annual implementation programme.

8. Specific attention will be paid to the execution of the activities in the refrigeration servicing sub-sector, in particular:

(a) The Country would use the flexibility available under this Agreement to address specific needs that might arise during project implementation;

(b) The technical assistance programme for the refrigeration servicing sub-sector will be implemented in stages so that remaining resources can be diverted to other phase-out activities such as additional training or procurement of service tools in cases where the proposed results are not achieved, and will be closely monitored in accordance with Appendix 5-A of this Agreement; and

(c) The Country and the implementing agencies will take full account of the requirements of decisions 41/100 and 49/6 during the implementation of the plan.

9. The Country agrees to assume overall responsibility for the management and implementation of this Agreement and of all activities undertaken by it or on its behalf to fulfil the obligations under this Agreement. UNEP has agreed to be the lead implementing agency (the "Lead IA") and UNIDO has agreed to be cooperating implementing agency (the "Cooperating IA") under the lead of the Lead IA in respect of the Country's activities under this Agreement. The Lead IA will be responsible for carrying out the activities listed in Appendix 6-A including but not limited to independent verification as per sub-paragraph 5(b). The Country also agrees to periodic evaluations, which might be carried out under the monitoring and evaluation work programmes of the Multilateral Fund. The Cooperating IA will be responsible for carrying out the activities listed in Appendix 6-B. The Executive Committee agrees, in principle, to provide the Lead IA and the Cooperating IA with the fees set out in rows 16 and 17 of Appendix 2-A.

10. Should the Country, for any reason, not meet the Targets set out in this Agreement, then the Country agrees that it will not be entitled to the Funding in accordance with the Funding Approval Schedule. At the discretion of the Executive Committee, funding will be reinstated according to a revised funding approval schedule determined by the Executive Committee after the Country has demonstrated that it has satisfied all of its obligations that were due to be met prior to receipt of the next tranche of funding under the Funding Approval Schedule. The Country acknowledges that the Executive Committee may reduce the amount of the Funding by the amounts set out in Appendix 7-A in respect of each ODP tonne of reductions in consumption not achieved in any one year.

10. The funding components of this Agreement will not be modified on the basis of any future Executive Committee decision that may affect the funding of any other consumption sector projects or any other related activities in the Country.

11. The Country will comply with any reasonable request of the Executive Committee and the Lead IA and the Cooperating IA to facilitate implementation of this Agreement. In particular, it will provide the Lead IA and the Cooperating IA with access to information necessary to verify compliance with this Agreement.

12. All of the agreements set out in this Agreement are undertaken solely within the context of the Montreal Protocol and as specified in this Agreement. All terms used in this Agreement have the meaning ascribed to them in the Protocol unless otherwise defined herein.

APPENDICES

APPENDIX 1-A: THE SUBSTANCES

Annex A:	Group I	CFC-11, CFC-12, CFC-113, CFC-115
Annex A:	Group II	Halon-1211, halon-1301, halon-2402
Annex B:	Group II	CTC
Annex B:	Group III	TCA

APPENDIX 2-A: THE CONSUMPTION TARGETS, AND FUNDING

		2008	2009	2010	2011	Total
1	Montreal Protocol reduction schedule of Annex A, Group I substances (ODP tonnes)	227.6	227.6	-	-	
2	Max allowable total consumption of Annex A, Group I substances (ODP tonnes)	n/a	1,350.0*	-	-	
3	New reductions of Annex A, Group I substances (ODP tonnes)		1,597.1			1,597.1
4	Montreal Protocol reduction schedule of Annex A, Group II substances (ODP tonnes)	35.2	35.2	-	-	
5	Max allowable total consumption of Annex A, Group II substances (ODP tonnes)	n/a	-	-	-	
6	New reductions of Annex A, Group II substances (ODP tonnes)		39.1			39.1
7	Montreal Protocol reduction schedule of Annex B, Group II substances (ODP tonnes)	3.2	3.2	-	-	
8	Max allowable total consumption of Annex B, Group II substances (ODP tonnes)	n/a	-	-	-	
9	New reductions of Annex B, Group II substances (ODP tonnes)		4.6			4.6
10	Montreal Protocol reduction schedule of Annex B, Group III substances (ODP tonnes)	-	-	-	-	
11	Max allowable total consumption of Annex B, Group III substances (ODP tonnes)		-	-	-	
12	New reduction of Annex B, Group III substances (ODP tonnes)		**			**
13	Lead IA (UNEP) agreed funding (US$)		1,136,000		505,000	1,641,000
14	Cooperating IA (UNIDO) agreed funding (US$)		4,353,530		303,000	4,656,530
15	Total agreed funding (US$)		5,489,530		808,000	6,297,530
16	Lead IA (UNEP) support costs @13% (US$)		147,680		65,650	213,330
17	Cooperating IA (UNIDO)) support costs @7.5% (US$)		326,515		22,725	349,240
18	Total agreed support cost		474,195		88,375	562,570
19	Total agreed funding (US$)		5,963,725		896,375	6,860,100

*Estimated

**0.2 metric tonnes of Annex B, Group III

APPENDIX 3-A: FUNDING APPROVAL SCHEDULE

1. Funding for the second tranche will be considered for approval at the second meeting of 2011.

APPENDIX 4-A: FORMAT OF ANNUAL IMPLEMENTATION PROGRAMME

1. **Data**

Country _____
Year of plan _____
# of years completed _____
# of years remaining under the plan _____
Target ODS consumption of the preceding year _____
Target ODS consumption of the year of plan _____
Level of funding requested _____
Lead implementing agency _____
Cooperating agency _____

2. **Targets**

Indicators		Preceding year	Year of plan	Reduction
Supply of ODS	Import			
	Total (1)			
Demand of ODS	Manufacturing			
	Servicing			
	Stockpiling			
	Total (2)			

2. Industry Action

Sector	Consumption preceding year (1)	Consumption year of plan (2)	Reduction within year of plan (1)-(2)	Number of projects completed	Number of servicing related activities	ODS phase-out (in ODP tonnes)
Manufacturing						
Aerosol						
Foam						
Refrigeration						
Solvents						
Other						
Total						
Servicing						
Refrigeration						
Total						
Grand total						

4. **Technical Assistance**

Proposed Activity:
Objective:
Target Group:
Impact:

5. **Government Action**

Policy/Activity planned	Schedule of implementation
Type of policy control on ODS import: servicing, etc.	
Public awareness	
Others	

6. **Annual Budget**

Activity	Planned expenditures (US $)
Total	

7. **Administrative Fees**

APPENDIX 5-A: MONITORING INSTITUTIONS AND ROLES

1. Government of Iraq in consultation with the Lead IA will select and contract an independent local organization/firm to undertake this task and report annually on the outcomes and deliverables of the NPP. The selection of this organization/firm will depends on the outcomes of the capacity building exercise as proposed in the Policy component of the NPP.

2. The organisation will have full access to all financial and technical data and information concerning the implementation of the Plan to phase out the Substances for reliable data collection and cross checking.

3. The organisation will prepare and submit to the NOU and the Lead IA reports of activities on a quarterly basis and the reports on the status of implementation of the Plan to phase out the Substances and consumption figures annually for consideration and follow up.

4. The responsibility of the selected organization will be:

- Develop and present to the Lead IA and NOU the approach to independent monitoring of the NPP implementation.
- Undertake independent monitoring of all the activities implemented in the NPP
- Undertake independent annual monitoring, through site-visits, of the commercial refrigeration enterprises receiving support through this project, determining amount of and substance used as blowing agents, with at least one visit shortly before implementation of the NPP is being completed, and report the findings to the NOU and the Lead IA;
- Present reports on NPP implementation status and CFC consumption in the country on half-yearly basis;
- Prepare periodic (annual) assessment of the consumption of ODS in the refrigeration sector and evaluate the impact of the projects being undertaken
- Take into consideration comments and recommendations of the Lead IA and NOU on activities and react accordingly.

5. The NOU will be responsible for:

- Providing the selected organization with all relevant information in possession
- Providing the selected organization with full information on NOU activities and partners.
- Providing the selected organization with the necessary support/documentation to ensure its access to relevant official institutions and other organizations
- Providing the reasonable support in independent data collection

Verification and reporting

6. Based on discussion with the country, the Lead IA should mandate an independent organization to carry out the annual verification of the NPP results and the consumption of the substances mentioned in Appendix 1-A and this independent monitoring programme.

APPENDIX 6-A: ROLE OF THE LEAD IMPLEMENTING AGENCY

1. The Lead IA will be responsible for a range of activities to be specified in the project document as follows:

(a) Ensuring performance and financial verification in accordance with this Agreement and with its specific internal procedures and requirements as set out in the Country's phase-out plan;

(b) Assisting the Country in preparation of the Annual Implementation Programme;

(c) Providing verification to the Executive Committee that the Targets have been met and associated annual activities have been completed as indicated in the Annual Implementation Programme consistent with Appendix 5-A;

(d) Ensuring that the achievements in previous annual implementation programmes are reflected in the future annual implementation programme;

(e) Reporting on the implementation of the Annual Implementation Programme of 2009/2010 and preparing for annual implementation programme for 2010/2011 for submission to the Executive Committee.

(f) Ensuring that appropriate independent technical experts carry out the technical reviews undertaken by the Lead IA;

(g) Carrying out required supervision missions;

(h) Ensuring the presence of an operating mechanism to allow effective, transparent implementation of the Annual Implementation Programme and accurate data reporting;

(i) Providing verification for the Executive Committee that consumption of the Substances has been eliminated in accordance with the Targets, if requested by the Executive Committee;

(j) Coordinating the activities of the Cooperating IA, and ensuring appropriate sequence of activities;

(k) Ensuring that disbursements made to the Country are based on the use of the indicators; and

(l) Providing assistance with policy, management and technical support when required.

APPENDIX 6-B: ROLE OF COOPERATING IMPLEMENTING AGENCY

1. The Cooperating IA will:

(a) Provide policy development assistance when required;

(b) Assist Iraq in the implementation and assessment of the activities funded for by the Cooperating IA, and refer to the lead IA to ensure a co-ordinated sequence in the activities; and

(c) Provide reports to the Lead IA on these activities, for inclusion in the consolidated reports.

APPENDIX 7-A: REDUCTIONS IN FUNDING FOR FAILURE TO COMPLY

1. In accordance with paragraph 10 of the Agreement, the amount of funding provided may be reduced by US $13,000 per ODP tonne of reductions in consumption not achieved in the year.
