

**REPUBLIC OF IRAQ  
MINISTRY OF NVIRONMENT  
IRAQ –NOU**

**8 / OMR**

**IRAQ  
REPORT**



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## **1- Introduction**

Over the last 3 decades, Iraq went through several regional and international conflicts as well as political disputes that led to an unprecedentedly political, social and economic situation faced by the country. This led to a situation where Iraq couldn't be able to cope with many international convention/protocols like Montreal Protocol over the last years. However the government of Iraq started lately, few years ago and in light of the positively developing stability conditions, to consider joining the international community its efforts to combat depletion of the ozone layer and phase-out of ozone depleting substances (ODS). In 25<sup>th</sup> June 2008; Iraq deposited the accession document for joining the Vienna Convention, the Montreal Protocol and its 4 Amendments where 3 months later it became the 193 party to the Montreal Protocol.

Parties to the Montreal Protocol, at their 20<sup>th</sup> meeting, recognized the political, economical, security difficulties being faced by Iraq and adopted decision XX/15 urging all parties, secretariats, bilateral and implementing agencies to assist Iraq to meet its challenging obligations toward the protocol.

The Executive Committee (ExCom) of the Multilateral Fund of the Montreal Protocol approved at its 54<sup>th</sup> and 55<sup>th</sup> meetings approved preparatory funds to assist Iraq in starting up its institutional setup of establishing a national ozone unit (NOU) and preparing a country programme and national phase-out plan (CP/NPP) addressing the phase out of ODS listed in annexes A & B as well as start preparing an HCFC phase-out management plan (HPMP). UNEP (as LA)& UNIDO (as CA) worked very closely with the government of Iraq, over the period of August 08-April 09 to compile, review, propose and finalize the CP/NPP document in a way that capture all relevant consuming sectors and country's phase-out requirements.

The CP/NPP of Iraq address as a matter of urgency the CFC, Halon & CTC phase-out requirements as the most urgent forthcoming targets through several policy, training and technical assistance as well as investment activities. Due to the special situation of Iraq, the recent joining to the Montreal Protocol, the absence of historical institutional setup to deal with phase-out activities at the national level and in light of XX/15 decision. The fund requested to the MLF by the government of Iraq for the build up as quick as possible its national capacities, catch with the international phase-out targets and complete tasks described in the NPP is US\$ 10,375,698.00 (excluding agencies support costs).

The NPP project will offer a strategic plan, for Iraq; to phase out ODS in both industrial and servicing consuming sectors. The plan introduces comprehensive financial and technical package to the local industries using CFC-11 & CFC-12 in the manufacturing of foam and commercial refrigeration appliances in order

to be able shifting completely to non-CFC options and to, as feasible, low GWP alternative substances/technologies.

The plan will also allow Iraq to build its national regulatory framework in order to control and monitor the trade of ODS, in line with the Montreal Amendment, including the establishment of comprehensive legislation that handle import, export and use of ODS in Iraq.

The project will provide technical support to the refrigeration servicing sector through offering assistance in updating the national technical and vocational curricula, developing codes of practice, upgrade some training facilities with relevant equipment and conduct certified training program on refrigeration good practice and emissions reduction. Recovery & Recycling program is introduced as well to ensure practicing the new good practice acquired skills along with supplementary training on retrofitting existing CFC-based refrigeration & air-conditioning systems particularly MAC units.

Thematic technical assistance components to manage local banks of Halon and to phase-out the use of CTC & CFC-113 in laboratories are other important elements of the NPP of Iraq

## **2- Government Action Plan**

The Government of Iraq is committed to undertake all necessary steps for achieving the complete phase out in the consumption of ODS by 2010. The scope of the country programme (CP) will address the phase-out of all ODS as per the control measures of the Montreal Protocol. Management Plan (HPMP) which is currently under preparation. The government of Iraq will establish a dedicated Ozone Unit to act as the focal point for monitoring and controlling ODS consumption and managing phase-out activities and projects; implement additional policy measures to control the manufacturing and importing of any ODSs and ODS-based equipment; prohibit the establishment of new enterprises consuming, producing and/or assembling equipment and products using ODSs and implement relevant projects including the National Phase-out Plan (NPP) of Iraq.

## **3- Difficulties faced by Iraq as a new Party**

Over the last 3 decades, Iraq went through several regional and international conflicts as well as political disputes that led to an unprecedentedly political, social and economic situation faced by the country starting with the 8 years conflict between Iran & Iraq followed with the conflict with Kuwait (Gulf War 1991) and going through a 12 years of international comprehensive sanctions ended with the 2003 conflict. Those circumstances offered a unique platform for Iraqis to

manage their day-to-day life and securing basic supplies that is needed for the continuation of basic social/economic activities in a country that 67%<sup>1</sup> of its population live in urban societies.

Therefore, parties to the Montreal Protocol, at their 20<sup>th</sup> meeting in Doha adopted a supportive decision (XX/15) which notes with appreciation Iraq's joining the international community in its efforts to preserve the ozone layer, which came into effect with the recent accession of Iraq as a Party to the Vienna Convention, the Montreal Protocol and all its amendments, recognizes also the difficulties faced by Iraq by joining the Vienna Convention and the Montreal Protocol and all its amendments shortly before key phase-out dates, recognizes, as well, the security situation and the political, economic and social difficulties faced by Iraq over the last two decades and understands Iraq's commitments for phasing out ozone-depleting substances under the Montreal Protocol and its amendments within a limited time frame.

To request the Implementation Committee to report on the compliance situation of Iraq to the Open-ended Working Group preceding the Twenty-Third Meeting of the Parties, during which the present decision will be reconsidered, This decision introduces good basis for parties, secretariats and implementing agencies to provide a timely and sufficiently support to Iraq to enable the country catching with the international efforts to phase-out ODS without negative economic and social consequences on Iraq. CP/NPP proposal is considered to be a very crucial for Iraq to meet its obligations under the Montreal Protocol particularly 2010 obligations which entail a very difficult task for a party joined MP in 2008

#### 4- Historical and Current consumption of ODS in Iraq (*in MT*)

*Including data of base years and base-line years as well as country official population*

	1986	1989	1991	1995	1996	1997	1998	1999	2000	2006	2007	2008	2009
<b>Population (in Thousands)</b>	<b>16110</b>	<b>17190</b>	<b>18419</b>	<b>20536</b>	<b>21124</b>	<b>22046</b>	<b>22702</b>	<b>23382</b>	<b>24086</b>	<b>28810</b>	<b>30353</b>	<b>31896</b>	<b>32500</b>
<b>Annex A- G I</b>													
CFC-11	939.6			631.2	631.2	631.2				292.3	356.4	342.5	67.10
CFC-12	822.9			913.0	867.7	868.4				1,117.1	1,320.2	1,244.6	413.66
CFC-113				0.03	0.02	0.03				0.0	0.0	0.027	0.00
CFC-115 (R502)	4.61			4.6	4.6	4.6				7.9	15.9	16.6	18.10
<b>Annex A- G II</b>													
Halon 1211	8.0			3.3	2.0	1.8				2.2	2.0	2.7	0.00
Halon 1301	14.0			5.6	4.8	6.2				3.8	2.3	3.1	0.00
Halon 2402	9.0			0	4.0	0				2.0	0.0	0.0	0.00
<b>Annex B- G II</b>													
CTC		20.0					18.4	20.3	19.6	5.474	5.482	4.2	0.98
<b>Annex B- G III</b>													
TCA (MCF)		0.2					0.2	0.2	0.2	0.1	0.2	0.2	0.05
<b>Annex C- G I</b>													
HCFC-22			830.8							1,735.8	1,989.5	1938.2	1780.67
<b>Annex E</b>													
MeBr			21.0	9.0	6.0	6.0	9.5	8.0	8.0	14.0	9.7	8.3	5.3

## **5- ODS Consumption & Consuming Sectors in Iraq**

The majority of ODS consumption in Iraq, as in other Article 5 countries, lies in the refrigeration and air-conditioning sectors with considerable amount of CFC-11 still utilized in the foam manufacturing sector. The refrigeration/air-conditioning servicing sector consumes the majority of CFC-12 where around 5% of CFC-12 consumption is used for the manufacturing of domestic and light commercial refrigeration appliances (domestic refrigerators and water-coolers). No CFC uses for Aerosol manufacturing applications were found. The use HCFC particularly HCFC-22 mostly falls in the servicing of refrigeration and air-conditioning applications. However some amounts are used for the manufacturing of HCFC-22 based air-conditioning appliances. Similarly, the survey couldn't identify any use of other HCFCs for foam manufacturing applications. The HCFC sector will be resurveyed in depth during the preparation of the HPMP of Iraq. Iraq still imports small amounts of Halon mainly to maintain existing old installations particularly in the Oil sector. Solvents are mainly used for laboratory purposes while MeBr is used with small amounts mostly for the date sector. Below table illustrate the sectoral consumption in Iraq:-

Substance	Consuming Sector (in MT) – 2009							
	Foam	Fire Fighting	Refrigeration		Solvent	Methyl bromide		TOTAL
			MFG	Servicing		QPS	Non-QPS	
<b>Annex A, Group I</b>								
CFC-11	56.00			11.10				67.10
CFC-12			32.66	380.99				413.65
CFC-113								
CFC-114								0.00
CFC-115				18.10				18.10
<b>Sub-Total</b>	56.00		32.66	410.19				498.85
<b>Annex A, Group II</b>								
Halon 1211								0.00
Halon 1301								0.00
Halon 2402								0.00
<b>Sub-Total</b>								0.00
<b>Annex B, Group II</b>								
Carbon tetrachloride					0.98			0.98
<b>Sub-Total</b>					0.98			0.98
<b>Annex B, Group III</b>								
Methyl chloroform					0.05			0.05
<b>Sub-Total</b>					0.05			0.05
<b>Annex C, Group I</b>								
HCFC-22			35.16	1745.51				1780.67
<b>Sub-Total</b>			35.16	1745.51				1780.67
<b>Annex E</b>								
Methyl bromide							5.3	5.3
<b>Sub-Total</b>							5.3	5.3
<b>TOTAL</b>	56	0.00	67.82	2155.7	1.03	0.00	5.3	2285.85

\*\* CTC consumption includes feedstock data; country will correct this figure through official communication with the Ozone Secretariat. Actual consumption is the laboratories uses included in the Technical assistance Project for Solvents

\* The exact breakdown of HCFC consumption will be resurveyed and presented in depth during the preparation of HPMP

## 6- Monitoring and Reporting Arrangements

Monitoring of consumption will be carried out through a licensing system which to be issued as described in the policy/legislation component, obtaining data from importers and crosschecked against Customs import/export database.

The NOC/NOU is responsible for compiling and analysing information from all sources and submitting the following:

- Annual reports on ODS consumption to the Ozone Secretariat, as per the requirements of Article 7 of the Montreal Protocol;
- Annual reports on progress of implementation of Country Programme to the Multilateral Fund Secretariat as per decision of the 10<sup>th</sup> meeting of the Executive Committee of the Multilateral Fund;
- Project related reporting to respective Implementing Agencies.

## 7- SUB-PROJECT TITLES

1	Establishing and enforcement ODS legislation & curbing illegal trade	UNEP
2	Refrigeration Training & Certification	UNEP
3	Technical Assistance to the Servicing Sector	UNIDO
4	Halon Management Programme in Iraq	UNIDO
5	Technical Assistance for the phase-out CTC, TCA & CFC-113 Solvents in the Laboratories Sector in Iraq	UNIDO
6	Umbrella Project for the phase-out of CFC-11 in the Foam manufacturing sectors	UNIDO
7	Umbrella Project for the phase-out of CFC-12 in the commercial refrigeration manufacturing sector	UNIDO
8	Implementation, Management and Monitoring of the Project	UNEP

## 8- RECOMMENDATIONS AND NEEDS :-



Because of Iraq's accession to the Vienna Convention and Montreal Protocol in mid-2008 and the instability of political and security situation, didn't give Iraq the opportunity to work researches in the field of atmospheric ozone.

So there are no:-

- Stations for measuring the amounts of B- UV radiation reach to the ground
- Stations to monitor changing in the Ozone hole.

These require technical and financial assistance from the developed States Parties in the Vienna Convention and Montreal Protocol to Iraq and help us to develop the capabilities of Iraqi experts and researchers for the purpose of conducting researches and studies in this filed.

That means Iraq needs the following:-

- ✓ Scientific research on environmental impacts of increased UV due to the ozone depletion in different parts of country covering effects of UV radiation on :(. Human health. Terrestrial and aquatic ecosystems. Biogeochemical cycle. Air quality and Materials)
- ✓ Build a "data networking system" for Iraqi Meteorological Organization as it is an important component and provide ozone/UV monitoring system.
- ✓ Atmospheric Modeling is another area of interest that requires professional training and advanced hardware and software facilities.
- ✓ Build an atmospheric research center and this requires advanced equipments, and networking systems for research programs on the UV/Ozone analysis and impacts. And national UV Observation and Monitoring Network.
- ✓ Organization of regional and national training workshops for officials and experts for relevant UV/Ozone monitoring organizations and public seminars on ozone/UV changes and its effects on terrestrial life.