



OVERVIEW ON OZONE DEPLETING SUBSTANCES

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1. PURPOSE

This Technical paper sets out the commitment of MEGA for creating among its members the awareness of OZONE Depleting substances, global concerns related to environment and International and Regional legislations and regulations governing them.

2. THE VIENNA CONVENTION FOR THE PROTECTION OF THE OZONE LAYER AND ITS MONTREAL PROTOCOL ON SUBSTANCES THAT DEplete THE OZONE LAYER

The [Vienna Convention for the Protection of the Ozone Layer](#) and its [Montreal Protocol on Substances that Deplete the Ozone Layer](#) are dedicated to the protection of the earth's ozone layer. With 197 parties, they are the most widely ratified treaties in United Nations history, and have, to date, enabled reductions of over 97% of all global consumption of controlled ozone depleting substances (measured in ODP tonnes).

The Ozone Secretariat is the Secretariat for the Vienna Convention and for the Montreal Protocol. Based at the United Nations Environment Program (UNEP) headquarters in Nairobi (Kenya), the Secretariat functions in accordance with Article 7 of the Vienna Convention and Article 12 of the Montreal Protocol.

Effective date of Treaties

1. [Vienna Convention \(22 Sep 1988\)](#)
2. [Montreal Protocol \(1 Jan 1989\)](#)
3. [London Amendment \(8 Oct 1992\)](#)
4. [Copenhagen Amendment \(14 Jun 1994\)](#)
5. [Montreal Amendment \(10 Nov 1999\)](#)
6. [Beijing Amendment \(25 Feb 2002\)](#)

Phase-out process deadlines:

As per the Montreal protocol and subsequent amendments as mentioned above following phase out dates for various materials are agreed:

It may be noted that an Article 5(1) Party is a Party classified at a meeting of the Parties as a developing country and whose annual per capita consumption of Annex A and Annex B substances are below the limits set in Article 5 of the Montreal Protocol. All the countries in Middle East and North Africa Region fall under this category.

Annex A – Group I: Chlorofluorocarbons (CFC-11, CFC-12, CFC-113, CFC-114 and CFC-115)

Applicable to production and consumption

<i>Non-Article 5(1) Parties</i>		<i>Article 5(1) Parties</i>	
Base level:	1986.	Base level:	Average of 1995–97.
Freeze:	July 1, 1989.	Freeze:	July 1, 1999.

75 per cent: reduction	January 1, 1994.	50 per cent: reduction	January 1, 2005.
100 per cent: reduction	January 1, 1996 (with possible essential use exemptions).	85 per cent: reduction	January 1, 2007.
		100 per cent: reduction	January 1, 2010 (with possible essential use exemptions).

[Annex A – Group II: Halons \(Halon 1211; Halon 1301; Halon 2402\)](#)

Applicable to production and consumption

<i>Non-Article 5(1) Parties</i>		<i>Article 5(1) Parties</i>	
Base level:	1986.	Base level:	Average of 1995–97.
Freeze:	January 1, 1992.	Freeze:	January 1, 2002.
100 per cent: reduction	January 1, 1994 (with possible essential use exemptions).	50 per cent: reduction	January 1, 2005.
		100 per cent: reduction	January 1, 2010 (with possible essential use exemptions).

[Annex B – Group I: Other fully halogenated CFCs \(CFC-13, CFC-111, CFC-112, CFC-211, CFC-212, CFC-213, CFC-214, CFC-215, CFC-216, CFC-217\)](#)

Applicable to production and consumption

<i>Non-Article 5(1) Parties</i>		<i>Article 5(1) Parties</i>	
Base level:	1989.	Base level:	Average of 1998–2000.
20 per cent: reduction	January 1, 1993.	20 per cent: reduction	January 1, 2003.
75 per cent: reduction	January 1, 1994.	85 per cent: reduction	January 1, 2007.
100 per cent: reduction	January 1, 1996 (with possible essential use exemptions).	100 per cent: reduction	January 1, 2010 (with possible essential use exemptions).

[Annex B – Group II: Carbon tetrachloride](#)

Applicable to production and consumption

<i>Non-Article 5(1) Parties</i>		<i>Article 5(1) Parties</i>	
Base level:	1989.	Base level:	Average of 1998–2000.
85 per cent: reduction	January 1, 1995.	85 per cent: reduction	January 1, 2005.
100 per cent: reduction	January 1, 1996 (with possible essential use exemptions).	100 per cent: reduction	January 1, 2010 (with possible essential use exemptions).

Annex-B Group III : 1,1,1-Trichloroethane (Methyl Chloroform) :

Applicable to production and consumption

<i>Non-Article 5(1) Parties</i>		<i>Article 5(1) Parties</i>	
Base level:	1989.	Base level:	Average of 1998–2000.
Freeze:	January 1, 1993.	Freeze:	January 1, 2003.
50 per cent: reduction	January 1, 1994.	30 per cent: reduction	January 1, 2005.
100 per cent: reduction	January 1, 1996 (with possible essential use exemptions).	70 per cent: reduction	January 1, 2010.
		100 per cent: reduction	January 1, 2015 (with possible essential use exemptions).

Annex C – Group I: HCFCs (consumption)

<i>Non-Article 5(1) Parties: Consumption</i>		<i>Article 5(1) Parties: Consumption</i>	
Base level:	1989 HCFC consumption + 2.8 per cent of 1989 CFC consumption.	Base level:	Average 2009–10.
Freeze:	1996.	Freeze:	January 1, 2013.
35 per cent: reduction	January 1, 2004.	10 per cent: reduction	January 1, 2015.
75 per cent: reduction	January 1, 2010.	35 per cent: reduction	January 1, 2020.
90 per cent: reduction	January 1, 2015.	67.5 per cent reduction	January 1, 2025.
99.5 per cent: reduction	January 1, 2020, and thereafter, consumption restricted to the servicing of refrigeration and air-conditioning equipment existing at that date.	97.5 per cent: reduction (averaged over ten years 2030–40)	January 1, 2030, and thereafter, consumption restricted to the servicing of refrigeration and air-conditioning equipment existing at that date.
100 per cent: reduction	January 1, 2030.	100 per cent: reduction	January 1, 2040.

Annex C – Group I: HCFCs (production)

<i>Non-Article 5(1) Parties: Production</i>		<i>Article 5(1) Parties: Production</i>	
Base level:	Average of 1989 HCFC production + 2.8 per cent of 1989 CFC production and 1989 HCFC consumption + 2.8 per cent of 1989 CFC consumption.	Base level:	Average 2009–10.
Freeze:	January 1, 2004, at the base level for production.	Freeze:	January 1, 2013.
75 per cent: reduction	January 1, 2010.	10 per cent: reduction	January 1, 2015.
90 per cent: reduction	January 1, 2015.	35 per cent: reduction	January 1, 2020.
99.5 per cent: reduction	January 1, 2020, and thereafter, production restricted to the servicing of refrigeration and air-conditioning equipment existing at that date.	67.5 per cent: reduction	January 1, 2025.
100 per cent: reduction	January 1, 2030.	97.5 per cent: reduction (averaged over ten years 2030–40)	January 1, 2030, and thereafter, consumption restricted to the servicing of refrigeration and air-conditioning equipment existing at that date.
		100 per cent: reduction	January 1, 2040.

Annex C – Group II: HBFCs

Applicable to production and consumption

<i>Non-Article 5(1) Parties</i>		<i>Article 5(1) Parties</i>	
100 per cent: reduction	January 1, 1996 (with possible essential use exemptions).	100 per cent: reduction	January 1, 1996 (with possible essential use exemptions).

Annex C – Group III: Bromochloromethane

Applicable to production and consumption

<i>Non-Article 5(1) Parties</i>		<i>Article 5(1) Parties</i>	
100 per cent: reduction	January 1, 2002 (with possible essential use exemptions).	100 per cent: reduction	January 1, 2002 (with possible essential use exemptions).

Annex E – Group I: Methyl bromide

<i>Non-Article 5(1) Parties</i>		<i>Article 5(1) Parties</i>	
Base level:	1991	Base level:	Average of 1995–98
Freeze:	January 1, 1995.	Freeze:	January 1, 2002.
25 per cent: reduction	January 1, 1999.	20 per cent: reduction	January 1, 2005.
50 per cent: reduction	January 1, 2001.	100 per cent: reduction	January 1, 2015 (with possible critical use exemptions).
70 per cent: reduction	January 1, 2003.		
100 per cent: reduction	January 1, 2005 (with possible critical use exemptions).		

3. UNIFIED GUIDING REGULATION FOR THE CONTROL OF SUBSTANCES THAT DEplete THE OZONE LAYER IN GCC COUNTRIES

Recognizing the importance of acting in line with the international regulations for the protection of the ozone layer and for the control of the ozone depleting substances within the framework of Vienna Convention on the Protection of the Ozone Layer (1985), and the Montreal Protocol on the Substances that Deplete the Ozone Layer (1987) and its subsequent amendments: London amendment (1990); Copenhagen amendment (1992); Montreal amendment (1996) and the Beijing amendment (1999); and

In view of the accession of the GCC states to the Vienna convention for the protection of the Ozone Layer, and their ratification of the Montreal Protocol on the Substances that Deplete the Ozone Layer and its subsequent amendments, which entails upon the GCC states the adoption of necessary measures both at the national and international levels in order to control the use of

ozone depleting substances in accordance with the timeline set forth in the Montreal Protocol and its subsequent amendments; and

Based on the fundamental goals of the GCC in its endeavor to effect coordination and integration between the member states by adopting identical regulations in the various fields including legislation and administration, as set forth in the article 4(g) of the GCC chapter; and in line with clause(7) of the General Principles and Policies for the Protection of Environment that was approved by the Supreme Council of the Cooperation Council for the Arab States of the Gulf during its sixth session held in 1985 in Muscat, Sultanate of Oman and which states that:

“To develop the necessary rules, legislations and standards for the protection of the environment; to work towards unifying them; to use the natural resources judiciously; and to preserve the wild life.”

Based on the above the Secretariat-General – in cooperation and coordination with the environment organisations of the GCC States and the Office of the United Nations Environment Programme (UNEP) for West Asia – drafted the Unified GCC Guiding Regulation to Control the Substances that Deplete the Ozone Layer.

The Ministers responsible for environmental affairs in the member states decided to approve the Unified Guiding Regulation for the Control of the Ozone Depleting Layer at the national and regional level in their ninth meeting held in Abu Dhabi on 25 May 2005.

Based on the recommendation of the GCC Ministerial Council pertaining to the above mentioned regulation made during the 96th session, the Supreme Council ratified the regulation during its 26 session held in Abu Dhabi on 18-19 December 2005. The following is the text of Supreme Council resolution on the Unified Guiding Regulation for the Control of Substances that Deplete the Ozone Layer:

The Supreme Council approved the Unified Guiding Regulation for the Control of Substances that Deplete the Ozone Layer as a regulation representing the basic minimum of the regulations and laws in force in the Member States.”

The Secretariat-General is pleased to present the regulation to the specialized bodies and workers in the field of environment so that they may draw benefit from this guiding regulation in the area of developing national regulations and laws and their implementation.

Please refer to **Annexure “A”** for full text of GCC Unified Guiding regulations for control of Ozone Depleting Substances.

Ozone Officers network for West Asia:

The formation of the Ozone Officers network for West Asia was approved at the 21st Executive Committee Meeting in 1997. The West Asia region comprises of 12 member countries; Bahrain, Iraq, Jordan, Kuwait, Lebanon, Oman, Palestinian National Authority, Qatar, Saudi Arabia, Syrian Arab Republic, United Arab Emirates and Yemen; all of whom are Party to the Montreal Protocol, with the exception of Iraq (they are in the process of ratifying Protocol) and the

Palestinian National Authority (they submitted their request to become Party, which will be postponed until they become recognized as a state by the UN).

Based in Bahrain, the regional ozone network headed by a Regional Network Coordinator (RNC) and supported by a Programme Officer for Refrigerant Management Plan and a Programme Officer for Halon Management implementation, strive to enhance, strengthen and catalyze efforts of member countries to achieve and sustain their compliance with the Montreal Protocol and its amendments targeting the phase out of the Ozone Depleting Substances (ODS) in a timely manner with minimum negative impacts on economic and social aspects.

This is done through several means mainly utilizing the technical and policy expertise of CAP in providing proper advice and services to countries as well as providing regular forums to facilitate direct contact and experience exchange between ODS officers in member states and key relevant organizations / secretariats, aiming at following-up and being ensured that their activities cover all needs of the countries concerning with the compliance of the Protocol, while keeping in line with the latest decisions of the Meeting of the Parties and the Executive Committee.

4. CAP - UNEP's OZONE ACTION COMPLIANCE ASSISTANCE PROGRAMME

It facilitates technology transfer through organizing thematic workshops / round table meetings for specific key-stakeholders based on the outcomes of biannual meetings of ODS officers. A number of capacity building and training workshops have been held throughout the region in support of countries implementation of the Montreal Protocol, including training for customs officers and support to the development of halon banks.

The South Asia Network includes 13 countries: Afghanistan, Bangladesh, Bhutan, China, India, Iran, Democratic Republic of Korea, Republic of Korea, Maldives, Mongolia, Nepal, Pakistan and Sri Lanka. Japan is the developed country partner of the network. The network receives financial support from the Multilateral Fund for the Implementation of the Montreal Protocol.

In addition, to ensure providing qualitative and on time support to member states, CAP with the full support of the ROWA Regional Director, initiates and maintains close coordination and cooperation at national high levels, as well as with regional and sub-regional organizations and secretariats [e.g. League of Arab States (LAS), Council of Arab Ministers Responsible for the Environment (CAMRE), Gulf Cooperation Council (GCC), Regional Intelligence Liaison Office (RILO), World Customs Organization (WCO), American Society of Heating, Refrigeration and Air-conditioning Engineers (ASHRAE)] to ensure their involvement and secure their momentum for maintaining the region in compliance with the Montreal Protocol.

The strategy for CAP West Asia, which was developed and endorsed by member states during 2003 network activities, was implemented by the CAP team in a form of work-plan for 2004-2005 and country-by-country approach. Field visits, missions and frequent close contact with national focal points for Montreal Protocol implementation enable CAP to tackle -in a timely manner- hot topics in the region particularly potential non-compliance cases, policy and legal assistance, urgent technical support, combating illegal trade, clearinghouse information activities and regular network meetings and thematic activities.

Highlights of activities:

- CAP supported the GCC Secretariat in developing a unified ODS regulation which was endorsed by GCC leaders in their annual summit in 2005 held in Abu Dhabi.
- CAP signed a regional cooperation agreement with the ASHRAE Chapters in West Asia to provide technical backstopping support to phase-out activities in West Asia countries in the refrigeration & air-conditioning sectors.
- Integration of Montreal Protocol with the three conventions (Basel, Stockholm and Rotterdam) in the role of the Arab Technical Team responsible for following-up Multilateral Environmental Agreements (MEAs) operating under the League of Arab States.
- Several training workshops were organized for Customs Officers on the control and monitor of ODS trade as well as curbing illegal trade. The concept of Green Customs was also introduced during these workshops - in coordination with the respective MEAs secretariats - as well as through individual meetings.
- CAP strategy also focused on the need for support to Iraq and Palestinian National Authority. CAP worked closely with Iraq, for ratification of a number of MEAs and will continue to work with them to further this activity.
- Presently the Palestinian National Authority continues as an observer at Network Meetings, when/where travel is possible, and funding for activities within Palestinian National Authority (not currently covered under the Multilateral Fund) are being investigated by CAP.

Achievements

In 2004 the non-compliance issue had been the center of attention for CAP and one of the main efforts was the organizing of a 'Sub-Regional Meeting on Compliance Requirements towards Montreal Protocol for West Asia,' which was held in Bahrain from 14-15 September 2004. This meeting gathered key representatives of the four countries, along with the Chairman of the Implementation Committee (ImpCom) and the West Asia Representative at the ImpCom (Jordan). The meeting provided further opportunity for countries to discuss in detail their individual cases and situations with the ImpCom representatives, as well as follow the steps taken to be in line with the criteria put forth by the 15th MOP in its decision XV/19 "Methodology for submission of requests for revision of baseline data".

As a result of the combined efforts of countries, CAP and ImpCom representatives, as well as the efforts of concerned Implementing and Bilateral Agencies, all cases of the West Asia Region were cleared by ImpCom and raised for approval at the 16th MOP. This is a big achievement and CAP will continue its efforts with countries in order to keep this clear record with obligations of 2005. It is expected that most of the West Asia Parties will likely face no difficulty to meet the 2007 cut-off (85%) of ODS consumption.

The other main achievement of CAP was providing necessary assistance to the GCC Secretariat to enact a unified regulation for control and monitor of ODS amongst the GCC states in order to facilitate their efforts in implementing their licensing system and quota system on a national basis and curbing illegal trade and avoid countries being dumping states at regional and global levels.

Future Priorities and Challenges in West Asia

Capturing current and forthcoming challenges in the West Asia region to maintain compliance with Montreal Protocol, it is easy to recognize several key challenges i.e. complying with final cut measure for CFCs and Halons, enforcing national/regional adopted legislation/regulations, curbing the growing trend of illegal trade in ODS, sustaining compliance beyond 2010 particularly for reducing dependency and freezing HCFCs consumption as well as developing policies that deal with cross-cutting issues with other MEAs. The West Asia Network will therefore focus on the following issues:

Ratification

- Maintain high-level communication to assist Iraq in joining the ozone protection regime
- Continue work to encourage concerned countries to ratify all remaining amendments to the Montreal Protocol.

Compliance

- Ensure that early-warning and quick support are well provided to countries at risk
- Maintain follow-up with countries to achieve forthcoming measures 2007 and 2010
- Assess countries' needs to achieve compliance beyond 2010.

Policy enforcement and curbing illegal trade

- Provide the policy and technical advice and assistance to enforce the latest enacted ODS legislation including the new GCC unified regulation.
- ODS trade in free-zones is a major challenge (10 zones are in the region), special attention to be given in addressing this issue with respective countries.

Terminal Phase-out Management Plans/National Phase-out Plans

- Cooperation with other Implementing Agencies in preparing and implementing TPMPs/ NPPs in an expedited approach that ensure meeting the compliance requirements

Cooperation with regional organizations

- Continue and strengthen the cooperation with the regional and sub-regional organizations and secretariats (LAS, CAMRE, GCC, RILO, WCO, ASHRAE) to ensure that ODS related concerns are well considered by related stakeholders.

Unwanted and/or waste ODS

- Assessing regional existing capacities to deal with ODS destruction needs in cooperation with other MEAs.
- Assist countries to assess national ODS quantities that need to be destructed in line with MOP and Executive Committee decisions.

5. REFERENCES AND BIBLIOGRAPHY

- The Montreal Protocol on substances that deplete the Ozone layer. Published in year 2000 by United Nations Environment Program (UNEP), Ozone Secretariat. ISBN No. 92-807-1888-6
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