

This guide introduces and summarises the many important issues about the Montreal Protocol on Substances that Deplete the Ozone Layer that National Ozone Officers (NOOs) need to know to perform their job effectively. Presented in an easy to understand format, the guide is designed to provide new NOOs and their assistants with the critical knowledge needed to quickly understand the Montreal Protocol system and the country's obligations under the Montreal Protocol.

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Multilateral Fund
for the Implementation of the Montreal Protocol

GUIDE FOR NATIONAL OZONE OFFICERS

UNITED NATIONS ENVIRONMENT PROGRAMME



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GUIDE

for National Ozone Officers

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F O R E W O R D

A key factor contributing to the remarkable success of the Montreal Protocol on Substances that Deplete the Ozone Layer so far is the "country-driven approach" promoted by the Executive Committee of the Protocol's Multilateral Fund. This approach places National Ozone Units at the centre of the action to protect the ozone layer.

Whether you realise it or not, the National Ozone Unit led by you, the National Ozone Officer (NOO), is the single most important element in your national strategy to comply with the Montreal Protocol. How well you and your team do your work--developing projects, managing strategies, reporting data, working with national and international institutions--directly or indirectly affects the status of your country's compliance with its obligations under this treaty.

We at the United Nations Environment Programme's Division of Technology, Industry and Economics (UNEP DTIE) and all of the other members of the Multilateral Fund community want you to succeed in your mission. My message to you is that you are not alone. Other NOOs have confronted and overcome the same challenges that you are facing. Their experiences are valuable references that can help you optimise the performance of your Ozone Unit.

The country-driven approach requires skilled and committed focal points in a country who can effectively manage the implementation of their Country Programmes, Refrigerant Management Plans, National CFC Phaseout Strategies and associated investment and non-investment projects. Your government has committed itself to reduce in stages, and eventually phase out, the production and consumption of ozone depleting substances by fixed dates. It is your responsibility to ensure compliance with these commitments.

Since 1991, UNEP DTIE's OzonAction Programme has promoted the concept of NOU. We recognise that the size and efficiency of the National Ozone Units varies in many countries. In some, National Ozone Units are fully institutionalised in the government's programmes. In other cases, the nature of the responsibilities results in frequent staff turnovers that may cause gaps in project implementation if the staff transition is not properly managed. A new NOO will need guidance, information and advice to understand the issues and work efficiently and quickly to meet Montreal Protocol targets.

In support of the Fund's country-driven approach, the OzonAction through the Regional Office for Asia and the Pacific Compliance Assistance Programme (ROAP CAP) is assisting National Ozone Units by developing this Guide. It has been developed using a participatory approach that draws on the experience of numerous NOOs inside and outside of the region, international agencies and individual experts. It is a form of the collective wisdom of the wider community of NOOs who are leading National Ozone Units.

This quick reference tool provides new and current Ozone Officers such as yourself with comprehensive working knowledge about the key subjects you need to know to perform your job. It helps you understand the workings of the Montreal Protocol system in all its dimensions. For areas that are beyond its scope, the guide directs you to the appropriate source of information.

I am confident that this document will be useful not only to you but also to anyone who wants to learn how National Ozone Units work with Implementing and Bilateral Agencies, the Ozone and Multilateral Fund Secretariats, and other entities at the national level to achieve and sustain their compliance to the Montreal Protocol. This Guide should also be of interest to the communities of other multilateral environmental agreements which are looking to the Montreal Protocol for inspiration and ideas for capacity building of government focal points to ensure effective national implementation and compliance of their treaties.

Monique Barbut
Director of UNEP DTIE



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Sunlight can be broken down into the visual spectrum (seen in bar at right), but it is beyond it that harmful ultra-violet radiation lurks. The ozone layer in the Earth's stratosphere filters out these rays.





THE SUN IS A FLAMING STAR
FULL OF BURNING HOT GASES.
ITS HEAT MAKES LIFE ON
EARTH POSSIBLE BUT ALONG
WITH ITS WARMTH COMES--

OOPS!

AGRRR!

--DEADLY ULTRA
VIOLET RAYS, THE UVs,
THAT HARM ALL LIFE
ON OUR PLANET... PEOPLE,
ANIMALS, PLANTS.

BEFORE YOU BEGIN

Remember the fundamental objectives of your work

- **Knowing the mission and ultimate objective**

Ensuring that your country achieves and sustains compliance with the Montreal Protocol is the critical mission of your National Ozone Unit. Phasing out ozone depleting substances is an important part of that work. Safeguarding human health by protecting the Earth's ozone layer is your ultimate objective.
- **Finishing line**

The effectiveness of your Unit's performance is assessed to a large degree by whether your country achieves compliance with specific Montreal Protocol targets. However, the ultimate measure of performance will be whether that compliance is "permanent and sustained". That is the "finish line" which we are all striving to reach.
- **Mainstreaming**

Establishing and enforcing effective ozone protection laws and regulations, and mainstreaming them in your national environmental policy, are important means to achieve sustained compliance.
- **Learning by sharing**

We do not have a guidebook on how to achieve compliance, since the Montreal Protocol is the first agreement under which such collective global action has been taken. So let us learn by sharing lessons from those with experience and get inspired by others' actions.
- **Reaching the unreached**

The world community has made amazing progress in some areas, for example eradicating certain diseases, by grass-roots awareness programmes that employ innovative techniques. Your national programme to implement the Montreal Protocol will also need to reach the "bottom of the pyramid" and involve the "unreached" parts of society.
- **Linking to the Millennium Development Goals**

The ozone layer prevents skin cancer and cataracts, but more than that, it contributes to poverty alleviation by protecting the marine food chain and improving plant growth and harvests. Mainstreaming the ozone layer protection activities in your country's poverty alleviation plans will be an important step to get your key Ministries engaged.
- **Thinking out of the box**

When managing your Ozone Unit, think "outside of the box". Consider whether in your country:

 - your awareness campaign has reached villagers who are planning to buy their first refrigerators.
 - prosecutors and judges are aware of environmental crime of illegal imports of ODS
 - industries are aware of technologies that are not only "ozone-friendly" but also "climate-friendly".
 - managers and engineers are well-versed with Life Cycle Analysis (LCA) and Life Cycle Climate Performance (LCCP) as tools to select alternative technologies.
 - policymakers are aware that the job of protecting the ozone layer is not yet over and that it is closely linked to many other multilateral environmental agreements such as the treaties on climate change and hazardous waste.
- **You are not alone**

If you need help with any of the above, contact your Regional Network Coordinator or talk to me.

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CHECKLIST

The ozone layer in the upper atmosphere is a filter preventing harmful quantities of the sun's ultraviolet (UV) rays from reaching us.



This guide is a summary of the many important issues that concern a National Ozone Officer (NOO) and the international agencies that assist the NOO. The NOO's own Government as well as the international agencies are involved in the protection of the ozone layer. Your government has ratified the Montreal Protocol on Substances that Deplete the Ozone Layer and has committed itself to reduce in stages, and finally phase out, the production and consumption of these substances by fixed dates. If the government does not fulfil these commitments, it will be held to be in non-compliance with serious consequences for the country.

The government expects the NOO to carry out many tasks that will result in fulfillment of their commitments. If the NOO has a large well-established National Ozone Unit, there will be no problem. In most countries however, the ozone offices are short-staffed. In some cases, the country might have ratified only recently. Knowledgeable persons might have been transferred out and new persons might have joined the NOO. Any person assuming responsibility will take some time to understand ozone issues.

There are now many websites and publications of international organisations to inform and assist the NOOs on various aspects of the ozone issue. In time, the NOO will gain mastery over these, but they may feel swamped by the extent of information available and may not know the priorities.

The NOO of a country is the focal point of your Government for discharging its commitments to protect the ozone layer. In order to help you to fulfill these commitments, the Protocol has established institutions both at the international and regional level that provide the resources necessary to implement the Protocol. They have created websites on the internet that contain much information and many useful reports and publications. Why has the Protocol taken so much effort to ensure that every country in the world is enabled to phase out the Ozone Depleting Substances (ODS)? What are the institutions? What should the NOO do to fulfill their commitments? Read on.



Ozzy's Tip

List the main people, organizations and associations with whom you will be working at the national, regional, sub-regional and international level and introduce yourself and your work. Let them know you are ready to do your job!



Step 1: DEVELOP YOUR PEOPLE NETWORK

- Get trained to operate the computer, email, to browse the Internet and your computer will be a major communication tool.
- Get to know supervisors and colleagues in the government dealing with your job like the Minister and officials in your own department, customs, commerce, trade and industries.
- Get to know non-governmental stakeholders working on ozone issues.
- Familiarise yourself with websites of the Ozone Secretariat (OS), the Multilateral Fund (MLF), Implementing Agencies (IAs) and bilateral agencies (see Annex 3).
- Know the names of officers in these organisations and in the Compliance Assistance Programme (CAP) team of your region and introduce yourself to them (see Annex 7).
- Participate in CAP Regional Network of Ozone Officers and share your experiences.
- Check out the membership of the Assessment Panels and introduce yourself to the co-chairs and members from your region.

Step 2: BUILD YOUR KNOWLEDGE

- Read your Country Programme, the projects approved for your country by the MLF and the latest data report sent by your country to the OS and MLF secretariats.
- Handbook on Data Reporting under the Montreal Protocol.
- Handbook on Methyl Bromide Data Reporting Under the Montreal Protocol.
- Handbook on the Treaties for the Protection of the Ozone Layer.
- The Elements for Establishing Policies, Strategies and Institutional Framework for Ozone Layer Protection.
- Regulations to Control ODS: A Guidebook.
- UNEP OzonAction's Guides on CAP, Recovery and Recycling, Expedited Assistance, Country Programme Formulation, RMP, Licensing system, Training and Compliance, Elements for Establishing Policies, and Institutional Strengthening.
- The fact sheets published by the CAP team at the Regional Office of Asia and the Pacific.
- The last two reports of the Meeting of the Parties (MOP), Implementation Committee (ImpCom) and the Executive Committee (ExCom).

Step 3: PARTICIPATE IN NEGOTIATIONS

- If your country is a member of the Bureau/ImpCom/ExCom, prepare for the next meeting. Go through the agenda and decide on the stand of your government on the issues after consulting relevant stakeholders and your minister.
- Prepare for the next meeting of the Open Ended Working Group (OEWG) and the MOP. Go through the agenda and decide on the stand of your government on the issues after consulting stakeholders and your minister. Rules of procedure for these meetings are in the *Handbook on the Treaties for the Protection of the Ozone Layer*.

- ☑ Develop your negotiating skills. Speak up when needed (and only when needed) and help the meetings to consider all the issues. At the end of each meeting, check whether your point of view has been reflected accurately in the final meeting report.

Step 4: COLLECT DATA FOR GOOD MANAGEMENT

- ☑ Timely reporting of data is one of your most important duties. Check the previous reports and status of data collection. Is any data overdue?
- ☑ Identify sectorwise ODS use in your country and locate importers, exporters and users. Collect data from users, traders and customs officers and crosscheck before finalising.
- ☑ If you have a Country Programme (CP), study it for understanding your country strategy. If you don't, contact your regional CAP officer or another IA to begin to prepare one.
- ☑ Get familiar with the reporting forms for the Ozone and Fund Secretariats.
- ☑ Practice filling data reporting forms from the data available in your CP.
- ☑ ODS used as feedstock, methyl bromide used for quarantine and pre-shipment applications and recovered, reclaimed and recycled ODS are exempt from control measures. Study definitions of these terms and apply them carefully.

Step 5: FOCUS ON IMPORTANT IMPLEMENTATION ACTIONS

- ☑ Create awareness about the Protocol with the help of the CAP team among relevant ministries, enforcement officials, industry associations, servicing workshops and general public.
- ☑ Form a National Steering Committee of all the stakeholders to advise the government on Protocol implementation.
- ☑ Make plans for national celebration of the Ozone Day (September 16) www.unep.fr/ozonaction/events/ozoneday for ideas.
- ☑ Initiate action on a licensing system for export and import of ODS as priority. Have periodic review of the import licensing system to ensure functionality.
- ☑ Train customs officers to implement licensing system, approach the regional CAP for help.
- ☑ Cooperate with the Green Customs Initiative, make friends with the customs training chief.
- ☑ If your country has not ratified all the Amendments to the Protocol, process the ratification and expedite.
- ☑ Train technicians of service workshops to recycle ODS and to retrofit for drop-in substitutes.
- ☑ Study alternatives to ODS and recommend suitable choices to the users of ODS through workshops and seminars.
- ☑ Coordinate with defence department. The armed forces are major users of halons for fire fighting in tanks and airplanes, and should arrange for recycled halons for critical uses.
- ☑ Establish policies such as voluntary agreements with industry, taxes on ODS, tax concessions on ODS-free technologies and incentives for recycling.
- ☑ Establish legislation and regulation for implementing phaseout, prohibition deadlines on ODS use, quotas for users and importers, mandating recovery and recycling etc.
- ☑ Ban import of used ODS equipment and report to the OS about your regulations so that they can inform all Parties.

Step 6: SEEK ASSISTANCE WHEN NECESSARY

- ☑ If your country is a new Party and has not received assistance from the Fund, write to the Fund Secretariat and CAP team/Implementing Agency for assistance.
- ☑ If your country is from a low-volume consuming country (LVC) where most of the consumption is in the refrigeration servicing sector get a Terminal Phaseout Management Plan (TPMP) approved by the ExCom.
- ☑ If your country is not an LVC, get a National Phaseout Plan approved.
- ☑ Establish recovery and recycling systems for CFCs to ensure servicing of existing equipment.
- ☑ Check renewal date for Institutional Strengthening (IS) project, prepare renewal request to the Fund Secretariat.

Step 7: REMEMBER COMPLIANCE IS THE GOAL

- ☑ Reduce production and consumption of ODS according to the time schedule of the Protocol.
- ☑ If your CP is not yet finalised and you are unable to report your ODS data, write to the ImpCom through the Ozone Secretariat explaining the reasons.
- ☑ Analyse your own data to check compliance. If you are not compliant, write to the ImpCom with reasons and a realistic Plan of Action for returning to compliance.
- ☑ If your country is not in compliance because of delays in taking decisions in your country, approach the right persons in your country to eliminate the delays. Request the concerned UN officials to talk to the higher officials of your country to expedite.
- ☑ Ensure industries that phased out ODS do not go back to using the harmful chemicals.
- ☑ Ensure new uses of Methyl Bromide (MB) do not start in your country.
- ☑ The sales persons of pesticide and chemical manufacturing companies are always looking for new markets.
- ☑ Extensive libraries of relevant knowledge, many experts of the Implementing Agencies and the CAP team and the resources of the Fund are at your disposal. Use them to remain in compliance.



Ozzy's Tip

When submitting your country's Article 7 data to the Ozone Secretariat, inform the Implementing Agency or your regional CAP team that is assisting your country with its Institutional Strengthening Project, so that they can help follow up with the Ozone Secretariat to ensure your report was received. Similarly, follow the process for the Country Programme report to the Multilateral Fund Secretariat.

2

SETTING THE SCENE

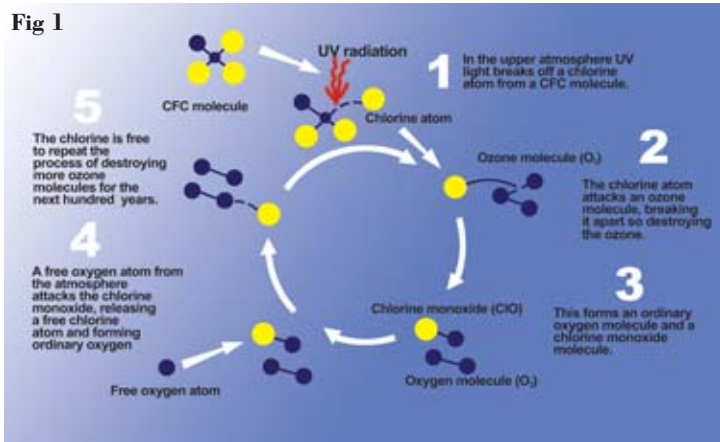
A few dozen man-made chemicals when released to the air damage the protective ozone layer. When ozone layer is thinned, more harmful UV will fall on the earth.



What is the Ozone Layer?

Ozone is a gas made up of three oxygen atoms (O_3). It is quite rare: just three of every 10 million molecules in the atmosphere are ozone. Almost all of the Earth's ozone, 90%, is found in the layer of the atmosphere called the stratosphere, which extends between 10 and 50 km above the Earth's surface. There isn't much ozone: if the total volume were compressed to sea level pressure, it would constitute a layer only three millimeters thick.

Fig 1



Despite how little there is, the ozone layer is the primary protection the earth has from the sun's harmful rays. While the sun's longest wavelengths of solar radiation, ultraviolet-A (UV-A) rays, do make it to the Earth's surface, the medium-wavelength UV-B rays are largely absorbed and the shortest UV-C rays are almost completely absorbed by the ozone layer (Fig. 1).

The depletion of the ozone layer by Ozone Depleting Substances (ODS), first noted in the 1970s, allows more harmful UV-B rays to penetrate the stratosphere into the troposphere, or the atmospheric layer closest to Earth. This would increase skin cancer, cataracts, and blindness; suppress the human immune system; damage natural ecosystems; change the climate; and has an adverse effect on plastics and other materials.



Ozzy's Tip

Read more on ozone science in the publications of OzonAction. Also read the summary for policy makers of the joint IPCC-TEAP www.ipcc.ch/press/SPM.pdf This report will clearly explain the linkages between ozone and climate change and will assist you in mainstreaming the ozone issue into a wider debate.

THE HISTORY

- **1928**

The first ODS, halocarbons, were invented and their production commercialised.

- **1970s**

Scientists discovered that ODS depleted the ozone layer.

- **1977**

The UNEP established a Coordinating Committee on the Ozone Layer comprising the world's leading experts to study the problem and suggest solutions. International diplomatic discussions started simultaneously.

- **1985**

The Vienna Convention for the Protection of the Ozone Layer drew up a framework for further study of various aspects of ozone depletion but, because of lingering doubts, especially on the part of the industrial sector, did not attempt to control the consumption of ODS. It did, however, provide for the developments of further protocols.

- **1985**

British and Japanese scientists discovered a hole in the ozone layer over the Antarctic.

- **1987**

The Montreal Protocol was signed on 16 September 1987 and strengthened progressively in 1990, 1992, 1995, 1997 and 1999 through amendments.

- **1994**

16 September was declared the International Day for the Preservation of the Ozone Layer. All Parties celebrate Ozone Day.

- **1995**

Scientists Paul Crutzen, Mario Molina and Sherwood Rowland received the Nobel Prize for chemistry for their work on the ozone layer.



The Protocol of 1987 was quite modest with only 8 controlled substances and modest reductions in their production and consumption. However the Protocol provided for adjustments and amendments based on periodic assessment of the various aspects of ODS by the Panels of experts. The Protocol was adjusted five times in 1990, 1992, 1995, 1997 and 1999. There were four amendments in 1990 (London Amendment), 1992 (Copenhagen Amendment), 1997 (Montreal Amendment) and 1999 (Beijing Amendment).

These adjustment and amendments increased the number of controlled ODS to 96 and mandated a total phase out of all these chemicals according to a fixed time table. Almost all the governments of the world, 188 of them, and the European Union, have



Ozy's Tip

The public may ask you how destruction of the ozone layer affects them directly, or why and what action they should take. Prepare answers to such questions as part of your awareness strategy.

ratified the Protocol and are “Parties” to the Protocol. There are 145 signatories classified as Article 5 Parties. The list of the Parties and list of Article 5 are placed, and regularly updated, in the website of the Ozone Secretariat

The important Articles of the Protocol, as adjusted and amended so far, are as follows:

Article 1 contains definitions of production, consumption etc.

Consumption is, simply, production plus imports minus exports.

The definition of “production” in Article 1, Paragraph 5 deducts the ODS used as feedstock for manufacture of other chemicals and the ODS destroyed from the total production. This feedstock is exempt from control measures.

The 4th MOP, through Decision IV/24, decided that import and export of recovered, reclaimed or recycled ODS will not be taken into account in calculating the consumption.

Article 2 has general provisions about the control measures on ODS. It explains the procedure for changing the Protocol as well as changes that are binding on all (“adjustments”) and which are binding only on Parties which ratify them (“amendments”).

Articles 2A to 2I lay out the control measures for nine groups of ODS. A base year for calculations and a timetable for reductions are provided for each group.

The list of controlled substances are annexed to the Protocol in 4 Annexes, A, B, C and E and, within these Annexes, in 9 groups. Each ODS has an Ozone Depletion Potential (ODP) number. Some ODS are more ozone depleting than others.

Article 3 explains how control levels are calculated. The figures are given in metric tonnes. The control levels are calculated on the basis of the sum of production/consumption multiplied by the ODP of each substance (ODP tonnes) in a group.

Article 4 bans trade with non-Parties to the Protocol in ODS and provides for a ban import from non-Parties of products made with or containing ODS as decided by MOP. The 3rd MOP decided on ban of import of products containing Annex A substances, listed in Annex D of the Protocol, from non-Parties.

Article 4A has provisions for control of trade with Parties by Parties that produce ODS, under some circumstances.

Article 4B makes it mandatory for all Parties to implement a system for licensing the import and export of ODS.



Ozzy's Tip

Make a coloured copy of the important provisions of the Protocol and put it under your table glass or hang it on a wall in your office. You would need to refer to it daily.

Article 5 has special provisions for developing countries.

- It permits developing countries, which consume the ODS in quantities less than the limits specified in that Article, to delay their implementation of the control measures by a number of years specified in that Article. Hence they are called “Article 5 Parties”. All the others are called “non-Article 5 Parties” in this publication. The first MOP and a few succeeding MOPs decided on the countries to be recognised as developing.
- **Article 5, Paragraph 5** recognises that the capacity of Article 5 Parties to implement the control measures will depend on the effective implementation of Articles 10 and 10A.
- **Article 5, Paragraph 6** permits any Article 5 Party to notify at any time that it is unable to implement its control measures due to inadequate implementation of Articles 10 (financial mechanism) and 10A (technology transfer) and the non-compliance procedure shall not be invoked against it till a MOP decides on an appropriate action.
- **Article 5, Paragraph 8 bis** laid down that, for Annex A and B substances (CFCs, Halons, Carbon Tetrachloride and Methyl Chloroform) Article 5 Parties are entitled to delay by ten years the phase out schedule of the Non-Article 5 Parties as laid down by the second MOP in London in 1990. The following table gives the phase out year for each of ODS in Annexes A and B for Non-Article 5 Parties as decided by the second MOP and, as a result, the phase out years for Article 5 Parties.

TABLE 1

Substances	Phaseout year for non-A5 Parties Decided by Second MOP	Phaseout year for A5 Parties
CFCs, Halons, Carbon Tetrachloride	2000	2010
Methyl Chloroform	2005	2015
Methyl Bromide	2005	2015

Article 5, Paragraph 8 ter laid down the schedules for Annexes C and Annex E.

ODS in Annex C Group II (HBFCs) and Group III (Bromochloromethane) are little used. Article 5 Parties have to phase them out at the same time as non-Article 5 Parties. No base year is prescribed since an immediate phase out has been mandated for these ODS.



Ozzy's Tip

Reproduce Table 2 and put in a prominent place in your desk or office as you would need to refer to this on a regular basis.

TABLE 2**Annex A****Group I: CFC 11, CFC-12, CFC-113, CFC-114 and CFC 115 — production and consumption**

Base Level	Average of the figures for the years 1995-1997
Freeze	1 July 1999
50% reduction	1 January 2005
85% reduction	1 January 2007
100% reduction	1 January 2010

Group II: Halon-1211, Halon-1301, Halon-2402 — production and consumption

Base Level	Average of the figures for the years 1995-97
Freeze	1 January 2002
50% reduction	1 January 2005
100% reduction	1 January 2010

Annex B**Group I: 10 other CFCs — production and consumption**

Base Level	Average of the figures for the years 1998-2000
20% reduction	1 January 2003
85% reduction	1 January 2007
100% reduction	1 January 2010

Group II: Carbon Tetrachloride (CTC) — production and consumption

Base Level	Average of the figures for the years 1998-2000
85% reduction	1 January 2005
100% reduction	1 January 2010

Group III: Methyl Chloroform (TCA) — production and consumption

Base Level	Average of the figures for the years 1998-2000
Freeze	1 January 2003
30% reduction	1 January 2005
70% reduction	1 January 2010
100% reduction	1 January 2015

Annexes C and E**Group I: 40 HCFCs — consumption**

Base Level	Average of the figures for the year 2015 level
Freeze	1 January 2016
Phase out	1 January 2040

The production has to be frozen by 1 January 2016 at the average of production and consumption level in 2015.

Group II: HBFCs — production and consumption

Phase out	1 January 1996
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Group III: Bromochloromethane — production and consumption

Phase out	1 January 2002
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Group I: Methyl Bromide (MB) — production and consumption

Base Level	Average of the figures for the years 1995-1998
Freeze	1 January 2002
20% reduction	1 January 2005
100% reduction	1 January 2015

Article 6 provides for periodic assessment of the control measures based on available scientific, environmental, technical and economic information through panels of experts.

Article 7 mandates reporting on ODS by all the Parties on an annual basis.

Article 8 provides for non-compliance procedures.

Article 9 mandates reporting on research: All Parties are to cooperate in conducting research and development, building public awareness, and exchanging information regarding technologies to reduce emissions, alternatives to ODS and the costs and benefits of various control strategies.

Article 10 provides for a Financial Mechanism, including the Multilateral Fund to assist Article 5 Parties

- The Fund finances the incremental costs of implementing control measures. An indicative list of incremental costs is annexed (Annex 1).
- The non-Article 5 Parties contribute to the Fund in the ratio of their contributions to the United Nations. The amounts to be contributed are decided by the MOPs once in three years. Article 5 Parties need not contribute.
- Non-Article 5 Parties could spend up to 20% of their contributions to the Fund directly in the countries or regions through bilateral projects. The Executive Committee has to approve the projects.
- All assistance to any Party is only with the specific approval of the government of the Party.

Article 10A provides for transfer of technology to Article 5 Parties.

Article 12 provides for the Ozone Secretariat. The budget for the Secretariat is contributed by all the Parties, including Article 5 Parties. However Article 5 Parties with a UN contribution ratio of less than 0.1% are exempted. Of the 145 Article 5 Parties, only 21 Parties contribute and the others are exempt.

The other nine Articles of the Protocol deal with the Meetings of the Parties, Financial Provisions, Relationship of this Protocol to the Convention, Signature, Entry into Force, Parties joining after Entry into Force, Reservations, Withdrawal and Authentic Texts.



Ozzy's Tip

The Protocol requires countries to phaseout ODS according to an agreed time table. Countries should also report data on ODS as prescribed to enable verification of phaseout.

3

DEVELOP YOUR PEOPLE NETWORK

Children are particularly
at risk of cancer,
blindness and
illness from
ultraviolet rays.



SOME OLD REFRIGERATORS AND AIR CONDITIONERS CONTAIN CFCs.

HALON IS USED IN SOME FIRE EXTINGUISHERS.

METHYL BROMIDE, A PESTICIDE USED ON SOME FARMS, IS ALSO DANGEROUS TO THE OZONE LAYER.

THESE GASES ARE NOT HARMFUL WHEN THEY ARE INSIDE EQUIPMENT, BUT THEY BECOME DANGEROUS TO THE OZONE LAYER ONCE THEY ESCAPE.

Certain institutions and procedures have been established in order to ensure the smooth working of the Montreal Protocol.

- **Meetings of the Parties (MOP):** All the Parties to the Protocol meet once in a year- the MOP- at the ministerial/highest level possible in the governments.
- **Conference of the Parties (COP):** Conference of the Parties to the Vienna Convention take place once in two years along with the MOP of the Protocol in that year.



Ozzy's Tip:

You should ensure that your country is represented in these meetings at the highest level. This will also help you in including these issues into the national environmental agenda.

As of 1 November 2005, there have been 6 COPs and 16 MOPs. The reports of these meetings contain a summary of the discussions as well as the decisions. They are communicated to all the participants of these meetings and are posted in the website of the Ozone Secretariat. The COP/MOP takes decisions on many issues and these are taken as binding on all the Parties.

- **Open-ended Working Group (OEWG)** is where officials meet annually before the MOP, to discuss the agenda of the MOP and to recommend decisions. The reports of these working groups are posted on the website of the Ozone Secretariat.



Ozzy's Tip:

Each Party including your country can make proposal for decisions to be considered by the Parties at OEWG and MOP. If you would like to raise an issue contact other ozone officers in your region through the Regional Networks, to discuss and gain support for drafting and tabling a common draft decision.

- **“Bureau”** is elected by the COP and MOP consisting of a President, 3 Vice-Presidents and a Rapporteur to run the meetings and advise the Secretariat till the next meeting. These five posts are rotated annually among the five regional groups recognised by the United Nations: Africa, Asia and Pacific, Eastern Europe, Latin America and Caribbean and Western Europe and Others.
- **The Executive Committee (ExCom)** manages the Multilateral Fund that provides financial and technical assistance to Article 5 Parties to meet their compliance commitments. ExCom is assisted by a Fund Secretariat located in Montreal, Canada. It consists of seven members from the Article 5 Parties and seven from the non-Article 5 Parties, elected annually by the MOP. The Chairmanship and Vice-Chairmanship of the Committee rotate between the Article 5 and Non-Article 5 Parties annually.



Ozzy's Tip

Since participation at the Executive Committee rotates on a regional basis, keep your regional representative informed about your country's priority issues. If you are a member on the Executive Committee, proactively contact the ozone officers from your region directly or through your regional networks and ask them if there are any issues they would like to raise.

- **The Implementation Committee (ImpCom):** The Committee was established by the Parties under the Non-Compliance Procedure (Annex 2) approved by the Parties under Article 8 of the Protocol. The Committee reviews the implementation of the Protocol by the Parties and makes recommendations to the MOP regarding Parties that do not comply with the Articles of the Protocol.

The ImpCom consists of ten members: two Parties elected annually from each of the five regional groups. The Presidency and the Vice-Presidency of the Committee rotates between the A5 and non-A5 Parties annually.

- **The Ozone Secretariat (OS):** The MOP, the OEWG, the Implementation Committee and the Assessment Panels are assisted by a Secretariat, called Ozone Secretariat, located in the United Nations Environment Programme in Nairobi, Kenya. Its website <http://www.unep.org/ozone> gives updated information on all aspects of the Protocol. It brings out a *Handbook for the International Treaties for the Protection of the Ozone Layer* containing the texts of the Convention and the Protocol, all the decisions of the Meetings of the Parties to the Convention and the Protocol, arranged subjectwise.
- **The Multilateral Fund Secretariat (MFS)** located in Montreal, assists the Executive Committee. The website of the Multilateral Fund, <http://multilateralfund.org>, contains reports of all the meetings of the Executive Committee, the documents for forthcoming meetings and most importantly, the *Policies, Procedures, Guidelines and Criteria* of the Fund.
- **The Implementing Agencies (IA):** The Executive Committee signed an agreement with four Implementing Agencies regarding their functions. These are:

The *Executive Committee Primer: An introduction to the Executive Committee of the Multilateral Fund for the Implementation of the Montreal Protocol* being prepared by the Multilateral Fund Secretariat is intended to provide new members of the Executive Committee with a guide to the workings of the Multilateral Fund and its Executive Committee. The primer will be updated after the final meeting of each calendar year in preparation for new members who will join the following year.

● **UNDP, UNIDO and the World Bank** will assist in technical assistance, project development and investment projects that lead to phase out.



● **UNEP's Division of Technology, Industry and Economics (UNEP DTIE)** carries out non-investment projects, and helps to establish the infrastructure within which projects can proceed ("OzonAction" branch). This includes carrying out institutional strengthening activities (such as establishing NOUs) provides an information exchange clearinghouse, facilitates regional networks, and helps to prepare country programmes, especially for low-volume-consuming countries. This is currently carried out through the Compliance Assistance Programme (CAP) implemented by a team of professionals who provide appropriate advice and assistance to Article 5 Parties whenever required, on a regional basis.



The regional networks provide support to the Article 5 Parties. There are now nine Networks comprising all Article 5 and 14 non-Article 5 Parties. The National Ozone Officers of each network meet about twice a year to exchange experiences and learn from each other.



Ozzy's Tip

When you receive an invitation for a Regional Network meeting, you as the focal point on ozone at the national level must attend all the meetings to maintain continuity of deliberations.

All the Implementing Agencies:

- report to the Fund Secretariat on the status of activities related to country programmes
- prepare periodic progress reports on projects
- prepare an annual report on income and expenditures of the previous years and
- prepare a final report after completion and/or termination of each project

● **Bilateral Agencies:** Some of the non-Article 5 countries- Australia, Austria, Canada, Finland, France, Germany, Japan, Poland, Sweden, UK, USA etc- implement projects in many Article 5 Parties, as approved by the Executive Committee, through their bilateral aid agencies. Their websites (please see Annex 3) have excellent information useful for the implementation of the Protocol.

The country, with assistance from the Implementing Agency, has overall responsibility for the implementation and management the National ODS Phase-out Plan, TPMP, RMP or other performance-based plan to ensure the achievement of its goals. In cases where the government decides to enlist the services of more than one Implementing Agency (bilateral agencies included),



Ozzy's Tip

Please do not hesitate to contact Agencies working in your country. When in doubt, pick up the phone and talk to relevant people. Agencies look to you for providing direction to the phaseout plans. You are in the “driver’s seat”.

the government should indicate the lead agency and the co-operating executing agency(ies) to assist the country, with a clearly defined role and responsibility for each of the Implementing Agencies involved. The **lead agency** will be responsible for facilitating a Consolidated Report of all presently active CFC consumption phase-out plans and projects based on reporting from cooperating Implementing Agencies as well as from the government.

The Implementing Agencies should also coordinate among themselves when preparing activities for phase-out of ODS. The websites of the agencies contain many useful features about their activities, publications and events. The list of websites of the agencies is given in Annex 3.

- **Assessment Panels:** The Protocol, in Article 6, provided for periodic assessment, at least once in four years, of the control measures on the basis of available scientific, environmental, technical and economic information through panels of experts. There are three panels that include hundreds of members from around the world including from Article 5 Parties.
 - **The Scientific Assessment Panel** integrates the information on the state of the ozone layer, the abundance of the ODS in the atmosphere, and options for improving the state of the ozone layer through reductions in the production and consumption of ODS.
 - **The Environmental Effects Panel** assesses the information on the impact of the ozone depletion on human health and the environment.
 - **The Technology and Economic Assessment Panel (TEAP)** assesses the technical and economic feasibility of the available alternatives to ODS.



Ozzy's Tip

The OS periodically requests for nominations of A5 experts on the Panels. Be proactive in recommending qualified experts from your country. This has been found to be very helpful to countries in the long run.

A synthesis of the three reports, prepared by the co-chairs of the panels, presents options to the MOPs for further measures to protect the ozone layer.

- The TEAP has **six Technical Options Committees (TOC)** for Aerosols and MDI, Halons, Refrigeration and Air conditioning, Methyl Bromide, Foams and Solvents.

4

COLLECT DATA FOR GOOD MANAGEMENT

Ultraviolet rays harm
plants - particularly
food crops - as well
as animals.



Where are Ozone Depleting Substances used?

ODS are used in many products that we use in our homes and offices, in many industrial processes and in agriculture. Table 3 offers some examples.

Table 3: Uses of ODS

Process/Product	ODS used
Fire suppression and extinguishers	Halons
Air conditioning and refrigeration, automobile, domestic or commercial	CFC-11, CFC-12, CFC-114, CFC-115, HCFCs
Foam blowing	CFC-11, CFC-12, HCFC-141b
Aerosol propellants, cosmetic and medical	CFC-12
Solvents, including metal cleaning, dry-cleaning	CFC-113, Carbon Tetrachloride
Soil fumigation, commodities and building disinfecting	Methyl Bromide
Servicing ODS-based equipment	CFC-11 and CFC-12 and other depending on equipment

The Protocol seeks to reduce uses gradually according to a timetable till their use is completely phased out. Some exceptions are made for various reasons.

What types of use of ODS are exempted by the Protocol?

- a. The definition of “production” in Article 1 Paragraph 5 deducts the amounts used as feedstock and the amounts destroyed from the total production. Carbon tetrachloride, CFC-113 and some HCFCs are used as feedstock in many industries. A feedstock substance is completely transformed in the process of making another chemical. ODS used as feedstock is exempt from control measures but must still be reported.
- b. The import and export of recovered, reclaimed or recycled ODS are not considered to be consumption. According to MOP Decision IV/24, using recycled ODS to reduce new usage and thereby to stay within the Protocol’s limits is acceptable.
- c. ODS used as process agents, which are partially converted to new chemicals but partially released into the atmosphere, are exempt from controls only if their emission are kept below certain specified limits by MOPs. CTC, CFC-113, and CFC-12 are examples. If they are not exempt, they must be replaced with ozone-safe chemicals. The TEAP recommends which process agents can be exempted and the MOP takes a final decision. Decision X/14 of the tenth MOP in 1998, elaborated by Decision XV/7 and XV/8, guides the use of process agents. See the report of the Process Agent Task Force Reports for full details.
- d. Many national authorities mandate the use of methyl bromide for quarantine and pre-shipment use as fumigant for many commodities. This use is exempted by the Protocol but must be reported. See further elaboration later in this publication.



Ozzy’s Tip

When you submit data to either the Ozone Secretariat or Multilateral Fund Secretariat, it is advisable to also send a copy to the Implementing Agency responsible for your country’s Institutional Strengthening project. You may request them to review this before submission.

ARE ARTICLE 5 PARTIES ELIGIBLE FOR ESSENTIAL USE EXEMPTIONS AFTER THE PHASEOUT DATES?

Will the Article 5 Parties be allowed essential use exemptions for CFCs, for example, from the year 2010 or methyl chloroform after 2015? After 2010/2015, the criteria for essential use exemptions may not be satisfied for any use of ODS since fully acceptable alternatives would have been in the market by then for all uses. The Multilateral Fund would have assisted the Article 5 Parties to adopt the alternatives. Article 5 Parties should not assume that they will get exemptions but monitor the position carefully. National Ozone Officers in Article 5 countries must work toward phasing them out.

- e. **Essential Uses:** The control measures in the Protocol in Articles 2A to 2G and 2I provided for exemptions from control measures for essential uses of ODS after phaseout to be approved by MOPs. Decision IV/25 of the 4th MOP in 1992 laid down the criteria for essential uses of ODS other than methyl bromide. The quantities used must be reported.
- f. **Critical Uses:** Article 2H of the Protocol has provided for critical use exemptions for methyl bromide after phaseout. Decision IX/6 of the ninth MOP in 1997 laid down the criteria for such exemptions. The quantities used must be reported.
- g. **Laboratory and Analytical Uses:** Some ODS are used in small quantities in laboratories and for analysing materials. Since 1995, the MOPs have given a global exemption for such uses as an essential use. The Parties do not have to apply individually for such an exemption. **But remember that the essential use provision can be used only after phaseout date.** Till then these uses are counted as part of consumption. For Article 5 Parties, the phaseout date is over only for HBFCs (1 January 1996) and for bromochloromethane (1 January 2002). For other ODS this use has to be accommodated by the Article 5 Parties within their permitted use.



Ozzy's Tip

Find out the contacts of national experts on various Panels of Montreal Protocol. Maintain regular contact with them to understand how these exemptions impact your country. Also take their advice during implementation of projects and sector strategies with a view to build the capacity of the industry and SMEs.

The MOPs have requested the TEAP to study whether alternatives are in the market for specific uses. Based on their studies, three uses have been eliminated from the exemption through Decision XI/15 in 1999. The global exemption is extended till 31 December 2007 by the decision XV/8. There are still many uses regarded as essential now but alternatives are emerging. The Article 5 Parties should not assume they would get an exemption automatically after phase out but should study the issue with respect to the situation in their countries.



Ozzy's Tip

Data reporting does not just involve the Ozone Officer. Familiarise stakeholders, importers etc. with the reporting formats to make their transfer of information easier. Consider putting together brief guidelines in local language or hold a workshop to explain the data reporting requirements. Study this new format very carefully and organise a workshop in your office to disseminate the forms to all authorities who help you in data collection.

Reporting to the Ozone Secretariat

The reduction of the production and consumption of ODS according to the prescribed time schedule is the most important part of the Montreal Protocol. The Protocol has mandated that all Parties have to send detailed reports to the Secretariat under Articles 4B, 7 and 9. These reports will be the basis on which the compliance of each Party with the Protocol will be determined. Not reporting data will be considered as non-compliance. So you should be aware of the time limit for submitting data.

Reports are to be filled in five types of forms:

1. Imports
2. Exports
3. Production
4. Amount destroyed
5. Import from and/or exports to non-Parties

Instruction is provided on the forms themselves. Source for formats: Annex in UNEP OzonAction's *Handbook on Data Reporting under the Montreal Protocol* or OS or OzonAction websites.

Reporting to the Fund Secretariat:

All Parties, whose Country Programmes have been approved by the Executive Committee of the Multilateral Fund have to report annually by 1 May of each year the data related to the previous year. The 46th meeting of the Executive Committee in July 2005 has prescribed new forms for this report (Annex 4)



Ozzy's Tip

Check, Check, and double check! Mistakes in data reporting can put your country in non-compliance. If you need official government approval before your data can be sent, make sure you give enough time for this in your planning process.



NOOs must be vigilant about use of CFC-reliant equipment like these in their country.

Form A is for the data to be reported on consumption by sector, imports, exports and production. The data has to be consistent with the data of imports, exports and production reported to the Ozone Secretariat.

Form B is for reporting on the regulatory, administrative and supportive actions in the implementation of the country programmes.

Form C is for giving data for quantitative assessment of the phase out such as import and export of ODS, prices of ODS/ substitutes, number of persons trained and success of recycling programmes.

Form D is a questionnaire for qualitative assessment of the operation of the Refrigerant Management Plans.

Article 5 Parties should also use a form for presenting their progress report on the implementation of the institutional strengthening project and the plan of action. These are usually submitted every two years.

Table 4: Summary of the reports an NOO must submit to the Ozone Secretariat

Article	Report	Time										
7	Data on the production, imports and exports for the base year of each ODS for non-A5 countries	Within 3 months of ratification for new Parties										
	<table border="1"> <thead> <tr> <th>Annex</th> <th>Base year</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>1986</td> </tr> <tr> <td>B</td> <td>1989</td> </tr> <tr> <td>C</td> <td>1989</td> </tr> <tr> <td>E</td> <td>1991</td> </tr> </tbody> </table>	Annex	Base year	A	1986	B	1989	C	1989	E	1991	
Annex	Base year											
A	1986											
B	1989											
C	1989											
E	1991											
	Data on the annual production, imports and exports of each ODS with the following baseline for A5 countries	At least before 30 September, but preferably before 30 June every year										
	<table border="1"> <tbody> <tr> <td>A</td> <td>1995-1997</td> </tr> <tr> <td>B</td> <td>1998-2000</td> </tr> <tr> <td>CI</td> <td>2015</td> </tr> </tbody> </table>	A	1995-1997	B	1998-2000	CI	2015					
A	1995-1997											
B	1998-2000											
CI	2015											
	E 1995-1998											
	Data on exempted ODS	Annually										
	Feedstock ODS destroyed	Annually										
	Imports and exports of recycled ODS	Annually										
	Data on traded ODS	Annually										
	Exports and imports from non-Parties	Annually										
9	Research, awareness and information exchange	Every two years										
4B	Licensing systems	Within 3 months of establishing the system										
MOP Decision VI/19	Reclamation facilities	Annually										
MOP Decisions IV/17A, X/7, X/11 and V/15	Regulations on the import and export of products and equipments containing Annexes A and B ODS and MB	As adopted										



Ozzy's Tip

Ensure that in the report on imports and exports you very clearly mention the name of the country and quantity imported or exported. This information is very useful for managing your national demand and supply situation which will affect your compliance position.

The data required by sector, to be reported to the Fund Secretariat, is more complicated than the data to be submitted to the Ozone Secretariat. You have to first carefully identify the sectors in your countries, which consume ODS. For example:

- The foam sector has many different sub-sectors such as polyurethane foams, phenolic foams etc.
- The refrigeration sector has many sub-sectors, such as domestic, commercial, industrial and transport refrigeration, heat pumps, air-conditioning, storage etc.
- The solvent applications are many, such as electronics, metal cleaning, dry cleaning, coating and inks.
- The fumigation by methyl bromide is in soils, durables, perishables, structures etc.

Where to get the information?

Before a NOO can submit its report to the appropriate authority, its officers must obviously collect data. Two documents will be helpful to learn all about reporting:

Handbook on Data Reporting under the Montreal Protocol

Handbook on Methyl Bromide Data Reporting under the Montreal Protocol

which are available on the OzonAction website <http://www.unep.fr/ozonaction/library/mmc/main.asp>

Sources of data

- Customs departments could give you figures if they keep track accurately and compile promptly. Some ODS may come in to your harbours or airports and leave your country without entering. Such ODS in transit need not be reported.
- A National Ozone Unit can estimate total ozone-depleting substances consumption in the refrigeration and air conditioning sector by estimating the quantity of ODS contained in each piece of equipment manufactured and by estimating the use for service.
- Survey of ODS users: If customs departments do not keep accurate data or compile it promptly, NOOs can survey users of ODS to get the data and then estimate the import of ODS.
- Collection of data from traders: Importers and exporters of ODS can provide data. The data provided by traders has to be treated with caution as ODS might be double counted or traders might deliberately provide inaccurate data in order to avoid taxes. Getting data from industry associations and supplier chain is another useful way of collecting data.



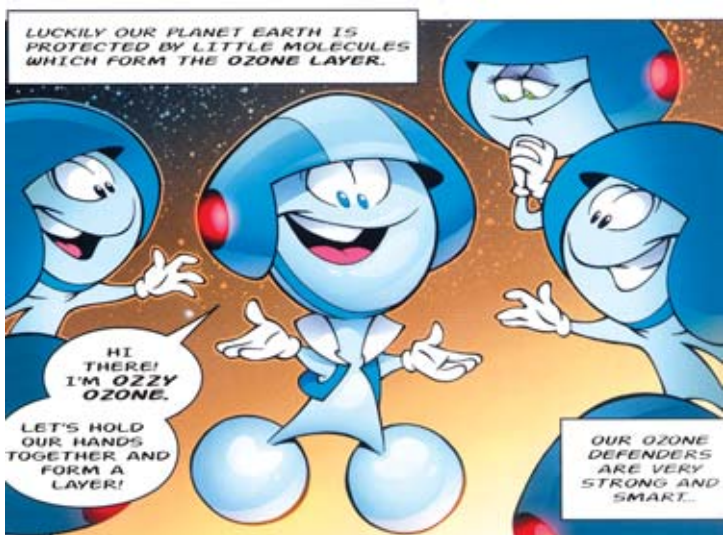
Ozzy's Tip

Hold meetings with customs and trade ministry and other key stakeholders regularly to collect credible and verifiable data for reporting.

5

FOCUS ON IMPORTANT IMPLEMENTATION ACTIONS

Alternative, affordable chemicals exist for all the ozone-damaging chemicals, and these substitutes don't harm the ozone layer.



Achieving phaseout of ODS is not something a NOU can possibly hope to achieve on its own. It must work with a network of other people with a vested interest in the issue. Together, all stakeholders in a country can adopt ozone-safe alternatives to ODS.

Phaseout implies that the use of ODS in the country is replaced with ozone-safe substances and processes. The challenge of transforming industry and community to ozone-safe alternatives lies in involving a number of stakeholders:

- Producers and importers of ODS.
- Manufacturers of equipment containing or made with ODS such as refrigeration and air-conditioning equipment and components, foams, electronics, halon based fire protection equipment etc.
- Farmers and fumigation companies using ODS for soil, structural or commodity fumigation.
- Many small enterprises using ODS for metal cleaning, textiles, etc.
- The technicians who install, service and decommission the equipment that relies on ODS such as refrigerators and air conditioners.
- Other departments of the government like the Trade and Industry Ministries, Customs, Police, Bureau of Standards, etc.
- The end users and general public.



Ozzy's Tip

When you have a new Minister, make sure you request time as soon as possible to give a short overview of the Montreal Protocol activities in your country, the economic implications of the phaseout, pending and forthcoming project proposals with the Multilateral Fund, and the operation of your National Ozone Unit. Keep the briefing short and snappy. Do this each time your Minister changes.

These stakeholders will have to know that they cannot use ODS in future, what alternatives are available, how to implement the alternatives and how to get the necessary financial and technical support. The consumers will have to learn how to maintain their ODS-based equipment once the chemicals are not available. They should be persuaded to henceforth buy only ODS-free equipment, services and products.

The NOO must establish a National Steering Committee (NSC) of stakeholders for the implementation of the Protocol. The Secretary of your Ministry could be the Chair of this Committee and you should be the Coordinator. This framework will mainstream ozone issues not only in the national environmental agenda but also make ozone issues an important component of the line Ministries. The following members can be included:

- Relevant Government Ministries
 - Attorney General's Offices and legal departments: key to vetting any new legislation
 - Ministry of Finance/Economics: key for getting any tax incentives or tariffs put in place to encourage use of alternatives
 - Ministry of Foreign Affairs: to assist in the ratification process and deposition of diplomatic instruments on behalf of the Country. In many countries they are still the focal points for the Ozone Secretariat
 - Ministry of Agriculture: for consistency in applying regulations for pesticide use especially as it relates to methyl bromide
 - Customs Department: for control of ODS trade and data collection, often a key sub-section of Finance Ministry in many countries
 - Defence: for Halon use and impact on national security issues
 - Department of Statistics: good for ensuring continued accuracy and back-checking of data and baselines



Ozzy's Tip

You should request your Minister to convene inter-ministerial meetings at least once a year to highlight issues of licensing system and illegal trade (Ministry of Commerce), role of Customs (Ministry of Finance), awareness (Ministry of Education), phaseout of Methyl Bromide (Ministry of Agriculture). This will ensure their "buy-in" in the national phaseout process.

- Industries and Industry Associations involved in phaseout: ODS producers, refrigeration, air conditioning, firefighting, metal cleaning, foams
- Technical experts on ODS alternatives, training, education
- Non-governmental organisations: experts in awareness, education and training and active in the field like farmer's schools and extension services
- Implementing Agencies including bilateral agencies could attend meetings as observers

Control measures

Even though there are 96 ODS with control measures, the immediate obligations relate to the production and consumption of 20 substances of Annexes A, B and E. It is the control measures due for implementation now that you need to concentrate on. These are by:

- 1 January 2005- 50% for CFCs and halons, 85% for CTC, 30% for methyl chloroform and 20% for methyl bromide
- 1 January 2007- 85% for CFCs
- 1 January 2010- 100% for CFCs, halons and CTC, 70% for methyl chloroform
- 1 January 2015, 100% for methyl chloroform and methyl bromide



Ozzy's Tip

It is the responsibility of the NOOs to convene meetings regularly in order to develop strategies, identify projects, and review implementation.

Role of the government

It is your government that ratifies the Protocol and is responsible for its implementation. The government has to:

- Prepare a CP for setting out a strategy and plan of action
- Design and implement the law and the financial measures to facilitate phaseout
- Coordinate the country activities for phaseout
- Consult with industry and other interested organisations on the steps to be taken for phaseout
- Present its point of view in the MOP and all the working groups and committees
- Coordinate the technical and financial support of the implementing agencies, the bilateral agencies and the Fund Secretariat
- Organise and present awareness and training programmes for the industry and public and
- Create a national system for monitoring and reporting on national production and consumption of ODS.

Role of the National Ozone Unit (NOU)

The NOU is the focal point in the government for implementation of the Protocol. It is responsible for initiating and sustaining all the roles of the government mentioned above. The NOU should be given a clear responsibility to carry out the day-to-day work in order to implement the activities of the Protocol. This responsibility requires that:

MANY SUBSTITUTES FOR THE SAME USE

CFC-12 finds its greatest application in the refrigeration and air-conditioning industry. Over the past few years, three substances have emerged as replacements for CFC-12 in domestic refrigerators and small capacity commercial refrigeration appliances.

HFC-134a has zero ozone depletion potential but a relatively high global warming potential. Although it is non-flammable, non-toxic, and matches the capacities and operating conditions of CFC-12, its use in refrigeration is not without a few problems: it is sensitive to contamination, does not mix with mineral oils used with CFCs, dissolves much more moisture, and is twice as expensive as CFC-12.

Isobutane (R-600a) is a hydrocarbon that is miscible with mineral oils, and the resulting mixture is also compatible with compressor materials. However, its low refrigerating capacity (about 60% of that of CFC-12) means that it requires new models with different displacement/motor combinations and so cannot be used for the conversion of existing CFC-12 or R-134a systems. Another issue with isobutane is that it is flammable.

A **blend of propane (R-290) and isobutene (R-600a)**, mixed in equal proportions by weight, has a refrigeration capacity similar to CFC-12 and operates at similar pressures. This blend of hydrocarbons, too, is fully miscible with mineral oil and compatible with compressor materials. HC blend is the refrigerant mostly used when retrofitting existing CFC-12 refrigerators.

More than one substitute is available for the same ODS and for the same application, yet none of them is without problems. Which substitute is best for a particular equipment is largely determined by the condition of that equipment, the amount of money available, and whether the user is willing to replace entire components or just the ODS.

- NOU is in contact with the decision-makers and enforcement agencies of the government
- The NOU be given enough resources, authority and continuity of officers
- Financial resources and equipment provided by the Multilateral Fund should be fully allocated to the NOU
- The NOU be supported by steering committees or advisory groups involving other stakeholders
- Annual work plans for the NOU are prepared and integrated in the authorities' internal planning processes
- National Ozone Officers persuade their government that the above are fulfilled

Alternatives to ODS

While collecting data and reporting on ODS is a key responsibility of the NOO, it also must provide ODS users with information about the alternatives available for almost all ODS applications. A number of them are itemised in Table 5.



OZZY'S TIP

Study the TEAP reports, available in the Ozone Secretariat website, for full details on alternatives.

In almost all Article 5 countries, refrigeration servicing is the most significant ODS consuming sector. In fact, in LVCs, almost 80% of consumption stems from refrigeration servicing. Phasing out this use will pose many challenges. NOOs should focus on:

- Switching immediately to alternatives in the manufacture of new equipment
- Servicing existing equipment with as little ODS as possible
- Recovering, reclaiming and recycling CFCs from all ODS-based equipment considered for disposal
- Using drop-in substitutes if they exist
- Retrofitting equipment for using alternatives

Halons

Halon replacements are available worldwide for most fire protection applications. For those few “critical uses” for which there are not yet any technologically or economically-viable options (e.g. in occupied spaces of airplanes), Article 5 and non-Article 5 Parties follow a strategy of “halon bank management” to meet their Montreal Protocol compliance targets. Under this approach, halons are recovered from decommissioned or non-critical fire protection systems, then recycled and stored in virtual or physical “halon banks”. These banked halons can then be used to meet the critical uses as required. Halon banks are the focal points for anyone interested in buying or selling “banked” halon. They can also provide information concerning their country’s national halon management strategies and halon alternatives (a Global Directory of Halon Banks is available from UNEP DTIE’s Online Halon Trader at www.halontrader.org).



Many fire extinguishers contain halons, which deplete the ozone layer.

HCFCs

Although HCFC are used as substitutes for ODS they also destroy the ozone layer. Under the terms of the Protocol, their consumption and production needs to be frozen in Article 5 countries by 2016 and phased out by 2040.

Table 5: Alternatives to ODS

Use	Alternative
Aerosol	Pumps, dry power inhalers, HCFCs, HFCs, hydrocarbons, inert gases
Automobile refrigeration	HFC-134a, carbon dioxide (under development)
Refrigeration	Hydrocarbons, HFC-134a, ammonia
Solvents	“No-clean” technology, halogenated solvents, HCFCs, alcohol, ketones
Foam	HCFCs, carbon dioxide, methylene chloride, hydro carbon
Fire fighting	ABC power, HFC/HCFC, carbon dioxide and water mist, recycled halons

Non-Article 5 countries are already replacing them, and the NOO of non-Article 5 Parties need to do the same. It will be useful to initiate a HCFC survey in your country on an urgent basis.



Methyl bromide is highly toxic and also harmful to the ozone layer, but its limited use in fumigation is still allowed.

HFCs

Another caution is regarding HFC-134a or other HFCs, which are ozone-safe. These are being used in a number of applications as substitutes for CFCs. However, the HFCs have high global warming potential and are in the basket of gases controlled by the Kyoto Protocol of the United Nations Framework Convention on Climate Change. In application where HFCs must be used, it is important to follow good servicing practices to avoid emissions. Some industrialised countries, particularly in Europe, now have regulations to minimise the use of HFCs. Hence Article 5 Parties need to assess the alternative technologies carefully in terms of all environmental health/safety, energy and cost implication when advising industries.

Methyl Bromide

Methyl Bromide is unique among the ODS because unlike other ODS it is directly poisonous for all life, water and environment in general—not just harmful to the ozone layer. Many countries have phased out its use for soil fumigation even before its ozone depletion potential was discovered. Controlled use of methyl bromide can be classified into three broad categories.

- **Soil fumigation** represents the largest global use consisting of 75% or more of total methyl bromide in Article 5 Parties.
- **Storage and structural fumigation** uses amount to 20 to 25% of total use of methyl bromide in Article 5 Parties.
- **Quarantine and Pre-shipment (QPS)** applications of methyl bromide (see Annex 5)

Table 6: Alternatives to Methyl Bromide

Usage	Alternatives
Soil fumigation (75%)	Floating tray systems, substrates, steam pasteurisation, biofumigation. Non-chemical and physical treatments such as solarisation, organic amendments, crop rotation/fallow, resistant varieties and grafting and Integrated Pest Management (IPM). Low-dose chemicals (chloropicrin, Dazomet, metham sodium, 1-3-D)
Storage and structural fumigation (25%)	Heat treatment
	Phosphine alone or in combination with carbon dioxide and Sulphuryl fluoride (mainly for wood) Good general management practices: prevention, monitoring, surveillance and control

6

SEEK ASSISTANCE WHEN NECESSARY

Countries of the world have made a legal commitment to phase-out using all main types of ozone-damaging chemicals through the Montreal Protocol. Industrialised countries have already met these targets, and developing countries have time till 2010.



OH-OH!

CFCs!

OZZY AND HIS FRIENDS
HAVE TO WATCH OUT
ALSO FOR A DANGER
COMING FROM EARTH...

The Multilateral Fund (MLF) provides assistance to countries through IAs and bilateral agencies for ODS phaseout projects. The Fund has been operating since 1991. It is replenished once in three years after an assessment of the needs by the MOPs. The Fund has been replenished four times after its initial capitalisation of US\$200 million for the period 1991-1993. The replenishments were for the following amounts:

1994-1996	US\$455 million
1997-1999	US\$466 million
2000-2002	US\$440 million
2003-2005	US\$474 million

The MOP in 2005 will decide on the replenishment for the years 2006-2008. The Fund's income so far is about US\$ 2 billion and about US\$ 1.9 billion has been disbursed to the IAs for phaseout projects in Article 5 countries.

139 Article 5 Parties have received financial assistance. 99 Article 5 Parties, with annual consumption level of 360 tonnes or below are classified as low-volume consuming countries (LVCs). The LVCs receive special, favourable treatment from the ExCom.

Thanks to this assistance, the consumption of ODS of Article 5 Parties decreased from about 277,000 ODP-tonnes in 1998, to about 182,000 ODP tonnes in 2004, a decrease of more than half.



Governments are committed to training enforcement officials like these in Sri Lanka for terminal phaseout.

INSTITUTIONAL STRENGTHENING (IS)

Even though IS has not been specifically included in the indicative list of incremental costs, the MLF has been financing the NOO according to a scale depending on the size of the country. It was felt that IS is the key to a national phaseout programme. The ExCom usually approves funds for a Party for IS for two years.

The NOO must incorporate the following information in its proposals for approval or renewal which must be submitted every two years:

- How the Implementation Schedule is integrated into the CP
- The role and position of the NOO within the national administration, including how much access it has to senior decision-makers
- Name and title of supervising government officer
- Evidence of cooperation with steering committees, advisory groups or inter-ministerial bodies and government entities that deal with import/export licensing and customs
- Sources of data on imports, exports, production and distribution by sector and methods of data collection
- Job description of the head of the National Ozone Unit (see Annex 9)

Further Support

The ExCom decided, in Decisions 30/7, 35/57 and 43/37 that:

- National Ozone Unit is given a clear mandate and access to decision makers and enforcement agencies,
- All institutional strengthening projects and renewals should be approved at a level that is 30% higher than the historically agreed level to help countries carry out the new strategic framework agreed
- In addition to this direct increase in institutional strengthening funding, UNEP will be provided with US\$200,000/year to support public awareness.
- Countries will receive enhanced direct support on policy and substantive issues through UNEP's new Compliance Assistance Programme
- The lower ranges of annual funding levels for institutional strengthening for the low volume consuming countries will be supplemented up to a threshold level of US\$30,000 per year



Ozzy's Tip

NOO must check when the Institutional Strengthening project is due for renewal. With the help of the IA implementing the IS, request your country's renewal on time so that your activities do not get delayed. Be sure to complete the required financial and progress reports.

The Country Programme (CP)

The CP lies at the core of each developing country's strategy for ODS phaseout. It is the means by which a country reviews production and consumption of ODS and defines a strategy and action plan for their elimination. Once the ExCom has approved a CP, it forms the basis for the preparation and submission of projects and activities. The government monitors the implementation of its own country programme, and updates the Committee on progress towards its goals. Any subsequent modifications also need to be approved by the Committee.

The CP includes current and forecast consumption of ODS including production, imports, exports, and uses including:

- The structure and ownership of the industries producing, importing and using ODS
- A description of the institutional framework governing controlled substances (government agencies, NGO's, consumer groups, industry associations)
- The policies for promoting phaseout
- The legislation and regulations for implementing the Protocol.
- The national lead agency and all the important organizations that will contribute to the implementation of the strategy (for example: government departments, industry associations, Implementing Agencies of the Fund)
- An estimate of the incremental costs to be incurred by government in implementing the Action Plan
- A budget and financing programme
- Monitoring arrangements



Ozzy's Tip

Your Country Programme is the blueprint for your national ODS phaseout strategy. Make sure these activities become part of national development priorities.

Over the last 15 years, the types of projects approved by the ExCom evolved significantly. Till the year 2000, the projects were for individual enterprises with a high cost-effectiveness to adopt ODS-friendly alternatives. Once the bigger enterprises were covered, the accent was on projects for all the remaining small enterprises in a sector. For LVCs, where most of the consumption was in the refrigeration and air conditioning sector, the emphasis was on Refrigerant Management Plans (RMP). These projects had firm guidelines and payments were for each project.

Strategic Planning by the Fund

Since the year 2000, the ExCom has emphasised the strategic approach with emphasis on compliance by all Article 5 Parties and not merely the maximum overall reduction of ODS. Terminal Phaseout Management Plans were approved for LVCs and National Performance-based Phaseout Plans for Non-LVCs. In these plans, the responsibility is on the Parties to agree to phaseout according to a schedule consistent with the Protocol. Payments from the Fund depend on the adherence to the agreement. The Parties and the implementing agencies have considerable flexibility in these plans to vary their methods depending on the situation in each country.

Terminal Phaseout Management Plans (TPMP)

The TPMP is a plan to phase out the remaining consumption of CFCs in LVCs. This consumption will almost entirely be in the refrigeration sector. Currently countries are in the last stages of phaseout ODS, with 85% reduction in CFCs due in 2007 and 100% in 2010. Hence it is advantageous to have plans approved for all the remaining ODS due to be phased out by 2010. The proposals should be presented in the form of a long-term strategy for the refrigeration sector. This will be considered by the ExCom if:

- The country concerned has a licensing system in operation and has legislation to phase-out ODS consumption
- The government concerned is committed to achieve, without further request for funding from the Multilateral Fund, the complete phase-out of CFCs in accordance with its obligation under the Montreal Protocol
- The government is committed to annual reporting of progress in implementing the activities proposed and meeting the reduction steps

The governments have considerable flexibility in spending the resources allocated under the TPMP if reduction targets are fulfilled. The main elements of these plans are:

- Establishment of refrigerant recovery, reclamation and recycling systems including economic incentives to make recycling viable,
- A licensing system to control imports and exports of ODS,
- A legislation to implement the Protocol, including a quota system for production and consumption,
- Training service technicians on good practices in refrigeration and in using alternatives including some drop-in substitutes,
- Training of customs officers and other enforcement officials on control and monitoring of CFC imports and exports and
- Public awareness campaigns

Policies that discourage deliberate emission of ODS, encourage recovery, and control imports of virgin CFCs are essential. Recovery and recycling of ODS could be made mandatory. A certification scheme linking supply of ODS with good servicing performance is crucial.

TERMINAL PHASEOUT

Decision 45/54 on TPMP taken in the 45th meeting of the Executive Committee decided:

- a) to urge bilateral and/or implementing agencies on behalf of low-volume consuming countries without an approved Terminal Phaseout Management Plan to submit TPMP proposals, on the understanding that:

- TPMP project proposals should be in conformity with all relevant decisions taken by the ExCom
- TPMP project proposals should contain, as a minimum, a commitment by the government concerned to the phased reduction and complete phase-out of the consumption of CFCs in the country according to a specific phaseout schedule which was at a minimum consistent with the Montreal Protocol's control measures
- No additional resources would be requested from the Multilateral Fund or bilateral and/or implementing agencies for activities related to phaseout of CFCs and other ODS where applicable
- The government concerned would have flexibility in utilising the resources available to address specific needs that might arise during project implementation to facilitate the smoothest possible phaseout of ODS
- Annual reporting on the implementation of the activities undertaken in the previous year, as well as a thorough and comprehensive work plan for the implementation of the following year's activities, would be mandatory, and
- The roles and responsibilities of the major national stakeholders, as well as the lead implementing agency and the cooperating agencies when applicable, must be defined



This workshop in Vietnam brings officials and technicians up to date on ozone-friendly refrigeration issues.

b) That additional funding of up to US\$30,000 could be requested for the preparation of a TPMP proposal on the understanding that up to US\$10,000 of this funding could be earmarked for the bilateral and/or implementing agencies to report on the implementation and impact of the approved recovery and recycling programme, where applicable, and that this report should be integrated within the resulting TPMP proposal

c) That future TPMP proposals for the post-2007 period might include requests for funding up to the levels indicated in the table below, on the understanding that individual project proposals would still need to demonstrate that the funding level was necessary to achieve complete phase-out of CFCs. Up to 20 per cent of approved funds should be used by the bilateral or implementing agency and/or country concerned to ensure comprehensive annual monitoring and reporting of the TPMP, including the recovery and recycling programme:

d) To require, on an annual basis, verification of a randomly selected sample of approved TPMPs for low-volume-consuming countries under implementation (i.e., 10 per cent of approved TPMPs). The costs associated with verification would be added to the relevant work programme of the lead implementing agency, and

e) To approve, on a case-by-case basis, up to US\$30,000 for the preparation of a transitional strategy for CFC-MDIs in low-volume-consuming countries where the need for a strategy had been fully demonstrated and documented.

CFC baseline

ODP tonnes	Funding level (US\$)
< 15	205,000
15 to 30	295,000
30 to 60	345,000
60 to 120	520,000
> 120	565,000

National Phaseout Plans (NPPs) for Non-LVCs

Unlike projects to phaseout in individual factories or sectors, these plans will cover the total remaining consumption of the concerned controlled substance (eg: halons, CFCs) in all its user sectors in the country. This plan will include:

- An action plan and a schedule of implementation
- A level of funding to be agreed with the ExCom and an annual disbursement schedule by the Multilateral Fund against annual national ODS reduction targets, and
- A national management structure to ensure achievement of the objective of the agreements.

The agreements would offer an alternative to the project-by-project submission and approval process. They would also provide an assurance of predictable funding over a period of time. It would offer the country concerned with a flexibility to use the agreed funds. Many Article 5 Parties have made this type of agreement to the phase-out of ODS in the production and other sectors. Consult your IA /CAP team for further details.

The Global Environment Facility (GEF)

When a CFC recovery and recycling programme is set up, HFCs from automobile air conditioners can also be recovered. HFCs are ozone-safe but have global warming potential and are controlled by the Kyoto Protocol of the Convention on Climate Change. The GEF funds projects in developing countries to manage climate change. The GEF, therefore, may share the cost of such joint recovery facilities can be examined together with the GEF Secretariat for eligibility. There are good examples of MLF and GEF jointly supporting demonstration chiller replacement projects.

The possibility of collaboration for leveraging additional financing, for example from the GEF, to fund the acquisition of machinery which could be used for recovery and recycling of both HFCs and CFCs can be examined.

MONITORING AND EVALUATION

Monitoring and evaluation (M&E) of Multilateral Fund financed projects and activities are an essential part of the Secretariat's work. The process not only ensures that the funds disbursed are actually being used to meet the project objectives but it is also a tool to assess the overall effectiveness of the Fund in phasing out ODS.

Monitoring: The Fund Secretariat has a responsibility for monitoring activities at different levels. It scrutinises data on performance of projects reported by the implementing and bilateral agencies. The Executive Committee oversees the monitoring activities carried out by the Secretariat. Standard progress reports are submitted by implementing agencies to the Executive Committee once a year. Projects which are experiencing delays and projects with financial balances are monitored more closely and are reported to each Executive Committee meeting.

Evaluation: The Executive Committee has prepared evaluation guidelines for completion of the various stages of the project. Project completion reports using standardised formats for different types of projects are collected from the Implementing Agencies, entered into a data base and summarised in a consolidated project completion report presented to the Executive Committee at the end of each year.



Evaluation mission of the ExCom evaluating project implementation at a site in Chiang Mai in Thailand.

The Committee approves the annual Monitoring and Evaluation work program that includes proposed evaluation studies as well as a budget for implementation. Evaluations are prepared by independent consultants under the coordination of the Senior Monitoring and Evaluation Officer. After being discussed by the Executive Committee, the evaluation reports are placed on the Secretariat's web site, www.multilateralfund.org.

GEF projects are evaluated by separate procedure through the Division of GEF offices of each Implementing Agency and reports are sent to the GEF Secretariat.

7

JUST DOING IT

The ozone layer will heal in about 50 years if no further ozone-damaging chemicals are released to the atmosphere. Meanwhile, we all need to cut down on time spent in the sun, or cover ourselves as much as possible when we have to work or play outdoors. Sunglasses, sun protection lotions and large hats can all help protect us from harmful ultraviolet rays.



The NOO will have to undertake a number of activities in order to meet the country's obligations to the Montreal Protocol. Most of these actions are defined in detail within the IS schedule of each country. These will include both capacity building activities and investment project implementation, and may broadly include the following

Capacity Building

- Awareness raising
- Training
- Policy and Enforcement

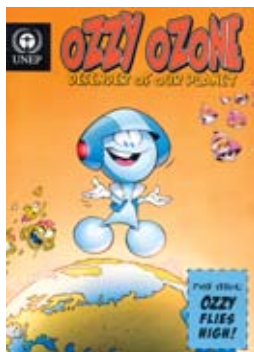
Investment projects

Any specific activity funded through the MLF that targets an enterprise to phase out a known amount of ODS is an investment activity. These projects will focus on the main ODS using sectors: refrigeration, foam, solvents, methyl bromide, etc.

Awareness includes "IEC": Information, Education and Communication. Without it, there will be no public pressure for specific action necessary to achieve compliance with the Protocol. The NOO must build awareness in order to support other ozone-protection activities like policymaking and investment and ensure that their achievements and inputs of time and money don't go waste.

Who are the targets?

- **Government officials.** Politicians and parliamentarians must be made to understand and support the Protocol, the Country Programme and the policies and measures needed to implement them.
- **Users.** ODS-consumers, small- and medium-sized enterprises, end-users and informal servicing sectors need to be informed about the implications of phase-out to their operations and to take the required steps to convert, recover and recycle ODS so that they can adapt and survive.
- **Public.** The public will need help in understanding the health effects of ozone depletion and how to protect themselves, that their country is a Party to the Protocol and what it is doing in that respect, and why ODS are being phased out. They must be made aware to buy ozone-safe products and service ODS-based equipment with substitutes.



Entertaining materials like the booklet *Ozzy Ozone* developed by UNEP DTIE help raise awareness in the public about the dangers to the ozone layer and what citizens can do to protect it.

How to spread the message?

The tried and tested techniques below have worked well for many NOOs include:

- Conducting awareness generation programmes for children, youth, teachers, women, and other groups
- Running workshops and seminars for government officials
- Publicising ozone-friendly offices after replacing their ODS-based equipment
- Holding workshops and seminars for industries.
- Awarding industries that excel at reducing ODS consumption at well-publicised ceremonies
- Organising exhibitions to showcase alternative technologies
- Encouraging industries to distribute souvenirs like pens, key chains, clocks, stationery, stickers, and bags with ozone-friendly messages
- Involving children in poster or banner competitions, essay and quiz competitions, and field activities like checking the level of ozone safety in shops
- Providing information using print media such as booklets and brochures as well as electronic media like the radio and TV
- Broadcasting messages from well-known people like ministers, reputed scientists, athletes, and film stars on the importance of protecting the ozone layer
- Holding exhibitions of books on ozone-related issues
- Encouraging journalists to write up selected information on ODS-related issues
- Celebrating Ozone Day on September 16

NOOs are urged to consult the OzonAction Information Clearinghouse for more ideas on wide array of materials: posters, videos, case studies, and newsletters. Any NOO is welcome to adapt, translate or reproduce materials developed by the OzonAction Programme.

What is the message?

- Causes, extent and impact of ozone depletion
- Need to phase out ODS
- Sectors which use ODS and alternatives to them
- Protocol timetable for phasing out ODS and adopting alternatives
- Technical and financial assistance available
- National institutions responsible for implementation



Ozzy's Tip

Read *Five Steps for Raising Awareness on Ozone Depletion, A Handbook for National Ozone Units* and *Global Communication Strategy for Compliance with the Montreal Protocol* published by UNEP OzonAction, www.unep.fr/ozonaction/library/.

Training

Training is an essential part of ensuring that partners in the phase out are fully equipped with the technical knowledge to push the process forward. The MLF provides funds for both refrigeration servicing technicians training and customs training, in the context of each country's projects.

Training Technicians

Training of technicians in the servicing sector and customs training are an essential part of management plan for refrigerants of all Article 5 Parties. Customs training is also a must for enforcing the licensing system and for curbing illegal trade.



Training of technicians like this workshop in Bangladesh are an essential part of management plan for refrigerants of all Article 5 Parties

- For LVCs, these are a part of the Refrigerant Management Plan
- For non-LVCs, training projects may be prepared in the framework of a national long-term strategy for the refrigeration sector
- UNEP is implementing a regional and sub regional customs training. It makes use of existing regional customs training facilities. In order to reach the large number of customs officers, the national customs training is through the "train the trainers" approach and is followed by training of customs officers by trainers
- A certification system to recognize the trained technicians through appropriate regulations or other policies will be useful
- Adequate monitoring systems should be developed to judge results of training activities. Charging participants' fees for training of technicians, as included in the German (GTZ) bilateral projects, in order to make training programmes sustainable could be tried
- National training handbooks should be produced as part of the training materials, taking into account previous training materials developed

Policy and Enforcement

Each country needs to ensure that there are concrete ODS policy and legislation in place to support the phase out activities. Policy development and review is an important activity that an NOO needs to perform, and he needs the support of partners to ensure that this sustains the phase out projects.



Ozzy's Tip

Refer to *Regulations to Control ODS: A Guidebook* published by UNEP OzonAction for the legislation in various countries. If your country doesn't yet have legislation you could obtain copies of legislation of countries similarly placed to yours from the UNEP Regional CAP office.

Licensing system

The 9th MOP in 1997 has, through the Montreal Amendment, made it mandatory for all the Parties to adopt a licensing system for import and export of ODS. The Article 5 Parties had to adopt this system before 2005. Already many of them have such a licensing legislation. If you do not have such a system, you can learn from other countries to establish it. The licensing system should include at least:

- Import, export and production of all ODS in bulk, and import of ODS-using equipment
- Ban on trade with non-Parties
- The licensing legislation should recognise illegal production, import and export of ODS as an offence punishable under national laws, with proper penalties. In several countries special penalties for breaking this legislation, more severe than those just resulting from customs law, have been implemented

NEIGHBOURHOOD WATCH

ODS phase-out activities in Nepal are linked to those in its southern neighbour, India. The existence of a long, open border between these two countries means that Nepal imports almost all of its ODS and other appliances from India, so the availability of these substances and alternative technologies in India decisively affect the choices made by consumers in Nepal. Incidentally, the open border also means that it becomes difficult for customs officials to keep track of ODS and ODS-using appliances entering Nepal, and that ODS can be illegally traded. Nepal finalized and adopted its Ozone regulations only in 2002. During this year, although CFC imports were reported at 94 ODP tonnes, 74 ODP tonnes of these were seized as illegal and are currently not being used but stored in Customs. Nepal has committed to not allow further CFC imports, and release only enough CFCs from this stock per year for its domestic use, not exceeding quantities that will put the country in non-compliance with the Montreal Protocol.



Nepal NOO inspects contraband ODS seized at the India-Nepal border.

- The licensing system should secure essential information to track transboundary shipments of ODS and support accurate national reporting on compliance.



Ozzy's Tip

Review your country's licensing system and make sure it includes all ODS. If you need assistance, contact the implementing agency responsible for your IS. Control ODS that has never been used in your country. Ban the import/production of any ODS that your country has never used/imported immediately to avoid any possible introduction.

NOOs must develop policies that promote phaseout. These could be a combination of:

- **Voluntary approach:** encouraging industries and consumers to reduce the consumption through education programmes, agreements and other initiatives
- **Market mechanisms:** marketable permits, tax on the ODS and the products made with ODS or waiver of the taxes on ODS substitutes or excise duties on import of ODS-free equipment

CREATIVE USE OF TAXES

The Republic of Korea, a revolving fund created by imposing a compulsory tax of 1.5-30 cents per kg of annex A and B substances produced and imported, had amassed US\$30 million by the end of 2002. The fund now provides loans to companies producing and/or using ODSs for research and development and building new facilities. This is expected to facilitate the earlier reduction and phase-out of CFCs and halons by developing new ozone friendly technologies and alternatives. The fund had already provided US\$ 30 million for various projects by the end of 2002.

Legislation

You must have legislation and regulations on the producers or users of ODS such as:

- Quota system: gradually limiting the quantities of imported / produced ODS
- Control of the end use: prohibit ODS use by certain dates in specified applications
- Sales ban on specific ODS



Ozzy's Tip

Read *Elements for Establishing Policies, Strategies and Institutional Framework for Ozone Layer Protection* published by UNEP OzonAction www.unep.fr/ozonaction/library/mmc/lib_detail.asp?r=4394

- Control of imported new or used products/equipment which contain, are made with or rely on, ODS
- Prohibit import or installation of new ODS equipment for certain applications on short notice.
- Control emissions of ODS refrigerants

GREEN CUSTOMS

Many agreements, mentioned above, have trade provisions. The cooperation of the customs authorities is necessary for the implementation of these agreements also. The Secretariats of these conventions also organise training of customs officers. The trainees and the training facilities are common to the agreements. Some of the Secretariats of these conventions also combine their resources and arrange the customs training together. UNEP has taken initiative to arrange such coordination. www.greencustoms.org

Curbing Illegal Trade

There is a lucrative trade in second-hand ODS-based equipment like refrigerators and air conditioners to Article 5 parties, especially Africa, at very cheap prices. Since the servicing of this equipment is not provided for in country RMPs, a black market has emerged to cover the resultant shortfall in ODS. Even countries with good licensing systems find that ODS is smuggled in cylinders labelled “empty” or “filled with HFC-134” or through unpoliced customs borders.

Strengthen Customs

The following measures will be useful to enable the Customs authorities to perform well:

- There is a harmonised customs coding system for all commodities introduced by the WCO. Most countries have adopted this system. Customs officers will be aware of this, but may not know that the WCO has recently given specific numbers for the ODS. You can get these codes from the Ozone Secretariat and inform the customs officers.
- Furnish customs offices with sufficient authority for intelligence, investigation, and detection equipment and support them through relevant training programmes
- Establish registers of traders in ODS to facilitate work of enforcement agencies
- Combine real-time data on imports with automatic alerts when goods cross the border
- Appoint special investigative agents and/or station environment officials at the country’s main entry points who can work together with customs officials



Ozzy’s Tip

Hold regular meetings with your Customs counterparts. Remember: Vigilance stops illegal ODS trade. Make them aware of any import bans for ODS or ODS containing equipment in your country, and share information on importers and exporters.

World Customs Organisation (WCO)

Besides taking in-country steps to curb illegal trade, the NOO should work with the WCO, which creates a legal basis for the international exchange of intelligence on customs offences. It uses several techniques to prevent illegal trade:

- Creating an active network with central contact points in member countries
- Sharing information and exchanging experiences
- Providing mutual support
- Exchanging information to promote cross-checking of data through Customs Enforcement Network of Regional Intelligence Liaison Office of WCO
- Conducting annual regional workshops

Prevent Dumping

As described above, Article 5 Parties are often the dumping ground for used ODS-based equipment. The 7th, 9th and 10th MOPs made these decisions:

- Each Party should adopt measures to regulate the import and export of products that rely on CFCs and other Annex A and B substances
- Non-Article 5 parties should adopt measures to control, in cooperation with Article 5 countries, the export of such products
- Article 5 countries which do not manufacture ODS-dependent products and equipment for domestic use and do not permit the importation of such products and equipment from any source should, on a voluntary basis, inform the Secretariat that they object to its importation
- The Secretariat will maintain a list of all Parties which do not want to receive such material and to distribute it to all Parties

Some Article 5 countries have already banned such import and informed the Ozone Secretariat, which publishes a list annually and posts it on its website. In addition, some non-Article 5 countries, especially those in the European Union, have banned exports. The NOO should inform the OS about its objection to dumping and its regulations on the subject.

Destroying ODS

The definition of “production” in Article 1 paragraph 5 allows ODS destroyed to be deducted from the total production. Beginning with the 4th MOP in 1992, the MOPs have approved a number of technologies for such destruction. No Party has claimed credit so far for destruction. A number of non-Article 5 countries have regulations to compel recovery of ODS from ODS equipment that is retired and is ready for destruction. There are also ODS stock piled before phase out or recovered and kept for future use (halon banks for example) which may not be necessary in future. These too may need destruction. While such destruction is good for the ozone layer, the control measures do not impose any obligation on a Party for destroying ODS.

Synergy

Just as the NOO is the focal point of the Montreal Protocol, other international environmental agreements also have focal points in the country. The NOO should foster joint action with these bodies in terms of awareness-building, information dissemination, training, data reporting and enforcement in order to save money and resources and increase effectiveness. Some of these agreements include:

- The Kyoto Protocol and the United Nations Framework Convention on Climate Change (UNFCCC)
- Stockholm Convention on Persistent Organic Pollutants (POPS)
- Rotterdam Convention on Prior Informed Consent (PIC)
- Convention on International Trade in Endangered Species (CITES)
- Basel Convention

Many of these agreements have provisions on trade and thus require the cooperation of customs authorities. The secretariats of some of the above conventions organise their own trainings of customs officials, but since the trainees and the training facilities are common to all, there are excellent opportunities to achieve synergies between training on different conventions through coordinated training/awareness raising efforts (See Green Customs box on page 64).



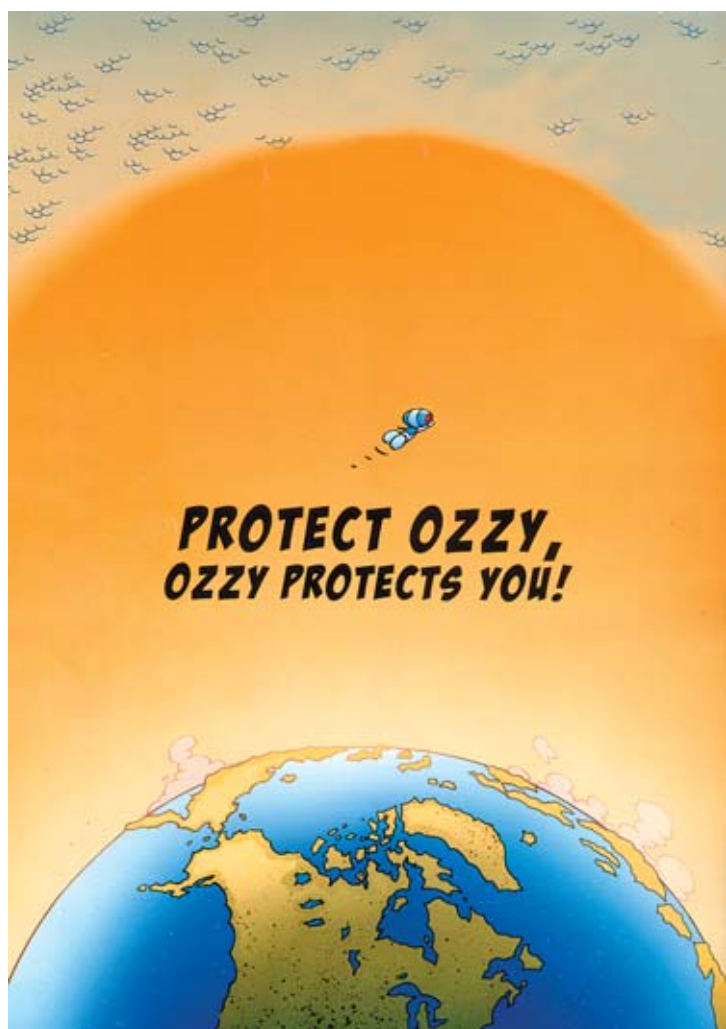
Ozzy's Tip

Establish contact with the focal point for climate change and other chemical conventions in your organization. When your colleagues who are the focal points for these conventions, go for meetings and various conventions, please arrange a meeting with them to share your experiences. They are also looking for experiences from the Montreal Protocol to kickstart similar activities for these conventions. Your Ozone Unit may be able to learn from them as well.

8

REMEMBER COMPLIANCE IS THE GOAL

The Montreal Protocol is succeeding, but it is not yet a final “success”: there is still much work left to do before this environmental treaty is “finished”.



**PROTECT OZZY,
OZZY PROTECTS YOU!**

Non-compliance Procedure

Article 8 of the Protocol specifies that the Parties should approve procedures and institutions for determining non-compliance by Parties and for treatment of Parties found to be in non-compliance. An interim procedure was first approved in 1990. It was finalised by the MOP in 1992 and was reviewed with minor changes in 1998. The procedure may be seen in Annex 2. The procedure does not specify what constitutes non-compliance with the Protocol, but this would have to be inferred from the provisions of the Protocol.

What is non-compliance?

Non-compliance is a situation where a Party fails to fulfill its commitments under the Montreal Protocol. The key situations of non-compliance could be:

- The consumption and/or production of controlled substances exceeds the allowed level as per the control measures laid down in the Protocol
- Data reporting to the OS is not done
- Trade of ODS with non-Parties
- Non-establishment of a licensing system following the ratification of the Montreal Amendment to the Protocol

Who could raise a non-compliance issue regarding a Party?

- One or more Parties who have reservations regarding another Party's compliance status under the Protocol may address those concerns in writing to the OS
- The OS places a periodical report analysing the data received from the Parties before the ImpCom. This report identifies the deviations by any Party from its commitments to the Protocol
- The Party itself could address in writing to the OS its inability to comply

Will the concerned Party be informed before its case is submitted to the ImpCom for consideration?

Yes. The Ozone Secretariat will contact the Party in question for clarification. The Party should be aware that its compliance status has been raised before the ImpCom.

Who will evaluate the compliance status of a Party?

The ImpCom under the MOP is the authorised body to evaluate the compliance status of a Party. The Party involved in a matter under consideration by the ImpCom may be invited to attend the meeting, but will not be allowed to take part in the adoption of recommendations to the MOP. The ImpCom meets at least twice a year. Recommendations of the Committee are submitted to the MOP for final decision. Only the MOP can decide the compliance or non-compliance status of a Party.

What are the consequences of non-compliance?

The MOP in 1992 finalised the “Indicative list of measures that might be taken by a meeting of the Parties in respect of non-compliance with the Protocol”, which includes:

- Appropriate assistance, including assistance for the collection and reporting of data, technical assistance, technology transfer and financial assistance, information transfer and training
- Issuing cautions
- Suspension, in accordance with the applicable rules of international law concerning the suspension of the operation of a treaty, of specific rights and privileges under the Protocol, whether or not subject to time limits, including those concerned with industrial rationalization, production, consumption, trade, transfer of technology, financial mechanism and institutional arrangements.

(Annex V of the report of the Fourth Meeting of the Parties, document UNEP/OzL.Pro.4/15, 1992)

Further responses to non-compliance are:

Response A: The assistance to Article 5 Parties is through the MLF, under Article 10 to meet all the agreed incremental costs of Article 5 Parties.

Response B: Cautions have been administered by MOP to non-compliant Parties in some cases, as elaborated later, when the ImpCom noted that the Parties in non-compliance have not put in adequate efforts. The cautions held a threat that they will be deprived of assistance or that Response C would be applied if they do not return to the path of compliance.



Ozzy's Tip

When your country is declared to be in non-compliance and has to draft a Plan of Action for consideration by the ImpCom, discuss and seek advice during Network meetings from countries that have already made such plans. Your colleagues from the Regional Networks can assist you with practical advice on what to do when in non-compliance. Do not hesitate to ask!

Response C: Suspension of rights and privileges, this provision has not been applied so far but the scope for the Article 5 Parties are:

- If a Party's rights under Article 4 are suspended, other Parties cannot trade in ODS with that Party. That Party cannot export products containing CFCs (air conditioners etc as detailed in Annex D of the Protocol) to Parties. Parties shall not facilitate transfer of ODS technologies or any other technology transfer.
- Article 5 Parties can be denied transfer of technology and financial assistance including for institutions.

Action by MOPs on non-compliance

Between 13th and 16th MOP (2001-04) 31 Article 5 Parties were subject to decisions deeming them to be in non-compliance with the control measures on the basis of data submitted.

Some Parties submitted a Plan of Action and the benchmarks to return to compliance. For these Parties, the MOP decided that to the degree that the Party is working towards and meeting specific Protocol control measures, it should continue to receive international assistance. They were also cautioned, in accordance with Response B above that if they fail to return to compliance in a timely manner, the Parties shall consider measures, consistent with Response C including ensuring that the supply of the ODS is stopped. The MOPs requested those that did not do so to submit their plan of action and benchmarks to return to compliance.

It may be noted that almost all the Parties that have not submitted a Plan of Action in the first instance have submitted their plan in the next year. Generally all these Parties complied with the directions of the MOPs. The excess of their consumption over their quotas were small. In no case was a punitive measure under response C applied to an Article 5 Party so far since the Parties are making a sincere effort to return to compliance and many succeeded.

THE DIFFERENCE ONE PROJECT MAKES

A country can go from non-compliance to compliance with just one project, as Bangladesh has shown. ACI Limited, a Bangladeshi insecticide company, was found to be the only unit in the country using a mixture of CFC-11 and CFC-12 as propellant gas for its products, accounting for more than 60 percent of the total ODS consumption in Bangladesh in 1999 (refrigeration and air conditioning service being the second largest



ODS user after ACI Limited). Recognising the enormity of the problem, the government in collaboration with UNDP implemented a project called Conversion of CFC-free technology in Manufacture of Aerosol products at ACI at a total cost of US\$ 562,258 with the Multilateral Fund contributing US\$ 322,920. Through the completion of the project in March 2002, Bangladesh succeeded in reducing its 2002 ODS consumption to half the 2001 value. Bangladesh

imports its quota of 580.4 metric tons of CFCs (permissible up to December 2004) mostly from India, China, and the UK. It is impressive to note that per capita consumption of ODS in the country dropped from 7.15 grams in 2001 to 3.63 grams in 2002.

What are the possible reasons behind non-compliance with control measures and what actions could a Party in non-compliance take?

● **Increase in consumption and/or production over the baseline**

The Party needs to develop and accelerate the implementation of investment projects. For LVCs if the increase occurs in the refrigeration servicing sector, the Party needs to develop/implement its RMP. The Party should also ban imports of second hand CFC-based refrigeration equipment and raising public awareness. Namibia, declared in non-compliance by Decision XIV/22 is a case in point where its entire consumption in servicing sector of 24 ODP tons in 2001, was more than its baseline for CFC of 22 ODP tons.

If the increase is due to new factories using ODS, the Party needs to control establishment of new ODS based manufacturing facilities through legislation and public awareness. Manufacturing facilities established after July 1995 are not eligible for funding. The Party should report back to the MOP if no other options to remedy the non-compliance situation could be identified.

● **Accidental importation of ODS for stockpile**

The case in point is Maldives, declared in non-compliance by Decision XIV/26. In 2001, it imported 14 ODP-tons of CFCs due to business reasons by the importer and exporter, while its baseline was 5 ODP tonnes. In such a case, the Party needs to enact the licensing system with quotas, and take practical measures to manage the system.

BUILDING CAPACITY IN AFGHANISTAN

Afghanistan is one of the latest Parties to the Montreal Protocol when it ratified the Protocol on 17 June 2004. The 43rd Executive Committee meeting of the MLF has approved US\$ 40,000 for setting up the ozone office and US\$60,000 for preparing the Country Programme/RMP for the country. Preparations are on for initiating the work on CP/NPP implementation. As part of UNEP's expedited assistance approach for new Parties the capacity building of the new ozone office has been initiated and two officers from Afghanistan attended a three day capacity building initiative organised by CAP in Islamabad where the NOU of Sri Lanka trained them on ozone issues and reporting requirements. As part of UNEP's expedited assistance approach, Japan facilitated the participation of the new Ozone Officers of Afghanistan and Bhutan in the JICA training in 2005. Afghanistan Customs and Director Environment



Volunteer school children in Afghanistan with blue ozone protection sashes celebrate International Ozone Day in Kabul.

attended the tripartite consultations on ODS trade control in Teheran on 17-18 August 2004. The Ozone team is working with UNEP and GTZ on the Afghanistan projects. The future activities are implementing the Country Programme and NPP for the country submitted to the 47th meeting of the ExCom in November 2005 and organising a stakeholder workshop in Kabul on ozone and chemical issues. UNEP is also managing the Institutional Strengthening Project of the country and will be assisting the ozone office in its activities relating to the Montreal Protocol.

- **Misreported A7 data to Ozone Secretariat**

Non-submission of data in time or incomplete data, mixing two different groups of controlled substances, or double counting could result in reporting of data in excess of the Party's annual permitted allowance under the Protocol. This could lead the MOP to declare a country in possible non-compliance (Decisions XIV/14 -16). In such cases, the Party should recalculate and submit its revised Article 7 data with detailed information. Early gathering of data gives Parties greater time to check the accuracy of data prior to submission.



Signatories to the Montreal Protocol have made a legal commitment to phase out ozone-depleting chemicals. Most ozone-friendly appliances are labelled 'CFC-free', like this spray.

- **Recent ratification of the Protocol**

Eighteen Parties have ratified the Protocol from the year 2000, that is after the control measures have entered into force. If a country has ratified very recently and has not taken assistance from the Multilateral Fund for a country study, it may not be able to report your data and that is non-compliance. In such a case, the NOO should write to the Fund Secretariat and an implementing agency and the CAP team of the region for assistance and advice. The contact addresses are given in Annex 7. Please write to the OS about the reason for not reporting and request it to place your letter before the next meeting of the ImpCom.

- **Country Programme in progress and not yet been completed.**

Data not reported

The NOO should consult CAP or another IA on how to expedite completion of the CP. The study requires full cooperation of the NOO and also that of other agencies in the country. The NOO should identify all relevant agencies in the country and form a national committee of such agencies with the NOO as a convenor. The NOO should convene meetings of this committee as often as necessary and make everyone feel that this is a national effort and not merely that of the NOO. For more details read the paragraph above on CPs. The NOO should inform the action taken to the ImpCom through the OS.

- **Country Programme completed but projects not formulated/ approved by the Executive Committee**

The NOO should cooperate with the implementing agencies to formulate and get approvals for the projects urgently and begin implementation. NOOs should not wait for the ImpCom to find the country in non-compliance. They should write to them through the IA through the OS on what is being done by the country and give them a realistic plan of action for returning to compliance. The Committee is very sympathetic to such cases. The NOO should remember to keep the promise about return to compliance.



Ozzy's Tip

Remember that the refrigerant identifiers are not designed for HFC/HCFC/Hydrocarbon blend refrigerants, such as blend of HCFC-22/HFC-152a. When such blend is being tested with identifiers, it would indicate the blend as contaminated refrigerants with R-12, 134a, HC, etc

• **Delays in implementation of projects**

The NOO should start a system of frequent meetings of the national committee with the IA for reviewing progress. Where are the bottlenecks? Are they in the government, if so, in which ministries? With the implementing agencies? At what level are the bottlenecks: the ministerial level? Sometimes it will be helpful if an Implementing Agency approaches the higher authorities along with the NOO. The NOO should not hesitate to ask an IA to help. Does the country have necessary regulations and licensing system in place and are they being enforced? Is the training of refrigeration technicians and customs officers going well? Has the country banned the imports of used CFC-containing equipment? Has it taken measures to curb illegal ODS trade? NOOs should inform the ImpCom of problems and suggest a plan of action for returning to compliance which could contain the following features:

- 1 Establishment of import quotas to reduce the imports at levels necessary to support the phaseout schedule
- 2 Year wise consumption benchmarks to conform to the Protocol phaseout schedules
- 3 Ban on imports of ODS or ODS-using equipment
- 4 Policy and regulatory instruments to ensure progress in achieving the phaseout
- 5 Assistance received from the IAs to collect reliable data
- 6 Work with IAs to identify alternatives to a particular ODS that is the subject of non-compliance

How can a Party avoid non-compliance?

A Party can avoid non-compliance with control measures under the Protocol by:

- Establishing a warning system to monitor and verify the compliance status by comparing the baseline data with the current year data and the expected data for next year
- Close monitoring of the on-going project implementation to avoid any delays
- Enacting and enforcing the national ozone layer protection policies/regulations as per Country Programme/RMP
- Conducting training and public awareness raising activities as appropriate

What assistance is available to a Party in non-compliance?

The MLF has been established to assist developing country Parties to comply with the control measures of the Protocol. If a country is in non-compliance or at risk of non-compliance, the MLF will, on priority, provide technical and financial assistance through its four Implementing Agencies: UNDP, UNEP, UNIDO and the World Bank. The NOO should contact any of the IAs or the Fund Secretariat.

What assistance could an IA provide to a Party in non-compliance?

- Technical assistance to analyze the reasons behind non-compliance and prepare a compliance plan of action jointly with the country
- Assist the country to seek financial



Raising awareness about illegal trade is critical in implementing the Montreal Protocol. This poster by Ranil Nalawansa of Sri Lanka was produced as part of the 2001 Regional Awareness-raising Project under the MLF.

assistance from the MLF, by developing technical assistance activities such as public awareness, policy setting and enforcement, customs and technicians training and developing investment projects to convert the production/manufacturing facilities or recovery and recycling of ODS

- Through the Compliance Assistance Programme, provide technical and policy advice to countries
- To work with the country more closely and get the delayed projects completed
- The Secretariat would provide guidance, consistent with the non-compliance procedure, on the process to get back to compliance.

What should the NOU do if their country is not in compliance?

Each Party can check its own compliance when it submits its data. It should also check if its data has been correctly recorded by the OS. If it is in non-compliance, it should analyse the reasons and arrive at solutions with the help of the IA as necessary. It should estimate how long it will take to implement the solutions to return to compliance and ask the implementing agencies for any assistance needed. If it is likely to take more than a year, it should arrive at a timetable for implementing the solutions and its likely reduction of consumption each year till it returns to compliance.

It should communicate the results of its analysis immediately to the ImpCom through the OS and request for approval of benchmarks for return to compliance, instead of waiting for the Committee and the MOP to find it in non-compliance. The MOPs are very sympathetic, provided the Party displays eagerness to return to compliance.

LAST BUT NOT THE LEAST

Being one of the few last countries to ratify the Montreal Protocol in August 2004, Bhutan immediately found itself in the midst of setting up an Ozone Unit, building its capacity, fulfilling reporting requirements, Country Programme preparation, the need to do ODS surveys and other commitments. The country realized that they would need to learn from experiences of other countries and also get help from neighbouring countries. They sought the help of the regional CAP team in Bangkok who responded immediately and developed and expedited assistance approach for Bhutan in collaboration with UNDP. This enabled Bhutan to complete its data survey in record time, complete its CP/RMP and get it approved by the ExCom in April 2005. Further, it was also able to



UNEP and UNDP officials briefing Bhutanese government in Thimpu in 2004 on the workplan for the newest member to the Protocol.

put in place a policy banning the imports of ODS and ODS- based equipment in February 2005. Their NOO was trained through a JICA-sponsored training project and also acquired hands on experience from the NOO of India. Bhutan's experience demonstrates that the concept of expedited assistance to new Parties works to bring them up to speed on Montreal Protocol issues at once. Bhutan has been successful in meeting all its obligations to the Montreal Protocol.

9

RESOURCES

The Montreal Protocol is an example of an international environmental treaty that works. It has many lessons that could be shared with other environmental issue areas.

These include: meaningful commitment by both developing and developed countries, avoiding problems by taking precautionary measures, and providing international support for national actions.

If a National Ozone Unit needs more knowledge on how to phaseout there are now many publications at its disposal. An indicative list is in Annex 8. These publications deal with every aspect of the phaseout. Handbooks about the Protocol, decisions of the Parties, decisions of the ExCom, reporting, sector-wise guides on alternatives to ODS, manuals on training and awareness, awareness posters, teaching materials, videos, case studies, newsletters such as OzonAction, periodical updates on the technologies and regulations and many more are available in hard copy as well as electronically through the many websites.



Ozzy's Tip

South-south cooperation: CAP is facilitating south-south cooperation for the ozone layer protection. Please contact your regional CAP team for such initiatives.

Priority reading

There are many international publications and reports you can read in hard copy or in the websites given in Annex 8 . The office of the NOO will have some of these, if not they can be printed from any of these websites or requested from the CAP team. In addition, the office will have many documents relating to the country's ratification of the Protocol/amendments and implementation.

Some of them will be very useful to you immediately:

- *Handbook on Data Reporting*
- *Handbook on Methyl Bromide Data Reporting*
- UNEP OzonAction's guides on CAP, Recovery and Recycling, Expedited Assistance, Institutional Strengthening, Country Programme formulation, RMP, Licensing system, Training and Compliance
- *Elements for establishing policies, strategies and institutional strengthening*
- Last two reports of the MOP, ImpCom and the ExCom



There is a wealth of reference materials and websites that National Ozone Officers can turn to for information, like this booklet examining South Asia's compliance with the Montreal Protocol.

Among the national documents, the first priority is to read the Country Programme, the projects approved for the country by the Multilateral Fund and the last data report sent by the country to the Ozone and Fund Secretariats.

The next priority is to read the *Handbook for the International Treaties for the Protection of the Ozone Layer* which gives details about the Convention and the Protocol and all the decisions taken by the MOPs. The *Policies, Procedures, Guidelines and Criteria* of the MLF is another important document. Meanwhile, the NOO can depend on IA and CAP officials to know the latest rules applicable to you.

Contacts

There are many experienced people around the world to help the NOO. Look around your own country first: present or past members of the NOU will have institutional memory about previous dealings. The national committee they established will include all stakeholders who will know a lot about their own sectors. International organisations like the Ozone and Fund Secretariats, the Implementing Agencies, the bilateral agencies active in the field, the OzonAction programme in Paris and the CAP team of your region are at the service of the NOO.



Ozzy's Tip

Other Ozone Officers are the best teachers. When you start working as a new ozone officer, request for the Regional Network Coordinator to organise training for you by an experienced ozone officer in the Region. You can request CAP missions with other Implementing Agencies to help you address specific problems your country is facing.

Contact them for help. The TEAP and the Technical Options Committees have members throughout the world. Some of them may be from the country or region and will know well about the problems of your region. The list of contacts of organizations is in contacts in Annex 7.

Websites

The websites of the OzonAction Programme and of the implementing and bilateral agencies and the Ozone and Fund Secretariats have a wealth of data about their publications, programmes and events and also have links to many useful websites of countries, industrial organisations and NGOs. The OzonAction website www.unep.fr/ozonaction links to the websites of all other implementing agencies, many industry associations, National Ozone Units, NGOs, equipment suppliers, secretariats and other international organisations and websites relating to government and policy, methyl bromide, science, research, UV monitoring, standards and meetings and conferences. The OzonAction website, in addition, has information about technologies, halon banks, trade names and many other issues. All useful websites are given in Annex 3.



Strategy sessions like this one in the Philippines brought together officials to implement a communications strategy for compliance with the Montreal Protocol.

The Protocol has many features to promote compliance. It has provided many institutions and experts to support implementation. Extensive libraries of relevant knowledge are at the disposal of the NOO. It has provided the necessary resources to the Multilateral Fund to support Article 5 Parties. There is no reason at all for the world to fail to reach its goal to protect the ozone layer. Even if there are obstacles, the Parties and their Implementation and Executive Committees are there to lend NOOs a helping hand. The planet depends on every signatory to the Montreal Protocol to succeed in the task of protecting the ozone layer.

10

ANNEXES

The benefits of the Montreal Protocol, including avoided cancers, cataracts and crop damage, exceed the cost of the investments in this issue by the international community.

ANNEX 1

Indicative List of Categories of Incremental Costs

The following list is indicative:

(a) Supply of substitutes

- (i) Cost of conversion of existing production facilities:
 - cost of patents and designs and incremental cost of royalties;
 - capital cost of conversion;
 - cost of retraining of personnel, as well as the cost of research to adapt technology to local circumstances;
- (ii) Costs arising from premature retirement or enforced idleness, taking into account any guidance of the Executive Committee on appropriate cutoff dates:
 - of productive capacity previously used to produce substances controlled by existing and/or amended or adjusted Protocol provisions; and
 - where such capacity is not replaced by converted or new capacity to produce alternatives;
- (iii) Cost of establishing new production facilities for substitutes of capacity equivalent to capacity lost when plants are converted or scrapped, including:
 - cost of patents and designs and incremental cost of royalties;
 - capital cost;
 - cost of training, as well as the cost of research to adapt technology to local circumstances;
- (iv) Net operational cost, including the cost of raw materials;
- (v) Cost of import of substitutes;

(b) Use in manufacturing as an intermediate good

- (i) Cost of conversion of existing equipment and product manufacturing facilities;
- (ii) Cost of patents and designs and incremental cost of royalties;
- (iii) Capital cost;
- (iv) Cost of retraining;
- (v) Cost of research and development;
- (vi) Operational cost, including the cost of raw materials except where otherwise provided for;

(c) End use

- (i) Cost of premature modification or replacement of user equipment;
- (ii) Cost of collection, management, recycling, and, if cost effective, destruction of ozone depleting substances;
- (iii) Cost of providing technical assistance to reduce consumption and unintended emission of ozone depleting substances.

(UNEP/OzL.Pro/2/3 Appendix I of Decision II/8, Para. 2).

(UNEP/OzL.Pro/4/15 Decision IV/18, Annex VIII).

1. If one or more Parties have reservations regarding another Party's implementation of its obligations under the Protocol, those concerns may be addressed in writing to the Secretariat. Such a submission shall be supported by corroborating information.
2. The Secretariat shall, within two weeks of its receiving a submission, send a copy of that submission to the Party whose implementation of a particular provision of the Protocol is at issue. Any reply and information in support thereof are to be submitted to the Secretariat and to the Parties involved within three months of the date of the dispatch or such longer period as the circumstances of any particular case may require. If the Secretariat has not received a reply from the Party three months after sending it the original submission, the Secretariat shall send a reminder to the Party that it has yet to provide its reply. The Secretariat shall, as soon as the reply and information from the Party are available, but not later than six months after receiving the submission, transmit the submission, the reply and the information, if any, provided by the Parties to the Implementation Committee referred to in paragraph 5, which shall consider the matter as soon as practicable.
3. Where the Secretariat, during the course of preparing its report, becomes aware of possible non-compliance by any Party with its obligations under the Protocol, it may request the Party concerned to furnish necessary information about the matter. If there is no response from the Party concerned within three months or such longer period as the circumstances of the matter may require or the matter is not resolved through administrative action or through diplomatic contacts, the Secretariat shall include the matter in its report to the Meeting of the Parties pursuant to Article 12 (c) of the Protocol and inform the Implementation Committee, which shall consider the matter as soon as practicable.
4. Where a Party concludes that, despite having made its best, bona fide efforts, it is unable to comply fully with its obligations under the Protocol, it may address to the Secretariat a submission in writing, explaining, in particular, the specific circumstances that it considers to be the cause of its non-compliance. The Secretariat shall transmit such submission to the Implementation Committee, which shall consider it as soon as practicable.
5. An Implementation Committee is hereby established. It shall consist of 10 Parties elected by the Meeting of the Parties for two years, based on equitable geographical distribution. Each Party so elected to the Committee shall be requested to notify the Secretariat, within two months of its election, of who is to represent it and shall endeavour to ensure that such representation remains throughout the entire term of office. Outgoing Parties may be re-elected for one immediate consecutive term. A Party that has completed a second consecutive two-year term as a Committee member shall be eligible for election again only after an absence of one year from the Committee. The Committee shall elect its own President and Vice-President. Each shall serve for one year at a time. The Vice-President shall, in addition, serve as the Rapporteur of the Committee.
6. The Implementation Committee shall, unless it decides otherwise, meet twice a year. The Secretariat shall arrange for and service its meetings.
7. The functions of the Implementation Committee shall be:
 - (a) To receive, consider and report on any submission in accordance with paragraphs 1, 2 and 4;
 - (b) To receive, consider and report on any information or observations forwarded by the Secretariat in connection with the preparation of the reports referred to in Article 12 (c) of the Protocol and on any other information received and forwarded by the Secretariat concerning compliance with the provisions of the Protocol;
 - (c) To request, where it considers necessary, through the Secretariat, further information on matters under its consideration;
 - (d) To identify the facts and possible causes relating to individual cases of

- non-compliance referred to the Committee, as best it can, and make appropriate recommendations to the Meeting of the Parties;
- (e) To undertake, upon the invitation of the Party concerned, information-gathering in the territory of that Party for fulfilling the functions of the Committee;
 - (f) To maintain, in particular for the purposes of drawing up its recommendations, an exchange of information with the Executive Committee of the Multilateral Fund related to the provision of financial and technical co-operation, including the transfer of technologies to Parties operating under Article 5, paragraph 1, of the Protocol.
8. The Implementation Committee shall consider the submissions, information and observations referred to in paragraph 7 with a view to securing an amicable solution of the matter on the basis of respect for the provisions of the Protocol.
 9. The Implementation Committee shall report to the Meeting of the Parties, including any recommendations it considers appropriate. The report shall be made available to the Parties not later than six weeks before their meeting. After receiving a report by the Committee the Parties may, taking into consideration the circumstances of the matter, decide upon and call for steps to bring about full compliance with the Protocol, including measures to assist the Parties' compliance with the Protocol, and to further the Protocol's objectives.
 10. Where a Party that is not a member of the Implementation Committee is identified in a submission under paragraph 1, or itself makes such a submission, it shall be entitled to participate in the consideration by the Committee of that submission.
 11. No Party, whether or not a member of the Implementation Committee, involved in a matter under consideration by the Implementation Committee, shall take part in the elaboration and adoption of recommendations on that matter to be included in the report of the Committee.
 12. The Parties involved in a matter referred to in paragraphs 1, 3 or 4 shall inform, through the Secretariat, the Meeting of the Parties of the results of proceedings taken under Article 11 of the Convention regarding possible non-compliance, about implementation of those results and about implementation of any decision of the Parties pursuant to paragraph 9.
 13. The Meeting of the Parties may, pending completion of proceedings initiated under Article 11 of the Convention, issue an interim call and/or recommendations.
 14. The Meeting of the Parties may request the Implementation Committee to make recommendations to assist the Meeting's consideration of matters of possible non-compliance.
 15. The members of the Implementation Committee and any Party involved in its deliberations shall protect the confidentiality of information they receive in confidence.
 16. The report, which shall not contain any information received in confidence, shall be made available to any person upon request. All information exchanged by or with the Committee that is related to any recommendation by the Committee to the Meeting of the Parties shall be made available by the Secretariat to any Party upon its request; that Party shall ensure the confidentiality of the information it has received in confidence."

The text can be viewed at:

<http://hq.unep.org/ozone/issues.shtml#NonComplianceProcedure>

Multilateral Fund Secretariat

www.multilateralfund.org

United Nations Development Programme

www.undp.org/seed/eap/montreal/

UNEP Ozone Secretariat

www.unep.org/ozone/index.shtml

UNEP DTIE OzonAction Branch

www.unep.fr/ozonaction

UNIDO's Montreal Protocol Branch

www.unido.org/doc/5072

World Bank's Montreal Protocol Unit

www.worldbank.org/montrealprotocol

World Bank's MPU Web Site for Latin America

www.wbln0018.worldbank.org/LAC/MontrealProtocol/cover.nsf/HomePage/HomePage?OpenDocument

World Meteorological Organization

www.wmo.ch/index-en.html

WMO Ozone Mapping Centre

www.lap.physics.auth.gr/ozonemaps

**Australian Government, Department of Environment and Heritage
on Ozone and Synthetic Greenhouse Gases**

www.deh.gov.au/atmosphere/ozone/index.html

Ministry of Environment of Japan

www.env.go.jp/en/topic/ozone.html

Swedish Agency for International Development Cooperation (Sida)

www.sida.org/Sida/jsp/polopoly.jsp?d=107

**United Kingdom Department of Environment, Food and Rural
Affairs**

www.defra.gov.uk

Stockholm Environment Institute

<http://www.sei.se/>

Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ)
www.gtz.de/proklima

Environment Canada (I)
www.ec.gc.ca/ozone/index.htm

Environment Canada's Ozone and Ultraviolet Research and Monitoring
www.exp-studies.tor.ec.gc.ca/e/ozone/ozone.htm/

European Commission Directorate-General for Environment Nuclear Safety and Civil Protection
www.europa.eu.int/comm/environment/ozone/index.htm

Korea Institute of Science and Technology Division of Environment and CFC Technology
www.kist.re.kr/en/index.asp

Miljøstyrelsen (Danish Environmental Protection Agency)
www.mst.dk/homepage/

U.S. Army Acquisition Pollution Prevention Support Office
www.aappso.com

US Department of Defense Defense Environmental Network & Information Exchange
www.denix.osd.mil
www.denix.osd.mil/denix/Public/News/DLA/Halon/hall1.html

USEPA Stratospheric Ozone Protection Homepage
www.epa.gov/ozone/

USEPA's Solvent Alternatives Guide
www.clean.rti.org/

American Society of Heating, Refrigerating and Air-Conditioning Engineers www.ashrae.org/

Mobile Air Conditioning Society Worldwide
www.macsw.org/

Polyurethane Foam Association
www.pfa.org/

USEPA's Solvent Alternatives
www./clean.rti.org/

USEPA Stratospheric Ozone Protection Homepage
www.epa.gov/ozone/

ANNEX 4

Form A

Revised country programme report format

Annex XIV

REVISED COUNTRY PROGRAMME REPORT FORMAT

YYYYYYYYYY

COUNTRY: XXXXXXXXXX

YEAR: January to December of the year

A. Data on Controlled Substances (in METRIC TONNES)

NOTE: Data entry is required in UNSHADED cells only

Substance ¹	Consumption by Sector										TOTAL	Import	Export	Production ²		
	Aerosol	Foam	Fire Fighting	Manufacture	Refrigeration	Servicing	Solvent	Process agent	MDI	Lab Use					Methyl bromide ³ Non-QPS	Toluene stuffing
Annex A, Group I																
CFC-11															0.00	
CFC-12															0.00	
CFC-113															0.00	
CFC-114															0.00	
CFC-115															0.00	
Sub-Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annex A, Group II																
Halon 1211															0.00	
Halon 1301															0.00	
Halon 2402															0.00	
Sub-Total			0.00												0.00	0.00
Annex B, Group I																
Carbon tetrachloride															0.00	
Sub-Total							0.00	0.00		0.00					0.00	0.00
Annex B, Group III																
Methyl chloroform															0.00	
Sub-Total							0.00	0.00		0.00					0.00	0.00
Annex C, Group I																
HCFC-22															0.00	
HCFC-141b															0.00	
HCFC-142b															0.00	
HCFC-123															0.00	
Other ⁴															0.00	
Sub-Total	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Annex E																
Methyl bromide															0.00	
Sub-Total										0.00					0.00	0.00
TOTAL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

¹ QPS = Quarantine and pre-shipment; Non-QPS = Non-quarantine and pre-shipment.
² Where the data involves a blend of two or more substances, the quantities of individual components of controlled substances must be indicated separately.
 e.g. - For R502 consisting of 51.2% CFC-115 and 48.8% HCFC-22, indicate the total quantity of each controlled substance (i.e., CFC-115 and HCFC-22) in the appropriate row.
³ Where applicable.
⁴ Indicate relevant controlled substances.

ANNEX 4**Form B****Regulatory, administrative and supportive actions**

TYPE OF ACTION/LEGISLATION	Ongoing (Yes/No)	Since when (Date)
1. REGULATIONS:		
1.1 <i>Establishing general guidelines to control import (production and export) of ODSs</i>		
1.1.1 ODS import/export licensing or permit system in place for import of bulk ODSs		
1.1.2 Regulatory procedures for ODS data collection and reporting in place		
1.1.3 Requiring permits for import or sale of bulk ODSs		
1.1.4 Quota system in place for import of ODSs		
1.2 <i>Banning import or sale of bulk quantities of:</i>		
1.2.1 CFCs		
1.2.2 Halons		
1.2.3 Other ODSs (CTC, TCA, methyl bromide)		
1.3 <i>Banning import or sale of:</i>		
1.3.1 Used domestic refrigerators or freezers using CFC		
1.3.2 MAC systems using CFC		
1.3.3 Air conditioners and chillers using CFC		
1.3.4 CFC-containing aerosols except for metered dose inhalers		
1.3.5 Use of CFC in prodcting of some or all types of foam		
1.4 Training and certification programmes		
1.4.1 Requiring training of customs officers		
1.4.2 Requiring training of refrigeration service technicians		
1.4.3 Requiring certification of refrigeration service technicians		
1.4.4 System for monitoring and evaluation of training programmes		
1.5 Recovery and recycling of CFCs		
1.5.1 Mandatory recovery and recycling of CFCs		
1.5.2 Monitoring system for reporting on recovered and recycled CFCs		
1.6 Other regulations (please specify)		
1.6.1		
1.6.2		
2 ENFORCEMENT OF ODS IMPORT CONTROLS		
2.1 Registration of ODS importer (Yes/No)		
2.2 A shared database on import quotas and actual imports between ozone office and customs(Yes/No)		
2.3 Number of instances of unauthorized ODS imports stopped		
2.4 Estimated quantity (in metric tonnes) and origin of unauthorized ODS imports (country)		

ANNEX 4**Form C****Quantitative assessment of the phaseout programme**

Description	Quantity/Unit
Import quotas/licenses issued (metric tonnes)	
CFC-11	
CFC-12	
CFC-113	
CFC-114	
CFC-115	
Halon 1211	
Halon 1301	
Carbon tetrachloride	
Methyl chloroform	
Methyl bromide	
HCFC-22	
HCFC-141b	
Export quotas/licenses issued (metric tonnes)	
CFC-11	
CFC-12	
CFC-113	
CFC-114	
CFC-115	
Halon 1211	
Halon1301	
carbon tetrachloride	
Methyl chloroform	
Methyl bromide	
HCFC-22	
HCFC-141b	
Average estimated retail price of ODS/substitutes (US\$/kg)	
CFC-11	
CFC-12	
CFC-113	
CFC-114	
CFC-115	
R-502	
HCFC-22	
HFC-134a (Optional)	
Training programmes	
Number of trainers for customs	
Number of customs officers trained	
Number of trainers for technicians	
Number of technicians trained	
Number of technicians certified	
Recovery/recycling/reused (metric tonnes where applicable)	
Estimated CFC-11 recovered with equipment funded by Multilateral Fund	
Estimated CFC-11 reused with equipment funded by Multilateral Fund	
Estimated CFC-12 recovered with equipment funded by Multilateral Fund	
Estimated CFC-12 reused with equipment funded by Multilateral Fund	
Number of funded recovery machines in operation	
Number of funded recycling machines in operation	
Number of funded end-users converted	
Number of funded end-users retrofitted	

ANNEX 4

Form D

Quantitative assessment of the operation of RMP

1. Is the RMP and its components (recovery and recycling programmes, training of technicians and customs, and legislation) proceeding as scheduled:
 Yes
 No
if not please specify milestones and completion dates with delays, and explain reasons for the delay and measures taken to overcome the problems:

2. The ODS import licensing scheme functions:
 Very well
 Satisfactorily
 Not so well
 Please specify problems encountered:

3. The CFC recovery and recycling programme functions:
 Very well
 Satisfactorily
 Not so well
 Please specify problems encountered:

4. The RMP will enable the Government to achieve:
the 50% CFC reduction target in 2005
the 85% CFC reduction target in 2007
the complete phase-out of CFC in 2010

5. Additional measures that are needed and planned to assist in the implementation of the RMP and to achieve compliance:

E. Comment by bilateral/implementing agency(ies)

ANNEX 5

Methyl Bromide FAQs and QPS Logic Diagram

Why QPS?

The methyl bromide (MB) used for quarantine and pre-shipment applications is completely exempted from control measures. Many perishable and durable commodities in trade and storage can be attacked by pests, including insects, mites and fungi, causing loss of quality and value. These commodities may also carry pests and diseases that can be a threat to agriculture, health or the environment. There are a wide variety of measures that can be taken to manage these pests so that the damage they cause or risk that they pose is acceptable. Fumigation with MB is one such measure.

Some countries export a lot of their perishable commodities (flowers, fruits, vegetables etc). These are typically kept cool after harvest in order to minimise decay. They have to be sold fast, as their shelf life is often only a few days to several weeks, therefore rapid-acting treatments such as methyl bromide are often very important. Durable commodities such as grain and rice are kept protected as much as possible from insects and rats in silos and do not require such rapid treatments. Some examples of valid QPS uses include:

- Fumigation of cut flowers found to be infested on arrival in the importing country with quarantine pests (quarantine treatment)
- Fumigation of fruit before export to meet the official phytosanitary requirements of the importing country for mandatory fumigation of an officially-listed quarantine pest (quarantine treatment)
- Fumigation of grain before export to meet the importing country's existing import regulations that require fumigation of all export grain consignments (pre-shipment treatment)

What are quarantine applications of methyl bromide?

In general, MB used for quarantine treatments is for control of quarantine pests that are defined in a list available with the International Plant Protection Convention (IPPC). The treatment is officially authorised by a competent authority (eg: health and quarantine authorities of either importing or exporting country) and not by a commercial organisation (eg: private fumigators) and can be carried out before shipment or on arrival. This is defined officially as a quarantine treatment under Decision VII/5 of the seventh MOP. This definition also includes quarantine treatments for commodities being moved interstate or regionally within one country.

What are pre-shipment applications of methyl bromide?

Pre-shipment applications are those treatments done for products exported within 21 days after treatment, either to meet the official phytosanitary or sanitary requirements of either the exporting or the importing country. These are officially defined in Decisions VII/5 and Decision XI/12 of the MOP.

How are “official requirements” defined under the Montreal Protocol?

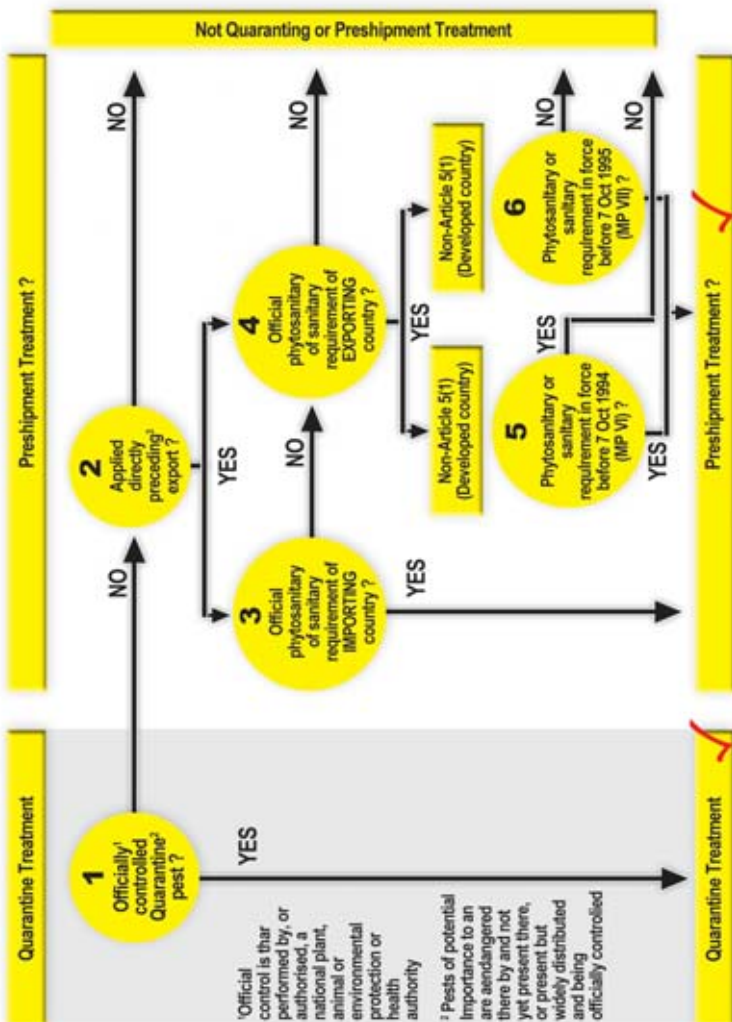
Official requirements under the Protocol always refer to a national governmental authority that controls plant, animal, environmental or health standards. In most countries, these are the plant and quarantine offices within the ministries of

agriculture. Official requirements are different from contractual requirements. Contractual fumigation is that which is requested by the importing or exporting company in order to ensure a shipment free of pests. The use of MB in this application is not exempt under the Montreal Protocol, and thus needs to be phased out. Fumigation that is officially required is that which is specified by the official phyto-sanitary or sanitary requirements of either the importing or exporting country.

How do I report requirements for Article 5 Parties for Quarantine and Pre-shipment use?

Article 5 countries are required under Article 7 of the Montreal Protocol to report the volume imported for QPS applications. This amount will be deducted from the total imports reported minus the volume exported, to calculate the non-QPS volume of MB which needs to be phased out. Submission of inaccurate data for QPS could result in wrong calculations for a country's consumption, and could eventually put a country in potential non-compliance. The diagram in the next page, taken from the report of TEAP in 1999, offers guidance on how to identify acceptable QPS uses.

QPS Logic Diagram to assist in deciding whether a treatment should be categorized as a 'quarantine' treatment, 'pre-shipment' treatment or neither.



ANNEX 6

Institutional Strengthening

REPORTING REQUIREMENTS AND CONDITIONS OF PAYMENT UNDER Memoranda Of Understandings FOR IS PROJECTS WITH UNEP

Annual report on Article 7 data

- Reporting of consumption and production data to the Ozone Secretariat as per reporting requirements of Article 7 of the Protocol by 30 September (if possible by 30 June) each year for the previous year data. A copy is to be provided to UNEP.¹ Before 30 September (if possible by 30 June) each year for the previous year

Annual report on CP implementation

- Reporting of progress on Country Programme implementation to the Multilateral Fund Secretariat by 1 May each year for the previous year, as per Decision 13/193 of the Executive Committee. A copy is to be provided to UNEP.² Before 1 May each year for the previous year
- Reports on measures taken and problems encountered shall be reported to the Secretariat of the Multilateral Fund and/or UNEP as and when required by the Executive Committee.

Conditions for first payment of 40%

- Signature of MOU
- All reports required for previous IS Phase (if applicable) except the terminal report and final expenditure statement – they are required for the request of second payment
- All funds of the previous IS Phase (if applicable) must have been advanced and the cash on hand for which the Government has not yet reported expenditures must not exceed US\$ XXX (to be determined on a case by case basis). Upon signature of MOU i.e. when all funds for the previous IS Phase have been advanced

Conditions for second payment of 40%

- First payment released
- Submission of a satisfactory interim progress & financial report to UNEP following the format of the terminal report for IS projects covering the period from completion of the previous IS Phase until the date of preparation of the report. Subsequent progress or terminal reports only require up-dating.²
- Submission of terminal report and final expenditure statement of the previous IS Phase (if applicable).
- At least 80% of the first payment must have been expended as per the interim progress & financial report. Upon request of second payment i.e. when 80% of the first payment have been disbursed

Conditions for final payment of 20%

- Second payment released
- Submission of a satisfactory interim progress & financial report to UNEP following the format of the terminal report for IS projects covering the period from completion of the previous IS Phase until the date of preparation of the report. Subsequent progress or terminal reports only require up-dating.²
- 100% of the first payment and at least 80% of the second payment must have been expended as per the interim progress & financial report.
- If possible, the request of final payment should be accompanied by the action plan for the subsequent IS Phase, which would allow UNEP to initiate the request of IS renewal as part of its Work Programme. Upon request of final payment i.e. when 80% of the second payment have been disbursed.

Request of IS renewal

- Submission of an interim progress & financial report to UNEP following the format of the terminal report for IS projects covering the period from completion of the previous IS Phase until the date of preparation of the report. If possible, the request of IS renewal should be done together with the request of final payment in order to reduce reporting.²
- Submission of an action plan for the subsequent IS Phase to UNEP.² Upon request of final payment i.e. when 80% of the second payment have been disbursed.

Completion of current IS Phase

- Submission of the terminal report (up-dated interim progress & financial report) to UNEP for the entire reporting period from completion of the previous IS Phase until completion of the current IS Phase. This report will be a prerequisite for disbursement of the second payment under a subsequent IS Phase.²
- Submission of the final expenditure statement to UNEP as per Annex II. The expenditure statement must be duly signed by a high-level Government Representative as well as an authorized Finance Officer and have an official letterhead and Government stamp. This report will be a prerequisite for disbursement of the second payment under a subsequent IS Phase.
- Submission of an inventory of non-expendable equipment to UNEP as per Annex IV. Items purchased under the IS project with a value of US\$ 1,500 and above and items of attraction such as pocket calculators, memory sticks, cameras etc. with a value of US\$ 500 and above should be included in the inventory. Not later than 1 month after project completion

Conditions for first payment of subsequent IS Phase

- Signature of MOU for subsequent IS Phase
- All reports required for previous IS Phase (if applicable) except the terminal report and final expenditure statement – they are required for the request of second payment
- All funds of the previous IS Phase (if applicable) must have been advanced and the cash on hand for which the Government has not yet reported expenditures must not exceed US\$ XXX (to be determined on a case by case basis). Upon signature of MOU for subsequent IS Phase i.e. when all funds for the previous IS Phase have been advanced

Conditions for second payment of subsequent IS Phase

- First payment for subsequent IS Phase released
- Submission of a satisfactory interim progress & financial report to UNEP following the format of the terminal report for IS projects covering the period from completion of the previous IS Phase until the date of preparation of the report. Subsequent progress or terminal reports only require up-dating.²
- Submission of terminal report and final expenditure statement of the previous IS Phase (if applicable).
- At least 80% of the first payment must have been expended as per the interim progress & financial report. Upon request of second payment of subsequent IS Phase i.e. when 80% of the first payment of the subsequent IS Phase have been disbursed

¹ The electronic reporting format is available in English, French and Spanish from the website of the Ozone Secretariat under: http://hq.unep.org/ozone/Information_for_the_Parties/index.asp

² The electronic reporting format is available in English, French and Spanish from the website of the Multilateral Fund Secretariat under: www.multilateralfund.org/countryprogramme.htm

ANNEX 7

Contacts

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Only some publications are listed below as it is not possible to list all. There are references to more than 4,000 ozone protection publications and materials on the OzonAction website alone. A complete list can be seen in the websites of these organisations. More are available in the websites of agencies.

1. General**Ozone Secretariat**

Handbook for International Ozone Treaties

6th edition (2003)

English, Chinese, and Spanish

Overview of the Montreal Protocol Progress

Status of ratification of the Convention and the Protocol and list of Article 5 Parties (regularly updated)

Protecting the Ozone Layer: The United Nations History by Stephen. O. Andersen and K. Madhava Sarma; published by UNEP in 2002 through EarthScan London

UNDP

Montreal Protocol: Protecting the Ozone Layer Choices Supplement - Mobilizing Action for Sustainable Development: Global Partnerships for the 21st Century, August 2002.

Montreal Protocol Unit Brochure October 2003

Pioneering the Low Carbon Future... Sustaining Livelihoods Experiences from GEF-UNDP Projects in Climate Change and Ozone Depletion August 2002.

UNIDO

10 Years of UNIDO in the Montreal Protocol

World Bank

The Multilateral Fund for the Implementation of the Montreal Protocol Case Study for an Independent Evaluation of the World Bank's Approach to Global Programs, 2004

Montreal Protocol: Successful Partnerships for Ozone Protection The Case of China (Part One), 2004

Montreal Protocol: Successful Partnerships for Ozone Protection The Case of China (Part Two), 2004

World Bank Montreal Protocol Status Report: The World Bank and the Montreal Protocol Reducing Health Risks by Restoring the Ozone Layer, 2003

2. Reporting**Ozone Secretariat**

Handbook on Critical Use Nominations for Methyl bromide (2003)

Handbook on Essential Use Nominations

Production and Consumption of ODS by the Parties 1986-2002 (annually updated)

UNEP OzonAction

Handbook on Data Reporting

Handbook on Methyl Bromide Data Reporting

3. Alternatives to ODS**Ozone Secretariat**

TEAP/TOC Reports

Ozone-Safe Products

Saving the Ozone Layer-Guidelines for UN offices

UNEP DTIE

Sector technology guides on Aerosols, Foams, Halons, Methyl bromide, Multiple sectors, Refrigeration

UNIDO

Refrigeration and alternative technologies for domestic appliances

Refrigerant Management Plans

Plastic Foams

Solvents and aerosols

Fumigants

World Bank

The Bank has a committee of experts called Ozone Operations Resource Group. The reports of the OORG on Foams, Mobile Air conditioning, Production and Refrigeration are available.

4. Multilateral Fund Programmes

Fund Secretariat

Reports of the Executive Committee Meetings

Policies, Procedures, Guidelines and criteria of the Multilateral Fund (updated from time to time)

UNEP DTIE

- Fact Sheets on CAP, recovery and recycling and Expedited assistance
 - Fact Sheet 1 – Lessons Learned: Implementation of R & R Projects in the Refrigeration and Air Conditioning Sector
 - Fact Sheet 2 – Steps in Preventing Illegal Trade of ODS
 - Fact Sheet 3 – Frequently Asked Questions About the Non-Compliance Issue Under the Montreal Protocol
 - Fact Sheet 4 – Frequently Asked Questions: Quarantine and Pre-shipment (QPS) Definitions
 - Fact Sheet 5 – Guidelines for Developing Compliance Action Plans for the Implementation Committee
 - Fact Sheet 6 – Model Forms for Licensing
 - Fact Sheet 7 – Model Chart for Coordination Among National Agencies for Implementation of Montreal Protocol
 - Fact Sheet 8 – Guidance for New Parties to Meet their Obligations in Expedited Manner
 - Fact Sheet 9 – Decisions on Methyl Bromide from the 16th Meeting of the Parties to the Montreal Protocol
 - Fact Sheet 10 – Carbon Tetrachloride (CCl₄): Exemption for Laboratory and Analytical Uses
 - Fact Sheet 11 – Necessary Steps and Issues to Address During Conviction Trials of Illegal ODS Trade
 - Fact Sheet 12 – Issues Related with Transition Out of CFC Chillers
 - Fact Sheet 13 – Retrofit of CFCs based Refrigeration & Air Conditioning Equipment: Some Issues
 - Fact Sheet 14 – Alternatives to Methyl Bromide Use in Quarantine and Pre-shipment (QPS) Application (this Fact Sheet was developed in partnership with UNIDO)
- Country Programme Formulation Guideline
- Institutional Strengthening Projects Guideline
- Information Relating to the Multilateral Fund and the Executive Committee
- Refrigerant Management Plan Guidelines
- Training Guidelines
- Reports of Regional Network Meetings

UNDP

UNDP Partnerships: Methyl Bromide Phase-out Progress in Article 5 Countries
Update October 2003

5. Supporting Activities**Ozone Secretariat**

Animation film on ozone protection, e-cards, public awareness posters, UNGA resolution designating 16 September as Ozone Day. Ozone Story in cartoons, Public information on frequently asked questions, press releases, Ozone Day celebrations, Awards and historical documents

UNEP DTIE

- Newsletters, Press releases, Visual Inventory of Awareness Materials, Many videos and audios
- Theme guides on Awareness, Customs, Policy, and Training
- *A Handbook of Policy Setting at the National Level*
- *Elements for Establishing Policies, Strategies and Institutional Framework for Ozone Layer Protection*
- Training manual for customs officers, many training workshop reports
- Fact sheets by the CAP on illegal trade, coordination and Licensing system

UNDP

MPU Poster

MPU Bookmark

6. Compliance**Ozone Secretariat**

Reports of the Implementation Committee

UNEP DTIE

Fact Sheet on non-compliance

Analysis of CFC Consumption and Production Trends in Developing Countries

Stockholm Environment Institute

Interlinked activities: A Handbook for Improved effectiveness of ODS phase-out in the Refrigeration Servicing Sector

ANNEX 9

Generic Terms of Reference for NOOs

Position: A sufficiently high level officer with the overall responsibilities for supervising the work of the National Ozone Unit: The NOO is required to be a high-level officer with the overall responsibility for supervising the work of the National Ozone Unit and ensuring that action taken is adequate to meet and sustain national commitments under the Montreal Protocol. The main responsibilities of the NOO include but are not limited to the following:

- 1 Implement, monitor and report on the Montreal Protocol compliance status including:
 - Manage the Institutional Strengthening Project of the Multilateral Fund
 - Manage compliance status (sustain, exceed, return...)
 - Mainstream the provisions of the MP into national laws
 - Provide policy guidance to national stakeholders in the implementation of the Montreal Protocol
 - Prepare or update Country Programme and Strategies
 - Establish a reliable and sustainable system to collect, analyze, monitor and report data on imports and exports of ODS
 - Timely reporting to the MLF and OS
 - Ensure/coordinate the establishment, implementation and enforcement of Legislation and licensing systems for import and export of ODS (and ODS based technologies)
 - Manage the Ratification of amendments to the Montreal Protocol and the implementation of the decision of each Amendment
 - Manage resources and project deliverables and reporting requirement (personnel, financial and equipment) provided to the Government through the Montreal Protocol Multilateral Fund and in coordination with the respective Implementing Agency of the Multilateral Fund.
- 2 Represent country at national, regional and international meetings of the MP
 - Keep abreast with the decisions of the Meetings of the MOP, MLF (Ex. Com.) etc.
 - Mainstream the decisions arising from the national, regional and international meetings into the Country Programme.
 - Coordinate the National Montreal Protocol Stakeholder committee including the implementation of the decisions adopted by the National Stakeholder committee.
 - Advises national stakeholders on the MP requirements (this often also requires the training and capacity building of the other national stakeholders).
- 3 Prepare and manage NOO work plans/projects (for the NOO unit, division, agency, government, international Implementing Agencies etc.)
- 4 Prepare and manage the dissemination of public education and awareness activities
- 5 Be proactive in emerging challenges both nationally and internationally for example
 - The next reduction schedule of a Group of ODS or plan for the first reduction control
 - New decisions of the MOP
 - Address illegal trade in ODS and ODS containing technologies
- 6 Visioning. Montreal Protocol is one of the first MEAs to have reached the stage of compliance. The successes of the NOO will set the platform for other MEAs with similar global objectives

Minimal Qualification of a NOO

1. At least a first degree in an applied science
2. Project management skills
3. Team player
4. Ability to manage technical staff
5. Ability to work and produce results amongst diverse stakeholders and interest groups both nationally and internationally
6. Results driven and orientated and having leadership and visioning skills
7. Working experience prior working experience in the field of Environment, Government Policy Formulation and implementation and Project Management is desirable Computer literate

¹ Of course the NOO will first have to understand what are the provisions of the MP.

ANNEX 10

Glossary of Terms and Abbreviations

Annex A substances: contains two Groups of controlled substances, five CFCs (Group I) and three halons (Group II).

Annex B substances: contains three Groups of controlled substances, 10 other CFCs (Group I), carbon tetrachloride (Group II) and methyl chloroform (Group III).

Annex C substances: contains three groups of controlled substances, 34 HCFCs (Group I), 34 HBFCs (Group II) and Bromochloromethane (Group III).

Annex E substance: one (group of) controlled substance, methyl bromide (Group I).

Article 5 Parties: Developing countries which have ratified the Montreal Protocol and have a consumption of Annex A substances of less than 0.3 kg/capita and Annex B substances of less than 0.2 kg/capita per annum operate under Article 5 of the Protocol.

Baseline Data:

In addition to annual data, each Party must submit data (or best estimates) on controlled substances for specified base years to establish the baseline of controls of the different groups of controlled substances for Article 5 and Non-Article 5 Parties

Bilateral Agencies:

The Non-Article 5 Parties are allowed to spend up to 20% of their contributions due to the Multilateral Fund in Article 5 Parties bilaterally for the programmes approved by the Executive Committee. Australia, France, Germany, Sweden, UK and USA are some of the countries with such bilateral ozone programmes in select Article 5 Parties.

CAP:

Compliance Assistance Programme of UNEP funded by the Multilateral Fund. A team of professionals is located in each regional office of UNEP to assist Article 5 Parties of that region to comply with the Protocol.

Consumption:

Is defined as production plus imports minus exports.

Controlled substances:

All chemicals listed in Annexes A, B, C, and E to the Montreal Protocol, whether existing as pure substances or as mixtures, are referred to as controlled substances.

Country Programme:

Article 5 Parties wishing to receive assistance from the Multilateral Fund need first to elaborate a Country Programme containing data on current and forecast ODS production and consumption, phase-out projects and strategy, institutional framework and more. The Fund provides guidelines for and offers assistance in preparing the Country Programme.

Executive Committee:

An Executive Committee directs the activities of the Fund.

Exempted categories:

A number of categories are exempted from control. These include feedstock, amounts destroyed, used substances, QPS, essential uses (including laboratory and analytical uses), critical uses and increased production.

Feedstock:

Controlled substances that are used in the manufacture of other chemicals and are completely transformed in the process are defined as feedstock and are exempted from controls. For example, carbon tetrachloride is commonly used in the production of CFCs.

Fund Secretariat:

The Executive Committee of the Multilateral Fund is assisted by the Fund Secretariat located in Montreal.

Harmonized System (HS) of Customs Codes:

In most countries imports and exports are registered using the internationally Harmonized System (HS) of custom codes maintained by the World Customs Organization. The HS has been adjusted to include separate codes for some of the controlled substances when traded as pure chemicals. Knowledge about the relevant customs codes can be helpful for collecting import and export data of controlled substances.

Implementation Committee:

The Implementation Committee under the Non-Compliance Procedure for the Montreal Protocol makes recommendations to the Meeting of the Parties to improve the implementation of the Protocol and on actions in case of non-compliance.

Implementing Agencies:

Programmes of the Multilateral Fund are implemented through the Implementing Agencies UNDP, UNEP, UNIDO and the World Bank.

Incremental costs:

The additional cost that the Multilateral Fund finances. These are the additional costs incurred in converting to ozone-friendly technologies. An indicative list of the categories of incremental costs has been decided by the Meeting of the Parties.

Licensing system: Each Party that has ratified the Montreal Amendment of 1997 of the Montreal Protocol, has to adopt an import/export licensing system for monitoring the trade in controlled substances by 1 January 2000.

LVC: Low Volume Consuming Countries consuming less than 360 tonnes of Annex A and B substances annually. The Executive Committee made special provisions for facilitating phase out in these countries.

Metered Dose Inhalers (MDI): Metered-dose inhalers contain an active drug dissolved or suspended in CFC propelled canister for patients with respiratory problems

Meeting of the Parties (MOP):

All the Parties to the Protocol meet once in a year at a ministerial/high level and take decisions on many issues including non-compliance, replenishment of the Fund etc.

Mixtures of ODS:

Chemicals which contain two or more controlled substances or one or more controlled substances mixed with other non-ozone depleting chemicals are defined as mixtures of ODS. For an illustrative list of mixtures used as refrigerants and fumigants UNEP DTIE's Inventory of Trade Names of Chemical Products Containing ODS and Their Alternatives.

Multilateral Fund:

The Multilateral Fund for the Implementation of the Montreal Protocol was established in 1991 to assist Article 5 Parties to implement the control measures.

National Ozone Units (NOUs):

The government unit that is responsible for the national ODS phase out Strategy.

Non-Party:

Any country whose government has not ratified the Montreal Protocol or one of its specific Amendments is a Non-Party to the Protocol or to that particular amendment.

NPP: National Phase out Plan for non-LVCs to facilitate total phase out.

ODP:

Refers to Ozone Depleting Potential. Each controlled substance is assigned a value indicating its impact on the stratospheric ozone layer per unit mass of a gas, as compared to the same mass of CFC 11. These ODP values for each of the controlled substances are given in the Annexes of the Montreal Protocol.

ODP-weighted data/ODP tons:

ODP-weighted data are generated when an amount of a controlled substance is multiplied by its ODP value. By this procedure, metric tons are converted into ODP tons which indicate the relative environmental damage rather than the physical quantity.

ODS: Ozone Depleting Substance(s)

Open ended Working Group (OEWG):

All the Parties to the Protocol meet once in a year at official level to discuss all the issues to be considered by the MOP and make recommendations.

Ozone Secretariat:

The Ozone Secretariat is the Secretariat for the Vienna Convention and the Montreal Protocol. It is based at UNEP headquarters in Nairobi, Kenya.

Party or Parties

Any country or regional economic integration organisation becomes a Party to the Protocol and its Amendments 90 days after its ratification of the Protocol/Amendment.

Pre-shipment applications:

Amounts of methyl bromide applied directly preceding and in relation to export of a product to meet phytosanitary or sanitary requirements of the exporting or importing country are exempted from control (exempted category) (Decision VII/5). Such pre-shipment applications need to be reported as QPS.

Process agent:

Some amounts of controlled substances are used in the production of other chemicals (e.g. as a catalyst or an inhibitor of a chemical reaction) without being consumed.

Production:

Total production minus amounts destroyed minus amounts used as feedstock.

QPS: Quarantine and pre-shipment applications

Quarantine applications:

Amounts of methyl bromide used to prevent the introduction, establishment and/or spread of quarantine pests (including diseases) and/or to ensure their official control are exempted from control (exempted category) (Decision VII/5). Such quarantine applications need to be reported as QPS.

Reclaimed substances:

Recovered controlled substances that have been cleaned to a specified quality. Imports and Exports of such reclaimed substances are exempted but need to be reported.

Recovered substances:

Controlled substances that have been collected from equipment, during servicing or prior to disposal, are exempted from controls but need to be reported.

Recycled substances:

Recovered controlled substances re-used after a cleaning process are exempted.

RMP:

Refrigerant Management Plan for Low-Volume Consuming Countries (LVC).

TEAP and TOC:

Technology And Economic Assessment Panel of the Protocol and its six Technical

Options Committees. These have hundreds of members from all over the world including A 5 Parties. Their reports are placed in the Ozone Secretariat website and are amine of information on alternatives to ODS.

TPMP: Terminal Phase out Management Plan for LVCs primarily for managing the phase out in the refrigeration sector.

Trade names:

Pure controlled substances as well as mixtures of ODS are produced by a number of companies under commercial trade names, rather than the name of the ODS. These trade names are indicated on the product packaging. Knowledge about trade names thus helps identify ODS. An inventory of trade names is available from UNEP DTIE OzonAction Programme.

UNDP:

United Nations Development Programme. It is one of the Multilateral Fund's Implementing Agencies.

UNEP (DTIE):

United Nations Environment Programme (Division of Trade, Industry and Economics) in Paris. It is one of the Multilateral Fund's Implementing Agencies. It runs the OzonAction Programme and CAP.

UNIDO:

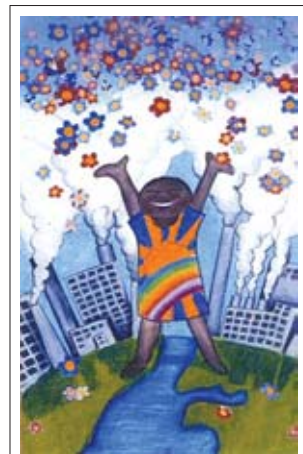
United Nations Industrial Development Organisation. It is one of the Multilateral Fund's Implementing Agencies.

Used substances:

Controlled substances that have been part of a product, or manufacturing process, and are recovered, reclaimed or recycled prior to re-use are termed as used substances.

World Bank:

It is one of the Multilateral Fund's Implementing Agencies.



By Michelle Klink, aged 16,
Namibia, 'Happiness. Let's Heal
the World' from UNEP's 1998
Children's Painting Competition

Handwriting practice lines. The page features a double red line at the top, followed by 26 single grey lines for writing practice.

Two horizontal red lines at the top of the page, followed by a series of horizontal grey lines for writing.

ABOUT THE UNEP DTIE OZONACTION PROGRAMME

Under the Montreal Protocol on Substances that Deplete the Ozone Layer, countries worldwide are taking specific, time-targeted actions to reduce and eliminate the production and consumption of man-made chemicals that destroy the stratospheric ozone layer, Earth's protective shield. Over 180 governments have joined this multilateral environmental agreement and are taking actions to phase out ozone depleting substances (ODS), which include CFCs, halons, methyl bromide, carbon tetrachloride, methyl chloroform, and HCFCs.

The Parties to this agreement established a Multilateral Fund that provides developing countries with the technical and financial assistance needed to comply with the Protocol. UNEP, UNDP, UNIDO and the World Bank are the Fund's Implementing Agencies.

The objective of UNEP's OzonAction Programme is to assist developing countries and Countries with Economies in Transition to achieve compliance with the control measures of the Montreal Protocol. Since 1991, the Programme has met this goal by strengthening National Ozone Units (NOU) and facilitating regional and international responses to the ozone depletion challenge by providing the following need-based services:

- **Information Clearinghouse**, which provides need-based information services that help decision-makers take informed decisions on policies and technologies required to phase out ODS. The clearinghouse has provided over 120 publications and other information aids, including guidelines, videos, TV Spots, Radio Spots, CD-ROMs, comic book, public awareness materials, a newsletter, sector-specific publications, and children's web sites .
- **National and Regional Training**, which builds the capacity of policy-makers, customs officers and local industry to implement national ODS phase-out activities. UNEP promotes the involvement of local experts from industry and academia in training workshops and brings together local stakeholders with experts from the global ozone protection community. To date, OzonAction has conducted 72 training programmes for customs officers and 74 for refrigeration technicians.
- **Regional Networking of ODS Officers**, which provides a regular forum for those officers to exchange experiences, develop skills, and share ideas with counterparts from both developing and developed countries. Networking helps ensure that NOUs have the information, skills and contacts required to successfully manage their national ODS phase-out strategies. UNEP currently operates 10 regional/sub-regional Networks involving 148 developing and 14 developed countries.
- **Refrigerant Management Plans**, which provide countries with integrated, cost-effective strategies for ODS phase out in the refrigeration and air conditioning sectors. RMPs assist developing with overcoming the numerous obstacles to phase out ODS in the critical refrigeration sector. UNEP currently provides specific expertise, information and guidance to support the development of RMPs in 74 countries.
- **Country Programmes and Institutional Strengthening**, which support the development and implementation of national ODS phase-out strategies, especially for low-volume ODS-consuming countries. The Programme has assisted about 105 countries to develop their CPs and 106 countries to implement their IS projects.

In 2002, UNEP restructured OzonAction to better respond to the evolving needs of developing countries during the compliance period. Its overall vision and work strategy was reoriented into the Compliance Assistance Programme (CAP). A major feature of the CAP strategy is to move away from a disparate project management approach towards integrated and direct implementation of the programme using a team of professionals with appropriate skills and expertise. UNEP has now regionalised the delivery of the programme and services by placing its Regional Offices at the forefront to assist the countries in the region.

Primarily funded by the Multilateral Fund, the OzonAction Programme also receives support from the Global Environment Facility, the Government of Sweden, the Government of Finland, and other bilateral sources.

For more information

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UNEP Division of Technology, Industry and Economics

The UNEP Division of Technology, Industry and Economics (DTIE) helps governments, local authorities and decision-makers in business and industry to develop and implement policies and practices focusing on sustainable development.

The Division works to promote:

- sustainable consumption and production,
- the efficient use of renewable energy,
- adequate management of chemicals,
- the integration of environmental costs in development policies.

The Office of the Director, located in Paris, coordinates activities through:

- **The International Environmental Technology Centre - IETC** (Osaka, Shiga), which implements integrated waste, water and disaster management programmes, focusing in particular on Asia.
- **Production and Consumption** (Paris), which promotes sustainable consumption and production patterns as a contribution to human development through global markets.
- **Chemicals** (Geneva), which catalyzes global actions to bring about the sound management of chemicals and the improvement of chemical safety worldwide.
- **Energy** (Paris), which fosters energy and transport policies for sustainable development and encourages investment in renewable energy and energy efficiency.
- **OzonAction** (Paris), which supports the phase-out of ozone depleting substances in developing countries and countries with economies in transition to ensure implementation of the Montreal Protocol.
- **Economics and Trade** (Geneva), which helps countries to integrate environmental considerations into economic and trade policies, and works with the finance sector to incorporate sustainable development policies.

UNEP DTIE activities focus on raising awareness, improving the transfer of knowledge and information, fostering technological cooperation and partnerships, and implementing international conventions and agreements.

For more information,
see www.unep.fr

Corrigendum:

Page 16, third bullet should read: *If your country is **not** an LVC, get a National Phaseout Plan approved.*

Page 22, last paragraph, should read: *ODS in Annex C Group II (HBFCs) and **Group III** (Bromochloromethane) are little used.*

Page 37, Table 4:

- second row, second column, should read: *Data on the production, imports and exports for the base year of each ODS **for non-A5 countries.***
- third row, second column, under Annex and under Base year respectively please add: **E 1991**
- fifth row, second column should read: **CI 2015**
- fifteenth row, first column should read: **MOP Decisions IV/17A, X/7, X/11 and V/15**

Page 62, the caption of the photograph should read: **Nepal** *NOO inspects contraband ODS seized at the India-Nepal border.*