
COMPLIANCE WITH THE MONTREAL PROTOCOL

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SUMMARY

This article presents an overview of the compliance provisions of the Montreal Protocol on Substances that Deplete the Ozone Layer framers of the Montreal Protocol. The article describes experience with the non-compliance procedure and details the impact of compliance activities on consumption of ozone depleting substances.

1 VIENNA CONVENTION FOR THE PROTECTION OF THE OZONE LAYER AND THE MONTREAL PROTOCOL ON SUBSTANCES THAT DEplete THE OZONE LAYER

Scientists first postulated, in the early 1970s, that emissions of nitrogen oxides, from fertilizers or from large fleets of supersonic airplanes like the European Concorde, for example, could reach the stratosphere, 10 to 15 kilometers above the earth's surface, and damage the thin layer of stratospheric ozone. This layer protects the earth from excessive UV-B radiation that could damage human health, plant productivity and materials. Mario Molina and Sherwood Roland demonstrated in 1974 that the emissions of human made halocarbons would reach the stratosphere and deplete the ozone layer. These halocarbons, first invented and commercialized in 1928, were considered "wonder chemicals" because of their long life, and were used in many industries and processes such as refrigeration, air conditioning, metal cleaning, and fire fighting.

The United Nations Environment Programme established, in 1977, a Coordinating Committee on the Ozone layer, consisting of the world's leading experts, to study the issue and suggest scientific solutions to the problem. At the same time, the

UNEP initiated international diplomatic discussions to take steps to solve the problem. The continuing scientific studies identified halocarbons as the main cause of ozone depletion.² Prolonged diplomatic discussions over the next eight years resulted in the Vienna Convention for the Protection of the Ozone Layer in 1985. It was only a framework convention, providing for the Parties to the Convention to study, research, and report on various aspects of the ozone depletion. The Convention provided for further Protocols as needed to deal with the ozone depletion.

In 1985, British and Japanese scientists discovered complete destruction of ozone over the Antarctic in the spring season (an "ozone hole") and further experiments confirmed the role of halocarbons in ozone depletion. Continuing diplomatic negotiations piloted by UNEP resulted, in 1987, in the Montreal Protocol on Substances that Deplete the Ozone Layer under the Convention. The Protocol listed eight ozone-depleting substances (ODS) but prescribed only mild control measures for each Party to the Protocol to freeze/reduce its production and consumption of these ozone-depleting substances. The Protocol, however, provided for adjusting or amending the Protocol after periodical scientific and technological assessments at least once every four years. Since

then, following such assessments, the Protocol was strengthened by the Governments five times through adjustments and amendments (in 1990, 1992, 1995, 1997 and 1999). The Protocol now mandates total phase out of production and consumption of 96 listed ozone-depleting substances by all the Parties in a specified time frame.³ The list of controlled substances was annexed to the Protocol in four Annexes (A, B, C and E), and within these Annexes, in nine groups. The control measures were applicable group-wise. Five groups of substances were to be gradually phased out by 1996, one by 1994, one by 2002, one by 2005, and one group by 2030 (of HCFCs, which are ozone depleting but with a low Ozone Depletion Potential and used as substitutes for CFC). The developing countries were given a grace period to implement the control measures. The Protocol established, through Article 12, a Secretariat with duties as defined in that Article. UNEP provides the Secretariat ("the Ozone Secretariat").

2 LEGAL PROVISIONS IN THE CONVENTION AND THE PROTOCOL ON COMPLIANCE

The Vienna Convention, in Article 11 and in Decision 7 of the First Conference of the Parties (COP) in 1989,⁴ provided for an elaborate procedure for settlement of disputes between Parties. This procedure applies to any Protocol unless the Protocol provides otherwise. The Convention prescribed reporting on many substances but these reporting obligations were waived by the Decision VCIII/4 of the third COP⁵ as reporting on ozone-depleting substances under the Montreal Protocol was considered sufficient.

Article 8 of the Protocol specified 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 by Decision II/5 of the second Meeting of the Parties in 1990 and annexed to the report of the meeting as Annex III. It was finalized by

Decision IV/5 of the fourth Meeting of the Parties in 1992 and annexed to the report of the meeting as Annex IV. It was reviewed with minor changes by Decision X/10 of the tenth Meeting of the Parties in 1998 and annexed to the report of the meeting. The procedure will apply without prejudice to the operation of the settlement of disputes procedure laid down in Article 11 of the Vienna Convention. It is reproduced below.

Non-Compliance Procedure of the Montreal Protocol

- “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 noncompliance 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."

2.1 Responses to Non-compliance:

The fourth Meeting of the Parties in 1992, by Decision IV/18, finalized, in Annex V of its report, the "Indicative list of measures that might be taken by a Meeting of the Parties in respect of non-compliance with the Protocol:"

- A. Appropriate assistance, including assistance for the collection and reporting of data, technical assistance, technology transfer and financial assistance, information transfer and training.
- B. Issuing warnings.
- C. 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.

2.2 Implications of the Responses and Circumstances Giving Rise to Their Application

Response A:

The Protocol established a Financial Mechanism, including a Multilateral Fund, under Article 10, to meet all the agreed incremental costs for Article 5 Parties. Decision IV/18, in Annex VIII to the report of the fourth Meeting of the Parties, finalized a list of incremental costs and per-

mitted the Executive Committee of the MF to interpret the costs and to add to the list, if appropriate. The permissible costs cover all the facets of assistance mentioned in A of Paragraph 14 above. The Global Environment Facility (GEF), established in 1991, has the mandate of assisting all eligible countries to implement measures to solve the global environmental problems of ozone depletion, climate change, bio-diversity and pollution of international waters. The list of Parties recognized by GEF as eligible for assistance includes many in the list of Article 5 Parties that are eligible for assistance by MF. It also includes many countries of Eastern Europe and of the former USSR (Countries with their Economies in Transition ())⁶ that have not been classified as developing countries (and hence not eligible for assistance by the Multilateral Fund). By the time GEF came into existence the Protocol had already established the Multilateral Fund, and the GEF assistance for the protection of the ozone layer is only for the Parties not eligible for assistance by the MF.

Response B:

Warnings have been administered by Meeting of the Parties to non-compliant Parties in some cases, as elaborated later in this Article, when the Implementation Committee noted that the Parties in non-compliance have not put in adequate efforts. The warnings contained a threat that the Parties will be deprived of assistance or that response C would be applied if they do not return to the path of compliance.

Response C:

Suspension of rights and privileges. The rights and privileges could include:

- Industrial rationalization: Non-Article 5 Parties have the right to transfer their production rights for ozone-depleting substances to each other and consumption rights for HCFCs (Article 2, Paragraphs 5 and 5bis).

- Trade: If a party's rights under Article 4 are suspended, other Parties cannot trade in ozone-depleting substances with that Party (Article 4, Paragraphs 1-1 sex. Paragraphs. 2-2 sex). That Party cannot export products containing CFCs (air conditioners, etc.) to Parties (Article 4, Paragraph 3, read with Decision III/5 of the Third).
- Assistance from MF or GEF (Articles 10 and 10A).

3 REPORTING AND VERIFICATION

All the Parties have to send detailed reports to the Secretariat under Articles 4B, 7, and 9. Under Article 7, each Party ratifying the Protocol shall report, within three months of becoming a Party, its data of production, imports and exports of each of the ozone-depleting substances for the base year of that ozone-depleting substances and, thereafter, every year, before September 30th of the succeeding year. Each Party shall also submit data on ozone-depleting substances destroyed, used as feed stock, exported to or imported from Parties and non-Parties, and imports and exports of recycled substances. Regional economic integration organizations are allowed to report consumption figures for all of their members together, and the members of such organizations need not report the consumption figures, though they have to report their production figures individually. Currently, the European Union is the only organization recognized as a Regional Economic Integration Organization for this purpose. Article 9 mandates that each Party cooperate in research, development, public awareness and exchange of information regarding technologies to reduce emissions, alternatives to ozone-depleting substances, and costs and benefits of control strategies. In addition, Article 9 requires that each Party submit a biannual report with a summary of its activities. Article 4B prescribes that each Party to the Montreal Amendment to the Montreal Protocol implement licensing systems for import and export of ozone-depleting substances within the time prescribed

and report after implementation.

In addition to the data to be reported under Article 7, the Parties have made many decisions requesting Parties to submit more data to enable the Secretariat to verify compliance with the control measures and the decisions of the Protocol. Those applying for essential use exemptions have to report in the format approved by Decision VIII/9 of the Eighth Session. Decision VI/19 of the sixth Session mandated an annual report from the Parties on their list of reclamation facilities for ozone-depleting substances. Other decisions include Decision VIII/32, Decision IV/17a, Decision X/7, Decision X/11, and Decision V/15.

The Parties send their reports to the Ozone Secretariat. The Ozone Secretariat analyses the data received and identifies those parties that have not reported fully and those who have not fulfilled the control measures applicable to them. The Implementation committee considers the report of the Secretariat at its meetings, usually held in conjunction with Sessions and the meetings of the Working Groups of Parties.

The Secretariat checks the data reported by the Parties for internal consistency and requests clarification from the Parties when necessary. However, the Secretariat has no right to reject the data submitted. Based on a recommendation by the Implementation committee, the Seventh Session decided in Decision VII/20 that while the Secretariat could seek clarifications from a Party regarding its data, the data provided by a Party should be used.

The Non-Compliance Procedure, in paragraph 7(e) (please see paragraph 6 above) provided that the committee can undertake, upon the invitation of the Party concerned, information-gathering in the territory of that Party to carry out the functions of the Committee. However, such information-gathering has not been carried out anywhere at this time, and the committee relies solely on the data supplied by a Party.

The highly detailed data to be reported for all of the 96 controlled ozone-depleting substances has proved to be very difficult for all the countries, particularly for

developing countries. The chemicals have uses in thousands of industries and were not controlled in any way prior to the Protocol. Hence every Party had to introduce new regulations and train many professionals, including customs officers, to report on the imports and exports of the ozone-depleting substances.⁷ Where a party has many points of entry into its country, the data collection was delayed and, at times, incomplete. The Parties also relied on data given by traders, which is inherently biased to some extent. Occasionally, doubts have been expressed regarding the reliability of data, most recently by the Technology and Economic Assessment Panel,⁸ which found some inconsistencies when it tried to use the data for calculating the projected future demand for ozone-depleting substances by Article 5 Parties. The data, however, gives a good idea of the degree of compliance by individual Parties.

Status of Reporting: Initially, the number of Parties reporting was low, but it has improved over the years. Decision VII/14 of the Seventh Session held in 1995, for example, lamented that only 82 of the 126 Parties reported the 1993 data and only 60 reported the 1994 data by December 1995. The report of the Secretariat on data for the Sixteenth Session in November 2004 noted the steady improvement in reporting under Article 7 over time. By October 2004, all of the Parties have reported for 2002 and more than eighty percent have reported for 2003. While the reporting under Article 9 was regular in the initial years, it was sporadic in later years, probably due to the repetitive nature of the reports and because the activities of the Multilateral Fund have fulfilled the needs of the Article 5 Parties for information. Sporadic decisions⁹ up to the 12th Session, until the year 2000, reminded the Parties to report.

4 EXPERIENCE WITH THE NON-COMPLIANCE PROCEDURE

4.1 Identifying Non-compliance:

To date, no Party has submitted, under paragraph 1 of the Non-compliance Procedure, any representation regarding

non-compliance by another Party. The non-compliance cases noted so far, with a single exception, are all under paragraph 3 of the Procedure from the Secretariat reports on annual data submitted under Article 7. An exception was when, in 1994, the Russian Federation and some Parties of Eastern Europe and the former USSR, which are classified as non-Article 5 Parties, submitted a statement to the , to the effect that they might not meet compliance requirements for the phase out of halons by 1994, and CFCs by 1996, due in part to their domestic conditions. This submission was treated by the Secretariat as a submission under Paragraph 4 of the Non-compliance procedure and referred to the Implementation Committee.

4.2 Decisions by s on Reporting and Non-compliance¹⁰

4.2.1 Non-compliance with Reporting

As noted in Paragraph 15 above, many Parties, in the initial years, found it difficult to report all of the details required annually under Article 7 of the Protocol, particularly in the initial years after ratification. The situation improved gradually. The Article 5 Parties and Countries with their Economies in Transition improved their performance on reporting after receiving technical assistance from MF or GEF. The Implementation Committees and s took a sympathetic view of this problem, with respect to the Article 5 Parties in the initial years, because compliance with the control measures only started in 1999 for these Parties. On the recommendation of the Committee, the s made decisions urging the Parties to report expeditiously and giving advise on how to improve reporting. With regard to non-reporting under Articles 4B and 9, the Parties, in their decisions, merely urged the Parties to report.

4.2.2 Procedure for Dealing with Non-compliance with the Control Measures

In cases of non-compliance with the control measures, the Implementation Com-

mittee and adopted the procedure of requesting that the concerned Parties submit benchmarks and annual targets for a return to compliance. The performance of the Party was reviewed every year with reference to these benchmarks. The decisions of the s, based on a close scrutiny and recommendation by the implementation committee, were based on the circumstances of each situation.

Article 5 Parties: From 2001 (13th) onwards, thirty Article 5 Parties were identified as in non-compliance status based on the data submitted. The s noted their non-compliance, asked them to submit their plan of action and benchmarks to return to compliance, and decided that to the degree that a Party “is working towards and meeting specific Protocol control measures, it should continue to be treated in the same manner as a Party in good standing and should continue to receive international assistance.” They were also cautioned, in accordance with item B of the indicative measures approved by the Procedure, that “in the event it fails to return to compliance in a timely manner, the Parties shall consider measures, consistent with item C of the indicative list of measures,” including actions available under Article 4, such as ensuring that the supply of the ozone-depleting substances, the subject of non-compliance, is ceased and the trading Parties are not contributing to a continuing situation of non-compliance.¹¹ 13 Article 5 Parties were considered to be in “potential non-compliance” since they offered no explanation for exceeding the levels of consumption mandated under the control measures and were cautioned under the same terms as (a) above.¹² The s noted the benchmarks submitted by eighteen Parties and issued the warning as described in (a) above.¹³

To date, no Article 5 Party, has been deprived of assistance or had rights and privileges suspended, as provided by item C of the indicative measures.

Non-compliance by the Countries with their Economies in Transition Parties: As mentioned already, the Russian Federation and three other Parties made a state-

ment to the sixth in 1994 about their inability to comply with the control measures within the prescribed time. In the seventh's meeting in 1995, its Decisions VII/14-19 noted the potential non-compliance mentioned by the Parties. It recommended international assistance to the Parties. Through Decision VII/18, it "allowed" the Russian Federation to export to the non-Article 5 Parties of the former USSR, which traditionally depended on Russia for all of its supply of ozone-depleting substances. This implicitly suspended the right of the Russian Federation to export to other non-Article 5 Parties, or to Article 5 Parties, to meet their basic domestic needs as provided in Articles 2A-2F and 2H. The Countries with their Economies in Transition Parties that came to notice as non-compliant were Azerbaijan, Bulgaria, Estonia, Czech Republic, Estonia, Kazakhstan, Latvia, Lithuania, Poland, Russian Federation, Ukraine, Tajikistan, Turkmenistan, Uzbekistan, and Armenia (subsequently reclassified as operating under Article 5).

For each of these Parties, the implementation Committee pursued its course of obtaining data, identifying actual or potential non-compliance, obtained plans of action and benchmarks to return to compliance, and monitored their performance in relation to the benchmarks every year. The s recommended assistance by the GEF in each case.¹⁴ Furthermore, they called for explanations when the benchmarks were not met.¹⁵ Almost all the Parties returned to a state of compliance with the control measures. The only Party noticed for non-compliance by the 16th in 2004 was Azerbaijan. The 15th in the year 2003 recognized and appreciated the return to full compliance by the Russian Federation in the year 2002, the largest Party (XIV/35).

4.2.3 Non-compliance by the Industrialized Countries

There were no instances of non-compliance by the industrialized countries. Decision XV/24 noticed potential non-compliance by Israel due to excess consump-

tion of Methyl Bromide in 2002, and requested an explanation. The representative of Israel explained¹⁶ the figures showing compliance to the 32nd meeting of the implementation Committee, resolving the matter.

5 RESULTS OF COMPLIANCE

Of the 188 Parties to the Montreal Protocol, 143 are classified as operating under Article 5. The average of consumption (and production) in the years 1995, 1996, and 1997, was treated as their base figure for their control measures for CFCs, the most consumed ozone-depleting substances. Their base figure for CFCs was about 162,500 tonnes in 1995-97. This consumption came down to 90,800 tonnes in 2002, a forty-five percent decrease, while only a freeze is mandated until 2005. While about 35 Article 5 Parties came to notice for non-compliance, some of them more than once, their excess consumption of CFCs noticed for the year 2001¹⁷ by the Secretariat was only about 1200 tonnes, while for the year 2003,¹⁸ it was about 410 tonnes. Most of the non-complying states are low volume consuming countries. Some of the non-complying Parties ratified the Protocol very late and the MF assistance to survey their ozone-depleting substances consumption and implement solutions to shift to alternatives is taking time. Some use ozone-depleting substances only for maintenance of the existing equipment, and drop-in substitutes or CFCs from recycling, are not available. Many were tiny countries yet to establish the capacity to implement.

The consumption of the was 146,000 tonnes of CFCs in 1986 (about fifteen percent of world consumption). The non-compliance noticed in 1996 was for 9 Parties with a consumption of CFCs of 18,000 tonnes, while a total phase out is mandated for them. Their consumption came down to about 500 tonnes in 2002.

The overall consumption of CFCs in the world came down from about 1.1 million tonnes in 1986 to 92,000 tonnes in

2002, a reduction of more than ninety per cent and is continuously declining. The performance of the Protocol is now hailed as one of outstanding success.

Scientific Assessment has verified the success. The Scientific Assessment Panel Report of 2002, as reflected in the Synthesis Report of all the Assessment Panels, noted:

The Montreal Protocol is working, and the ozone-layer depletion from the Protocol's controlled substances is expected to begin to ameliorate within the next decade or so. The total combined effective abundances of anthropogenic chlorine containing and bromine-containing ozone-depleting gases in the lower atmosphere (troposphere) peaked in the 1992-1994 time period and are continuing to decline. Furthermore, the stratospheric abundances of ozone-depleting gases are now at or near a peak. Thereafter, the level of stratospheric ozone should increase, all other influences assumed constant, but ozone variability will make detection of the onset of the long-term recovery difficult. Future ozone levels will also be influenced by other changes in atmospheric composition and by climate change. Based on assumed compliance with the amended and adjusted Protocol by all Parties, the Antarctic ozone "hole" is expected to disappear by the middle of this century-again, with all other influences assumed constant.¹⁹

6 FACTORS FOR PROMOTING COMPLIANCE

6.1 Protocol Designed for Universal Ratification

The framers of the Protocol recognized that over eighty-five percent of the world's consumption of ozone-depleting substances is by industrialized countries and the large number of developing countries bore only a small part of the responsibility for the ozone depletion. The limited capacity of the developing countries to phase out ozone-depleting substances expeditiously through alternative technologies was acknowledged. The Governments

also quickly realized that the cooperation of all of the countries in the world is essential to repair the ozone layer, as countries staying out of the Protocol and increasing their consumption of ozone-depleting substances could counteract the reduction by the Parties to the Protocol. The principle of "common but differentiated responsibility" for global environmental problems was given a practical shape in the Protocol. It was also felt that no punitive measures would succeed in forcing countries to ratify and implement the Protocol. Hence, many important features of the Protocol are designed to encourage universal ratification.

- The Protocol provided for periodic assessment of the control measures based on available scientific, environmental, technical, and economic information by panels of experts (Article 6).
- Parties may decide on adjustments and amendments to the Protocol based on such assessments (Article 2, Paragraphs 9 and 10).
- To assuage worries about lack of alternatives to particular uses of ozone-depleting substances, it was provided in the Articles 2A-2I relating to control measures on the ozone-depleting substances, that a can periodically exempt "essential" or "critical" uses of ozone-depleting substances from a total phase out.
- Developing countries²⁰ satisfying the conditions in Article 5 were allowed to implement the control measures some years after other countries implemented those measures, under a "grace period" (Article 5).
- Article 9 mandated that the Parties shall cooperate in promoting research, development, and exchange of information on technologies to reduce emissions of ozone-depleting substances, alternatives to ozone-depleting substances and products using ozone-depleting substances, and costs and benefits of control strategies, and in promoting public awareness of environmental effects of

the ozone-depleting substances.

- A Financial Mechanism, including the Multilateral Fund, subscribed to by Parties that are not Article 5 Parties (non-Article 5 Parties), was established to meet all the agreed incremental costs of the Article 5 Parties (Article 10). The Multilateral Fund has the United Nations Development Programme, The United Nations Environment Programme, the United Nations Industrial Development Organization and the World Bank as its implementing agencies.
- Every Party is mandated to take every practicable step to transfer the best available substitutes and technologies to Article 5 Parties (Article 10A).
- The Protocol recognizes 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 5).
- Any Article 5 Party may at any time notify that it is unable to implement its control measures due to inadequate implementation of Articles 10 and 10A and the non-compliance procedure shall not be invoked against it till a Meeting of Parties () decides on an appropriate action (Article 5, Paragraph 6).

Whenever there was a strong difference of opinion between countries during Meetings of Parties, a compromise was arrived at rather than a majority imposing its will. As a result of these inclusive measures and attitude, almost all the governments of the world, 188 so far, have ratified the Convention and the Protocol. The only seven countries that did not ratify the Protocol so far are very small countries- Andorra, Equatorial Guinea, Eritrea, East Timor, Iraq, San Marino, and the Vatican.

6.2 Flexible Responses to Non-compliance

The Non-Compliance procedure does not define non-compliance with the Protocol. An Ad-hoc Working Group of legal experts discussed the issues in 1991 but

there was no consensus.²¹ We have to infer, from the provisions of the Protocol, situations of non-compliance.

The crux of the Protocol is reduction and phase out of production and consumption of ozone-depleting substances according to the prescribed time schedules. Non-observance of the control measures is, obviously, non-compliance. Reporting under Articles 4B, 7, and 9, is mandatory and enables the Meetings of the Parties to verify compliance. Non-reporting will be non-compliance.

Article 10 establishes a Financial Mechanism including a Multilateral Fund (MF) to assist Article 5 Parties. The MF shall be financed by contributions from Parties not operating under Article 5. If a non-Article 5 Party does not contribute, is it non-compliance? Discussions in the legal working group of the Parties in 1991²² revealed totally different interpretations by the members. Some argued that non-payment is obviously non-compliance. Others felt that it is not non-compliance since the Protocol does not mention that the contributions are “assessed” as in the United Nations. Until now, no Party cared to test the interpretation by complaining about non-payment, even though a number of Parties, including the Russian Federation and countries of the former USSR, never paid any contribution to the Multilateral Fund. Perhaps all of the Parties realized, without formally recognizing it, that these Parties were unable to pay. The dues from these Parties are still in the books of the MF as arrears to be collected.

6.3 Capacity Building and Technology Transfer

The Multilateral Fund is assisting the 143 Parties classified as Article 5 Parties, and the Global Environmental Facility is assisting the 19 Parties, in implementing control measures. The assistance is very comprehensive and includes institutional strengthening in the Governments of the Parties, training, information exchange, and meeting the incremental costs of technology transfer and conversion of indus-

tries and processes to ozone-friendly technologies. During the years 1991-2004, the non-Article 5 Parties have pledged nearly US\$1.89 billion and paid nearly US\$1.63 billion to the Multilateral Fund. The arrears of US\$257 million are almost wholly from the Parties that were a part of the former USSR, which expressed their inability to pay the Fund. In fact, they themselves are receiving funds from the GEF. The Fund has, during 1991-2004, financed nearly 4,600 projects for Article 5 Parties, to assist them in implementing the control measures.²³ The GEF has spent nearly US\$150 million in the for the same purpose.²⁴

7 A NON-CONFRONTATIONIST PROCESS

The Parties to the Protocol realized that non-compliance with the control measures of the Protocol by a Party might not only lead to disputes between Parties but also, will more importantly, delay the recovery of the ozone layer and affect the global environment. Also, it decreases the consumption of alternatives to ozone-depleting substances and thus has an economic impact on the alternatives' industry. The Parties also realized that non-compliance may be mostly due to lack of capacity of that Party to create awareness of the ozone depletion problem and to inform and educate their citizenry and industry on the need and methozone-depleting substances for adopting alternatives. Occasionally, there is a lack of political will, particularly when the country is facing other severe problems, such as civil strife, and the Montreal Protocol is of a very low priority in comparison. No country benefits from non-compliance. In fact, it loses the advantages of new technologies. Hence s concentrated on assistance and on warnings to promote political will, rather than on the suspension of rights.

The Parties also decided early on that a punitive approach would have to be applied with discrimination in order to promote compliance. Every country needs ozone-depleting substances for maintenance and trade measures, and to deprive them of ozone-depleting substances may

lead to illegal trade. Declaring a Party to be in non-compliance, and taking harsh measures, may drive it away and increase ozone-depleting substances consumption, undermining the Protocol. The Parties realized, that while all Parties are to be treated equally, each Party has a different capacity to implement measures. The Implementation Committee and the Meetings of the Parties studied each case proactively and implemented different solutions depending on the causes for failure to implement.

The framers of the Montreal Protocol realized that the objective of the Protocol may be defeated if any significant number of countries, particularly those with capacity to produce ozone-depleting substances, refrains from joining the Protocol, and that there are no punitive measures available to force a country to join the global effort to protect the ozone layer.

8 REFERENCES

¹ The Decisions of the Meetings of the Parties () quoted in this paper are numbered as Roman numerals in capitals, slash, Arabic numbers. X/21, for example, means decision 21 of the tenth . The Convention, the Protocol, and all the decisions of meetings of the Parties up to the end of the year 2002 (Sixth Conference of the Parties to the Convention (COP) and 14th Meeting Of the Parties to the Montreal Protocol ()) are contained in the Handbook for the International Treaties for the Protection of the Ozone Layer, 2003 edition, Ozone Secretariat. The decisions of the 15th and 16th s are contained in UNEP/ OZL.PRO/15/9 of November 11, 2003 and UNEP/OZL.PRO/1/17 of November 2004 respectively. No notes are given in this paper, except for the decision number, when quoting decisions of the s. Where other documents are quoted, notes have been given as footnotes giving the number or name of the document.

² Paragraphs 1 and 2 based on Chapter 1 of S. O. Andersen and K. Madhava Sarma, "Protecting the Ozone Layer: The United Nations History," 2002.

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- ³ Paragraphs 3 and 4 based on Andersen and Madhava Sarma, *supra* note 2.
- ⁴ UNEP/OZL.CONV/1/5 Dated 28 April 1989.
- ⁵ UNEP/OZL.CONV/3/6 Dated 23 November 1993.
- ⁶ Evaluation Report #1-00 of the Global Environment Facility, Study of Impacts of GEF Activities on Phase-out of Ozone Depleting Substances, 2003.
- ⁷ See Andersen and Madhava Sarma, Chapter 7, pgs. 274-278, *supra* note 2.
- ⁸ Report of the TEAP Basic Domestic Needs Task Force (October 2004) available from the Ozone Secretariat.
- ⁹ I/4, II/14, VI/2, IX/1, X/2, XII/6.
- ¹⁰ Handbook on the International Treaties to Protect the Ozone Layer, 2003,
- ¹¹ Decisions XIII/21-25, XIV/18-25, 29, 32, XV/24, 25, 33, 41, 42, 45, XVI/22,26.
- ¹² Decisions XIII/16, XV/21,22.
- ¹³ XIV/26-44.
- ¹⁴ VII/25, IX/29, 31, X/27, XIII/17, 18, XIV/31.
- ¹⁵ XIV/28, XV/28, XVI/21.
- ¹⁶ UNEP/OzL.Pro/ImpCom/32/6 dated August 11, 2004.
- ¹⁷ UNEP/OZL.PRO/15/4, dated October 14, 2003.
- ¹⁸ UNEP/OZL.PRO.16/4, dated October 18, 2004.
- ¹⁹ UNEP/OZL.PRO/WG1/23/3, dated February 25, 2003.
- ²⁰ Decision I/12E of the first decided on the list of developing countries. Later s added Turkey (III/8), Georgia (VII/29), Moldova (IX/6), South Africa (IX/27), Kirgызstan (XII/11), Armenia (XIV/2) and Turkmenistan (XVI/39). Slovenia, a break-away country of former Yugoslavia, recognized as a developing country and Malta were taken out of the list at their own request (XII/12
- ²¹ UNEP/OZL.PRO/WG3/3 Dated 9 November 1991
- ²² *Id.*
- ²³ UNEP/OZL.PRO/16/10, Report of the Executive Committee to the 16th .
- ²⁴ *Supra* note 6.