

## International Environmental Governance and Legislation: A Study on Power Approach in Negotiations of the Montreal Protocol

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**Abstract:** Montreal Protocol is one of the successful Multilateral Environmental Agreements (MEAs). Montreal Protocol managed to seek international environmental cooperation among almost all of the states in the world. All of these states have already agreed to ratify the Montreal Protocol. The Montreal Protocol has been enacted for the protection of the ozone layer by taking precautionary measures to control world emissions of substances that deplete the ozone layer. Some of the international environmental governance scholars suggested that power approach might influence in the negotiations of creating MEAs. Moreover, the existence of the superiority power in economy, military, technology and science would lead for hegemony. This hegemony most likely would build up more cooperation among states and subsequently influence in the negotiations of creating MEAs, which include the Montreal Protocol. Therefore, the primary purpose of this study is to explain the influence of power approach in the international environmental governance on regards of the Montreal Protocol's early negotiations and the relations of the interstates participation response. Meanwhile, this study uses a qualitative approach, which is based on the meetings' proceeding reports of the Montreal Protocol. Finally, the results potentially provide with better understanding of the influence of power approach in the international environmental governance.

**Key words:** International environmental governance, power approach, negotiations, montreal protocol

### INTRODUCTION

Multilateral Environmental Agreements (MEAs) are related closely with the international environmental cooperation. MEAs are international environmental agreements, which agreed between states in relation to environmental protection and conservation. MEAs are also being enacted based on the collective consensus among states through negotiations shown in the international relations (Harris, 2002). These negotiations, subsequently manage to build up international environmental cooperation during the making of MEAs. As the results, the international environmental

cooperation in the MEAs is able to tackle global environmental problems. Meanwhile, the success of the international environmental cooperation in the MEAs is based on the consensus agreement among member states. Hence, this study is looking into on how power approach is capable of influencing the international environmental cooperation in the MEAs, focusing on one of the successful MEAs i.e. the Montreal Protocol. Montreal Protocol has managed to seek international environmental cooperation among almost all of the states in the world. All of these states (191 states in all) have already ratified the Montreal Protocol (Kamal *et al.*, 2007).

**Montreal protocol:** The Montreal Protocol has been enacted for the protection of the ozone layer by taking precautionary measures to control world emissions of substances that deplete the ozone (Conservation and Environmental Management Division, MOSTE, 2004). Awareness on the existence of ozone layer i.e. O<sub>3</sub> at the stratosphere and threat of *chlorofluorocarbons* (CFCs) as ozone depletion substance has increased radically at the early years of 1970s (Seaver, 1997; Breitmeier, 2000; Breitmeier *et al.*, 2006). Moreover, both scientists and policy makers had made a lot of initiatives in order to capture global attention about the threat of CFCs towards the ozone layer. As a result, at the middle 1980s, ozone layer problems became global concerns (Breitmeier, 2000; Breitmeier *et al.*, 2006). Starting from this point, the global concerns became the catalyst for the international environmental cooperation and gave birth to the Montreal Protocol (Bjorn, 2007).

**Power approach in the international environmental governance and legislation:** Power approach is one of the main characteristics in the international environmental governance, which relates with the superiority power in economy, technology and science that would lead for hegemony (Holsti, 1985; Nye, 1990). The above mentioned view has been concurred by the realist and neorealist (Mearsheimer, 1990). As for realist and neorealist, they are doubtful about the probability for establishing for international cooperation under lawlessness self-help structure due to the system of international governance and legislation limiting the cooperation among countries in the world (Mearsheimer, 1990). Furthermore, Mearsheimer (1990) suggested that the structural limitations also contribute to the difficulty on the establishing for the international cooperation which include for international environmental cooperation under lawlessness self-help structure, as the result, theoretically, power approach is the answer to the establishment for international cooperation under lawlessness self-help structure.

Hasenclever *et al.* (1997) also suggested that power approach plays an essential role in the formation of the international environmental legislation such as MEAs. The domination of a country / countries in the areas of economy, military, technology and science could establish hegemony during the formation of the MEAs under international environmental governance (Hasenclever *et al.*, 1997). In addition Breitmeier (2000) has pointed out that this hegemony would lead to more international environmental cooperation among countries

in the world in the formation for MEAs. Keohane (1984, 1993) Snidal (1985, 1991), Kindleberger (1975, 1991), Gilpin (1981) Kohout (2003) and Yoon (2003) known this approach as hegemonic stability theory. As for Kindleberger (1975, 1991), Gilpin (1981) and Yoon (2003) have suggested that hegemonic stability approach is associated with the status of the international environment governance to the status of the hegemony existence. Moreover, Kindleberger (1975, 1991), Gilpin (1981) and Yoon (2003) have also suggested that the formation of MEAs under international environmental governance will be come successful, when a dominant power exists.

This study embarks on the following objectives:

- To identify and analyse the themes and sub-themes that related to the influence of the power approach in the early stage of negotiations that build up the international environmental cooperation in the Montreal Protocol.
- To explain the influence of the power approach in the early stage of negotiations that build up the international environmental cooperation in the Montreal Protocol.

## MATERIALS AND METHODS

This study applied qualitative orientation. In line with the qualitative orientation, this study has employed Montreal Protocol as a case study. Hence, this study has gone through by analysing some of the relevant meeting documents of Montreal Protocol.

**Documents selection:** This study is closely related to the international environmental cooperation in the Montreal Protocol, the influence of power approach and also the respond of the member states. Therefore, the following documents are being selected as the main documents of this study. The documents are as follow:

- (i) Meeting reports of the First Session-Ad Hoc Working Group of Legal and Technical Experts for the Preparation of a Protocol on Chlorofluorocarbons to Vienna Convention for the Protection of the Ozone Layer' on 1-5 December 1986 at Geneva, Switzerland.
- (ii) Meeting reports of the Second Session-Ad Hoc Working Group of Legal and Technical Experts for the Preparation of a Protocol on Chlorofluorocarbons to Vienna Convention for the Protection of the Ozone Layer on 23-27 February 1987 at Vienna, Austria.

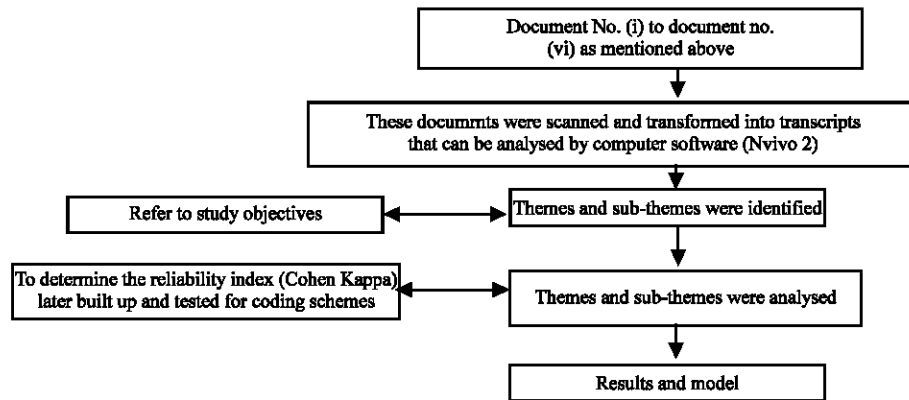


Fig. 1: Documents analysis process flow chart

- (iii) Meeting reports of the First Meeting-Ad Hoc Working Group of Legal and Technical Experts for the Harmonization of Data on Production, Imports and Exports of Substances that Deplete the Ozone Layer on 9-11 March 1988 at Nairobi, Kenya.
- (iv) Meeting reports of the Second Meeting-Ad Hoc Working Group of Legal and Technical Experts for the Harmonization of Data on Production, Imports and Exports of Substances that Deplete the Ozone Layer on 24-26 October 1988 at The Hague, Netherlands.
- (v) Meeting reports - 'Meeting of Parties' (Montreal Protocol) on 2-5 May 1989 at Helsinki, Finland.
- (vi) Meeting reports of the First Session - 'Open-Ended Working Group Of The Parties' (Montreal Protocol) on 21-25 August 1989 at Nairobi, Kenya.

These above-said documents have been selected because these documents represent the early stage of negotiations of Montreal Protocol. The first two documents represent negotiations in the making of Montreal Protocol itself and whereas another last four documents represent negotiations to persuade and attract more developing nations to join as members of the Montreal Protocol.

**Documents analysis:** All the above-mentioned documents were analysed by using Nvivo 2 software. By using Nvivo 2 software, the researchers have built up and tested the coding schemes. This action was necessary in order to determine the reliability. Based on Maxwell (2005), there are a few necessary steps in analysing documents by using the software:

- All the documents, which are identified and selected for the purpose of fulfilling the study objectives i.e. the above-mentioned documents. These documents are numbered (i) to (vi).

- Later, these documents are scanned in order to transform into transcripts that can be analysed by computer software (Nvivo 2).
- By using computer software (Nvivo 2), the researchers identify themes and sub-themes based on the above-mentioned selected documents, which are in line with the study objectives.
- After that, researchers are required to determine the reliability of the coding schemes during the process of identifying themes and sub-themes by using computer software (Nvivo 2).
- This determination of reliability is based on the reliability index of Cohen Kappa.
- This process is required to be repeated many times until the coding schemes manage to obtain the highest level of the reliability.
- Finally, these themes and sub-themes are built up by displaying these results in the form of a model.

This process of documents analysis is shown below with reference to Fig. 1.

## RESULTS AND DISCUSSION

Based on the documents analysis on the influence of power approach in the early negotiations of Montreal Protocol, there are four main themes and 10 sub-themes, which have been identified, with reference to Table 1 and Fig. 2. The themes are state, industry, NGO and individual. Meanwhile, as for the sub-themes are diplomatic domination, market domination, science and research domination, influence, financial ability, awareness, structural leader, entrepreneurial leader and intellectual leader.

**State:** When referring to the influence of a state in the negotiations of the Montreal Protocol, it is clearly that United States of America (USA) has played an important

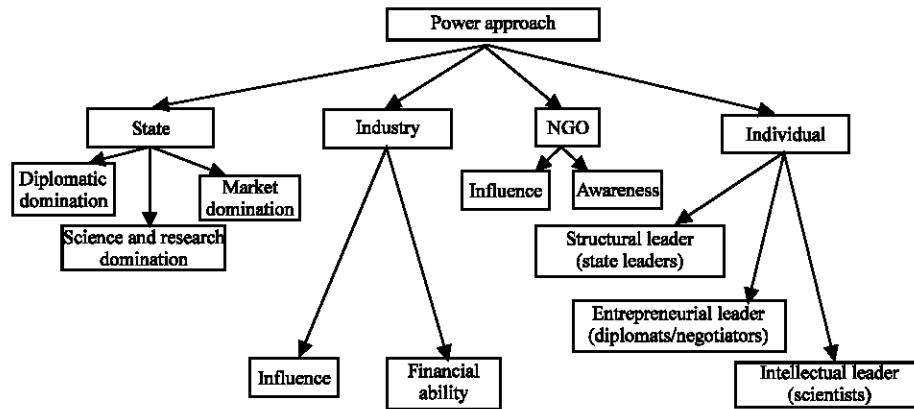


Fig. 2: Model of themes and sub-themes of documents analysis of the power approach in the montreal protocol

Table 1: Themes and sub-themes of documents analysis of the power approach in the montreal protocol

Themes	Sub-themes
State	Diplomatic domination, market domination, science and research domination
Industry	Influence, financial ability
NGO	Influence, awareness
Individual	Structural leader, entrepreneurial leader and intellectual leader

role on this matter. Moreover, it is a fact and no doubt about it, that USA is a very powerful state when looking at USA economy supremacy and the superiority on ozone layer scientific expertise. This has been highlighted in document no. (i) indicated that USA as a state that dominate science and research in the area of controlling world emissions of the substances that deplete the ozone.

“The representative of the United States of America referred to the process of scientific examination of the issue which had followed the adoption of the Convention and continued to indicate a serious threat to the ozone layer and that, emissions of ozone depleting chemicals were increasing. He stated that his Government believed that the potential risks to the ozone layer required early and concerted action by the international community” [Para 68 Document No (i)].

In addition, refer to the document no. (ii).

“The representative of the United States called for the development of a strong protocol and pointed out that in the intervening months since the Vienna Group last met a further quarter million tons of CFCs had been released to the atmosphere. The representative warned of reliance on methane as a mitigator of ozone depletion in view of the uncertainties connected with methane emissions and the shortness of its

atmospheric residence time compared with that of the ozone depleting CFCs.” [Para 94, Document No (ii)].

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There were also other nations that backed up USA on the area of science and research particularly on controlling world emissions of the substances that deplete the ozone, which based on phrases in document no. (I).

“The representative of Sweden pointed out that his country considered it essential that the control measures to be adopted should be principally based on emissions. An accurate measurement of emissions would have to be dealt with in an indirect way. One way would be to use the techniques which had been used in the USA proposal” [Para 89, Document No (i)].

USA has also shown her diplomatic domination, whereby she has always been given opportunity to chair and lead meetings such as in document no. (iii).

“The Working Group elected as its Chairman Mr. William A. Nitze (USA). The Working Group also

elected Mr. Aladdin Resk (Egypt) and Mr. Vaycheslav Khattatov (USSR) as Vice-Chairman and Mr. Per M. Bakken (Norway) as Rapporteur” [Para 29, Document No (iii)].

Besides that, USA and her allies have been shown in document no. (iv) as countries that dominate the world CFCs’ market.

“To date seven countries (Mexico, USA, Norway, Sweden, Canada, New Zealand and Egypt) have ratified the Protocol representing approximately 38% of the global consumption of the substances controlled by the Protocol” [Para 50, Document No (iv)].

Based on the facts given above, it might be misleading to attribute the success of the Montreal Protocol solely to the preferences of the USA. No doubt that USA was powerful country; however, it was not a hegemony, which might just force its preference for the international environmental cooperation of the Montreal Protocol through out the world. As this study has pointed out, it was not possible for the USA to act alone in making persuasion to the world at large in creating international environmental cooperation of the Montreal Protocol. Indeed, the other party, which can be considered as powerful player was the European Community. This has been highlighted in document no. (ii).

“A representative of the Commission of European Community said that it preferred regulations to be based on production control. Other methods such as 'Adjusted Production' advocated by some and based on a formula:  $\text{production} + \text{imports} - \text{exports}$  substances recycled and destroyed, were in the Communities' opinion too complicated to implement effectively. He said that it would be necessary to examine the feasibility of an 'emission system' under the protocol to determine whether it could be incorporated into the regulatory measures at a later time” [Para 150, Document No. (ii)].

Besides that the European Community has also shown her domination towards science and research in controlling world emissions of the substances that deplete the ozone, which had been stated in document no. (I)

“A discussion paper by the European Community on protection of the ozone layer was also presented to the Working Group, together with a provisional proposal setting out some model articles showing how the ideas in the

paper might be incorporated in a protocol. It was emphasized that this text did, not necessarily represent the formal position of the European Community” [Para 93, Document No. (i)].

In addition, the European Community has also shown her diplomatic domination, such as stated in document no. (v).

“As a consequence of this decision the European Community representative indicated that it must reflect further upon this matter, both from the point of legal interpretation of the Protocol and corresponding provisions in European Community law. The European Community may need to return to this matter on a future occasion” [Para 311, Document No. (v)].

Both USA and European Community has shown in document no. (i) as two parties that have their own preference which contradict to each other and also at the same time had showed to the world that they were powerful parties in Montreal Protocol.

“The representative of the USA outlined the objectives he felt governments should strive to achieve which included near and long term strategies to address the problem and periodic reassessment and modification of such strategies to respond to new information. He stated that the first step would be a freeze at or near current levels of adjusted production; that the second stage would be phased scheduled reductions, which might amount to as much as 95% and that a review process be established to reassess the schedules and chemicals included, based upon scientific and economic factor” [Para 69, Document No. (i)].

“The representative of the European Economic Community said that this would comprise a first, interim stage, based on setting a production limit, possibly at the 1986 levels, of CFC 11 and 12 by the existing producers and a continuing review of research into scientific, technical and economic matters and of control measures. This process would reflect future evaluations of what is desirable and practicable. He urged that a definite timetable should be set down for a comprehensive review of all the aspects relevant to future control measures” [Para 87, Document No. (i)].

This study has also identified that, it was not only both USA and European Community tried to influence the rest of the world to create international environmental cooperation of the Montreal Protocol. Indeed, the other parties, which can be considered as powerful influential player was the industry, NGO and individual on the capacity as leaders.

**Industry:** This study has shown that industry was a powerful influential player by giving influential force to her home state in order to create international environmental cooperation of the Montreal Protocol. This has been highlighted in document no. (ii).

“He noted that many in the U.S. felt that some other nations were more concerned with short-term economic gains instead of the well-being of future generations as evidenced by the presence of industry representatives on their delegations” [Para 94, Document No. (ii)].

“By contrast, he noted the willingness of the chemical industry in the United States to develop substitutes and support control measures” [Para 95, Document No. (ii)].

Besides that the industry has also shown her financial ability in order to influence world at large in creating international environmental cooperation of the Montreal Protocol. The following documents have shown the above-mentioned matters i.e. document no. (iv) and (vi).

“It was agreed that the private financing available would be provided on commercial, non-concessionary terms and that while this funding might play a useful role, it was a role outside of the mechanisms to be decided on by this Working Group” [Para 191, Document No. (iv)].

“Industry indicates that these reporting periods are not coincident with normal accounting periods used by industry and hence the provision of data by industry for the purpose of determining compliance will be from their point of view costly due to duplication of detailed annual accounting procedures required for normal business purposes” [Para 92, Document No. (vi)].

**Non-Governmental Organisation (NGO):** NGO played essential role in the Montreal Protocol and capable to influence to the rest of the world, which has been shown by document no. (i).

“A statement on the concerns of 79 European and American non-governmental organizations over risks to the ozone layer and of man induced climate change was read to the Group by Mr. David With of the Natural Resources Defence Council, an observer to the Vienna Group meeting” [Para 120, Document No. (i)].

NGO has also influence the increase of in the awareness of the international environmental cooperation of the Montreal Protocol. Document no. (ii) has highlighted the matter.

A representative of the European Environmental Bureau presented a statement on ozone depletion and climate changes on behalf of non-governmental organizations (NGOs). He observed that since the original introduction of this statement it has been joined by a total of more than 100 NGOs, located in more than 26 nations. [Para 101, Document No. (ii)].

Document no. (ii) has proven that NGO clearly tried very hard to get attention world at large to participate in Montreal Protocol.

The statement summarized NGO's views on the need for a rapid phase out of emissions of CFCs and related substances and suggested a specific schedule (30% reduction within 18 months; 85% reduction within five years; near complete phase out within 10 years) to protect public health and the environment and to create adequate incentives for development of safe substitutes, conservation techniques, etc. [Para 102, Document No. (ii)].

**Individual:** Lastly, individuals that act on the capacity of leaders such as scientists, diplomats and negotiators are highly potential to influence the rest of the world to participate in Montreal Protocol. Based on this study leaders may be divided into three groups' i.e. structural leader, entrepreneurial leader and intellectual leader.

Structural leader i.e. head of state or/ and government tried very hard to influence for international environmental cooperation in the Montreal Protocol, such as stated in document no. (v).

“His Excellency Dr. M. Koivisto, President of the Republic of Finland, welcomed the participants of the meeting to Helsinki. His Excellency Dr. Koivisto noted that the Finnish Government will phase out CFCs by 1998 and stressed the link between ozone depleting substances and other

greenhouse gases which were causing climate change and global warming. The President emphasized the serious ecological, economic, political and social consequences of climate change and called for increased energy conservation, greater energy efficiency and a shift to environmentally-friendly energy sources to lessen the *impact on climate change*" [Para 25, Document No. (v)].

As for entrepreneurial leader i.e. diplomats or/and negotiators used their negotiations skill influence the process of the Montreal Protocol, such as stated in document no. (ii).

"Experts also requested the Secretariat to ask the Executive Director of UNEP, Dr. M. K. Tolba to remind all States of the importance of further ratification and/or accessions to the Vienna Convention for the Protection of the Ozone Layer its early entry into force and to inform the States of the urgency of the matter in view of the significant risk to which the ozone layer was being subjected" [Para 211, Document No. (ii)].

Finally, document no. (v) has shown the ability of the intellectual leader i.e. who used power of intellectual such as scientists in Montreal Protocol.

"The representative of the World Meteorological Organization confirmed the statement made Dr. Robert Watson of the United States of America and urged the improvement of the global observational capability and the need to examine carefully the role played by all atmospheric trace gases on ozone concentrations" [Para 159, Document No. (v)].

"A representative of the United States of America, Ms. Eileen Claussen, outlined some of the issues related to strengthening the Montreal Protocol. Using projected atmospheric chlorine levels as surrogates of the state of the ozone layer, different strategies aimed at reducing chlorine levels were compared. For example, the effect of a CFC phase-out was compared with chlorine levels calculated to occur under conditions of global compliance with the Montreal Protocol. Model analyses demonstrated that even with a complete CFC phase-out, chlorine levels would continue to rise but at a slower rate than that expected with the Montreal Protocol in place" [Para 215, Document No. (v)].

## CONCLUSION

This study suggests that there is some relationship in this case study between international environmental cooperation of the Montreal Protocol and preferences of the USA. Montreal Protocol was initiated by the USA; and the rest of the world had taken the USA proposal seriously. It appears that if the proposal came for the less powerful nation, most likely USA may oppose it. Nevertheless, there are some reasons that support against relying on the power approach in negotiations of the Montreal Protocol. Based on this study, the reasons are as follows:-

- USA was maybe a powerful nation but she was not the only powerful nations in the negotiations of the Montreal Protocol that may created hegemony.
- This study has highlighted that indeed, the other party, which had balanced the influence of the USA was the European Community.
- The environment of the benefits and problems by adopting Montreal Protocol had influenced the rest of world in making their own decision in the negotiations of the Montreal Protocol.

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