

## **A Study on Global Financial Mechanisms in the Montreal Protocol From Environmental Law and Management Perspectives**

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**Abstract:** Multilateral Environmental Agreements (MEAs) are the global environmental laws that are being used in governing global environment by taking precautionary measures to control world emissions of pollution. In order for the MEAs to become a reality, as the global environmental laws, MEAs need to seek for the global environmental cooperation among all states around the world. The global environmental management scholars suggested that global financial mechanisms through interest approach might influence in the negotiation of creating MEAs. Moreover, the existence of the interest approach which concerns with global financial mechanisms would lead for international environmental cooperations. This would influence in the negotiations of creating MEAs which include the Montreal protocol. Montreal protocol is one of the successful MEAs that managed to secured environmental cooperation among almost all of states in the globe. Therefore, the primary purpose of this study is to explain, the influence of interest approach which included global financial mechanisms in the global environmental management on regards of the Montreal protocol's early negotiations and the relations of the interstates participation response. Meanwhile, the methods of this study are based on qualitative set up which is based on the meetings proceeding reports of the Montreal protocol.

**Key words:** Global financial mechanisms, environmental law and management, international environment, primary purpose, the Montreal protocol

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### **INTRODUCTION**

International environmental management scholars suggested that costs and benefits approach which derived from interest approach might influence in the negotiation of creating Multilateral Environmental Agreements (MEAs) (Hasenclever *et al.*, 1997; Barrett, 2003; Mahmud and Hamid, 2007). Moreover, the existence of the interest approach which concerns with costs and benefits would lead to international environmental cooperations. This would influence in the negotiations of creating MEAs which include the Montreal protocol (Hasenclever *et al.*, 1997; Barrett, 2003; Mahmud and Hamid, 2007). Therefore, the primary purpose of this study is to explain the influence of the interest on the costs and benefits approach in the international environmental management with regards of the Montreal protocol's early negotiations and relations of the interstates participation response. When taking into consideration what position the scheming of costs and benefits in decision to become a member state of the Montreal protocol, an outline of what prospective costs and benefits might have been perceived to take place as a result of becoming a member state is helpful. According to Harris (2002), Razman *et al.*

(2013, 2014) and Mahmud and Hamid (2007), environmental and financial concerns were motivating the negotiating countries leading up to the Montreal protocol's early negotiation meetings when the protocol was first adopted.

A potential benefit of the adoption of the Montreal Protocol is the possibility of a member state gaining financial and technical incentives (Seaver, 1997; Breitmeier, 1997; Breitmeier *et al.*, 2006). Another benefit is the likelihood of sharing the burden of costs relative to the regulatory process among governments (Breitmeier, 1997; Breitmeier *et al.* 2006). Besides that perceived costs by adopting the Montreal protocol are the increasing prices due to the involvement of increasing costs in implementing the Montreal protocol and likelihood of trade conflicts with the international trade laws (Breitmeier, 1997; Breitmeier *et al.*, 2006; Mahmud and Hamid, 2007). In explaining the adoption of the Montreal protocol, as an international environmental legislation, costs and benefits play an essential position as envisaged by interest-based approach to the international environmental management. Therefore, this interest based approach emerges to be the explanation for the better understanding among countries in the international

environmental management, especially in the Montreal protocol's early negotiations and the relations of the interstates participation response.

**Interest approach from environmental law and management perspectives:** According to Barrett (2003), Hasenclever *et al.* (1997) and Haggard and Simmons (1987), the interest approach is one of the essential elements that influence in the negotiations of the MEAs. These scholars also argue that this approach helps states around the globe to realise the common interests during the MEAs negotiations. This interest approach can be divided into 2 groups (Barrett, 2003; Hasenclever *et al.*, 1997; Haggard and Simmons, 1987), namely the 1st group that emphasises on the international institutions and 2nd group which is less using the international institutions.

**Interest approach; the 1st group:** The 1st group emphasises on the international institutions effort to bring together states around the globe to realise the common interests that balance with benefits and costs involvement in creating international environmental cooperations which include in creating MEAs (Hasenclever *et al.*, 1997). The international institutions always ensure that all states will be benefited with the cooperation that being created in order to achieve joint gains and to reduce potential costs expenditure. Nevertheless, the international institutions are capable of making all states that are involved to notice the common interest in that particular international environmental cooperations even when the elements that brought them in the 1st place being no longer effective (Hasenclever *et al.*, 1997). As for Hasenclever *et al.* (1997), this situation as cooperation under the umbrella of anarchy or utilitarian approach. In addition, Hasenclever *et al.* (1997) also regarded this approach as a game theory. Meanwhile, Keohane (1984, 1988) and Oye (1986) argued that the international institutions will not be able to fulfill the optimal outcomes of every member state, for instance in the position of the prisoner's dilemma game. However, the international institutions may facilitate and smooth the progress of gaining common benefits by heartening reciprocity in the negotiation which treated others, as you would like to be treated with upgrading level of communication and information. Therefore, the international institutions will be able to persuade state response in order to maneuver results in the international environmental cooperations.

**Interest approach; the 2nd group:** According to Haggard and Simmons (1987), the 2nd group is less using international institutions and the game theory as vehicles to gain from the interest approach in the international environmental cooperations which include creating of

MEAs. As for Barrett (2003), interest in creating MEAs under the umbrella of the international environmental cooperations must be derived from individual state needs and capacity. Each individual state will calculate, its own benefits and perceived costs that will be incurred. Interest of a state begins when a particular issue that is being raised has shown a lot of benefits to the said state (Barrett, 2003; Haggard and Simmons, 1987).

Finally, it is very important to bring in the interest approach in the negotiations of creating of the MEAs in order to achieve the international environmental cooperations, regardless if the interest approach is using the 1st group theory or the 2nd group ideas. The main purpose to build up the international environmental cooperations is to tackle global environmental problems (Snidal, 1991; Barrett, 2003).

**Objectives:** This study embarks on the following objectives:

- To identify and analyse the themes and sub-themes that relate to the influence of the interest approach which included global financial mechanisms in the global environmental law and management during the early stage of negotiations that build up the international environmental cooperation in the Montreal protocol
- To explain the influence of the interest approach which included global financial mechanisms in the global environmental law and management during the early stage of negotiations that build up the international environmental cooperation in the Montreal protocol

## MATERIALS AND METHODS

This study applied a qualitative set up. In line with the qualitative approach, the Montreal protocol has been employed as a case study in this study. Hence, this study has analysed some of the relevant meeting documents of the Montreal protocol.

**Documents selection:** This study is intimately linked to the international environmental cooperation in the Montreal protocol, the influence of interest approach and also the response of the member states. Therefore, the following documents have been selected as the main documents of this study. The documents are as follow:

**(i) Meeting reports of the 1st 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 2nd 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.

**(iii) Meeting reports of the 1st 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 2nd 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 1st session:** Open-ended working group of the parties (Montreal protocol) on 21-25 August, 1989 at Nairobi, Kenya.

The earlier said documents have been selected on the basis that those documents represent the early stage of negotiations of the Montreal protocol. The first 2 documents represent negotiations in the making of the Montreal protocol itself whereas the last 4 documents represent negotiations to persuade and attract more developing nations to join as members of the Montreal protocol.

**Documents analysis:** All the earlier 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. According to Maxwell (2005) and Raznan *et al.* (2013, 2014), there are a few necessary steps in analysing documents by using the software. All the documents are identified and selected for the purpose of fulfilling the study objectives, i.e., the earlier mentioned documents. These documents are numbered (i-vi). Later, these documents are scanned in order to transform them into transcripts that can be analysed by computer software 5 (Nvivo 2). By using computer software (Nvivo 2), the researchers identified themes and sub-themes based on the earlier mentioned selected documents which are in line with the study objectives. Following that the 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

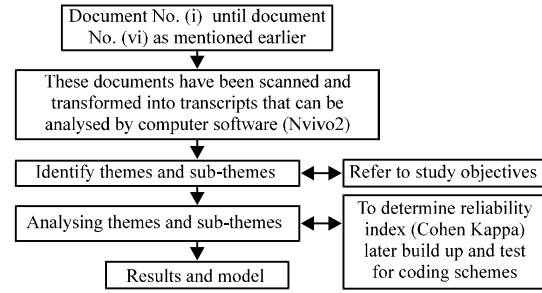


Fig. 1: Documents analysis process flow chart

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 has been laid down in Fig. 1.

## RESULTS AND DISCUSSION

Based on the documents analysis on the influence of interest approach in the early negotiations of the Montreal protocol, 2 main themes and 8 sub-themes have been identified (Table 1 and Fig. 2). The themes are costs and benefits while the sub-themes are implementation costs, market competitiveness, international trade conflict, increasing prices, flexibility, justice, incentives (technical and financial assistance) and cost-effectiveness.

**Costs:** When referring to the influence of interest approach in the negotiation of the Montreal protocol, it is clear that the costs have played essential roles on this matter. This has been highlighted in document No. (ii) indicates the subject matter:

Another expert drew attention to the problems faced by small countries which might suffer increased costs or reduced availability of chemicals if producing nations restricted exports in favour of continued domestic consumption under regulatory measures [Para 177, document No. (ii)]

**Implementation costs:** This study has shown that implementation costs were also being considered, as factors that influence states to participate in international environmental cooperation of the Montreal protocol. This has been highlighted in document No. (vi):

Incremental costs that might be covered by the international financial mechanism [Para 103, document No. (vi)]

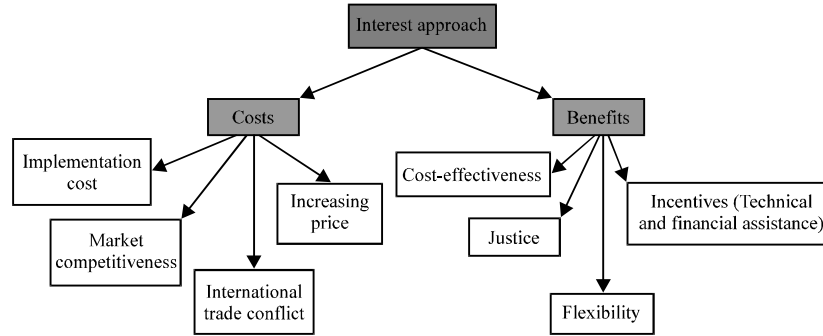


Fig. 2: Model of themes and sub-themes of documents analysis of the interest approach which included global financial mechanisms in the Montreal protocol

Table 1: Themes and sub-themes of documents analysis of the interest approach which included global financial mechanisms in the Montreal protocol

Themes	Sub-themes
Costs	Implementation costs, market competitiveness, international trade conflict, increasing prices
Benefits	Flexibility, justice, incentives (technical and financial assistance), cost-effectiveness

**Market competitiveness:** Beside the implementation costs which has been highlighted earlier, market competitiveness has also been mentioned for consideration in order to influence the negotiation of the the Montreal protocol. This has been highlighted in document No. (i) indicating the said matter:

The delegates warned that a freeze at the 1986 production level as contained in one draft protocol before the group would lead to a production monopoly for current producers [Para 116, document No. (i)]

**International trade conflict:** In the early negotiation of the Montreal protocol, all of the states around the globe were looking forward that controlling trade measures in the Montreal protocol should be consistent with the international trade laws in order to avoid international trade conflict that might caused international trade problems. This has been highlighted in document No. (ii) that indicates the subject matter:

The sub-group on trade issues considered the compatibility of measures for controlling trade between parties to the protocol and trade between parties and non-parties with the rules of international trade, especially the GATT [Para 301, document No. (ii)]

**Increasing prices:** In addition to the discussion under the main theme costs which are based on document No. (vi), member states during the negotiation always ensure that

the Montreal protocol must take into consideration on the increasing prices due to the involvement of increasing costs in implementing the Montreal protocol:

He outlined the elements of the cost as follows: The costs of using or manufacturing high price CFC substitutes; the costs of amortization; the cost of adjustments in industries using CFCs and halons, as inputs and the higher costs of importation of equipment and goods using the substitutes [Para 91, document No. (vi)]

**Benefits:** The 2nd main theme that influence the negotiation of the Montreal protocol from the interest approach perspective is also clear that the benefits have played essential roles on this matter. This has been highlighted in document No. (vi) which indicates the subject matter:

He first identified the needs of developing countries; their reticence to ratify the Montreal protocol was due to lack of the resources necessary to meet its requirements without serious disruption of their development efforts what they needed was concessional funding and outright grants additional to existing aid programmes [Para 18, document No.(vi)]

**Flexibility:** These benefits are also including the aspect of flexibility. This aspect of flexibility really helps to influence states around the globe to join in and ratify the Montreal protocol. During the negotiation of the Montreal protocol many developing states have requested for the flexibility in implementing the Montreal protocol. This has been highlighted in document No. (ii) which indicates the said matter:

Special clauses must be drafted for the developing countries that take into account their particular situation and that at a minimum, permit

them to continue their production and emission at current levels, since these countries are not in a position to replace these substances in addition to which they are experiencing a very difficult economic situation [Para 96, document No. (ii)]

**Justice:** This study has shown in document No. (i) that justice also bring benefits to states around the world during the negotiation of the Montreal protocol because with the application of the principle of fairness in the Montreal protocol, the Montreal protocol will become international law that would be accepted through out the world:

He said, however in doing so it was important to apply the principle of fairness so that the regulations would be acceptable to all [Para 85 document No. (i)]

**Incentives (technical and financial assistance):** Incentives on technical and financial assistance bring benefits to member states, especially to the developing nations in accepting the Montreal protocol, as one of the international environmental laws. This has been highlighted in document No. (vi) that indicates the subject matter.

The 2 main purposes for financial or other support: The 1st, compensation for the incremental costs of transition to substitutes of the ozone depleting substances and 2nd, support which would serve as an incentive to ensure adherence to the protocol [Para 178, document No. (vi)]

**Cost-effectiveness:** Cost-effectiveness which bring benefits to member states by sharing the burden of costs relative to the regulatory process among governments. This has been highlighted in document No. (ii):

Mr. Mansfield enumerated some of these issues; on the substances that should be regulated; on the levels of limitations to be chosen; on the cost-effectiveness of regulations and on how the burden of costs relative to the regulatory process would be shared among governments [Para 32, document No. (ii)]

## CONCLUSION

Finally, the results potentially provide with better understanding of the influence of interest approach which included global financial mechanisms in the global environmental law and management.

## SUGGESTIONS

This study suggests that costs and benefits rather an important feature to encourage and influence states around the globe to participate in the Montreal protocol. After series of negotiations, most of the negotiating countries felt that the Montreal protocol would be able to supply market for substitutes of CFCs and would not be exaggeratedly upsetting the global cost-effectively. Meanwhile, the developing nations have tried to seek justice by promoting the principle of fairness and principle of common but differentiated responsibility. Based on these 2 principles, the developing nations managed to obtain flexibility in implementing the Montreal protocol. Moreover, the developing nations which regarded as Article 5 states in the Montreal protocol are also received incentives on technical and financial assistance through multilateral fund in order to help them in implementing the Montreal protocol.

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