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PROTECTION OF OZONE LAYER VIS-À-VIS GLOBALISATION

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ABSTRACT
Scientists and experts may disagree on the rate of climate change but climate change is a real and it is happening right now. This can be agreed upon by everyone, except for the certain Republicans. With the President of the United States, Donald Trump withdrawing United States from the Paris Climate Accord, 2015 citing danger to economy and lack of responsibly on developing countries, it seems that globalisation has started to have an adverse effect on the fight against climate change.

However, at the beginning of the whole phenomenon of globalisation actually really helpful in the acceptance of change in climate being real by the world community and also greatly accelerated the fight against climate on a global scale.This paper is an attempt trace the effect and the contribution of globalisation as a phenomenon in helping paving the way for the first major global step in fighting a deadly climate change process i.e. ozone layer depletion.

INRODUCTION
"Earth without ozone is like a house without roof."
—Anonymous

The ozone layer refers to a thick layer in stratosphere which plays a key role in climate and the biosphere. This layer acts as shield to the Earth as it has the capability to absorb almost 97-99% of the ultraviolet radiations from the sun, which is harmful for living organisms. Although in small amounts, it is helpful for the skin formation as it as source of vitamin D but it is largely a cause of sunburn, blindness and cancer. The slightest rupture of this layer might lead to devastating effects leading to irreparable consequences for the planet at large. However, man's quest to pursue his material desires has been a major cause for depletion of the ozone layer. Scientists are of the opinion that by now, it might have been damaged to such an extent that it is impossible to retain its original form. Despite the deteriorating condition of the ozone layer, there have been international efforts to curb the side effects of Industrialisation and Globalisation on the ozone layer. The Vienna Convention and the Montreal Protocol are steps taken by the global community in this direction.

The depletion of ozone layer had a direct link with the concept of the globalization. Also, the manner in which this issue was tackled by the world community, which was unlike any other environmental issue handled before, which was also the effects of globalization. This research paper aims to analyse the issue of the depletion and protection of ozone layer from the prism of globalizing world. Along with that, this paper shall try to analyse the unique impact of the Montreal Protocol on the global scale.

RESEARCH METHODOLOGY
The research methodology adopted for the purpose of this project is the doctrinal method ofresearch. The various library and internet facilities available at National Law

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University, Delhi have been utilized for this purpose.

OBJECTIVE

The objective of this paper is to analyse the impact of globalization on the issue of depletion of ozone layer and how the response to ozone layer depletion issue impacted globalization.

RESEARCH QUESTIONS

- Was the way that the issue of ozone layer depletion tackled evident of the fact that the 1980's was the time when the world truly started globalizing?
- Is the Multilateral Fund the biggest evidence of the fact that we are now living in a globalized world?
- Is it only globalization that has impacted the Montreal Experience or the Montreal Experience has also furthered the concept of globalization?

HYPOTHESIS

- The depletion of ozone layer was a direct result of globalization.
- The overwhelming enthusiasm across the globe to address the issue of ozone layer depletion was a result of globalisation.
- The Montreal Experience has strengthened the concept of globalisation.
- The concept of globalisation contributed immensely in making the Montreal Protocol the most successful environmental experience in history.

CONNECTING THE DOTS: THE DEPLETION OF OZONE LAYER, THE MONTREAL EXPERIENCE AND GLOBALIZATION

Some scholars place the origins of globalization in modern times; others trace its history long before the European Age of Discovery and voyages to the New World. Some even trace the origins to the third millennium BCE.[1] But globalization on a massive scale began in the 19th century, especially when quick transportation was invented in the form of steam engine locomotive.But it was in the late 20th century that the world started globalizing and the globe has been shrinking at a breathtaking pace ever since.

The term *globalization* is derived from the word *globalize* and is a term which is quite difficult to define in words. Everybody understands what globalization is how it has changed our life but it very difficult to frame a precise definition. One of the earliest known usages of the term as a noun was in a 1930 publication entitled, *Towards New Education*, but it was Economist Theodore Levitt who is widely credited with popularizing the term in the 1980's.[2] In a very comprehensive manner, globalization can be defined as"the process of international integration arising from the interchange of world views, products, ideas,

[1]Andre Gunder Frank, *ReOrient: Global economy in the Asian age*, Berkeley,(University of California Press, 1998)

[2] *Feder, Barnaby J. "Theodore Levitt, 81, Who Coined the Term 'Globalization', Is Dead", (6 July 2006).*

and other aspects of culture."[3] If this definition can be accepted as proposed, the world actually achieved its globalizing pace in the 1970's.

Another seemingly epoch making development was also occurring in the 1970's, whose impact was felt through the 1980's and is still being discussed in 2015. Ozone depletion describes two distinct but related phenomena observed since the late 1970s: a steady decline of about 4% in the total volume of ozone in Earth's stratosphere (the ozone layer), and a much larger springtime decrease in stratospheric ozone around Earth's Polar Regions.[4] An essential property of ozone molecule is its ability to block solar radiations of wavelengths less than 290 nanometers from reaching Earth's surface. In this process, it also absorbs ultraviolet radiations that are dangerous for most living beings. UV radiation could injure or kill life on Earth. Though the absorption of UV radiations warms the stratosphere but it is important for life to flourish on planet Earth.For humans, excessive exposure to ultraviolet radiation leads to higher risks of cancer (especially skin cancer) and cataracts.[5] This was high time that world community responded to the newly discovered threat to humans as a globalizing community.

Ironically, the main cause of this ozone layer depletion was the very advancement in science and technology that was responsible for the world globalizing. As the Chlorofluorocarbons (CFCs) and other halogenated ozone depleting substances (ODS) are mainly responsible for man-madechemical ozone depletion.No significant natural sources have ever been identified for these compounds—their presence in the atmosphere is, almost entirely, due to human manufacture.[6]

CFCs were invented by Thomas Midgley, Jr. in the 1920s. They were used in air conditioning and cooling units, as aerosol spray propellants prior to the 1970s, and in the cleaning processes of delicate electronic equipment.Basically, chlorofluorocarbons are released into the atmosphere due to cleaning agent coolants in refrigerators, air conditioning; packing material; aerosol spray cans etc. When such ozone-depleting chemicals reach the stratosphere, they are dissociated by ultraviolet light to release chlorine atoms. The chlorine atoms act as a catalyst, and each can break down tens of thousands of ozone molecules before being removed from the stratosphere. Given the longevity of CFC molecules, recovery times are measured in decades. It is calculated that a CFC molecule takes an average of about five to seven years to go from the ground level up to the upper atmosphere, and it can stay there for about a century, destroying up

[3]Al-Rodhan, R.F. Nayef and Gérard Stoudmann, *Definitions of the Globalization: A Comprehensive Overview and a Proposed Definition(2006).*

[4] *"Twenty Questions and Answers About the Ozone Layer"*,Scientific Assessment of Ozone Depletion: 2010, *World Meteorological Organization, 2011.*

[5]*" What is Ozone Layer?",* available athttp://www.conserve-energy-future.com/ozone-layer-and-causes-of-ozone-depletion.php, (last accesed on 29th Oct, 2015)

[6]Newman, P. A., Daniel, J. S., Waugh, D. W., Nash, E. R.; Daniel; Waugh; Nash (2007).*"A new formulation of equivalent effective stratospheric chlorine (EESC)". Atmos. Chem. Phys.*, available at http://www.atmos-chem-phys.net/7/4537/2007/acp-7-4537-2007.html, (last accessed on 1st Nov, 2015)

to one hundred thousand ozone molecules during that time.

James Lovelock was probably the first scientist who started collecting empirical data about the abundance of chlorofluorocarbons in the atmosphere. Dr. Lovelock delivered a lecture on his findings and it was heard by Frank Rowland and Mario Molina. Frank Sherwood Professor of Chemistry at the University of California, Irvine, where he still works.Molina worked as a post-doctoral scholar in Rowland's laboratory in 1974. When they together attended the lecture, they were both intrigued by the findings presented. They started further investigations and research on what ids the effect of the presence of such high amounts of CFCs in the atmosphere. They discovered that CFCs decompose in sunlight, to release chlorine atoms. Chlorine atoms convert ozone to oxygen, and can then attacks other ozone molecules. A single atom can destroy millions of ozone molecules before it is neutralized.Molina and Rowland's findings were published in 1974 and shocked the entire world. Their findings were later confirmed by scientists around the world, especially the British Antarctic Survey in 1986.[7] They were awarded the Noble Prize for Chemistry in 1995.

In 1985, the Vienna Convention for the Protection of the Ozone Layer was agreed upon by the global community. Relying on the confirmed findings of Molina and Rowland's by the British Antarctic Surveyin 1986, nations further agreed upon the Montreal Protocol on Substances that Deplete the Ozone Layer, which was a protocol to the Vienna Convention for the Protection of the Ozone Layer.This was the concrete step towards phasing out of the ozone depleting substances. Frank Rowland and Mario Molino deserve the credit for this, as the world community relied on their study and findings to base their decisions on.

This response was probably the kind of "international integration" that has been considered as an essential feature of globalization. The world community has finally started to become a globalized community and the response to the issue of ozone layer depletion is evidence of it.

RESPONDING LIKE A GLOBALIZING COMMUNITY

The Montreal Protocol was an epoch-making not in the field of international relations or even in environmental law. It was also very important for the concept of the globalization, as per the proposed definition above.

The remarkable thing about the change that came while reaching the Montreal protocol was that at the time of the Montreal protocol there were no readily available substitutes for the CFCs, let alone their economic viability. However, it is also very remarkable that how quickly cost-effective substitutes were developed and began to be used in electronics, food packaging and other applications.[8] This miraculous

[7] *"Frank Rowland and Mario Molina",* available at http://humantouchofchemistry.com/frank-rowland-and-mario-molina.htm (last accessed on 3rd Nov, 2015)

[8] Alan S. Miller, *Incentives for CFC Substitutes: Lessons for Other Greenhouse Gases*, in COPING

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development was a direct result of globalization i.e. it was an interchange of ideas.

In the course of human development and progress, the biggest casualty has been Mother Nature. From being a fringe field of study, environment and environmental law came into the forefront of the world political scenario and has firmly retained its position.Therefore, the principle of common concern brings about that the global environment is a common concern of humanity.[9]

The response may have been a knee-jerk reaction and a very anthropocentric approach to development of environment law. But nothing is more of a uniting factor as a threat to the humankind. The year 1985 was probably the first time when a particular environmental problem affected the entire global on such a broad extent, so much so that it threatened the very existence of human race. This was probably the first time the countries truly reacted concretely like a globalizing community.

However, some may consider this globalized response because of another political development. Such a united response may not have been seen a few years back as those were the times of cold war between the United States of America led- the Western Block and the Soviet Union led- the Eastern Block. The differences between these two power houses had brought such destruction to human-kind. It would have been very difficult for a consensus to have been reached during that time. If a consensus might have also been reached, it would have been too slow or even inadequate. Fortunately, the problem of ozone layer depletion came into light in the post-1985, during the decline of the Cold War and the reduction in the power of the Soviet Union.

THE GLOBALISING INDUSTRY

As pointed out earlier, ozone depleting substances were used in air conditioning and cooling units, as aerosol spray propellants prior to the 1970s, and in the cleaning processes of delicate electronic equipment.Basically, chlorofluorocarbons are released into the atmosphere due to cleaning agent coolants in refrigerators, air conditioning; packing material; aerosol spray cans etc.

The major ozone depleting substances used in various industries were as follows:

- Chlorofluorocarbons (CFCs): The most widely used ODS, accounting for over 80% of total stratospheric ozone depletion.Used as coolants in refrigerators, freezers and air conditioners in buildings and cars manufactured before 1995.Found in industrial solvents, dry-cleaning agents and hospital sterilants.Also used in foam products — such as soft-foam padding (e.g. cushions and mattresses) and rigid foam (e.g. home insulation).

WITH CLIMATE CHANGE: PROCEEDINGS OF THE SECOND NORTHAMERICAN CONFERENCE ON PREPARING FOR CLIMATE CHANGE, at p. 547 (John C. Topping,ed., Climate Institute, 1989); James K. Sebenius, *Challenging Conventional Explanations of International Cooperation: Negotiation Analysis and the Case of Epistemic Communities*, 46(1) *in* INTERNATIONAL ORGANIZATION, at p. 323, 358 (1992).

[9]Principle 13, IUCN Covenant.

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- Halons: Used in some fire extinguishers, in cases where materials and equipment would be destroyed by water or other fire extinguisher chemicals. In B.C., halons cause greater damage to the ozone layer than do CFCs from automobile air conditioners.
- Methyl Chloroform: Used mainly in industry — for vapour degreasing, some aerosols, cold cleaning, adhesives and chemical processing.
- Carbon Tetrachloride: Used in solvents and some fire extinguishers.
- Hydrofluorocarbons (HCFCs): HCFCs have become major, "transitional" substitutes for CFCs. They are much less harmful to stratospheric ozone than CFCs are. But HCFCs they still cause some ozone destruction and are potent greenhouse gases.[10]

Along with the countries, it was also very surprising to note how well the global industry responded to reducing the ozone depleting substances being used in the industry. It was quite surprising because normally the industry does not respond well to any change in the already well-established practices and system and especially not such a radical change. The industry behaved like a well-oiled global machine.

On further analyses of this extra-ordinary development may be that the way the American industries responded to the use of ozone depleting substances by curbing its use in its industries and putting their use in a very high bracket. The United States of America was one of the significant consumers of ozone depleting substances in various industries. It was very surprising on the part of the United States of America as it the country that normally is opposed to most development in environmental law and mostly is signatory to them but rarely rectifies them domestically.

The fact that USA passed domestic regulations curbing the use ozone depleting substances which help set a standard for the industry and gave a fair insight to the industry that where the new environmental policy was headed. Perhaps this was the reason that they whole heartedly accepted this radical change in their industry. The industry did not want to suffer from any disadvantage due to the American industries and would rather have a uniform global regulation. This was the indication that the age of globalized industry and multinationals was upon us.

The other remarkable thing about this response that came about from the industry was that at the time of the Montreal protocol there were no readily available substitutes for the CFCs, let alone their economic viability. However, it is also very remarkable that how quickly cost-effective substitutes were developed and began to be used in electronics, food packaging and other applications.[11]
Again, as per the proposed definition of globalization this was an "international integration" of products and methods of the industry.

[10] *"The Causes of Ozone Depletion"*, http://www.bcairquality.ca/101/ozone-depletion-causes.html, (last accessed on 15th Oct, 2015)

[11] Supra note 9.

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SETTING THE TREND FOR THE FUTURE GLOBAL RELATIONS

The Vienna Convention for the Protection of the Ozone Layer and its protocol, the Montreal Protocol on Substances that Deplete the Ozone Layer set the trend for the future of global relations, forming what was called the Convention - Protocol system.

The Vienna Convention for the Protection of the Ozone Layer is a Multilateral Environmental Agreement. It was agreed upon at the Vienna Conference of 1985 and entered into force in 1988. It acts as a framework for the international efforts to protect the ozone layer.[12] However, it did not have any legally binding obligations to reduce the use of CFCs, the main chemical agents causing ozone depletion. Those were laid down in the Montreal Protocol.

The Montreal Protocol on Substances that Deplete the Ozone Layer, the protocol to the Vienna Convention for the Protection of the Ozone Layer, is the international treaty designed to protect the ozone layer by phasing out the production of numerous substances that are responsible for ozone depletion. It was agreed on 16 September 1987, and entered into force on 1 January 1989.[13]

The two ozone treaties have been ratified by 197 parties, which include 196 states and the European Union, making them the first universally ratified treaties in United Nations history.[14] The regulatory format of Convention-Protocol did not begin with the experience of the ozone depletion issue. However, it was popularized by the extraordinary success of the Vienna Convention and the Montreal Protocol. It is now seen as a routine practice in global relations and international environment regulation.[15] It has now become an integrated world view.

The 1997 Montreal Amendment to the Montreal Protocol introduced a unique adjustment system, which was revolutionary and difficult to implement has been extremely successful for the fight against ozone depletion. Many of the most dramatic changes in the phaseout schedule for various ozone depleting substances have come through adjustments rather than Amendments.[16] The adjustment system skips the complex and uncertain process of negations to change the phase out schedule. It quickly and effectively brings new technology and information which can save

[12] *"Vienna Convention for the Protection of the Ozone Layer"*. *United Nations Treaty Series*, available at https://treaties.un.org/pages/ViewDetails.aspx?src=TREATY&mtdsg_no=XXVII-2&chapter=27&lang=en (last accessed on 4th Nov, 2015)

[13] *"Adjustments to the Montreal Protocol"*. United Nations Environment Programme Ozone Secretariat, available at http://ozone.unep.org/en/handbook-montreal-protocol-substances-deplete-ozone-layer/2183, (last accessed on 29th Oct, 2015)

[14] *"South Sudan Joins Montreal Protocol and Commits to Phasing Out Ozone-Damaging Substances"*, Jan 23, 2012,UNEP press release.

[15] James K. Sebenius, *Designing Negotiations Toward a New Regime: The Case ofGlobal Warming*, 15(4) INT'L SECURITY, at p.110, 116-17. (1991).

[16] Edith Brown Weiss, *The Five International Treaties: A Living History*, in EDITH BROWN WEISS & HAROLD K. JACOBSON, ENGAGINGCOUNTRIES: STRENGTHENING COMPLIANCE WITH INTERNATIONAL ENVIRONMENTAL ACCORDS 140-44 (The MIT Press, 1998).

the ozone layer quickly into the international discourse.

This amendment is a very unique approach to make international environmental law as there is neither a commission empowered under the amendment to make rules for certain countries who do not wish for such rules to be applied on them nor it requires that all changes be ratified by all the parties before they are enforced.[17]Adjustments require the consent of 2/3 of the Parties, become binding on all Parties six months after they are formally notified about them, even those states that did not vote in favor of them.[18] Even further the power of the Parties to make policy without the consent of some important actors was increased in the London Amendments to the Protocol.

Both for the agreement as a whole and particularly in the caseof the Multilateral Fund, the role of the organization's secretariatsand decision-making bodies in modifying the way treaty obligationsare implemented has been important. The Protocol andFund Secretariats provide oversight and guidance as regulatorydecisions are made, in ways that likely result in better decisionsthan would have been taken absent their involvement.[19] The guiding role of the Protocol and Fund Secretariats is performed by the 14-state decision-making body, the Executive Committee and the Ozone Secretariat, respectively. Unlike most cases of environmental protocols, the Executive Committee and the Secretariat of the Fund did not become mere rubber-stamps or administrative bodies in the system. They took actual tough decisions and in the third meeting of the Executive Committee went to the extent rejecting all the work programs put forth as being confusing and overlapping.[20]This action cameas a shock to the implementing agencies, and resulted in greatercoordination among work programs. Such confidence was never before seen in any Executive Committee before.

Such "international integration" shown by the world community to go as far as to put legal sanctions and making other states accept adjustments made by the majority of member states further strengthened the concept of globalization. Moreover, the drastic steps of the Executive Community makes the globe feel like a homogenized community which many scholars envisioned for globalizing world.

BATTING FOR THE WEAK PLAYERS OF THE GLOBE

Recently, Maldives held its parliament under the waters of the Ocean, in an attempt to draw the attention of the international community to the fact that their country will be the first one to feel the effect of global warming. It was a metaphor of the things to come; if the temperature of the Earth keeps on rising at the current pace, very soon Maldives will cease to exist i.e. it will be

[17]Elizabeth R.,DeSombre, *The Experience of the Montreal Protocol: Particularly Remarkable and Remarkably Particular,*UCLA Journal of Environmental Law and Policy, Vol. 19, Issue I, 2000.

[18]Montreal Protocol (as amended), Art. 2(9)(d).

[19] Supra note 18.

[20]*Draft Report of the Third Meeting of the Executive Committee of the Interim Multilateral Fund,* United Nations Environment Program, http://UNEP/OzL.Pro/ExCom/3/18 (1991).

submerged under the sea.[21] This is evidence of the fact that certain environmental changes affect some countries more and sooner than others. It is also evident of the fact that not all the countries in the world have same sort of role in world politics or bargaining power to influence international policy.

Similar is the scenario in the issue of depletion of ozone layer of Earth. Some countries are more affected by this thinning of the layer than others and suffer the consequences sooner. But, it is not necessary that they have the same sort of geo-political position like the United States of America, to get their voices heard.

For any policy to be successful, the inclusion of the developing and third world countries is non - negotiable. It should be a policy that keeps in mind the challenges and the problems faced by such countries and not just the interests of the Big Five and other few major players. Remarkably, the Montreal protocol was such a pleasant development in the field of world policy framing, catering to the special needs and situations of the developing and developed nations.

The big developing countries like China and India have always argued that it is impossible for them to meet their developmental index ambitions without sacrificing the environment. This argument does seem plausible to a good extent that without sacrificing the environment there cannot be development, to which the whole other debate of sustainable development et al debate can be started. These countries allege that now the developed countries have achieved their goals, they are willing to talk about environment and want to curb their progress. But it is also true that in the 21st century China and India are the two of the most polluting countries of the world and are having the most adverse effect on the environment. Similarly, it was estimated at that time that India and China alone would account for one-thirdof the world's consumption of CFCs by 2008. Therefore, it was very essential that big developing economies like China and India were taken into the ambit of the Montreal system.[22]

In order to bring the developing countries into the ambit of the Montreal system, they were firstly given a grace period in which no sanctions or obligations will be imposed on them; initially 10 years, though ithas been renegotiated for a variety of different Ozone depleting substances. Secondly, they were given trade incentives though which they can freely trade in controlled substances specified in the agreement; as only parties to the agreement were allowed to legally trade in them.[23] There was also an added incentive for the developing countries which did not use ozone depleting substances, to join as

[21]"*Maldives government highlights the impact of climate change... by meeting underwater"*, Mail Online,20th Oct, 2009, available at http://www.dailymail.co.uk/news/article-1221021/Maldives-underwater-cabinet-meeting-held-highlight-impact-climate-change.html(last accessed on 4th Nov, 2015).

[22]Fiona Weir, *Friends of the Earth, Funding Change: Developing Countries and the Montreal Protocol* (June, 1990).

[23]*Montreal Protocol on Substances that Deplete the Ozone Layer*, Sep. 16, 1987, art. 4, **S.** TREATY DOC. NO. 10, 100th Cong., 1st Sess. 2 (1987), 26 I.L.M. 1550 (entered into force Jan. 1, 1989).

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joining the Montreal system was a sure shot legal way they can gain access to such substances.

The protocol considered that developing countries had special needs for financial and technical assistance.

FINANCIAL ASSISTANCE TO DEVELOPING COUNTIRES: A FIRST IN A GLOBALIZING WORLD

The monetary position of each country in the world is different and the difference sometimes being poles apart. It cannot be expected from every country without financial and technical assistance. In a globalizing world, there should not just be sharing of views, ideas or culture but of financial, technical and other resources as well. This was what precisely what the 1990 Amendment to Montreal Protocol did for the global geopolitics and globalization.

"Although the Montreal Protocol acknowledged the specialneeds of developing countries for funding and access to technology,the actual funding mechanism was specified under theLondon Amendments to the Protocol and the details worked outin difficult negotiations. These created the mechanism that cameto be known as the Multilateral Fund…The specification of the Fund had the intended effect. China joined the Protocol immediately, followed by India and Brazil in1992 and eventually by almost all developing countries. Importantly,the operation of the Fund has gone a long way towardhelping some developing countries avoid ozone depleting substancesor change over their use of ODS to ozone-safe chemicalsor processes."[24]

"The Multilateral Fund for the Implementation of the Montreal Protocol provides funds to help developing countries comply with their obligations under the Protocol to phase out the use of ozone-depleting substances (ODS) at an agreed schedule. ODS are used in refrigeration, foam extrusion, industrial cleaning, fire extinguishing and fumigation. Countries eligible for this assistance are those with an annual per capita consumption of ODS of less than 0.3 kg a year, as defined in Article 5 of the Protocol. They are referred to as Article 5 countries.The phase-out of ODS will enable the ozone layer to repair itself.

The Fund was the first financial mechanism to be borne from an international treaty. It embodies the principle agreed at the United Nations Conference on Environment and Development in 1992 that countries have a common but differentiated responsibility to protect and manage the global commons.

In 1986, industrialized countries consumed 86 per cent of the most important ODS, the chlorofluorocarbons (CFCs). They agreed to contribute to the Fund in order to help Article 5 countries achieve the Protocol's goals. Article 5 countries committed themselves to joining the global effort to restore the depleted ozone layer. This global consensus forms the basis of the operation of the Multilateral Fund that confines the liability of the Fund to costs essential to the elimination of the use and production of ODSs. An important aspect of the Fund is

[24] Supra note 18.

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that it funds only the additional (the so-called 'incremental') costs incurred in converting to non-ODS technologies.
The institutional structure of the Multilateral Fund was established at the 1990 Meeting of the Parties to the Montreal Protocol in London. Established as an interim mechanism in 1991, and on a permanent basis in 1993, its structure has not been changed in any important respect since.

- The Multilateral Fund (MLF) operates under the authority of the Parties to the Montreal Protocol.
- An Executive Committee comprising seven developed and seven developing countries oversee Multilateral Fund operations.
- The Fund Secretariat assists the Executive Committee and carries out day to day operations.
- In delivering financial and technical assistance, the MLF works together with implementing agencies: UNDP, UNEP, UNIDO, the World Bank and a number of bilateral agencies.
- The Fund Treasurer is responsible for receiving and administering pledged contributions (cash, promissory notes or bilateral assistance), and disbursing funds to the Fund Secretariat and the implementing agencies based on the directives of the Executive Committee.

Up to 20 per cent of the contributions of contributing Parties can also be delivered through their bilateral agencies in the form of eligible projects and activities.

The Fund is replenished on a three-year basis by the donors. Pledges amount to US$ 2.7 billion for the period 1991 to 2010. The Fund provides finance for activities including the closure of ODS production plants and industrial conversion, technical assistance, information dissemination, training and capacity building aimed at phasing out the ODS used in a broad range of sectors.
The Fund Secretariat is based in Montreal, Canada, and comprises a small number of professional and support staff."[25]

However, there was a pre-conceived notion about such a Fund being set-up which may lead to a setting of a precedence that developed countries have to agree to lift some of the financial burdens it puts on the developing countries regarding environmental targets. Such concerns were first raised by the obvious United States of America, who was the main opponent of such fund being set-up; as the USA is rarely happy to share its financial resources and technical advancements with the global community. But as fortunately, the precedent was set and today every environmental agreement is made which includes a clause for a system in which funds will be provided to the developing countries to face their financial challenges and meet their obligations put on them under the agreement. Such a bold and freak decision by the counties is the manifest of the impact of globalization, that the world is taking the decision as a world community and not just according to the interest of a single country.

NEGATIVE IMPACT OF GLOBALIZATION ON THIS ISSUE:

[25]"Multillateral Fund for the implementation of the Montreal Protocol" available at http://www.multilateralfund.org/aboutMLF/default.aspx(last accessed on 26th Oct, 2015)

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THE EMERGENCE OF THE BLACK-MARKET:

As every rose has its thorns, it would be wrong to just paint the rosy side of the effect of globalization. Its negatives effect was seen as and perhaps the greatest challenge for the fight against ozone layer depletion, the emergence of a global well- organized black market for the ozone depleting substances.

The biggest challenge for the system against ozone depletion is the black market that exists for CFCs. No doubt the Montreal Amendments have adjusted the timetable for phase out of some substances and modified trade restrictions, including the creation of a licensing system to attempt to decrease the black market in ozone depleting substances.[26] But the black market has emerged as the biggest challenge for the Montreal protocol as globalization has helped the black marketers to co-operate their efforts and provide to a market which was of "global" proportions.

There are some projects which legitimately require the use of CFCs. but CFCs being very high on the tax bracket make it very difficult for the industry to be viably used. A very common example is the case of restoration of classic cars, which is the passion of every one who can afford to do so; in such cars the air-conditioning can to be restored only by the use of CFCs. Such are the cases which the black marketers cater to, as the high tax bracket makes the restoring of the classic car even more expensive.

The extent of the black market, though unknown, is significant. In some U.S. ports, CFC smuggling is second only in value to the smuggling of narcotics.[27] Industry estimates suggest that up to 20 percent of CFCs currently in use may have been purchased on the black market.[28] The causes of the merger of such a wide network of black market for ozone depleting substances are several. As the author rightly points out that firstly there is a difference between the phase out times of article 5 and non-article 5 countries. This means that some countries can legally make these substance which leaves scope for its illicit use. Secondly, the difficult in economic transitions of these substances, make them financially viable at the black market. And thirdly, it is very easy to smuggle ozone depleting substances as it is very difficult to distinguish between virgin CFCs and recycled which is therefore legal to use.[29]

Although the black market in CFCs is less than ideal and should ameliorate to the extent possible, its existence does not pose a long-term threat to the health of the Montreal Protocol system.[30]Fortunately, the demand for black market CFCs is already smaller than it could have been and is likely to have a finite lifespan. Ithas, for instance,

[26]Montreal Anums.to the Montreal Protocol (1997).

[27]Saleem S. Saab, *Move Over Drugs, There's Something Cooler on the Black Market* - Freon, DicK. J. INT'L L. at p. 633, 634 (1998).

[28]*Chemical Production: Holed Up,* ECONOMIST, 9th Dec. 1995, at p 63.

[29] Frederick Pool Landers Jr., "*The Black Market Trade in Chlorofluorocarbons: The Montreal Protocol Makes",* BANNED REFRIGERANTS A HOT COMMODITY 26 GA. J. INT'L & Comp. L. 457, 473(1997).

[30]Supra note 18.

generally been limited to the mobile air conditioningsector. Large industrial users of CFCs have been reluctantto invest in CFCs of questionable origin. This reluctancestems in part out of concern for the legality of the interaction -legitimate businesses are unlikely to risk difficulties with the IRSfrom using black market products. More importantly, black marketCFCs that have been seized often contain a high degree ofimpurities; those who are responsible for large-scale refrigerationor cooling units are unlikely to risk refilling them with CFCswhose origin is uncertain.[31] Therefore, not much threat is posed by the "globalized" black market. But its emergence like a well-organized black market on a global scale was only because of the fact of globalization.

CONCLUSION

Everybody has felt the impact of globalization in every aspect of their lives. This is equally true in case of the whole experience of the ozone layer depletion issue. This impact has mostly been positive, encouraging and progressive. But there have been side-effects as well. The concerns of the scholars who argue the negative impacts of globalization may not have been that misplaced after-all. Fortunately, this has had little impact on the health of the ozone layer. However, the most remarkable thing was that how the Montreal Experience strengthened the concept of globalization. It is quite possible that this is why the Montreal Experience is considered as the biggest success stories across various fields; from geo-politics to environmental law; from global negotiations to transfer of technology.

[31] W. Wayt Gibbs, *The Treaty that Worked - - Almost,* at 18, Scientific American., Sep. 1995, available at http://www.scientificamerican.com/article/the-treaty-that-worked-almost/,(last accessed on 7th Nov, 2015)

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