

Incorporating Positive Lessons from the Montreal Protocol into a Global Treaty on Artificial Intelligence (AI) Governance

Special Note From - Angshuman Kaushik (Former Judge)

I. INTRODUCTION

In the last couple of years we have seen a proliferation of Artificial Intelligence (AI) products and services hitting the market such as ChatGPT, Claude, Perplexity etc. Although they have brought about better customer experiences and increased efficiency to the users by way of delivering more personalized responses and saving time, they nevertheless pose considerable risks to society. Some of them include, bias and discrimination, lack of transparency, economic inequality, misinformation and disinformation etc. In such a scenario, there have been clarion calls from various quarters to come up with an international treaty on AI governance, but to no avail. It is because it is not easy to reach agreement on such a multifaceted issue by a diverse set of players involved, often at loggerheads and with conflicting agendas. The problem is further compounded by the fact that there is a lack of cooperation, commitment, innovative approach and leadership amongst the key decision makers who could steer the international community towards reaching consensus on the issue. Therefore, this paper aims to identify key attributes not only from the Montreal Protocol (Protocol) but also from the negotiating process which preceded it, that could be incorporated into a possible international treaty on AI governance.

II. THE MONTREAL PROTOCOL ON SUBSTANCES THAT DEplete THE OZONE LAYER 1987

The success of the Protocol can be gauged from the fact that without it there would have occurred large-scale depletion of the ozone layer with severe consequences, including hundreds of millions of skin cancer cases, and millions of deaths in the United States alone. For example, one global model focused on health effects in people born in the USA between 1890 and 2100 estimates that protecting the ozone layer will have prevented a total of approximately 443 million cases of skin cancers and 2.3 million skin cancer deaths in the USA alone. This includes

A. Introduction

The Montreal protocol is a global agreement to protect the earth's ozone layer by phasing out the consumption and the production of ozone-depleting substances (ODSs) such as chlorofluorocarbons (CFCs), hydrochlorofluorocarbons (HCFCs), hydrofluorocarbons (HFCs) etc. It was signed on 16 September 1987 and entered into force in 1989. It provides a set of practical and actionable tasks to phase out ODSs that were universally agreed upon and is also unique in having the flexibility to respond to new scientific

information. Most importantly, it is one of the most successful treaties ever put into practice. The reason for its success was the negotiation process, which witnessed an unprecedented level of cooperation and commitment from the international community. That is why it is called ‘the world’s most successful environmental agreement’. Quite interestingly, the Protocol has been ratified by all the 197 UN member states, a first for any multilateral treaty and highlighting the strong commitment to it by the international community.

8-10 million cases of malignant melanoma. Further, failure to control ozone depletion effectively would have led to almost 63 million additional cataract cases in people born in the USA between 1890 and 2100.

III. KEY FEATURES OF THE PROTOCOL

One highly notable similarity between the risks posed by the depletion of the ozone layer and AI is that both affect the entire humanity. Therefore, the Protocol assumes significance and is worth looking into. In fact, the negotiating process prior to the framing of the Protocol has a lot to offer when it comes to laying down the groundwork for an international agreement on AI. It can definitely help in breaking the ice and setting the tone for the agenda for negotiations. Other areas where it can lend a helping hand include zeroing on issues such as the nature of the problem, agreeing to a plan to be followed for the negotiations etc. Moreover, it can shed light on matters such as how to convince the disagreeing parties to join the table.

To begin with, the negotiations leading up to the final agreement on the protocol, did not take up a global character from the outset as initially it took place amongst the developed nations with the highest consumption of ODSs and gradually bringing the developing nations - with less contribution towards the depletion of the ozone layer - to the fold.

Nonetheless, it started off on the basis of a strong leadership, which was instrumental in steering the deliberations towards the right direction.

However, in the case of AI, there seems to be a clear lack of leadership when it comes to taking a lead in formulating a global treaty on the governance of AI. Issues like AI Arms race, strategic rivalry and geopolitical dynamics have proved to be the main obstacles in the path. The countries that have the might, both politically and economically, are purposefully shying away from sitting at the negotiations table and are busy in the process of formulating or have successfully negotiated an agreement on AI, for domestic purposes. This does not bode well, not only for the creation of a global treaty on AI but also for a harmonized, uniform standard on AI. To illustrate my point, I would like to take the example of the US, EU and China. The reason for choosing the above countries is that they, apart from having the capability to take up a leadership role have also adopted distinct models for regulating AI. For instance, the US has embraced a very cautious approach which is pro-innovation, encouraging private sector investments with limited guardrails. Contrast this with the

European Union (EU), which has pursued a more citizen-centric and technology restrictive model. However, China has adopted a state control model with extensive surveillance and censorship capabilities. These fragmented approaches will drive the possibility of any chance that is there with respect to deliberations on formulating a global treaty on AI to a halt and add to the confusion by bringing in heterogeneity in the manner in which AI is regulated in different jurisdictions.

Another noticeable factor regarding the negotiations on a global agreement on AI not making any headway is that the politicians cutting across party lines and ideologies have not shown any interest in leading the conversation. This is critical because it is the politicians who have to lead from the front and make things happen. Inaction on their part can prove costly for any hope left for a possible global treaty. They need to wake up from their slumber, shed off their dormant character and put on an active role if they want to take the negotiations to its desired end. This is where valuable lessons can be learned from the strong leadership shown during the negotiations for the Protocol.

Further, an outstanding feature that contributed to the success of the Protocol is the adoption of innovative procedures in its negotiations. They were held in small and unofficial groups which allowed for a frank and sincere dialogue among the participants. For instance, the development of the Multilateral Fund under the Protocol was built on trust gained during these informal group talks. The objective of the Fund was to provide financial and technical assistance to developing country parties to the Protocol to aid them in meeting their compliance targets. Notably, it proved to be a feather in the cap for the negotiators. We have not seen that happening when it comes to myriad discussions relating to regulating AI. They suffer from the lack of an explicit agenda, coordination and direction. Considering the very complicated and multiple issues involved in negotiating an international treaty on AI governance, it becomes indispensable for the negotiating parties to adopt a procedure which is ingenious and unique. This is where the Protocol can assist to a great extent. Its emphasis on talks in informal groups, devoid of any formal character, led to a meaningful participation and positive outcomes.

One vital reason for the success of the Protocol was the extensive participation of scientists in the negotiation process. It was unlike any other treaty negotiations seen thus far and most importantly, lent credence to the negotiations. It is important to bear in mind that although AI is an emerging technology, its scientific roots are entrenched in the past and it is the scientists who have nurtured it over the years and as such, have had a big role to play in its development. Therefore, it is paramount to include them in the negotiation process. Generally speaking, negotiations are carried out by politicians and bureaucrats who are not trained experts in the subject-matter of negotiation. Consequently, many agreements fail miserably to reach its intended objective and only remain as a paper tiger. This flawed scheme of things needs to be addressed by including the scientists who are well acquainted with the

technology, in the discussion. If an overarching international treaty on the governance of AI is the goal then, making the scientists a major part of the negotiations is a key to reaching that goal. Crucially, their presence in the talks would help infuse trust.

Another striking feature of the negotiation process for the Protocol was the establishment of an independent and expert technology and economics advisory body called the Technology and Economic Assessment Panel (TEAP) which helped the negotiating parties reach firm decisions on complicated matters.

It is imperative to note here that negotiations for the Protocol commenced at a time when the science on the subject was not precise. Nevertheless, the negotiators moved fast as the stakes were high and developed an extremely flexible framework that could be adapted to the latest findings on science. For instance, the measures to reduce HFCs as a result of their high global-warming potential were adopted later on through the Kigali Amendment in 2016. In fact, the science became clearer and stronger subsequent to the negotiation of the initial agreement, bringing into focus the considerable underestimation of the prior conclusions pertaining to the extent of depletion of the ozone layer. The position with respect to AI is similar if not the same. Here, the science on the subject is almost settled in that AI systems apart from having benefits are known to cause risks. However, there are two schools of thought, one stressing upon

Another reason for the Protocol's success was its compliance procedure which was non-focusing on long-term risks and the other on short-term risks. A major lesson to be learned from the Protocol is that instead of quibbling amongst themselves on which issues need to be taken care of first, the negotiators decided to move forward. They took the decision in spite of the fact that a lot of scientific evidence was still buried under the ground and needed to be unearthed. This is a testament to their proactiveness and commitment. Risks from AI, like the depletion of the ozone layer are a collective action problem, and needs to be tackled in a unified manner. Further, the negotiators of the Protocol decided to take the plunge early on considering their shared responsibility towards the problem. They realized that the consequences of remaining inactive can be literally deadly. In the case of AI, someone has to lead from the front and face the issue head-on. Moreover, the negotiators of the Protocol not only moved swiftly but also came up with a flexible framework. This is vital considering the fact that the science on the subject was ambiguous and they had to make provision for incorporating any subsequent developments.

Punitive by design from the very beginning. It focused on helping uncooperative countries back into compliance. A global treaty on AI is likely to have obligations on different nations and in order to implement those obligations, there will be compliance measures mandated for the parties to perform.

It is an established fact that all the nations of the world are not similarly placed, economically, technologically and in other identical ways. Thus, countries which

lag behind must be supported with technical and economic assistance and provided with other capacity building measures so that they are in a position to comply with their respective obligations. Hence, like the Protocol there shall be an endeavor not to deal with non-compliance in a stern manner but rather, the approach should be to help achieve compliance through cooperation.

One further achievement of the negotiations for the Protocol was that developing countries were given more time to phase out ozone-depleting substances with the result that all 142 developing countries had phased out 100% of CFCs, halons and other ozone-depleting substances by 2010. Taking a leaf out of the Protocol, a global treaty on AI can have a provision whereby countries that are not in a position to abide by their obligations under the treaty, are given extended time to do so. This will help them to adhere to their commitments and perform them accordingly.

A noteworthy factor for the success of the Protocol was the public support generated by scientists-turned-advocates. Many of the scientists started talking about the effects of the depletion of the ozone layer on the planet which led people to begin boycotting products containing (ODSs). This is one of the most vital lessons from the Protocol. As the risks from AI encompass the entire planet, everyone has to play their part to mitigate it. Any endeavor in this regard will not be successful without the active participation of the people who are quite expectedly, unaware of the nature of the problem and its consequences. This is where the scientists have to step in and apprise the public in this regard. They will have to don the mantle of educators and garner the support of civil society. The public will definitely lend their ears to concerns that are coming straight from the horse's mouth. As a result, it will lead to the formation of public opinion, which will put pressure on the politicians to work in this respect. The above is exactly what the Protocol managed to attain and was its 'crowning glory'. The same needs to be emulated in the case of AI, as public pressure can act as a precursor to an international treaty on AI.

Another key provision of the Protocol is that the parties were obligated to promote research, development and exchange of information on best technologies for reducing emissions, possible alternatives to controlled substances etc., taking into account in particular the needs of developing countries. The Parties were also required to co-operate in promoting public awareness of the environmental effects of the emissions of controlled substances and other substances that deplete the ozone layer. Moreover, each party was directed to submit to the Secretariat a summary of the activities it has conducted pursuant to the aforesaid obligations after every two years. The incorporation of a provision on undertaking research, dissemination and exchange of new findings on ways to prevent or mitigate risks from AI and other associated matters in a global treaty on AI would make it easier for the parties to solve the problem. Moreover, keeping the public in the loop through the promotion of public awareness campaigns would help them in coming to grips with the matter. Furthermore, the Protocol's directive to submit to the Secretariat a

summary of activities if borrowed to an international agreement on AI would serve the purpose of keeping the officials in the know.

One interesting fact was that the negotiations were successful in spite of the fact that the ozone layer is invisible, and its depletion does not result in direct local consequences. To make matters worse, clear benefits from any efforts to protect and heal it was conspicuous by its absence for involved parties. Furthermore, as the time required for the ozone layer to recover was long, there was not enough incentive for the parties that wished immediate gains. The thorny issues confronting a global treaty on AI seem to pale in comparison compared to what has been stated above. If we look at the risks from AI, they are 'visible' and it directly affects people. For example, the repercussions of a biased algorithm on health, finance, employment etc. is for everyone to see. Secondly, clear gains from mitigating the risks originating from AI are discernible. With the AI-related incidents on the rise with each passing day, there are enough reasons to act without undue delay.

In their book, 'Fixing the Climate: Strategies for an Uncertain World', Charles F. Sabel and David G. Victor argue that the Protocol's success lies in its design, and the way it's characterized by experimentalism and learning by doing. They state that the Protocol emerged from a 'thin' consensus at the beginning as there was limited agreement among negotiators on the risks of damage to the ozone layer, but the uncertainty provided fertile ground for innovation from the outset. According to the authors, progress was not always linear, but regular monitoring supported cooperation. They also stressed that the world has a lot to learn from the 'experimentalist governance' which was a unique characteristic of the Protocol and which can guide other areas of cooperation. They also lamented the fact that for too long people have learned the wrong lessons as they haven't focused enough on the special role that the Protocol played in pushing experimentalism and helping the parties learn which experiments worked.

IV. CONCLUSION

It goes without saying that it is not easy to solve a global issue as it necessitates parties to agree to the nature of the problem, negotiate a binding agreement to solve the problem, and then make the agreement work. Empirical research and past experience on the subject-matter has shown that it is difficult to achieve these for a number of reasons. For instance, there is the difficulty of agreeing to a negotiating agenda in the sense that, even when most parties concur that a topic is a matter of grave concern, they often have contradictory views on how the issue should be framed and which solutions should be followed. Moreover, any discussion on a global matter involves all the countries of the world and contains a wide range of issues under different policy areas. To add to the above is the level of uncertainty, as the parties are not aware in the beginning as to whether the solutions put forward will work or not, how it will affect their interests etc. Furthermore, each party comes with its own basket of interests and this can cause a lot of chaos and confusion.

Having said that, the protocol was designed and put into practice in a way that it has not only successfully prevailed over a plethora of tricky challenges but also has stood the test of time. Some of the complicated issues that it has dealt with effectively include, how to collaborate in a diverse global setting, how to attract adequate participation, how to strengthen commitments over time, how to leverage public opinion in favor of the objectives of the treaty negotiations, how to encourage compliance and administer non-compliance, -how to make the costs of implementation affordable for all the parties concerned, how to bring about attitudinal and policy changes required to resolve the problems and attain the desired objectives and how to persuade the opposing parties to come to the table for deliberations and winning them over. Last but not the least, arrangements such as treaty reviews, regular meetings and scheduled expert assessments also had a major role to play in the success of the Protocol. In fact, these are some of the issues that are also standing in the way of negotiations for a global treaty on AI. Other matters such as leadership, adoption of innovative procedures and engagement of scientists are also proving to be quite complicated. Under the circumstances, any deliberations on a global treaty on AI can take a cue from the Protocol and its negotiation process.

To conclude, in the words of one of the greatest US Presidents, Ronald Reagan; *“The Montreal protocol is a model of cooperation. It is a product of the recognition and international consensus that ozone depletion is a global problem, both in terms of its causes and its effects. The protocol is the result of an extraordinary process of scientific study, negotiations among representatives of the business and environmental communities, and international diplomacy. It is a monumental achievement”*.

PRESIDENT RONALD REAGAN 1988