

# Lessons from Montreal 101

ENVIRONMENTAL REGULATIONS



# **Lessons from Montréal: Creating MNC Support for Environmental Regulations**

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## **ABSTRACT**

The 1986 Montréal Protocol was an unprecedented success in the United Nations campaign to tackle climate change. The Protocol was the first piece of UN legislation to achieve universal ratification and successfully stopped the deterioration of the ozone layer. This paper analyzes how two key factors - consumer action and a narrow legislative focus - allowed for the Protocol to successfully regulate multi-national corporations at a global level. Further, the paper discusses the failures of the Kyoto Protocol and Paris Accords when considering the capacity in which the protocols regulate corporations and induce significant environmental change, and last, provides recommendations for future UN climate negotiators.

## Introduction

In 1974, a landmark scientific study linked Chlorofluorocarbons (CFCs), a chemical predominantly used in aerosols - but also air-conditioning and refrigeration, among other industries - to ozone layer depletion (Falkner 2005). Twelve years later, negotiations began on what would become the first treaty in the history of the United Nations to achieve universal ratification, being signed by all member and observer countries (EPA 2020). Several factors contributed to the success of the Montréal Protocol; however, none were more powerful than the following two: the narrow scope of the Protocol and the power of the consumer. These two factors propelled a series of events and reactions that resulted in a wave of legislation which forced multinational corporations (MNCs) to adapt to international environmental regulation. Through a years-long process of negotiations, the international community created a multilateral framework that neatly and expeditiously regulated the global production, marketing, and sale of chemicals that directly contributed to ozone layer deterioration. Since the implementation of the Protocol, no other agreement has come close to the same multilateral consensus nor the same level of MNC regulation.

By analyzing the Montréal Protocol as a case study, this paper identifies the key factors that dictate the effectiveness of international environmental regulation and argues that incentives alone cannot generate MNC support for international environmental regulations; rather, MNCs must be pressured into accepting regulation. Furthermore, this paper will evaluate oth-

er multilateral environmental agreements, such as the Kyoto Protocol and the Paris Accords, based on their ability to regulate MNCs and will then provide a series of suggestions that UN negotiators should utilize in future efforts to create real, impactful environmental change.

## Key Factor: The Power of the Consumer

The consumer response to CFCs can be broken down into two clear distinctions: the American consumer response and the European consumer response, or rather, lack thereof. American consumers had such instant reactions to the revelation that CFCs were harmful to the environment that, by 1975, some chemical producers needed to reduce their CFC production by 40% due to a lack of demand (Greenhouse 1975). By 1977, US demand for aerosol products such as hair spray, the primary carriers of CFCs, in the United States had fallen 66% from pre-1974 highs (Benedick 1991). US media played a significant role in emphasizing the issue: ozone deterioration received prominent coverage in prominent magazines such as *Times* and *Sports Illustrated*; news media closely followed the ozone story and the implications it would have on the planet and human health. Environmental activists played a significant role in sounding the alarm by publishing studies, holding press conferences, funding research, and even suing the US EPA to compel stronger CFC regulations (*ibid*). This strong consumer response resulted in an equally powerful legislative response: in 1977, Oregon became the first state to ban aerosols that used CFCs, while 13 other states had introduced legislation to ban, restrict, or research the

effects of CFCs. By 1978, the US implemented a sweeping federal ban on all aerosol products that used CFCs, becoming the first country in the world to do so, followed by Canada and Norway (EPA 2016). In short, American consumers were keenly aware of the specific threat that CFCs posed and used their knowledge to avoid CFC products, as well as to lobby domestic legislators into regulating CFCs.

Meanwhile, preoccupied with environmental threats of acid rain, chemical spills, and the fallout of the Chernobyl incident, the ozone issue held less importance in the European consumer's mind. Aerosol sales declined in the 1970s; however, they held up formidably compared to the significant fall of US sales. Lack of activism within the European scientific and environmentalist communities was the main reason for the dampened consumer response to CFCs. While NASA led the charge in researching ozone depletion in the US, Europe had no comparable centralized organization, meaning that most scientific research on the issue came from America. Furthermore, activist efforts in the US were so strong that government officials encouraged American environmental groups to motivate their European equivalents, who had little to no influence on European consumers at the time (Benedick 1991). In line with the weak consumer reaction, the legislatures of the European Community (EC), the economic precursor organization to the European Union, did little to counteract CFCs. In 1980, after years of contentious debate, the EC decided on a mandated 30% cut of aerosol use from 1976 levels. This decision was widely criticized for two reasons: firstly, scholars characterized the move as

a mere effort to react to American pressure;8 secondly, aerosol use had already fallen 28% from 1976 levels, indicating that the 30% target was largely identified because it would be easy for European industry to achieve (Jachtenfuchs 1990; Benedick 1991).

The stark differences in legislative response to the ozone issue between the US and Europe can be attributed directly to the power of the consumer. Because of the strong public outcry in the US, anti-CFC legislation was quickly introduced to state and federal legislation. Public outcry took the form of boycotts, as demonstrated in the case of the NGO-led "Stratospheric Defense Initiative," which took aim at CFCs in food packaging and successfully pressured McDonalds into cutting CFCs out from all packaging. In contrast, the lack of response by consumers in the EC resulted in a respective lack of legislative response. Richard Benedick, the chief Montréal Protocol negotiator on behalf of the American government, writes in his *Ozone Diplomacy*, "educating and mobilizing public opinion are essential to generate pressure on hesitant governments and private companies" (Benedick 1991). In short, a strong US consumer response to CFCs created an equally powerful legislative response and, eventually, led to the US becoming the main proponent of the strong regulations that the Montréal Protocol created. In contrast, the weak EC consumer response led to weak regulation of CFCs and eventually led to the EC being a laggard in CFC legislation compared to the US.

**Key Factor: Narrow Focus**

Negotiators of the Montréal Protocol un-

derstood that this singular piece of legislation would not wholly combat climate change; rather, they believed it was one effective solution that would, as a whole, lessen the effects of climate change. Pushed through the UN with the US as its main proponent, the Montréal Protocol specifically targeted CFC chemicals, which were manufactured by a handful of chemicals manufacturers, such as Du Pont, French Atochem, and British Imperial Chemicals (Benedick 1991). These chemicals were easily identifiable in consumer products, meaning that consumers could recognize and boycott products that contained CFCs, as previously discussed.

In contrast to the narrow scope used to identify and expose culprits at the Montréal Protocol, both the Kyoto Protocol and Paris Accords attempt to broadly tackle climate change through a variety of unspecific goals, such as general greenhouse gas emissions targets that allow each state sole input on how to reach those goals (Falkner 2005). That is, both Kyoto and Paris have little to no guidance on what specific industries or companies should be focused on in order to reach the agreements' climate goals.

This broad-scope approach results in less pressure on specific industries, companies, and other significant emitters which would otherwise be targeted as stakeholders that must reduce their emissions. This creates two significant issues that did not hamper Montréal: first, by not identifying specific industries as key emitters, consumers cannot enact the same level of boycotts and reaction that spotlighted the CFC industry as a key emitter (EPA 2020).

Secondly, having to accommodate so many possible emitters so many governmental, environmental, industry, or other stakeholders, Kyoto and Paris are beset by broad, unactionable language. This broad language inevitably leads to inter-state disputes, disagreements, and, eventually, a loss of support. This is the case of the Kyoto Protocol, which to this day is not ratified by China nor the US, two major emitters that Kyoto should be targeting for the implementation of its goals (NOAA 2023).

### **The Industry Reaction**

While the CFC industry was estimated to be worth US\$3 billion in 1986 (approximately US\$8 billion in 2023), chemical industries on each side of the Atlantic held differing beliefs on the need for international regulation. Although no industry player truly supported or sought regulation by any means, DuPont and other US companies were overwhelmed with the strong public and legislative support for CFC regulation and, thus, were eventually more open to it than their European counterparts. DuPont, the largest CFC producer in the world at the time, declared in 1975 that restrictions on CFCs “would cause tremendous economic dislocation” and began to research ozone depletion while launching strong lobbying efforts against CFC regulation (Schuyler 2003; Greenhouse 1975). Meanwhile, EC companies began their campaigns against regulation, successfully lobbying the EC Commission to be sympathetic to arguments that controls on aerosols and other CFC-using products would impose significant hardships on the industry. European CFC-producing MNCs argued that, due to ex-

isting overcapacities and the supposedly large capital requirements that would be required to overhaul the existing chemical process, tens of thousands of jobs would be jeopardized if the EC had enacted a CFC ban similar to those enacted in the U.S (Benedick 1991).

US companies became more open to regulation when several states began enacting their own CFC regulation legislation. DuPont and other companies recognized that implementing uniform, federal-level regulations would be less costly and complicated than having to navigate a patchwork of state legislation. Meanwhile, with light consumer pressure on legislatures, European CFC producers did not have to face a similar situation. This follows the theory that MNCs are financially incentivized to operate within and support national or supranational regulatory domains when faced with having to navigate the patchwork of domestic regulation (Levy and Prakash 2002). As the evidence against CFCs mounted, American companies grew more aware of the inevitability that international regulation was coming: on the eve of the Montréal Protocol negotiations, 500 US companies, including DuPont, released a statement that multilaterally recognized the environmental threats that CFCs posed, and for the first time, indicated support for ending the use of CFCs (Benedick 1991). This was a significant shift in industry stance – not only did it mark a transatlantic divide between US and EC industries, but it also marked, for the first time, MNCs recognizing that environmental regulation in some form was not only inevitable but necessary (ibid).

Once again, the power of the consumer

response, enabled by the narrow focus of the Protocol, is seen to have played a crucial role in forcing MNCs to accept regulation. The strong US consumer and legislative response pressured US MNCs into accepting legislation, while EC MNCs, facing little to no domestic pressures, remained unilaterally anti-regulation.

### **The Incentive Argument**

To incentivize MNCs, the Montréal Protocol created the Multilateral Fund, which offered to fund CFC-divestment projects in developing countries. This has created projects like the UNDP-brokered partnership among the governments of Japan, Indonesia, and the Japanese CFC industry (UNDP 2012). However, incentives were never intended to be the main lever for creating change.

In comparison, Kyoto and Paris have created significantly more enticing investment opportunities for states and MNCs than Montréal: Kyoto pioneered the Clean Development Mechanism (CDM), the “first global, environmental investment and credit scheme of its kind, providing a standardized emissions offset instrument, CERs” (UNFCCC 2023). In short, this mechanism provides ways for industrialized countries to invest in greenhouse gas emissions reduction projects in developing countries and use these investments to count towards the industrialized country’s emission targets. Paris further developed CDMs by expanding on international carbon markets and providing a framework to develop carbon markets in developing countries (Leva and Vaughan 2021). The results of the CDM initiative have been mas-

sive: as of September 2021, the total capital investment by CDM projects was US\$162 Billion; in comparison, the lifetime size of Montréal's Multilateral Fund totalled just \$4.4 billion in 2023 (Lo and Cong 2022; Multilateral Fund 2023). While the CDM market is thriving and generating profits for MNCs, only 7 of the 32 countries that make up 80% of global emissions are on target to meet their Paris Accord goals as of 2018. In other words, incentives alone, no matter how impressive on paper, have not been able to create meaningful emissions changes when there is no significant regulatory pressure. Thus, Montréal's regulatory approach must be considered a more effective alternative.

Scholars have pointed to other reasons why Kyoto and Paris have not been effective: most importantly, the lack of ability that the UN has to enforce its agreements and the "free-rider" problem (Barrett 2003). Considering the lack of progress made by Kyoto and Paris to meet meaningful emissions targets and the lack of industry-specific language, it is argued that they have not effectively created MNC participation or regulation compared to the Montréal Protocol.

### **Lessons for Future Negotiations**

As thoroughly discussed, Montréal was able to force MNCs into cooperation by utilizing strong public pressure, which in turn spurred strong legislative pressure. Paris and Kyoto both seek to solve climate change by setting emissions targets, decided by each state, without any focus on individual industries, companies, or other major emissions creators. This broad-stroke practice has failed to

generate significant results in the fight against climate change, so future negotiation tactics must change. In having evaluated the success of the Montréal Protocol, states must recognize that regulating MNCs by focusing on specific industries is necessary in order to create effective multilateral agreements. Thus, to conclude this paper, recommendations for future MNC regulation will be detailed by recognizing the successes of Montréal and the failures of Kyoto and Paris.

#### *1. Consumers must play an active role in pressuring MNCs.*

Corporations have not shown an ability to proactively change harmful, profitable practices. Thus, consumers must actively pressure MNCs with concerted efforts to harm corporate profits and reputations. As seen with the events leading up to the Montréal Protocol, real changes in consumer preferences will lead to legislative change, whether it be on a domestic or international level. Governments must play an active role in educating their citizens on the drastic effects climate change will have on the world. A UNESCO study found that only 53% of national curricula in the world have a reference to climate change; 40% of US teachers who educate about climate change do so inaccurately (UNESCO 2012).

#### *2. Climate Change cannot, and will not, be solved by one treaty.*

The aspirations of Kyoto Paris are admirable and mighty, yet they lack pragmatism and realism. Instead of focusing on creating general climate targets, such as the 1.5-degree tempera-

ture increase target set in the Paris Accords, future treaties must regulate industries individually and, therefore, the MNCs that operate within them. This systematic approach will ensure that each industry is regulated with nuance and careful consideration. Furthermore, industries must be treated in accordance with their emissions production: concentrating on the most important energy-using industries, such as transportation and heating, would be the most pragmatic and efficient way of tackling the largely energy-intensive issue that greenhouse gas emissions are (Benedick 1991).

### *3. Investment is crucial.*

By no means does this paper seek to discredit the importance of investment and incentives in the transition to more sustainable practices. In fact, investment partially enabled the successes of the Montréal Protocol: the technology available at the time of the Montréal Protocol could not substitute the chemicals industry's widespread use of CFCs (Benedick 1991). In anticipation of this, the Protocol encouraged investment. It provided funds for MNCs to develop better technology to ease the transition away from CFCs, a strategy that will successfully close the hole in the ozone layer this century.

Furthermore, the CDM markets that Kyoto created and Paris furthered are ingenious and crucial in encouraging more sustainable practices. The climate crisis will not be solved without investment in technology; however, solely focusing on investment will not meaningfully change industry practices.

## **Conclusion**

The Montréal Protocol is the only instance where the international community came together to successfully regulate multinational corporations for environmental purposes. The Protocol was not successful because of its ability to incentivize MNCs; rather, it was successful because of the overwhelming support for regulation, which forced MNCs to seek new market opportunities and profitable alternatives in line with changing consumer priorities. The Protocol came about because it focused on a specific issue within the broader scope of climate change, allowing consumers to boycott specific products and motivate their domestic governments to act on the direct threat of CFCs rather than climate change as a whole. MNCs from those targeted industries were then forced to recognize consumer and legislative pressure for regulation, and ultimately, transition to more sustainable practices.

Neither the Kyoto Protocol nor the Paris Accords were able to achieve results similar to those in Montréal because of one main factor: they sought to solve a massive issue with too few strokes of the pen, which diminishes the ability of consumers to press specific industries and causes general inefficiencies in the negotiating process (Benedick 1991). Negotiators of future climate agreements must recognize why Montréal worked and choose to focus their efforts industry by industry, problem by problem, making it clear that the international community will eventually regulate all industries that contribute to climate change. MNCs have not shown the propensity, nor the willingness, to proactively change unsustainable business



practices without consumer or legislative pressure. Yet, the Montréal Protocol has shown the propensity for a multinational climate agreement to force tremendous change, even on this most unmovable party, the MNC.

## References

- Barrett, Scott. 2003. *Environment and Statecraft: The Strategy of Environmental Treaty-Making* New York; Oxford; Oxford University Press.
- Benedick, Richard Elliot, Conservation Foundation, World Wildlife Fund, and Georgetown University. Institute for the Study of Diplomacy. 1991. "Ozone Diplomacy: New Directions in Safeguarding the Planet. Cambridge, Mass: Harvard University Press."
- Environmental Protection Agency. 2020 "International Actions - The Montréal Protocol on Substances That Deplete the Ozone Layer." <https://www.epa.gov/ozone-layer-protection/international-actions-Montréal-protocol-substances-deplete-ozone-layer>.
- Falkner, Robert. 2005. *The Business of ozone Layer Protection: Corporate Power in Regime Evolution*, ed. David L. Levy, Peter J. Newell.
- Greenhouse, Steven. 1975. "Aerosol Feels the Ozone Effect." *The New York Times*. <https://www.nytimes.com/1975/06/22/archives/aerosol-feels-the-ozone-effect.html>.
- Larson, Annika, and Elise Houghton. 2021. "Climate Change Education Is Failing Our Youth." *State of the Planet*. <https://news.climate.columbia.edu/2021/12/17/climate-change-education-is-failing-our-youth/>.
- Leva, Charles E. Di, and Scott Vaughan. 2021. "The Paris Agreement's New Article 6 Rules." *International Institute for Sustainable Development*. <https://www.iisd.org/articles/paris-agreement-article-6-rules>.
- Levy, David. 2002. "Bargains Old and New: Multinational Corporations in Global Governance," *Business and Politics* Vol. 5, No. 2.
- Lo, Alex Y. and Ren Cong. 2022. "Emission Reduction Targets and Outcomes of the Clean Development Mechanism (2005–2020)." *PLOS Climate* 1 (8): e0000046.
- Multilateral Fund. 2023. "91st Meeting of the Executive Committee." Home - 91st meeting of the Executive Committee. <http://www.multilateralfund.org/91/default.aspx>.
- National Oceanic and Atmospheric Administration (NOAA). 2023. "Montréal protocol emerges as a powerful climate treaty", January 11, 2023. <https://www.noaa.gov/news-release/Montréal-protocol-emerges-as-powerful-climate-treaty>.
- Schuyler, R.L. 2003. "Testimony in U.S. Senate." *Stratospheric ozone Depletion*. p. 570.
- United Nations Educational, Scientific, and Cultural Organization (UNESCO). 2021. "Only Half of the National Curricula in the World Have a Reference to Climate Change, Unesco Warns."
- United Nations Development Program (UNDP). 2012. "25 Years of Montreal Protocol." <https://unfccc.int/process-and-meetings/the-kyoto-protocol/mechanisms-under-the-kyoto-protocol/the-clean-development-mechanism>.
- United Nations Framework Convention on Climate Change (UNFCCC). 2023. "Clean Development Mechanism." <https://unfccc.int/process-and-meetings/the-kyoto-protocol/mechanisms-under-the-kyoto-protocol/the-clean-development-mechanism>.
- Zelman, Nancy Ellen. 1990. "The Nestle Infant Formula Controversy: Restricting the Marketing Practices of Multinational Corporations in the Third World." *The Transnational Lawyer* 3 (2): 697.

